Hecto Financial

Easy Cash Payment Standard WEB API

Non-UI Integration

Version	3.5
Initial	2019.11.29
Revised	2023.05.15
Made by	Hecto Financial IT Division

History

Date	Version	Description	Made by
2019.11.25	1.0	Initial version release	Hyunwoo Kim
2019.12.19	1.1	Form changed	Hyunwoo Kim
2020.03.04	1.2	11.5 ARS identity confirmation code error added 14.5 Field on division for use of payment issuing changed 15.3 Refund amount, VAT and service fee fields added	Hyunwoo Kim
2020.05.07	1.3	14.3 custAcntKey option for payment request changed	Hongsik Jeon
2020.05.21	1.4	API for recurring payment added	Hongsik Jeon
2020.06.29	1.5	12. Identity confirmation for bank account registration added	Hongsik Jeon
2020.08.26	1.6	8. Account holder check (Included the date of birth) ui size changed	Hongsik Jeon
2020.09.11	1.7	27.3 Time for bank regular maintenance modified	Hongsik Jeon
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2021.03.04	2.0	30. ARS authentication (Receiving the record file) parameter added	Byeongwoon Jang
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2021.06.25	2.4	35. Test call telegraphic added	Byeongwoon Jang
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		17. Merchant's account registration payer number length modified	
2022.06.21	2.7	2. Easy cash payment API regular process table edited 7. 8. 9. Account holder name inquire API summary explanation edited 37. Others .2 Financial institution identifier code edited .3 Bank maintenance time added	Kyuri Kim
2022.07.13	2.9	40, 41, 42, 43 Kakao Pay authentication related API added Changed company name from SettleBank to Hecto Financial	Jeongin Bae
2022.09.06	3.0	Payment (account number masking) API added	Jeongin Bae
2022.11.17	3.0.2	Open banking part removed from v 3.0	Jinwook Kim
2022.11.30	3.1	Container deposit item added to 18. Payment, 20. Recurring payment requests 19. Payment (account number masking) API removed 18. Account number masking item added to payment response parameter Reject code table updated (SE01, SE02, SE03)	Jaehyuk Lee
2022.12.21	3.2	Parameter unit (length -> Byte) modified and edited Account holder name removed from required value for 11.3 Account ownership verification request 24.3 Unnecessary parameter (fintech use number) removed 28.5 Account list inquiry response parameter	Chanyoung Park
2023.03.15	3.3	40.1 ST75, ST76, SE04, SE05 added to 40.1 Reject Code table	Jaehyuk Lee
2024.04.27	3.4	Parameter added to check accounts that cannot be registered to 7, 8, 9 account holder name inquiry	Chanyoung Park

| 2024.05.15 | 3.5 | 40.3 Bank maintenance time (Korea Post) edited | Jinwook Kim |

Contents

1. Outline

1.1 Purpose

This document is created for understanding the technical requirements for integration of Easy Cash Payment Non-UI API provided by Hecto Financial and to define detailed specification.

1.2 Target

This document is intended for clients' developers to integrate Easy Cash Payment through easy payment system of Hecto Financial.

1.3 API URI

Easy Cash Payment service provides the following APIs; each API is mapped to a web service URL.

Function	API	URI	HTTP Method
Authentication service	Request for self-authentication	https://npay.settlebank.co.kr/v1/api/auth/mobile/req	POST
	Confirmation for self-authentication	https://npay.settlebank.co.kr/v1/api/auth/mobile/check	POST
	Name check of the account holder 1	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheck1	POST
	Name check of the account holder 2	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheck2	POST
	Name check of the account holder (including amount)	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheckWith Amount	POST
	Account ownership verification	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownership	POST
	Request for account ownership verification	https://npay.settlebank.co.kr/v1/api/auth/ownership/req	POST
	Confirmation for account ownership verification	https://npay.settlebank.co.kr/v1/api/auth/ownership/check	POST
	ARS authentication request	https://npay.settlebank.co.kr/v1/api/auth/ars	POST
	ARS authentication confirmation	https://npay.settlebank.co.kr/v1/api/auth/arscheck	POST
	Kakao Pay Withdrawal Consent Authentication Request	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/ acctreq	POST

	Kakao Pay Electronic Signature Authentication Request	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/signreq	POST
	Kakao Pay Authentication Request	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/req	POST
	Kakao Pay Authentication Request Confirmation	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/check	POST
Account management	Account registration	https://npay.settlebank.co.kr/v1/api/acnt/reg	POST
	Account cancellation	https://npay.settlebank.co.kr/v1/api/acnt/unreg	POST
	Merchant account registration	https://npay.settlebank.co.kr/v1/api/acnt/reg/self	POST
Transfer service	Payment	https://npay.settlebank.co.kr/v1/api/pay/confirm	POST
	Payment cancellation / Refund	https://npay.settlebank.co.kr/v1/api/pay/cancel	POST
	Remittance	https://npay.settlebank.co.kr/v1/api/pay/rmt	POST
	Remittance account confirmation	https://npay.settlebank.co.kr/v2/api/pay/rmt/blc	POST
Recurring payment	Recurring payment approval	https://npay.settlebank.co.kr/v1/api/regular/confirm	POST
	Unregister recurring payment	https://npay.settlebank.co.kr/v1/api/regular/unreg	POST
	Recurring payment information check	https://npay.settlebank.co.kr/v1/api/regular/info	POST
	Recurring payment transaction history check	https://npay.settlebank.co.kr/v1/api/regular/translist	POST
Inquiry service	Transaction result inquiry	https://npay.settlebank.co.kr/v1/api/pay/morw	POST
	Transaction history inquiry	https://npay.settlebank.co.kr/v1/api/pay/translist	POST
	Account list inquiry	https://npay.settlebank.co.kr/v1/api/acnt/list	POST
	Bank list inquiry	https://npay.settlebank.co.kr/v1/api/bank/list	POST
	Bank maintenance inquiry	https://npay.settlebank.co.kr/v1/api/bank/timecheck	POST
	Account ownership verification history inquiry	https://npay.settlebank.co.kr/v1/api/auth/ownership/translist	POST
	Account ownership verification bank maintenance inquiry	https://npay.settlebank.co.kr/v1/api/bank/timecheck/detail	POST
	KFTC withdrawal transfer information cancellation inquiry	https://npay.settlebank.co.kr/v1/api/acnt/isttunreg/list	POST
	Test call	http://npay.settlebank.co.kr/v1/api/test/testcall	POST
	Check payment password	http://npay.settlebank.co.kr/v1/api/auth/pwdcnf	POST

2. Easy Cash Payment API General

2.1 Easy Cash Payment Process

Easy Cash Payment process is as follows.
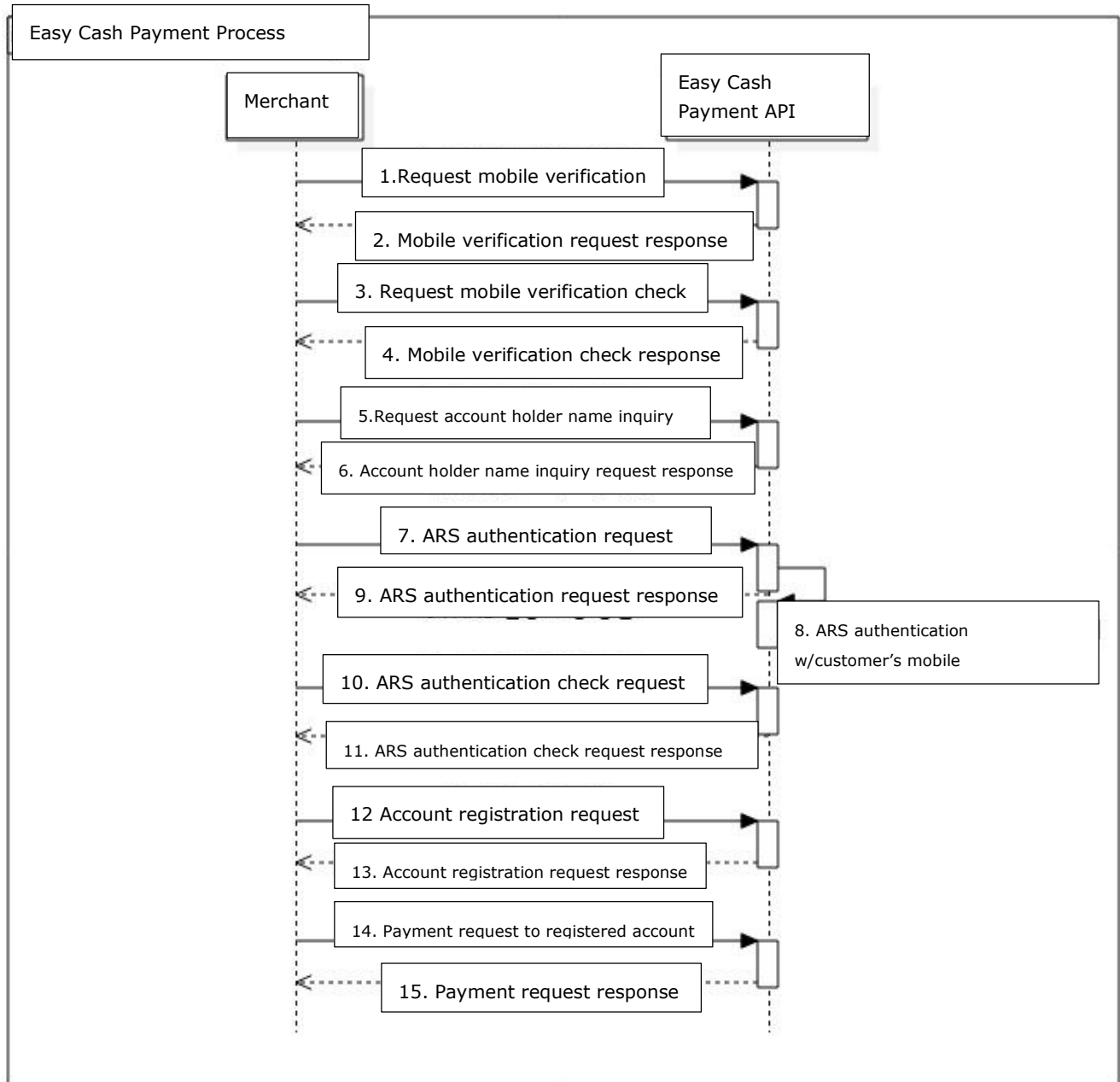
(1) Self-authentication with customer's mobile information

(3) Self-authentication result inquiry

(5) After phone self-authentication, use the name and account details to execute account holder name inquiry.

(7) Withdrawal transfer registration evidence is created through ARS authentication

(13) Account registration (withdrawal transfer registration)

(15) Pay with the registered account

2.2 General

The following is a general description of the integration referred to in this document.

- Required fields in the request/response parameters use '●' symbol and selected fields use '○' symbol.

- Data Type

  N : Numeric Characters

  A : Alphabetic Characters

- Request parameter validation

- If there is an error with parameter verification, such as missing required values, inconsistency of hash data to determine forgery and requested variable length check, the following response code is returned.

```
{
    "outStatCd": "0031",
    "outRsltCd": "ST09"
    "outRsltMsg": "유효하지 않는 요청전문"
}
```

3. API Invoke

3.1 API Connection Information

The following is API server connection information.

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr
Production	https://npay.settlebank.co.kr

3.2 Request and Response Headers

API request and response header format are as below.

Request	Content-type=application/json;charset=UTF-8
Response	Content-type=text/plain;charset=UTF-8

3.3 Timeout

The timeout process of API's response is 30 seconds.

3.4 Others

The following describes the general requirement for HTTP specification

- Provided API is REST-oriented, but does not meet the entire specification of REST (Most of transaction requests use POST method only)

- For 'Request', use POST method only.

- Commonly, variable values :,&,?,',new line, <, > are not allowed.

4. Security of Important Information

4.1 Encryption & Decryption of Personal Information and Important Information

When sending and receiving data, the following encryption & decryption should be performed for the personal/important information fields:

Section	Entry	Application	Encoding
Personal information	Algorithm	AES-256/ECB/PKCS5Padding	Base64 Encoding
Field	The name of the person in charge, phone number, mobile phone number, e-mail, account holder's name, account number, etc. - The fields for encryption are specified in the descriptions of the request field specification of each API.		

4.2 Encryption Key for Personal Information

For encryption and decryption of personal information and important information, key information differs depending on the operation environment and is as follows:

Section	Encryption Key
Testbed key	SETTLEBANKISGOODSETTLEBANKISGOOD(32byte)
Production key	Will be provided by separate notice when the service is carried out

4.3 Anti-forgery Algorithm

To verify whether the request data is forged or falsified, a hash algorithm is used. The hash value generation algorithm is as follows:

Section	Entry	Application	Encoding
Forgery	Algorithm	SHA-256	Hex Encoding

4.4 Hash Generation Authentication Key

Section	Authentication key
Testbed key	ST19080809091324772(20byte)

Production key	Will be provided by separate notice when the service is carried out

5. Mobile Phone Verification Request

5.1 API Summary

Request a mobile phone verification from the merchant's server to Hecto Financial's server.

To get the name of the customer (account holder) needed for the account holder verification, and one's mobile phone number which is needed for ARS authentication, mobile phone verification is used. The APP and SMS methods are supported. When there is an APP verification request, the customer's mobile app is invoked, and when there is an SMS verification request, 6-digit verification number will be sent to the customer's device through SMS.

*Mobile phone verification service can only be used for Hecto Financial Easy Payment registration.

5.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/mobile/req
Production	http://npay.settlebank.co.kr/v1/api/auth/mobile/req

5.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_M100_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
Uii	Date of birth / Business registration	yymmdd+ gender identification, Business registration	N(10)	●	"8001012"

	number	number (hyphen excluded) AES Encryption			
telecomCd	Operator	SKT: 1, KT: 2 LGT: 3, SKT MVNO :4 KT MVNO:5 LGT MVNO:6	N(1)	●	"1"
cphoneNo	Mobile phone number	010xxxxyyyy (exclude hyphen) AES Encryption	N(11)	●	"01000001234"
mchtCustNm	Customer name	Customer name **(Korean 3 byte)** AES Encryption	AN(60)	●	"Hong Gildong" (in Korean)
authMthdCd	Certification Classification	SMS : 1, APP : 2	N(1)	●	"1"
custIp	Customer IP Address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	Hash data	Hash value generated by sha256 method	AN(200)	●	

5.4 Request Hash Code

Section	Combination Field
pktHash value	Merchant ID + Customer ID (plain text) + Request date + Request time + Date of birth (plain text) + Mobile number (plain text) + Certification Classification + Authentication key

5.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Normally processed"
tid	Authentication key	Authentication key that matches the verification number sent as message	AN(6)	●	"settlebank2019043003465 5251226"
trdNo	Transaction number	Hecto Financial transaction number for mobile phone verification	AN(40)	●	"SFP_FIRM12345678901234 567890"

6. Mobile Phone Verification Confirmation

6.1 API Summary

API that checks the status for the request on mobile phone verification is provided

Through 'Mobile Phone Verification Request' API, SMS is sent or APP verification request is made through the customer's device. The customer runs this and through the API checks the completion status of the verification.

In the case of SMS verification method, the request to check is done with the verification number sent.

In the case of APP verification, the request to check the completion status is done in the APP.

*Mobile phone verification service can only be used for Hecto Financial Easy Payment registration.

6.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/mobile/check
Production	https://npay.settlebank.co.kr/v1/api/auth/mobile/check

6.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_M200_1.0" ※ Fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
authNo	Authentication number	Authentication number sent by SMS ※ Required if the authentication classification of the mobile phone verification request is SMS	N(6)	○	"123456"
Tid	Authentication key	Authentication key value that is sent as the response value when requested	AN(50)	●	"settlebank2019043003465525 1226"

trdNo	Transaction number	Hecto Financial transaction number	AN(50)	●	"SFP_FIRM12345678901234567 890"
custlp	Customer IP Address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

6.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Request date + Request time + Self Authentication key + Authentication key

6.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Status	Result code (Success /Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Normally processed"

7. Account Holder Name Inquiry (Date of Birth Excluded)

7.1 API Summary

Provides an API to check the consistency of the bank, account number, and account holder's name.

Verifies if the account was opened with customer's name using customer's (account holder) name obtained through mobile phone verification, and inputted bank and account number.

The name of the account holder is inputted. The name of the account holder inputted during request and the name of the account holder given by the bank are compared by Hecto Financial to see if they match and then the success/fail code is given. If the name of the account holder is not inputted and only the bank code and the account number are given, the name of the account holder given by the bank is given as the result value.

Generally, banks give account holder name with maximum of 12 bytes, but some banks (SC Bank, Nonghyup, Woori, IBK, Jeju. Kwangju, Kakao Bank) give 20 bytes. The account holder names provided by SC Bank use full-width forms. When Hecto Financial provides them to the clients, everything is converted to half-width forms and provided with a maximum of 10 digits.

7.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/acnt/ownercheck1
Production	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheck1

7.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SP_NA00_1.0" ※ Fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique customer ID sent by	AN(100)	●	"honggildong"

		Merchant or unique Key AES Encryption			
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account number	Exclude account number hyphen AES Encryption	AN(15)	●	"1234567890"
mchtCustNm	Account holder name	English/Number/Korean letter **(Korean 3 byte)** AES Encryption	AN(30)	○	"Hong Gildong" (in Korean)
acctNoChkYn	Check whether account cannot be registered	Check whether account cannot be registered before account holder name inquiry *If the account cannot be registered, the transaction status 0031, reject code 1001 are returned	AN(1)	○	Y or N Default: N
custIp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

7.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID+ Customer ID (plain text) + Request date + Request time + Account number (plain text) + Authentication key

7.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtTrdNo	Order number	Merchant order number	AN(100)	○	"OID201902210001"

Hecto Financial

		* Exclude Korean			
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"
mchtCustNm	Account holder name	Account holder name checked by bank AES Encryption	AN(30)	○	"Hong Gildong" (in Korean)

8. Account Holder Name Confirmation (Date of Birth Included)

8.1 API Summary

Provides an API to check the consistency of the bank, account number, account holder's name, and date of birth.

Verifies if the account was opened with customer's name using customer's (account holder) name, date of birth obtained through mobile phone verification, and inputted bank and account number.

The name of the account holder is inputted. The name of the account holder inputted during request and the name of the account holder given by the bank are compared by Hecto Financial to see if they match and then the success/fail code is given. If the name of the account holder is not inputted and only the bank code and the account number are given, the name of the account holder given by the bank is given as the result value.

Generally, banks give account holder name with maximum of 12 bytes, but some banks (SC Bank, Nonghyup, Woori, IBK, Jeju. Kwangju, Kakao Bank) give 20 bytes. The account holder names provided by SC Bank use full-width forms. When Hecto Financial provides them to the clients, everything is converted to half-width forms and provided with a maximum of 10 digits.

8.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/acnt/ownercheck2
Production	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheck2

8.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SP_NA00_1.0" ※ Fixed value
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant order number * Exclude Korean letter	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique customer ID sent by	AN(100)	●	"honggildong"

		Merchant or Unique Key AES Encryption			
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account number	Exclude hyphen from account number AES Encryption	AN(15)	●	"1234567890"
mchtCustNm	Account holder name	English/Number/Korean letter **(Korean 3 byte)** AES Encryption	AN(30)	○	"Hong Gildong" (in Korean)
Uii	Date of birth /Business registration number	Date of birth: yyMMdd Business registration number :10 digits AES Encryption	N(10)	●	"800101"
acctNoChkYn	Check whether account cannot be registered	Check whether account cannot be registered before account holder name inquiry *If the account cannot be registered, the transaction status 0031, reject code 1001 are returned	AN(1)	○	Y or N Default: N
custIp	Customer IP Address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	Hash data	Hash value generated by sha256 method	AN(200)	●	

8.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Account number (Plain text) + Date of birth (Plain text) +Authentication key

8.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	

outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtTrdNo	Order number	Merchant order number * Exclude Korean letter	AN(100)	○	"OID201902210001"
trdNo	Transaction number	Hecto Financial's transaction number	AN(40)	●	"SFP_FIRM123456789012345 67890"
mchtCustNm	Account holder name	Account holder number checked in bank **(Korean 3 byte)** AES Encryption	AN(30)	○	"Hong Gildong" (in Korean)

9. Account Holder Name Inquiry (Including Amount)

9.1 API Summary

Provides an API to check the consistency of the bank, account number, account holder's name, and amount.

Verifies if the account was opened with customer's name using customer's (account holder) name obtained through mobile phone verification, and inputted bank, account number, and amount.

The name of the account holder is inputted. The name of the account holder inputted during request and the name of the account holder given by the bank are compared by Hecto Financial to see if they match and then the success/fail code is given. If the name of the account holder is not inputted and only the bank code and the account number are given, the name of the account holder given by the bank is given as the result value.

Generally, banks give account holder name with maximum of 12 bytes, but some banks (SC Bank, Nonghyup, Woori, IBK, Jeju. Kwangju, Kakao Bank) give 20 bytes. The account holder names provided by SC Bank use full-width forms. When Hecto Financial provides them to the clients, everything is converted to half-width forms and provided with a maximum of 10 digits.

9.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/acnt/ownercheckWithAmount
Production	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheckWithAmount

9.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SP_NN00_1.0" ※ Fixed value
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique customer ID sent by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"

reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account number	Exclude hyphen AES Encryption	AN(15)	●	"1234567890"
mchtCustNm	Account holder name	English/Number/Korean letter **(3 byte)** AES Encryption	AN(30)	○	"Hong Gildong" (in Korean)
trdAmt	Transaction amount	Transaction amount AES Encryption	N(13)	●	"2000"
acctNoChkYn	Check whether account cannot be registered	Check whether account cannot be registered before account holder name inquiry *If the account cannot be registered, the transaction status 0031, reject code 1001 are returned	AN(1)	○	Y or N Default: N
custIp	Customer IP Address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

9.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Customer ID(Plain text) + Request date + Request time + Account number(Plain text) + Transaction amount(Plain text) +Authentication key

9.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code(Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
trdNo	Transaction	Hecto Financial transaction	AN(40)	●	"SFP_FIRM123456789012345

	number	number			67890"
mchtCustNm	Account holder name	Account holder name checked by bank (Korean 3 byte) AES Encryption	AN(30)	○	"Hong Gildong" (in Korean)

mchtCustNm   Account holder name   Account holder name   AN(30)   ○   "Hong Gildong" (in Korean)

10. Account Ownership Verification

10.1 API Summary

Provides the function of sending 1 KRW to the account to check whether the customer actually owns the account. With 1 KRW, the account transaction code that was set when the request was made is sent. The customer can check one's account and compare the code on the account transaction to verify whether one owns the account.

※ To prevent fraudulent use, the account number check is limited to 5 times a day when operating service starts.

The number of use can be changed upon request.

10.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/acnt/ownership
Production	https://npay.settlebank.co.kr/v1/api/auth/acnt/ownership

10.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
HdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_AA00_1.0" ※ Fixed value
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique customer ID sent by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account	Account number exclude	AN(15)	●	"1234567890"

	number	hyphen AES Encryption			
custAcntSumry	Account transaction code content	The code content that will be on the account of the customer **(Korean letter size 2byte)** AES Encryption	AN(12)	●	"Hong Gildong" (in Korean)
custIp	Customer IP Address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

10.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Account number (plain text) + Authentication key

10.5 Response (Hecto Financial-> Merchant)

The columns requested by Hecto Financial server to Merchant are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM123456789012345 67890"

11. Request for Account Ownership Verification

11.1 API Summary

Provides the function of sending 1 KRW to the account to check whether the customer actually owns the account. With 1 KRW, the account transaction code that was set when the request was made is sent. The customer can check one's account and compare the code on the account transaction to verify whether one owns the account.

If there are repeated requests over a certain period of time, 1 KRW will not be deposited. Instead, it will respond with processing. A separate agreement is needed to decide the period of time.

11.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/ownership/req
Production	https://npay.settlebank.co.kr/v1/api/auth/ownership/req

11.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Bytes)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_AA10_1.0" ※ Fixed value
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Merchant transaction number	Merchant transaction number * exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique customer ID sent by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
mchtCustNm	Account holder name	Account holder name **(Korean 3 byte)**	AN(20)	○	"Hong Gildong" (in Korean)

		AES Encryption			
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account number	Account number exclude hyphen AES Encryption	AN(15)	●	"1234567890"
authType	Authentication number type	Type of generated authentication number	AN(1)	●	"1" : Three-digit number "2" : English capital letter + two-digit number "3" : Combination of 4 letter Korean word "4" : 4 digit number
remitterNm	Sender information (Remitter name)	Fixed string of letters for the front or back of the code content that will be on the customer's bank account English capital letters or Korean letters **(Korean 2 byte)** AES Encryption	AN(8)	○	"Ebay" or " | " (Maximum 4 letters) ※ Three random digits (numbers, Korean letters) are combined and put on the front or the back of the requested letters on the account transaction of the customer Customer Code Content e.g) EbayA12 or A12Ebay ※ If the authentication number type is "3" and the authentication number generator is "automatically generated", the item could be ignored. ※ If the authentication number type is "4", it supports maximum of 3 letters.
textPos	Position of sender information (Remitter name)	Sender information (Remitter name) Position of letters	AN(1)	○	"F" : Prefix or "R" : Postfix Default: "R"
authVldTm	Authentication expiry time	Per second	N(5)	○	"600" ※ After requesting account ownership verification and if there was a success response, based on transaction number generation, the verification time is set. Default : 600 seconds
apintTm	Repeat request prevention time	Per second	N(5)	○	"600" ※ When there are repeated requests within the designated time, 1 KRW will not be deposited. Instead, it will respond with processing

					Default: 600 seconds
custIp	Customer's IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1" Needed when setting IP blocking policy
pktHash	Hash data	Hash data generated by sha256 method	AN(200)	●	

11.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Request date + Request time + Bank code + Account number (Plain text) + Authentication key

11.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type(Bytes)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtTrdNo	Merchant transaction number	Merchant transaction number * Excluded Korean	AN(100)	●	"OID201902210001"
trdNo	Transaction number	Hecto Financial Transaction number	AN(40)	●	"SFP_FIRM123456789012345678 90"
mchtCustId	Customer ID	Unique customer ID sent by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
bankChkYn	Bank maintenance check	Bank maintenance check based on request time	AN(1)	●	"Y" or "N" ※ In case of regular/irregular maintenance time of bank, if the bank shares about the fail situation or if delayed transaction can be

					checked, the response will be bank maintenance.
stDtm	Time and date of maintenance starting	yyyyMMddhhmmss	N(14)	○	"20200729000900"
edDtm	Time and date of maintenance ending	yyyyMMddhhmmss	N(14)	○	"20200729001000"

12. Confirmation of Account Ownership Verification

12.1 API Summary

Through account ownership verification request, can check the ownership of the account by comparing the account code that was sent with 1 KRW to the customer's account.

12.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/ownership/check
Production	https://npay.settlebank.co.kr/v1/api/auth/ownership/check

12.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Bytes)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_RC10_1.0" ※ Fixed value
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Merchant transaction number	Merchant transaction number * Excluded Korean Merchant transaction number when requesting verification	AN(100)	●	"OID201902210001"
trdNo	Transaction number	Transaction number returned as response for Hecto Financial transaction number authentication request	AN(50)	●	"SFP_FIRM12345678901234567890"
mchtCustId	Customer ID	Unique customer ID provided by merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"

authNo	Authentication number	Authentication number excluding the information of the sender (Remitter's name) on the customer's account transaction AES Encryption	AN(12)	●	"A12" ※ Upon request, a random three-digit verification number before or after the sender information Ex) In case of Ebay A12 or A12 Ebay, request is: "A12" ※ If authentication number type is "3", 4 digits of Korean letter combination
custIp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

12.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Request date + Request time + Merchant transaction number + Authentication key

12.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Bytes)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtCustId	Customer ID	Unique customer ID provided by merchant or Unique key AES Encryption	AN(100)	●	"honggildong"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"
mchtTrdNo	Merchant transaction number	Merchant transaction number * Exclude Korean	AN(100)	●	"OID201902210001"

13. ARS Authentication Request

13.1 API Summary

Request ARS authentication from Merchant server to Hecto Financial server.

The API is provided with the objective to authenticate customer's account withdrawal transfer registration.

Through ARS Authentication Inquiry API, the result of the authentication can be viewed.

13.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/ars
Production	http://npay.settlebank.co.kr/v1/api/auth/ars

13.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_AU00_1.0" ※ **Fixed value**
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
procDiv	Process division	A0: Withdrawal registration XX : ARS Scenario	AN(2)	○	"A0": Basic value "XX" : ARS Authentication division by type
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
bankCd	Withdrawal bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Withdrawal	Customer's withdrawal	AN(15)	○	"1234567890"

	account number	account number. Exclude '-' AES Encryption			
mchtCustNm	Account holder name	English/Number/Korean **(Korean 3 byte)** AES Encryption	AN(60)	●	"Hong Gildong" (in Korean)
authNo	Authentication number	Number that is 6 digit or less that should be authenticated by the customer's mobile device	N(6)	●	"910228" "56"
cphoneNo	Cell phone number	Customer's mobile phone number for ARS authentication Exclude '-' AES Encryption	AN(11)	●	"01000001234"
payerNo	Payer number	Payer number for withdrawal * Can be used after separate discussion	AN(20)	○	"TESTMCHT00000001"
custIp	Customer IP address	Customer's device's IP address not merchant server IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

13.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date+ Request time + Mobile number (Plain text) + authentication key

13.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result	When an error occurs, a	AN(300)	●	"Success"

	message	message on error is sent			
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
trdNo	Transaction number	Hecto Financial transaction number regarding mobile phone verification request	AN(40)	●	"SFP_FIRM12345678901234567890"

14. Confirmation of ARS Authentication

14.1 API Summary

ARS authentication result is requested from the merchant server to the Hecto Financial server.

This is an API that checks whether the customer who has been requested for authentication has performed ARS authentication normally. The ARS authentication/verification API is provided for the purpose of authenticating the customer's account withdrawal and transfer registration, and the transaction number, which is the response to the ARS confirmation request, is used for the withdrawal and transfer registration (account registration) API.

14.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/arscheck
Production	http://npay.settlebank.co.kr/v1/api/auth/arscheck

14.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_RC0W_1.0" ※ Fixed value
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order Number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique ID provided by merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
trdNo	Transaction number	Hecto Financial transaction number	AN(50)	●	"SFP_FIRM1234465767890998" Received transaction number (generated by Hecto Financial) as the result of ARS authentication

					request
custIp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash data generated by sha256 method	AN(200)	●	

14.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Transaction number + Authentication key

14.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031 No transaction: 0092 Processing: 0000
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
retCd	Error code	Authentication in progress : 000 Success: 00 Fail: 04 Authentication number inconsistency 08 Authentication number input timeout 10 Connection fail (Number does not exist) 11 Connection fail (Receive rejected) 12 Connection fail (Time out) 20 ARS authentication canceled 99 Other error 005 Parameter error 007 Data error 100 ARS authentication default	AN(3)	●	

		value 700 ARS not requested 800 ARS Request fail 999 DB initial value			
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM1234567890123 4567890"

15. Account Registration

15.1 API Summary

The merchant server requests account registration from the Hecto Financial server.

Account registration (withdrawal transfer registration) is carried out using the transaction number (trdNo), which is the result of the 'ARS authentication confirmation' API. With the registered account, payment (withdrawal) can be done in the future.

15.2 API URL

Section	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/acnt/reg
Production	http://npay.settlebank.co.kr/v1/api/acnt/reg

15.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_RE0W_1.0" ※ Fixed value
mchtId	Merchant ID	Unique merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	●	"OID201902210001"
trdNo	Transaction number	Hecto Financial transaction number. Setting of transaction number that is returned when doing ARS authentication. authMthdCd : ARS mandatory for ARS	AN(50)	○	"T201902200001"
mchtCustId	Customer ID	Unique customer ID provided by merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"

reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
mchtCustNm	Account holder name	English /Number/Korean **(Korean 3 byte)** AES Encryption	AN(60)	●	"Hong Gildong" (in Korean)
Uii	Date of birth/ Business registration number	Date of birth: yyMMdd Business registration number :10 digits (exclude hyphen) AES Encryption	N(10)	●	"8001012"
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account number	Account number, exclude hyphen Min 9, Max15 AES Encryption	AN(15)	●	"1234567890"
authMthdCd	Authentication type code	Data on withdrawal and transfer consent WR : Written file ARS : ARS authentication PASS : PASS authentication Default : ARS	AN(5)	○	"ARS"
custIp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

15.4 Request Hash Code

Section	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time+ Account number(Plain text) + Authentication key

15.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example

outStatCd	Transaction status	Transaction status code (Success/Fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtCustId	Customer ID	Unique ID provided by merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
bankCd	Bank code	Three-digit bank code	N(3)	●	"004"
custAcntNo	Account number	Masked account number ex) 234*********123	AN(15)	●	"234*********123"
custAcntKey	Account number key	Serial numbers of registered withdrawal transfer account	AN(50)	●	"d894kjd93kd9"
svcDivCd	Account registration service type	Registered withdrawal transfer account service	N(1)	●	1 : Firm banking
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID20190221001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

16. Account Cancellation

16.1 API Summary

Request to cancel account from Merchant server to the Hecto Financial server.

Through account registration (withdrawal transfer registration), the cancellation of the account's registration (withdrawal transfer registration) is done.

16.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/acnt/unreg
Production	http://npay.settlebank.co.kr/v1/api/acnt/unreg

16.3 Request (Merchant -> Hecto Financial)

The column requested by Merchant server to Hecto Financial is defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_DE0W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
bankCd	Bank code	Three-digit bank code	N(3)	●	"004"
custAcntKey	Account number key	Serial numbers of account registered for withdrawal and transfer	AN(50)	○	"d894kjd93kd9"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
custIp	Customer IP Address	Customer's device's IP address, Not the Merchant server's	AN(15)	○	"127.0.0.1"

		IP			
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

16.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text) + Request Date + Request Time + Authentication Key

16.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	○	"OID201902210001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

17. Merchant Account Registration

17.1 API Summary

The information of the account registered for withdrawal by the Merchant itself is requested to be registered from the Merchant server to Hecto Financial server. With the registered account, payment (withdrawal) can be done in the future.

17.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/acnt/reg/self
Production	http://npay.settlebank.co.kr/v1/api/acnt/reg/self

17.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_RB0W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID201902210001"
payerNo	Payer number	Payer number for withdrawal	AN(20)	●	"TESTMCHT00000001"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
mchtCustNm	Account holder name	English / Number / Korean (Korean 3 byte) AES encryption	AN(30)	●	"Hong Gildong" (in Korean)
Uii	Date of birth/business	Date of birth: yymmdd Business registration	N(10)	●	"800101"

	registration number	number: 10 digits (Exclude hyphen) AES encryption			
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account number	Account number, excluding hyphen Min 9, Max 15 AES encryption	AN(15)	●	"1234567890"
custIp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

17.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text) + Request date + Request time + Account number (plain text) + Authentication key

17.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST08: Delivers registered account information in case of already registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
bankCd	Bank code	Three-digit bank code	N(3)	●	"004"
custAcntNo	Account number	Masked account number ex) 234*********123	AN(15)	●	"234*********123"

custAcntKey	Account number key	Serial numbers of account registered for withdrawal and transfer	AN(50)	○	"d894kjd93kd9"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID20190221001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

18. Payment

18.1 API Summary

Request a payment from the Merchant server to the Hecto Financial server.

With the account registered through account registration (withdrawal transfer registration), payment (withdrawal transfer from customer's account) can be made. As a result of executing this API, cash is transferred from the customer's account to the main account of the Merchant.

18.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/pay/confirm
Production	http://npay.settlebank.co.kr/v1/api/pay/confirm

18.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_RP0W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
trdAmt	Transaction amount	Amount to be withdrawn (transaction amount)	N(13)	●	"1000"
bankCd	Withdrawal bank code	Registered customer withdrawal bank code	N(3)	●	"004"
custAcntKey	Account number key	Serial numbers of account registered for withdrawal	AN(50)	○	"d894kjd93kd9"

splAmt	Supply value	Supply value	N(13)	○	"0"
Vat	VAT	VAT	N(13)	○	"0"
svcAmt	Service charge	Service charge	N(13)	○	"0"
pmtPrdtNm	Name of the paid product	Set the name of the paid product **(Korean 3 byte)**	AN(100)	○	"Product name"
custAcntSumry	Account code content	Code name that will be on the customer's account (**Korean 3 byte)**	AN(30)	○	"Hong Gildong" (in Korean)
csrcIssReqYn	Cash receipt issue status	Y : Cash receipt issued N : Cash receipt not issued	A(1)	○	"N"
csrcIssPsblYn	Cash receipt issue availability	Y : Cash receipt can be issued N: Cash receipt cannot be issued	A(1)	○	"N"
taxTypeCd	Tax exemption status	Y : Tax-free N : Taxation csrcIssReqYn If it is Y(Issued), it is required	A(1)	○	"N"
csrcRegProposYn	Use classification	0: Income Deduction, 1: Evidence of Expenditure csrcIssReqYn If it is Y(Issued), it is required	N(1)	○	
csrcRegNoDivCd	Issue information classification	1: Card 2: Resident registration number 3: Business registration number 4: Mobile number csrcIssReqYn If it is Y(Issued), it is required	N(1)	○	
csrcRegNo	Issue information	Actual value according to csrcRegNoDivCd value csrcIssReqYn If it is Y(Issued), it is required AES encryption	AN(20)	○	
addDdtTypeCd	Additional deduction classification	Y: Public transport C: Books, concerts	A(1)	○	
rglPmtYn	Recurring payment	Y: recurring payment N: general payment	A(1)	○	Default : N

		status			
rglEdDt	End date of recurring payment	yyyyMMdd	N(8)	○	"20210830"
custlp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
cupDepositAmt	Container deposit (Cup deposit)	If container deposit (cup deposit) is included, the container deposit should be included in the transaction amount and then be requested	N(13)	○	
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

18.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text) + Order Date + Order Time + Transaction Amount + Code of Withdrawal Bank + Authentication Key

18.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
trdNo	Transaction number	Hecto Financial's transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"
trdAmt	Transaction amount	Amount to be withdrawn (transaction amount)	N(13)	●	"1000"
mchtTrdNo	Order number	Merchant Order Number	AN(100)	●	"OID201902210001"

		* Exclude Korean			
rglChrgKey	Recurring payment key	Unique Key Generated for Recurring Payment	AN(32)	○	
svcDivCd	Services used at payment	Service paid (withdraw transfer)	N(4)	●	1 : Firm banking
custAcntNo	Account number	Masked account number ex) 234*********123	AN(15)	●	"234*********123"

19. Payment Cancellation/Refund

19.1 API Summary

Request cancellation/refund of payment from merchant server to Hecto Financial server.

Refund (payment cancellation) is done for the transaction that was paid (withdrawn) for. The refund of the transaction can be done with the transaction number of the paid transaction.

19.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/pay/cancel
Production	http://npay.settlebank.co.kr/v1/api/pay/cancel

19.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_RT0W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant Cancellation Order Number * Exclude Korean Order number of cancellation request, not the number of original transaction	AN(100)	●	"OID201902210002"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
mchtTrdDt	Date of cancellation of order	yyyymmdd	N(8)	●	"20191231"
mchtTrdTm	Time of	HH24MISS	N(6)	●	"120000"

	cancellation of order				
trdAmt	Transaction amount	Cancellation amount of transaction or partial cancellation amount	N(13)	●	"1000"
custAcntSumry	Account code content	Code name that will be on the customer's account **(Korean 3 byte)**	AN(30)	○	"Hong Gildong" (in Korean)
splAmt	Supply value	Supply value	N(13)	○	"910"
Vat	VAT	VAT	N(13)	○	"90"
svcAmt	Service charge	Service charge	N(13)	○	"0"
trdNo	Original transaction number	Hecto Financial transaction number	AN(50)	●	"SFP_FIRM12345676709"
custIp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

19.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text) + Order cancellation date + Order cancellation time + Transaction amount + Original transaction number + Authentication key

19.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtTrdNo	Cancellation	Merchant Order Number	AN(100)	●	"OID201902210002"

	order number	* Exclude Korean			
trdNo	Cancellation transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"
trdAmt	Refund amount	Amount withdrawn (transaction amount)	N(13)	●	"1000"
svcDivCd	Services Used for Refund	Services used for refund	N(4)	●	1 : Firm banking

20. Approval of Recurring Payment

20.1 API Summary

Invoke the WEB API for approval request of recurring payment transactions.

If the first payment was made with the recurring payment status parameter set to 'Y' at the time of the request,

Recurring payment is registered to the account (recurring payment key response). After that, the recurring

payment key is used to execute recurring payment through the API.

20.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/regular/confirm
Production	https://npay.settlebank.co.kr/v1/api/regular/confirm

20.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_SP10_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
trdAmt	Transaction amount	Amount to be withdrawn (transaction amount)	N(13)	●	"1000"
rglChrgKey	Recurring payment	Unique Key Generated for recurring Payment	AN(32)	●	
splAmt	Supply value	Supply value	N(13)	○	"0"

Vat	VAT	VAT	N(13)	○	"0"
svcAmt	Service charge	Service charge	N(13)	○	"0"
pmtPrdtNm	Name of the paid product	Set the name of the paid product	AN(50)	○	"Product name"
custAcntSumry	Account code content	Code name that will be on the customer's account	AN(7)	○	"Hong Gildong" (in Korean)
csrcIssReqYn	Cash receipt issue status	Y : Cash receipt issued N : Cash receipt not issued	A(1)	○	"N"
csrcIssPsblYn	Cash receipt issue availability	Y : Cash receipt can be issued N: Cash receipt cannot be issued	A(1)	○	"N"
taxTypeCd	Tax exemption status	Y : Tax-free N : Taxation csrcIssReqYn If it is Y(Issued), it is required	A(1)	○	"N"
csrcReqPrposYn	Purpose classification	0: Income Deduction, 1: Evidence of Expenditure csrcIssReqYn If it is Y(Issued), it is required	N(1)	○	
csrcRegNoDivCd	Issue information classification	1: Card 2: Resident registration number 3: Business registration number 4: Mobile number csrcIssReqYn If it is Y(Issued), it is required	N(1)	○	
csrcRegNo	Issue information	Actual value according to PidentityGb value csrcIssReqYn If it is Y(Issued), it is required AES encryption	AN(20)	○	
addDdtTypeCd	Additional deduction classification	Y: Public transportation C: Books, concerts cost csrcIssReqYn If it is Y(Issued), it is required	A(1)	○	
custIp	Customer IP Address	Customer's device's IP address,	AN(15)	○	"127.0.0.1"

		Not the Merchant server's IP			
cupDepositAmt	Container deposit (Cup deposit)	If container deposit (cup deposit) is included, the container deposit should be included in the transaction amount and then be requested	N(13)	○	
pktHash	Hash data	Hash value generated by sha256 method	AN(200)	●	

20.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text)+ Request date + Request time + Transaction amount + Recurring payment key + Authentication key

20.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Requi red	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean letters	AN(100)	●	"OID201902210001"
trdNo	Transaction number	Hecto Financial's transaction number	AN(40)	○	"SFP_FIRM12345678901234567890"
rglPmtProcStatCd	Recurring payment processing status	Response of recurring payment processing status	A(1)	○	R : Recurring payment reprocessing is required C : Recurring payment cancellation is required
trdAmt	Transaction amount	Withdrawn amount (transaction amount)	N(13)	○	"1000"

svcDivCd	Services Used at Payment	Service paid (withdraw transfer)	N(4)	○	1 : Firm banking

21. Cancellation of Recurring Payment

21.1 API Summary

Invoke the WEB API to cancel a pre-registered recurring payment.

21.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/regular/unreg
Production	https://npay.settlebank.co.kr/v1/api/regular/unreg

21.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_SE00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
rglChrgKey	Recurring payment key	Unique Key Generated for Recurring Payment	AN(32)	●	
custIp	Customer IP address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

21.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text) + Request date + Request time + Recurring payment key + Authentication key

21.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID201902210001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

22. Recurring Payment Information Inquiry

22.1 API Summary

Request customer's recurring payment account information.

22.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/regular/info
Production	https://npay.settlebank.co.kr/v1/api/regular/info

22.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_SO00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
rglChrgKey	Recurring payment key	Unique Key generated for recurring payment	AN(32)	●	
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

22.4 Request Hash Code

Parameter name	Combination field

pktHash value	Merchant ID + Customer ID (Plain text) + Request Date + Request Time + Recurring Payment Key + Authentication Key

22.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
bankCd	Bank code	Bank code	N(3)	○	"011"
bankNm	Bank name	Bank name **(Korean 3 byte)**	AN(45)	○	"Kookmin Bank"
custAcntNo	Account number	Masked account number ex) 234*********123	AN(15)	○	"234*********123"
useStDt	Recurring payment start date	yyyyMMdd	N(8)	○	"20210830"
useEdDt	Recurring payment end date	yyyyMMdd	N(8)	○	"20991231"
rglPmtAmt	Amount of recurring payment	Amount of the first recurring payment	N(13)	○	"1000"
pmtAcmAmt	Accumulated payment amount	Accumulated amount of successful recurring payment	N(13)	○	"5000"
pmtAcmOrd	Accumulated payment round	Recurring payment success count	N(13)	○	"5"
unregDt	Cancellation date	yyyyMMddhhmmss	N(14)	○	"20210830080000"
unregStatCd	Cancellation code	Cancellation details, user input or bank system cancellation code	AN(10)	○	EXPIRE: End of Period FAIL: Payment failed CANCEL: Merchant cancellation.

					ADMIN: Administrator cancellation

23. Recurring Payment Transaction History Inquiry

23.1 API Summary

Request the transaction history related to recurring payment and refund.

23.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/regular/translist
Production	https://npay.settlebank.co.kr/v1/api/regular/translist

23.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_LS00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
rglChrgKey	Recurring payment key	Unique key generated for recurring payment	AN(32)	●	
useStDt	Inquiry start date	yyyyMMdd	N(8)	●	Inquiry period is up to 1 year (365 days)
useEdDt	Inquiry end date	yyyyMMdd	N(8)	●	
pktHash	Hash data	Hash value generated by sha256 method	AN(200)	●	

23.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text) + Request Date + Request Time + Recurring Payment Key + Authentication Key

23.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
dataCnt	Number of transactions	Number of transactions if transaction history exists	N(4)	●	"10"
trRecords	Transaction history		<object>	●	
--recordTrdDt	Date and time of transaction	yyyyMMddhhmmss	N(14)	○	"20210830080000"
--recordBankCd	Bank code	Bank code	N(3)	○	"011"
--recordBankNm	Bank name	Bank name **(Korean 3 byte)**	AN(45)	○	"Kookmin bank"
--recordCustAcntNo	Bank account	Processing masked account number	AN(15)	○	"1234***********6546"
--recordRglChrgKey	Recurring payment key	Unique key generated for recurring payment	AN(32)	○	
--recordTrdNo	Transaction number	Hecto Financial transaction number	AN(50)	○	"SFP_FIRM1234576789890"
--recordMchtTrdNo	Order number	Merchant's order number * Exclude Korean	AN(100)	○	"OID201902210001"
--recordTrdAmt	Transaction amount	Transaction amount	N(13)	○	"500000"
--recordUseOrd	Number of uses	Number of uses	N(13)	○	"1"
--recordOutStatCd	Transaction status code	Status code	AN(4)	○	Success: 0021 Fail: 0031

--recordOutRsltCd	Transaction result code	Refer to <u>reject code table</u>	AN(4)	○	″0000″
--recordOutRsltMsg	Transaction result message	Result message	AN(600)	○	″Success″

24. Remittance

24.1 API Summary

Request a remittance from the merchant server to the Hecto Financial server.

24.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/pay/rmt
Production	http://npay.settlebank.co.kr/v1/api/pay/rmt

24.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_AR0W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID2021083012345"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	○	"honggildong"
trdDt	Transaction date	yyyyMMdd	N(8)	●	"20191231"
trdTm	Transaction time	HH24MISS	N(6)	●	"120000"
bankCd	Deposit bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Deposit bank account number	Exclude hyphen from account number AES encryption	AN(15)	●	"123456664"
custAcntSumry	Deposit account code content	Code name that will be on customer's account	AN(14)	●	"Hong Gildong" (in Korean)

		※ **Full-width letters used (7 letters)** AES encryption			
directYn	Status of direct contract with the bank	N : Resale (Default) Y : Direct contract	A(1)	○	
macntBankCd	Bank code of main account	Refer to the **Table of Financial Institution Codes** (for direct contract with bank) Required for PDirectYn Y direct contract	N(3)	○	
macntNo	Deposit account number of main account	Main account's account number excluding hyphen (for direct contract with bank) AES encryption Required if it is directYn Y (direct contract)	AN(15)	○	
macntSumry	Bank code content of main account	Code content that will be on the main account (for direct contract with bank) ※ **Full-width letters used (6 letters)** AES encryption Required if it is directYn Y (direct contract)	AN(6)	○	
scrtCardVal	Security code number	Direct contract SC Bank produced security card number AES encryption	AN(6)	○	
firmPktNo	Firm banking specialty number		N(6)	○	
macntPwd	Main account password	Optional input based on contract per bank **(Mandatory requirement for KFCC)** AES encryption	AN(4)	○	
trdAmt	Transaction amount	Amount to be remitted (transaction amount) Max. 1 billion KRW	N(13)	●	"1000"
custIp	Customer IP Address	Customer's device's IP address, Not the Merchant server's	AN(15)	○	"127.0.0.1"

		IP			
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

24.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Order Number + Transaction Date + Transaction Time + Deposit bank code + Deposit account number (plain text) + Transaction amount + Authentication key

24.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID20210830080000"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM1233444365430698"
trdAmt	Transaction amount	Remitted amount	N(13)	●	"1000"
svcDivCd	Service used to remit money	Service used to remit money	N(4)	●	1 : Firm banking

25. Remittance Account Balance Inquiry

25.1 API Summary

Inquire the balance of the remittance account from the merchant server to the Hecto Financial server.

25.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v2/api/pay/rmt/blc
Production	https://npay.settlebank.co.kr/v2/api/pay/rmt/blc

25.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Requi red	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_CA0W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	●	"OID2021083012345"
trdDt	Transaction date	yyyymmdd	N(8)	●	"20191231"
trdTm	Transaction time	HH24MISS	N(6)	●	"120000"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

25.4 Request Hash Code

Parameter name	Combination field
Hash value	Merchant ID + Order number + Transaction date + Transaction time + Authentication key

25.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST08 : If it is an account that is already registered, send the information of the registered account
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtTrdNo	Order number	Merchant Order Number * Exclude Korean	AN(100)	●	"OID20210830080000"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM1233444365430698"
blcAmt	Balance amount	Remittance account balance AES encryption	N(13)	●	"1000"

26. Transaction Result Inquiry

26.1 API Summary

For payment approval result and remit request result, if the result code is 'in progress' or if there is a timeout, until there is 'success' or 'fail' codes, the API should be invoked repeatedly.

26.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/pay/morw
Production	https://npay.settlebank.co.kr/v1/api/pay/morw

26.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Requir ed	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_MORW_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
pktDivCd	Task classification	**Default value: RP** Withdrawal RP, Remittance AR	AN(2)	●	"RP"
mchtTrdNo	Order number	Merchant transaction number * Exclude Korean Order number on transaction request	AN(100)	●	"OID201902210001"
mchtTrdDt	Order date	yyyyMMdd	N(8)	●	"20201131"
reqDt	Request date	yyyyMMdd	N(8)	●	"20201231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
pktHash	Hash data	Hash value generated by sha256 method	AN(200)	●	

26.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Order number + Order date + Request date + Request time + Authentication key

26.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	○	"SFP_FIRM12345678901234567890"
bankCd	Withdrawal bank code	Withdrawal bank code	N(3)	○	"011"
svcDivCd	Services used for transaction	Services used for transaction	N(1)	○	1 : Firm banking

27. Transaction History Inquiry

27.1 API Summary

Transaction history related to payment and refund is requested.

The information about transaction (payment / refund) can be checked with merchant's order date, order number.

27.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/pay/translist
Production	https://npay.settlebank.co.kr/v1/api/pay/translist

27.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_LT00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
pktDivCd	Task classification	Payment: RP, Cancellation: RT Task classification of order number	AN(2)	●	"RP"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtTrdDt	Order date	yyyyMMdd	N(8)	●	"20191231"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

27.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Order number + Order date + Request date + Request time + Authentication key

27.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Descr iptio n	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Result code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
dataCnt	Number of transactions	When transaction history exists	N(4)	●	"10"
trRecords	Transaction history		<object>	●	
--recordOutRsltCd	Transaction result code	Refer to reject code table	AN(4)	●	"ST00"
--recordOutRsltMsg	Transaction result message	Result message	AN(600)	●	"Success"
--recordOutStatCd	Transaction status code	Status code	AN(4)	●	Success: 0021 Fail: 0031
--recordPktDivCd	Transaction classification	Payment:RP, Cancellation:RT	AN(2)	●	"RP"
--recordMchtTrdNo	Order number	Merchant Order Number * Exclude Korean letters	AN(100)	●	"OID203739450"
--recordTrdNo	Transaction number	Hecto Financial transaction number	AN(40)	○	"SFP_FIRM123454667789"
--recordTrdDt	Transaction date	yyyymmdd	N(8)	●	"20210820"
--recordTrdAmt	Transaction amount	Amount to be withdrawn (transaction amount)	N(13)	●	"1000"
--recordBankCd	Withdrawal bank code	Withdrawal bank code	N(3)	●	"011"
--recordCustAcntNo	Withdrawal bank account	Masked account number	AN(15)	●	"831*******11"
--recordSvcDivCd	Service used	Service used during	N(1)	○	1 : Firm banking

	during transaction	transaction			

28. Account List Inquiry

28.1 API Summary

Request customer's account list information.

Can inquire the list of accounts registered (withdraw transfer registration) in customer's ID.

28.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/acnt/list
Production	https://npay.settlebank.co.kr/v1/api/acnt/list

28.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_LA00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
bankCd	Bank code	Three-digit bank code	N(3)	○	"004"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	"1000"

28.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (plain text) + Request Date + Request Time + Authentication Key

28.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
dataCnt	Number of accounts	Number of transactions if transaction history exists	N(4)	●	"10"
acntRecords	Account history		<object>	●	
--recordTrdDt	Registration date and time	yyyyMMddhhmmss	N(14)	●	"20210820000000"
--recordBankCd	Bank code	Bank code	AN(3)	●	"011"
--recordCustAcntNoMask	Account number	Masked account number ex) 234*********123	AN(15)	●	"831*******11"
--recordCustAcntKey	Account number key	Serial number of account registered for withdrawal transfer	AN(50)	●	"d5409fdsl3558"
--recordSvcDivCd	Account registration service classification	Withdrawal transfer registered service	N(4)	●	1 : Firm Banking 2 : Open Banking 3 : Firm & Open Banking
--recordUnregDt	Date of cancellation	yyyyMMddhhmmss	N(14)	○	"20210820000000"

29. Bank List Inquiry

29.1 API Summary

Respond to the list of available banks on merchant side.

Usually used to invoke the API in the merchant's payment window and configure the UI.

29.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/bank/list
Production	https://npay.settlebank.co.kr/v1/api/bank/list

29.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Requi red	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_LB00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

29.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Request date + Request time + Authentication Key

29.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
dataCnt	Number of banks	Number of transactions if transaction history exists	N(4)	●	"10"
bankRecords	Bank records		<object>	●	
--recordBankCd	Bank code	Bank code	AN(3)	●	"004"
--recordBankNm	Bank name	Bank name **(Korean 3 byte)**	AN(45)	●	"Kookmin bank"
--recordBankOrd	Order	Displayed order in UI	N(2)	●	
--recordUseYn	Availability	Bank opening and availability	A(1)	●	"Y"

30. Bank Maintenance Inquiry

30.1 API Summary

Check the maintenance status of each bank.

30.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/bank/timecheck
Production	https://npay.settlebank.co.kr/v1/api/bank/timecheck

30.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_TP00_1.0" ※ fixed value
pktDivCd	Task classification	RE, DE, RP, RT, NA, NN, AA, AR	AN(2)	●	RE: Account registration DE: Account termination RP: Payment RT: Payment cancellation (refund) NA: Account holder name inquiry (not including date of birth) NN : Account holder name inquiry (including date of birth) AA: Account ownership verification AR: Remittance
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
bankCd	Bank code	Three-digit bank code	N(3)	●	"004"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

30.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Request date + Request time + Bank code + Authentication Key

30.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
bankCd	Bank code	Three-digit bank code	N(3)	●	"004"

31. Account Ownership Verification History Inquiry

31.1 API Summary

Can inquire account ownership verification history

31.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/ownership/translist
Production	http://npay.settlebank.co.kr/v1/api/auth/ownership/translist

31.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_LT00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
orgTrdDt	Original transaction date	Original transaction date (yyyyMMdd)	AN(6)	●	
mchtTrdNo	Order number	Merchant order number ※ Exclude Korean Merchant transaction number when verification is requested	AN(100)	○	"OID201902210001"
trdNo	Transaction number	Transaction number given as response when Hecto Financial transaction number verification is requested	AN(50)	●	"SFP_FIRM123344568901234567890"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
custIp	Customer ID address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"

| pktHash | Hash data | Hash value generated by sha256 method | AN(64) | ● | |

31.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Request date + Request time + Merchant transaction number + Authentication Key

31.5 Response (Hecto Financial -> Merchant)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
mchtTrdNo	Merchant transaction number	Merchant transaction number *Exclude Korean	AN(100)	●	"OID20210830000000"
mchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	○	"honggildong"
trdNo	Transaction number	Hecto Financial transaction number	AN(50)	●	"SFP_FIRM123454657890"
bankCd	Bank code	Refer to **Table of Financial Institution Codes**	N(3)	●	"004"
custAcntNo	Account number (masked)	Account number excluding hyphen	AN(15)	●	"12345********890"
custAcntSumry	Account code content	Code content on the customer's account AES encryption	AN(21)	●	"EbayA12"
reqTrdDtm	Date and time of verification request	yyyyMMddhhmmss	N(14)	●	"20210830000000"
chkTrdDtm	Date and time of checking	yyyyMMddhhmmss	N(14)	●	"20210830000000"

	verification				
trdStatCd	Verification transaction status	Verification success / fail	AN(4)	●	Success: 0021 Fail: 0031
trdRsltCd	Verification fail code	Refer to reject code table	AN(4)	●	
trdRsltMsg	Verification result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"

32. Account Ownership Verification Bank Maintenance Inquiry

32.1 API Summary

Can check the status of bank maintenance

32.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/bank/timecheck/detail
Production	https://npay.settlebank.co.kr/v1/api/bank/timecheck/detail

32.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_TP1W_1.0" ※ fixed value
pktDivCd	Task classification	AA	AN(2)	●	AA: Account ownership verification ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
bankCd	Bank code	Three-digit bank code	N(3)	●	"004"
pktHash	Hash data	Hash value generated by sha256 method	AN(200)	●	

32.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Request date + Request time + Bank code + Authentication Key

32.5 Response (Hecto Financial -> Merchant)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Success"
bankCd	Bank code	Three-digit bank code	N(3)	●	"004"
bankChkYn	Bank maintenance check	Bank maintenance check based on request time	AN(1)	●	"Y" or "N" ※ In case of regular/irregular maintenance time of bank, if the bank shares about the fail situation or if delayed transaction can be checked, the response will be bank maintenance.
stDtm	Starting time and date of maintenance	yyyyMMddhhmmss	N(14)	○	"20210830000000"
edDtm	Ending time and date of maintenance	yyyyMMddhhmmss	N(14)	○	"20210830000000"

33. KFTC Withdrawal Transfer Information Cancellation Inquiry

33.1 API Summary

If a customer applies for account cancellation from a financial institution (bank, etc.) or the KFTC (PAYINFO), the customer account's withdrawal and transfer will be canceled from the Hecto Financial Easy Payment System one business day after the day of application (before 11 AM)

The API is provided for consistency with the merchant's customer withdrawal transfer information. From 11 AM onwards, the list of information on withdrawal transfer accounts canceled on the day can be checked.

33.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/acnt/isttunreg/list
Production	https://npay.settlebank.co.kr/v1/api/acnt/isttunreg/list

33.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_PI0C_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
unregDt	Cancellation date	Date of cancellation of customer account's withdrawal transfer	N(8)	●	"20191230"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

33.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Cancellation date + Request date + Request time + Authentication key

33.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
unregDt	Cancellation date	yyyyMMdd	N(14)	●	"20210830"
dataCnt	Number of canceled accounts	Number of accounts with withdrawal transfer canceled through KFTC	N(4)	●	"10"
unregAcntRecords	List of canceled accounts		<object>	●	
--recordMchtCustId	Customer ID	Unique Customer ID or Unique Key from merchant AES encryption	AN(100)	●	"honggildong"
--recordBankCd	Bank code	Bank code	N(3)	●	"004"
--recordCustAcntNo	Account number	Masked account number ex) 234*********123	AN(15)	●	"234*********123"
--recordCustAcntKey	Account number key	Serial number of account registered for withdrawal transfer	AN(50)	●	"d894kjd93kd9"
--recordUnregDtm	Cancellation date and time	yyyyMMddhhmmss	N(14)	●	"20210831080000"
--recordUnregOculstt	Cancellation generating institution	Financial company/integrated management system	N(1)	●	1: Financial company 4: Integrated management system
--recordUnregDivCd	Cancellation classification	0/1/2/9/N	AN(1)	●	0 : Customer request 1: Financial company arbitrary cancellation (automatic transfer, etc.) 2: Financial company account change 9: Others N : Absence of consent data

34. Test Call

34.1 API Summary

Request a test call from the merchant server to the Hecto Financial server.

The Alive status of the service is checked with it.

34.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/test/testcall
Production	http://npay.settlebank.co.kr/v1/api/test/testcall

34.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Parameter Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_TC00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
procDiv	Task classification	A0 : Withdrawal registration XX : ARS Scenario	AN(2)	○	"TC" : Test call
mchtTrdNo	Transaction number	Merchant transaction number * Exclude Korean	AN(100)	●	"OID201902210001"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"

34.4 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Parameter Name	Description	Type (Length)	Required	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to reject code table	AN(4)	●	
outRsltMsg	Result message	When an error occurs, a	AN(300)	●	"Processed normally."

		message on error is sent			
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	●	”OID201902210001”
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	”SFP_FIRM12345678901234567890”

35. Payment Password Confirmation

35.1 API Summary

From the Merchant server to Hecto Financial server, payment password confirmation is requested.

Whether the inputted payment password for the customer's ID matches the registered payment password is checked.

35.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/pwdcnf
Production	http://npay.settlebank.co.kr/v1/api/auth/pwdcnf

35.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_PW00_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"midtest"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
pmtPwd	Payment password	The encrypted value of the six numbers set by the customer AES encryption	AN(24)	●	"314257"
custIp	Customer IP Address	Customer's device's IP address,	AN(15)	○	"127.0.0.1"

		Not the Merchant server's IP			
pktHash	hash data	Hash value generated by sha256 method	AN(200)	●	

35.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Payment password (plain text) + Authentication key

35.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST01 : If the payment password does not exist, this response code is returned
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtCustld	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OLD20190221001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

36. Kakao Pay Withdrawal Consent Authentication Request

36.1 API Summary

From the Merchant server to Hecto Financial server, Kakao Pay authentication is requested.

The API is provided for the purpose of authenticating customer's account withdrawal transfer registration.

Through Kakao Pay authentication request confirmation API, the authentication result can be checked.

36.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/kakaopay/acctreq
Production	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/acctreq

36.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_KA0W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"testMID1"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
cphoneNo	Mobile Number	Exclude '-' AES Encryption	AN(11)	●	"01000001234"
mchtCustNm	Customer Name	AES Encryption	AN(20)	●	"Hong Gildong"
uii	Identification	8 digits of date of	N(8)	●	"19950101"

	Information	birth AES Encryption			
bancCd	Withdrawal Bank Code	Withdrawal bank code	AN(3)	●	"004"
custAcntNo	Withdrawal account number	Customer's withdrawal account number '-' in account number excluded AES Encryption	AN(15)	●	"1234567890"
payerNo	Payer Number	Payer number for withdrawal	AN(20)	○	"TESTMCHT0000001"
authVldTm	Authentication Valid Time	In seconds	N(5)	●	"300"
csNo	Call Center Number	'-' included	AN(10)	●	"1234-1234"
csNm	Call Center Name		AN(10)	●	"Company's customer center"
titleMsg	Message Name		AN(40)	○	"Recurring transfer withdrawal consent" *Default
guideMsg	Notice Message		AN(50)	○	"Please proceed with recurring transfer withdrawal consent authentication."
custlp	Customer's IP Address	Customer device's IP address, not the merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash Data	Hash value generated in sha256 method	AN(200)	●	

36.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Mobile number (plain text) + Date of birth (plain text) + Authentication key

36.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST01 : If the payment password does not exist, this response code is returned
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OLD20190221001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

37. Kakao Pay Electronic Signature Authentication Request

37.1 API Summary

From the Merchant server to Hecto Financial server, Kakao Pay electronic signature authentication is requested.

The API is provided for customer authentication for merchant's request, and the original file for the signature is provided. The authentication result can be checked through Kakao Pay authentication request confirmation API.

37.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/kakaopay/signreq
Production	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/signreq

37.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_KA1W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"testMID1"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
cphoneNo	Mobile Number	Exclude '-' AES Encryption	AN(11)	●	"01000001234"
mchtCust	Customer	AES Encryption	AN(20)	●	"Hong Gildong"

Nm	Name				
uii	Identification Information	8 digits of date of birth AES Encryption	N(8)	●	"19950101"
authVldTm	Authentication Valid Time	In seconds	N(5)	●	"300"
csNo	Call Center Number	'-' included	AN(10)	●	"1234-1234"
csNm	Call Center Name		AN(10)	●	"Company's customer center"
titleMsg	Message Name		AN(40)	●	"Recurring transfer withdrawal consent"
guideMsg	Notice Message		AN(50)	●	"Please proceed with recurring transfer withdrawal consent authentication."
custlp	Customer's IP Address	Customer device's IP address, not the merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash Data	Hash value generated in sha256 method	AN(200)	●	

37.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Mobile number (plain text) + Date of birth (plain text) + Authentication key

37.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST01 : If the payment password does not exist, this response code is returned
outRsltMsg	Result message	When an error occurs, a	AN(300)	●	"Processed normally."

		message on error is sent			
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OLD20190221001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

38. Kakao Pay Authentication Request

38.1 API Summary

From the Merchant server to Hecto Financial server, Kakao Pay authentication is requested.

The API is provided for customer's authentication for merchant's request and the authentication result can be checked through Kakao Pay authentication request confirmation API.

38.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/kakaopay/req
Production	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/req

38.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_KA2W_1.0" ※ fixed value
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"testMID1"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	N(8)	●	"20191231"
reqTm	Request time	HH24MISS	N(6)	●	"120000"
cphoneNo	Mobile Number	Exclude '-' AES Encryption	AN(11)	●	"01000001234"
mchtCustNm	Customer Name	AES Encryption	AN(20)	●	"Hong Gildong"
uii	Identification	8 digits of date of	N(8)	●	"19950101"

	Information	birth AES Encryption			
authVldTm	Authentication Valid Time	In seconds	N(5)	●	"300"
csNo	Call Center Number	'-' included	AN(10)	●	"1234-1234"
csNm	Call Center Name		AN(10)	●	"Company's customer center"
titleMsg	Message Name		AN(40)	●	"Recurring transfer withdrawal consent"
guideMsg	Notice Message		AN(50)	●	"Please proceed with recurring transfer withdrawal consent authentication."
custIp	Customer's IP Address	Customer device's IP address, not the merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash Data	Hash value generated in sha256 method	AN(200)	●	

38.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Mobile number (plain text) + Date of birth (plain text) + Authentication key

38.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST01 : If the payment password does not exist, this response code is returned
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtCustId	Customer ID	Unique Customer ID	AN(100)	●	"honggildong"

		provided by Merchant or Unique Key AES Encryption			
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OLD20190221001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

39. Kakao Pay Authentication Request Confirmation

39.1 API Summary

From the Merchant server to Hecto Financial server, Kakao Pay authentication request result is checked.

The API is provided to check customer's authentication result.

39.2 API URL

Environment	URL
Testbed	https://tbnpay.settlebank.co.kr/v1/api/auth/kakaopay/check
Production	https://npay.settlebank.co.kr/v1/api/auth/kakaopay/check

39.3 Request (Merchant -> Hecto Financial)

The columns requested by Merchant server from Hecto Financial are defined as follows.

Parameter	Name	Description	Type (Length)	Required	Example
hdInfo	Parameter Information	Parameter information code	AN(50)	●	"SPAY_KC0W_1.0" ※ **fixed value**
mchtId	Merchant ID	Unique Merchant ID provided by Hecto Financial	AN(8)	●	"testMID1"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	●	"OID201902210001"
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
reqDt	Request date	yyyyMMdd	AN(8)	●	"20191231"
reqTm	Request time	HH24MISS	AN(6)	●	"120000"
trdNo	Transaction number	Hecto Financial's transaction number	AN(50)	●	"01000001234"
custIp	Customer IP Address	Customer's device's IP address, Not the Merchant server's IP	AN(15)	○	"127.0.0.1"
pktHash	hash data	Hash value generated by	AN(200)	●	

		sha256 method			

39.4 Request Hash Code

Parameter name	Combination field
pktHash value	Merchant ID + Customer ID (Plain text) + Request date + Request time + Transaction number + Authentication key

39.5 Response (Hecto Financial -> Merchant)

The columns that respond from Hecto Financial server to the Merchant are as follows.

Parameter	Name	Description	Type (Length)	Description	Example
outStatCd	Transaction status	Transaction status code (success/fail)	AN(4)	●	Success: 0021 Fail: 0031
outRsltCd	Reject code	Refer to **reject code table**	AN(4)	●	ST01 : If the payment password does not exist, this response code is returned
outRsltMsg	Result message	When an error occurs, a message on error is sent	AN(300)	●	"Processed normally."
mchtCustId	Customer ID	Unique Customer ID provided by Merchant or Unique Key AES Encryption	AN(100)	●	"honggildong"
mchtTrdNo	Order number	Merchant order number * Exclude Korean	AN(100)	○	"OLD20190221001"
trdNo	Transaction number	Hecto Financial transaction number	AN(40)	●	"SFP_FIRM12345678901234567890"

40. Others

40.1 Table of Reject Codes

The server-side response rejection code field details are as follows.

*The recent common reject codes can be downloaded from common reject codes.

Code	Description	Code	Description
0021	Success	0031	Fail
ST01	Non-Existent Account	ST02	Invalid Account
ST03	Double withdrawal has occurred	ST04	System Error During VAN Request
ST05	No VAN Response Information	ST06	No transaction number information
ST07	Communication disruption	ST08	Already registered account
ST09	Invalid Request	ST10	Internal System Error
ST11	Bank maintenance time	ST12	Insufficient balance in withdrawal account
ST13	No ARS authentication result	ST14	ARS authentication request values differ
ST15	Automatic transfer canceled account	ST16	Withdrawal account transaction restriction
ST17	Resident Number Business Number Error	ST18	Account error (Easy Account Registration not possible)
ST19	Other transactions impossible	ST20	Account error
ST21	No recipient account	ST22	Legally Restricted Accounts
ST23	A non-real-name account	ST24	Account holder mismatch
ST25	Already canceled transaction	ST26	Cancellation amount error
ST27	ARS authentication failed	ST28	Unable to receive ARS
ST29	Account registration in progress	ST30	Refund in progress
ST31	Double remittance occurred	ST32	Failed to check payer's name
ST33	Exceeded the limit per transaction	ST34	Exceeded the daily limit
ST35	Fraudulent account	ST36	The connection was lost after a certain period of time.
ST37	Easy Payment cancellation	ST38	Request in progress
ST39	Duplicate refund request	ST40	There is a request in progress
ST41	Service capacity exceeded	ST42	System BUSY
ST43	The account is already registered.	ST44	A non-tradeable bank
ST50	Duplicate request	ST51	Cash receipt user already registered
ST52	Unregistered cash receipt user	ST53	Already canceled account
ST60	Transaction failed	ST61	Exceeded the limit in amount per transaction
ST62	Exceeded the daily limit in amount	ST63	Exceeded the monthly limit in amount
ST64	Exceeded the daily limit in number of transactions	ST65	Exceeded the monthly limit in number of transactions
ST66	Password registration failed	ST67	Password mismatch
ST68	Service suspension	ST69	The selected payment service is not available due to policy. Please use another payment method.

ST70	The selected payment service is not available due to policy. Please contact Hecto Financial Customer Center (1600-5220)	ST72	ARS 2nd Authentication Required for Payment
ST75	Multiple attempts were made with wrong information. The account cannot be used. Please try again on the next day.	ST76	Multiple attempts were made with wrong information. The account cannot be used. Please try again on the next day.
ST86	Authentication failed (Mobile phone verification)	ST87	Not registered for Easy Self-Authentication. (Mobile Phone Verification)
VTIM	A relay institution TIMEOUT	ST99	Easy Payment System is under maintenance
SE01	The authentication validity time has expired.	SE02	Verification number mismatch.
SE03	Exceeded the number of authentications allowed.	SE04	Open Banking canceled account. Need to be cancelled.
SE05	Open Banking is not valid for the account. Need to be cancelled.	1001	Easy cash payment account registration not allowed

※ ST75: Account cannot be used due to account holder inquiry abusing attempt (several account numbers).

※ ST76: Account cannot be used due to account holder inquiry abusing attempt (exceeded number of failures).

40.2 Financial Institution Identifier

Financial institution unique identification codes provided by Hecto Financial are as follows:

Financial Institution Code	Name of Financial Institution	Financial Institution Code	Name of Financial Institution
002	KDB	064	National Forestry Cooperative Federation (NFCF)
003	IBK	071	Korea Post
004	Kookmin Bank	081	Hana Bank
007	Suhyup Bank	088	Shinhan Bank
011	Nonghyup Bank	089	Kbank
012	National Agricultural Cooperative Federation (NACF)	090	Kakao Bank
020	Woori Bank	092	Toss Bank
023	SC Bank	103	SBI Savings Bank
027	Citi Bank	209	Yuanta Securities
031	Daegu Bank	238	Mirae Asset Securities
032	Busan Bank	240	Samsung Securities
034	Kwangju Bank	243	Korea Investment & Securities
035	Jeju Bank	247	NH Investment & Securities

037	Jeonbuk Bank	266	SK Securities
039	Kyongnam Bank	267	Daishin Securities
045	Korean Federation of Community Credit Cooperatives (KFCC)	278	Shinhan Financial Investment
048	National Credit Union Federation of Korea (NACUFOK)	280	Eugene Investment & Securities
050	Korea Federation of Savings Banks (KFSB)	287	Meritz Securities

40.3 Bank Regular Maintenance Time.

Due to the specifics of bank operating hours, Hecto Financial **recommends transactions between 01:00 and 23:30.**

The bank maintenance time could change or be updated without prior notice depending on the circumstances of the financial institutions.

Code	Name	Bank Maintenance Time	Hecto Financial Maintenance Time		Regular Maintenance
			Start	End	
002	KDB	23:30~00:30	23:50	00:15	Every 2nd Sunday of the month 00:00~04:00
003	IBK	24:00~00:30	23:50	00:12	Every Sunday 00:00~00:30
004	Kookmin Bank	24:00:~00:30	23:50	00:12	Every 3rd Sunday of the month 00:00~00:30, 05:00~05:30 External work 01:00~06:00(Intermittent transaction error)
007	Suhyup Bank	23:50~00:30	23:30	00:30	None
011	Nonghyup Bank	24:00~00:30	23:50	00:12	Every 3rd Monday of the month 00:00 to 04:00 (Next business day if the date is a public holiday)
020	Woori Bank	23:50~00:30	23:50	00:10	Every 2nd Sunday of the month 02:00 to 06:00
023	SC Bank	23:30~00:30	23:50	00:12	None
027	Citi Bank	23:40~00:30	23:50	00:30	Every day 00:30~04:30
031	Daegu Bank	23:40~00:30	23:50	00:05	None
032	Busan Bank	23:30~00:30	23:50	00:05	None
034	Kwangju Bank	23:40~00:30	23:50	00:05	Every 2nd Sunday of the month 02:00~06:00
035	Jeju Bank	23:40~00:30	23:50	00:12	Every Sunday 04:30~05:00
037	Jeonbuk Bank	24:00~00:30	23:50	00:05	Every 2nd Saturday of the month 00:00~04:00

039	Kyongnam Bank	23:40~00:30	23:50	00:05	Every 2nd Sunday of the month 00:00~07:00
045	KFCC	23:50~00:30	23:30	00:30	None
048	NACUFOK	23:40~00:30	23:50	00:05	None
050	KFSB	23:50~00:10	23:50	00:35	None
064	NFCF	23:50~00:10	23:50	01:00	None
071	Korea Post	23:40~00:30	23:50	00:05	None
081	Hana Bank	23:40~00:30	23:50	00:15	Every 2nd Sunday of the month 00:00~08:00
088	Shinhan Bank	23:40~00:30	23:50	00:05	Server sequential restart between 00:00 to 01:00
089	Kbank	23:57~00:02	23:50	00:12	None
090	Kakao Bank	23:50~00:10	23:50	00:05	None
092	Toss Bank	23:55~00:05	23:55	00:05	None
103	SBI Savings Bank	23:55~00:10	23:55	00:05	None
209	Yuanta Securities	23:50~00:10	23:50	00:10	None
238	Mirae Asset Securities	23:30~00:20	23:30	00:20	Every Saturday 08:00 ~ 08:30
240	Samsung Securities	23:30~00:10	23:50	00:10	None
243	Korea Investment & Securities	23:40~00:10	23:40	00:10	None
247	NH Investment & Securities	23:50~00:15	23:50	00:05	None
266	SK Securities	23:30~00:30	23:30	00:30	None
267	Daishin Securities	23:55~00:25	23:55	00:25	None
278	Shinhan Financial Investment	23:25~00:15	23:30	00:15	Every day 23:30~00:10, 03:00~03:10
280	Eugene Investment & Securities	23:30~00:30	23:50	00:35	None
287	Meritz Securities	23:50~00:20	23:50	00:20	None