Account Ownership Verification Standard WEB API

Contents

[1. Outline 4](#_Toc134516308)

[1.1 Purpose 4](#_Toc134516309)

[1.2 Target 4](#_Toc134516310)

[1.3 API URI 4](#_Toc134516311)

[2. Account Ownership Verification Service API General 5](#_Toc134516312)

[2.1 General 5](#_Toc134516313)

[3. Invoke API 6](#_Toc134516314)

[3.1 API Access Information 6](#_Toc134516315)

[3.2 Request and Response Headers 6](#_Toc134516316)

[3.3 Timeout 6](#_Toc134516317)

[3.4 Others 6](#_Toc134516318)

[4. Crucial Information Security 7](#_Toc134516319)

[4.1 Encryption of Personal Information and Crucial Information 7](#_Toc134516320)

[4.2 Personal Information Encryption Key 7](#_Toc134516321)

[4.3 Forgery Prevention Algorithm 7](#_Toc134516322)

[4.4 Hash Generation Authentication Key 7](#_Toc134516323)

[5. Account Ownership Verification Service 9](#_Toc134516324)

[5.1 API Flow 9](#_Toc134516325)

[6. Account Holder Name Inquiry (DOB Not Included) 10](#_Toc134516326)

[6.1 API Summary 10](#_Toc134516327)

[6.2 API URI 10](#_Toc134516328)

[6.3 Request (Merchant -> Hecto Financial) 10](#_Toc134516329)

[6.4 Request Hash Code 11](#_Toc134516330)

[6.5 Response (Hecto Financial -> Merchant) 11](#_Toc134516331)

[7. Account Ownership Verification Request 12](#_Toc134516332)

[7.1 API Summary 12](#_Toc134516333)

[7.2 API URI 12](#_Toc134516334)

[7.3 Request (Merchant -> Hecto Financial) 12](#_Toc134516335)

[7.4 Request Hash Code 14](#_Toc134516336)

[7.5 Response (Hecto Financial -> Merchant) 14](#_Toc134516337)

[8. Account Ownership Verification Confirmation 16](#_Toc134516338)

[8.1 API Summary 16](#_Toc134516339)

[8.2 API URI 16](#_Toc134516340)

[8.3 Request (Merchant -> Hecto Financial) 16](#_Toc134516341)

[8.4 Request Hash Code 17](#_Toc134516342)

[8.5 Response (Hecto Financial -> Merchant) 17](#_Toc134516343)

[9. Account Ownership Verification Transaction Inquiry 19](#_Toc134516344)

[9.1 API Summary 19](#_Toc134516345)

[9.2 API URI 19](#_Toc134516346)

[9.3 Request (Merchant -> Hecto Financial) 19](#_Toc134516347)

[9.4 Request Hash Code 20](#_Toc134516348)

[9.5 Response (Hecto Financial -> Merchant) 20](#_Toc134516349)

[10. Bank Maintenance Inquiry 22](#_Toc134516350)

[10.1 API Summary 22](#_Toc134516351)

[10.2 API URI 22](#_Toc134516352)

[10.3 Request (Merchant -> Hecto Financial) 22](#_Toc134516353)

[10.4 Request Hash Code 22](#_Toc134516354)

[10.5 Response (Hecto Financial -> Merchant) 23](#_Toc134516355)

[11. Others 24](#_Toc134516356)

[11.1 Table of Reject Codes 24](#_Toc134516357)

[11.2 Financial Institution Identifiers 25](#_Toc134516358)

# Outline

## Purpose

This document is intended for understanding technical requirements for Account Ownership Verification Non-UI API integration provided by Hecto Financial and to define detailed specification.

## Target

This document is intended for clients’ developers to execute Account Ownership Verification through Hecto Financial’s Easy Payment system.

## API URI

Account Ownership Verification service provides the following APIs; each API is mapped to a web service URL.

|  |  |  |  |
| --- | --- | --- | --- |
| **Function** | **API Name** | **URI** | **HTTP Method** |
| Verification Service | Account holder name inquiry | <https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheck1> | POST |
| Account ownership verification | <https://npay.settlebank.co.kr/v1/api/auth/ownership/req> | POST |
| Account ownership verification confirmation | <https://npay.settlebank.co.kr/v1/api/auth/ownership/check> | POST |
| Inquiry Service | Account ownership verification transaction inquiry | <https://npay.settlebank.co.kr/v1/api/auth/ownership/translist> | POST |
| Bank maintenance inquiry | <https://npay.settlebank.co.kr/v1/api/bank/timecheck/detail> | POST |

# Account Ownership Verification Service API General

## 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.
* Types of data

N: Numeric characters

A: Alphabetic characters

AN: Both Alphabetic and Numeric

* 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 will be returned.

|  |
| --- |
| {  “outStatCd”:”0031”,  “outRsltCd“:”ST09”  “outRsltMsg“:”Invalid request parameter”  } |

# Invoke API

## API Access Information

The following is API server access information.

|  |  |
| --- | --- |
| **Classification** | **URL** |
| Testbed | <https://tbnpay.settlebank.co.kr> |
| Production | <https://npay.settlebank.co.kr> |

## Request and Response Headers

The following are API request and response header formats.

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

## Timeout

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

## Others

The following describes the general requirements for HTTP specification.

* Provided API is REST-oriented, but does not meet the entire specification of REST. (Most transaction requests use POST Method only)
* For request, use POST method only.
* Commonly, variable values :,&,?,’,new line, <, > are not allowed.

# Crucial Information Security

## Encryption of Personal Information and Crucial Information

When sending and receiving data, the following encryption should be performed for the personal information/critical information fields.

|  |  |  |  |
| --- | --- | --- | --- |
| **Classification** | **Entry** | **Application** | **Encoding** |
| Personal Information | Algorithm | AES-256/ECB/PKCS5Padding | Base64 Encoding |
| Field | Customer name, account number, transaction amount, etc.  (The fields for encryption are specified in the descriptions of the request field specification of each API.) | | |

## Personal Information Encryption Key

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

|  |  |
| --- | --- |
| **Classification** | **Encryption Key** |
| Testbed key | SETTLEBANKISGOODSETTLEBANKISGOOD(32byte) |
| Production key | Will be provided by separate notice when the service is carried out. |

## Forgery Prevention Algorithm

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

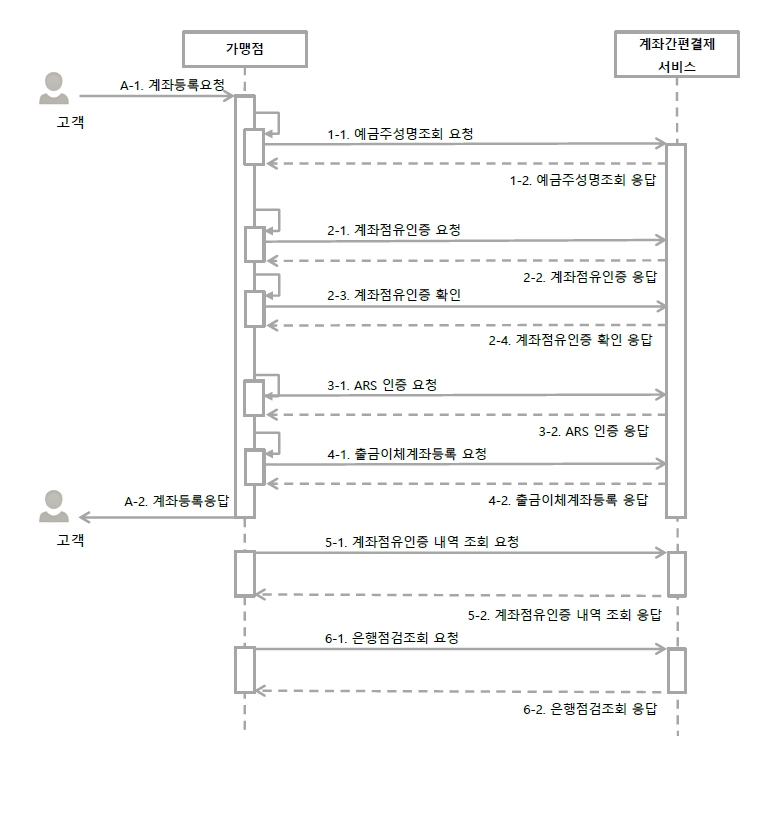
|  |  |  |  |
| --- | --- | --- | --- |
| **Classification** | **Entry** | **Application** | **Encoding** |
| Forgery | Algorithm | SHA-256 | Hex Encoding |

## Hash Generation Authentication Key

|  |  |
| --- | --- |
| **Classification** | **Authentication Key** |
| Testbed key | ST190808090913247723(20byte) |
| Production key | Will be provided by separate notice when the service is carried out. |

# Account Ownership Verification Service

## API Flow



# Account Holder Name Inquiry (DOB Not Included)

## API Summary

API used to check the consistency through the bank, account, and account holder name, is provided.

It checks whether the account was opened with the customer’s name using the customer (account holder) name, inputted bank and account number.

When the account holder name is inputted and the request is made, Hecto Financial compares and checks whether the inputted account holder name and the account holder name given by the bank match, then the success/fail code is given. When the account holder name is not inputted, and only the bank code and account number are delivered, then the account holder name given by the bank is given as the result value.

## API URI

|  |  |
| --- | --- |
| **Classification** | **URL** |
| Testbed | https://tbnpay.settlebank.co.kr/v1/api/auth/acnt/ownercheck1 |
| Production | https://npay.settlebank.co.kr/v1/api/auth/acnt/ownercheck1 |

## 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 | Information | Parameter Information code | AN(50) | ● | “SPAY\_NA00\_1.0”  **※ Fixed value** |
| mchtId | Merchant ID | Unique Merchant ID given by Hecto Financial | AN(8) | ● | “midtest” |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ○ | "OID201902210001" |
| mchtCustId | Customer ID | Unique customer ID or unique key sent by Merchant  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 | AN(3) | ● | "004" |
| custAcntNo | Account Number | Account number excluding ‘hyphen’  AES Encryption | AN(15) | ● | "1234567890" |
| mchtCustNm | Account Holder Name | English / Number / Korean **(Korean 3 byte)**  AES Encryption | AN(30) | ○ | “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) | ● |  |

## Request Hash Code

|  |  |
| --- | --- |
| **Section** | **Combination Field** |
| pktHash value | Merchant ID + Customer ID (Plain Text) + Request Date + Request Time  + Account Number (Plain Text) + Authentication Key |

## 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) | ● | No example? |
| outRsltMsg | Result Message | When an error occurs, a message on error is sent | AN(300) | ● | “Successfully processed.” |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ○ | "OID201902210001" |
| trdNo | Transaction Number | Hecto Financial transaction number | AN(40) | ● | "SFP\_FIRM12345678901234567890" |
| mchtCustNm | Account Holder Name | Account holder name inquired at the bank **(Korean 3 byte)**  AES Encryption | AN(30) | ○ | “Hong Gildong” (in Korean) |

# Account Ownership Verification Request

## API Summary

To verify whether the customer actually owns the account, we provide a feature that allows you to send 1 KRW to the account for Account Ownership Verification. Along with the 1 KRW, you can send an account code set at the time of request, so that after the customer checks one’s account, the account code can be compared and the account ownership can be verified.

If repeated requests are made within the specified period, 1 KRW deposit is not carried out and it will respond with ‘processing’. The specified period needs to be discussed separately.

※ To prevent misuse, the use is limited to 5 times per day for each account number at the start of the service.

The number of times can be changed upon request.

## API URI

|  |  |
| --- | --- |
| **Classification** | **URL** |
| Testbed | https://tbnpay.settlebank.co.kr/v1/api/auth/ownership/req |
| Production | http://npay.settlebank.co.kr/v1/api/auth/ownership/req |

## 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 | Information | Parameter Information code | AN(50) | ● | “SPAY\_AA10\_1.0”  **※ Fixed value** |
| mchtId | Merchant ID | Unique Merchant ID given by Hecto Financial | AN(8) | ● | “midtest” |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ● | "OID201902210001" |
| mchtCustId | Customer ID | Unique customer ID or unique key sent by Merchant  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)**  AES Encryption | AN(30) | ○ | “Hong Gildong” (in Korean) |
| bankCd | Bank Code | Refer to Table of Financial Institution Codes | AN(3) | ● | "004" |
| custAcntNo | Account Number | Account number excluding ‘hyphen’  AES Encryption | AN(15) | ● | "1234567890" |
| authType | Authentication Number Type | Authentication number generation type | AN(1) | ● | "1": Three-digit number  "2": Capital English letter + two-digit number  "3": 4 letter Korean word combination  "4": Four-digit number |
| remitterNm | Remitter Information (Name of Remitter) | Fixed string of letters before or after the code content that will be on the customer’s account, English capital letters or Korean letters **(Korean 2 byte)**  AES Encryption | AN(8) | ○ | “Ebay (in Korean)” or “EBAY” (Max. 4 letters)  ※ Three random characters (numbers, Korean letters) are combined and put before or after of the requested letters on the account transaction of the customer. Ex) Ebay A12 or A12 Ebay  ※ If the authentication number type is “3” and the authentication number generator is “automatically generated”, this is ignored.  ※ If the authentication number type is “4”, max. of 3 letters is supported. |
| textPos | Remitter Information (Name of Remitter) Location | Location of the remitter information (name of remitter) phrase | AN(1) | ○ | "F" : Before or "R": After  Default: "R" |
| authVldTm | Authentication Validity Time | In seconds | N(5) | ○ | "600"  ※ If the response to request for Account Ownership Verification is success, based on the transaction number generation, the authentication validity time is set  Default : 600 seconds |
| apintTm | Repeat Request Prevention Time | In seconds | N(5) | ○ | "600"  ※ If repeated requests are made within the specified period, 1 KRW deposit is not carried out and it will respond with ‘processing’.  Default : 600 seconds |
| custIp | Customer IP Address | Customer’s device’s IP address, not the Merchant server’s IP | AN(15) | ○ | “127.0.0.1”  Needed when IP blocking policy is set |
| pktHash | Hash Data | Hash value generated by sha256 method | AN(200) | ● |  |

## Request Hash Code

|  |  |
| --- | --- |
| **Section** | **Combination Field** |
| pktHash value | Merchant ID + Request Date + Request Time + Bank Code  + Account Number (Plain Text) + Authentication Key |

## 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) | ● | “Successfully processed.” |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ● | "OID201902210001" |
| trdNo | Transaction Number | Hecto Financial transaction number | AN(40) | ● | "SFP\_FIRM12345678901234567890" |
| mchtCustId | Customer ID | Unique customer ID or unique key sent by Merchant  AES Encryption | AN(100) | ● | "honggildong" |
| bankChkYn | Bank Maintenance Status | Bank maintenance status based on the time of request | 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 | Maintenance Start Date and Time | yyyyMMddhhmmss | N(14) | ○ | "20210108000900" |
| edDtm | Maintenance End Date and Time | yyyyMMddhhmmss | N(14) | ○ | "20210108000900" |

# Account Ownership Verification Confirmation

## API Summary

By comparing the account code sent along with 1 KRW upon request for Account Ownership Verification, the account ownership can be verified.

## API URI

|  |  |
| --- | --- |
| **Classification** | **URL** |
| Testbed | https://tbnpay.settlebank.co.kr/v1/api/auth/ownership/check |
| Production | https://npay.settlebank.co.kr/v1/api/auth/ownership/check |

## 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 | Information | Parameter Information code | AN(50) | ● | “SPAY\_RC10\_1.0”  **※ Fixed value** |
| mchtId | Merchant ID | Unique Merchant ID given by Hecto Financial | AN(8) | ● | “midtest” |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ● | "OID201902210001" |
| trdNo | Transaction Number | Hecto Financial transaction number  Transaction number given as response when verification is requested | AN(50) | ● | "SFP\_FIRM12345678901234567890" |
| mchtCustId | Customer ID | Unique customer ID or unique key sent by Merchant  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 remitter information (remitter’s name) on the customer’s account transaction | AN(12) | ● | “A12”  ※ When requested, random three-digit authentication number before or after the remitter information  Ex) In the case of Ebay A12 or A12 Ebay, requested as “A12”  ※ If the authentication number type is “3”, four-letter combination of Korean letters |
| 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) | ● |  |

## Request Hash Code

|  |  |
| --- | --- |
| **Section** | **Combination Field** |
| pktHash value | Merchant ID + Request Date + Request Time + Merchant Transaction Number  + Authentication Key |

## 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(200) | ● | “Successfully processed.” |
| mchtCustId | Customer ID | Unique customer ID or unique key sent by Merchant  AES Encryption | AN(100) | ● | "honggildong" |
| trdNo | Transaction Number | Hecto Financial transaction number | AN(50) | ● | "SFP\_FIRM12345678901234567890" |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ● | "OID201902210001" |

# Account Ownership Verification Transaction Inquiry

## API Summary

Can check the Account Ownership Verification transaction.

## API URI

|  |  |
| --- | --- |
| **Classification** | **URL** |
| Testbed | https://tbnpay.settlebank.co.kr/v1/api/auth/ownership/translist |
| Production | https://npay.settlebank.co.kr/v1/api/auth/ownership/translist |

## 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 | Information | Parameter Information code | AN(50) | ● | “SPAY\_LT10\_1.0”  **※ Fixed value** |
| mchtId | Merchant ID | Unique Merchant ID given by Hecto Financial | AN(8) | ● | “midtest” |
| orgTrdDt | Original Transaction Date | Original transaction date (YYMMDD) | AN(6) | ● |  |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ● | "OID201902210001" |
| trdNo | Transaction Number | Hecto Financial original transaction number | AN(50) | ● | "SFP\_RIMR12345678901234567890" |
| mchtCustId | Customer ID | Unique customer ID or unique key sent by 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 IP | AN(15) | ○ | “127.0.0.1” |
| pktHash | Hash Data | Hash value generated by sha256 method | AN(200) | ● |  |

## Request Hash Code

|  |  |
| --- | --- |
| **Section** | **Combination Field** |
| pktHash value | Merchant ID + Request Date + Request Time + Merchant Transaction Number + Authentication Key |

## 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(200) | ● | “Successfully processed.” |
| mchtTrdNo | Merchant Transaction Number | Merchant transaction number  ※ Excluding Korean | AN(100) | ● | "OID201902210001" |
| mchtCustId | Customer ID | Unique customer ID or unique key sent by Merchant  AES Encryption | AN(100) | ○ | "honggildong" |
| trdNo | Transaction Number | Hecto Financial transaction number | AN(50) | ● | "SFP\_FIRM12345678901234567890" |
| bankCd | Bank Code | Refer to Table of Financial Institution Codes | AN(3) | ● | "004" |
| custAcntNo | Account Number | Account number excluding ‘hyphen’  AES Encryption | AN(15) | ● | "123\*\*\*\*890" |
| custAcntSumry | Account Transaction Content | Content on the customer’s account transaction  AES Encryption | AN(21) | ● | "Ebay A12" |
| reqTrdDtm | Authentication Request Date and Time | yyyyMMddhhmmss | AN(14) | ● | "20210108000900" |
| chkTrdDtm | Authentication Check Date and Time | yyyyMMddhhmmss | AN(14) | ● | "20210108000900" |
| trdStatCd | Authentication Transaction Status | Authentication success / fail | AN(4) | ● | Success: 0021  Fail: 0031 |
| trdRsltCd | Authentication Fail Code | Refer to Reject Code Table | AN(4) | ● |  |
| trdRsltMsg | Authentication Result Message | When an error occurs, a message on error is sent | AN(100) | ● | “Success” |

# Bank Maintenance Inquiry

## API Summary

The maintenance status of bank per task can be checked.

## API URI

|  |  |
| --- | --- |
| **Classification** | **URL** |
| Testbed | https://tbnpay.settlebank.co.kr/v1/api/bank/timecheck/detail |
| Production | https://npay.settlebank.co.kr/v1/api/bank/timecheck/detail |

## 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 | Information | Parameter Information code | AN(50) | ● | “SPAY\_TP1W\_1.0”  **※ Fixed value** |
| pktDivCd | Work Classification | AA | AN(2) | ● | AA: Account Ownership Verification  **※ Fixed value** |
| mchtId | Merchant ID | Unique Merchant ID given by Hecto Financial | AN(8) | ● | “midtest” |
| reqDt | Request Date | yyyyMMdd | N(8) | ● | “20191231” |
| reqTm | Request Time | HH24MISS | N(6) | ● | “120000” |
| bankCd | Bank Code | Refer to Table of Financial Institution Codes | AN(3) | ● | "004" |
| pktHash | Hash Data | Hash value generated by sha256 method | AN(200) | ● |  |

## Request Hash Code

|  |  |
| --- | --- |
| **Section** | **Combination Field** |
| pktHash value | Merchant ID + Request Date + Request Time + Bank Code + Authentication Key |

## 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(200) | ● | “Successfully processed.” |
| bankCd | Bank Code | Three-digit bank code | AN(3) | ● | "004" |
| bankChkYn | Bank Maintenance Status | Bank maintenance status based on the time of request | 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 | Maintenance Start Date and Time | yyyyMMddhhmmss | N(14) | ○ | "20210108000900" |
| edDtm | Maintenance End Date and Time | yyyyMMddhhmmss | N(14) | ○ | "20210108000900" |

# Others

## Table of Reject Codes

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

\*The recent common reject codes can be downloaded from [common reject codes](https://develop.sbsvc.online/22/bbsList.do?tx=R&articleSeq=156).

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Code** | **Description** |
| 0021 | Success | 0031 | Fail |
| ST01 | Non-existent account | ST02 | Invalid account |
| ST03 | Double withdrawal has occurred | ST04 | System error in VAN request |
| ST05 | No VAN response information | ST06 | No transaction number information |
| ST07 | Communication failure | ST08 | Already registered account |
| ST09 | Invalid request text | ST10 | Internal system error |
| ST11 | Bank maintenance time | ST12 | Insufficient balance in withdrawal account |
| ST13 | No ARS authentication result | ST14 | ARS authentication request value is different |
| ST15 | Automatic transfer canceled account | ST16 | Restrictions on withdrawal account transaction |
| ST17 | Resident number / business number error | ST18 | Account error  (Easy account registration not possible) |
| ST19 | Others | ST20 | Account error |
| ST21 | No recipient account | ST22 | Legally restricted account |
| ST23 | Non-real name account | ST24 | Account holder name mismatch |
| ST25 | Transaction that has already been canceled | ST26 | Cancellation amount error |
| ST27 | ARS authentication failure | ST28 | ARS reception is not possible |
| ST29 | Account registration in progress | ST30 | Refund in progress |
| ST31 | Double remittance | ST32 | Failed to check the name of the payer |
| 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 | This account is already registered. | ST44 | Transaction is not possible for this bank |
| ST50 | Duplicated message request | ST51 | Already registered cash receipt user |
| ST52 | Unregistered cash receipt user. | ST53 | Account has already been terminated |
| ST60 | Transaction failure | ST61 | Amount is exceeding one-time limit |
| ST62 | Amount is exceeding daily limit | ST63 | Amount is exceeding the monthly limit |
| ST64 | Exceeded daily limit in number of transactions | ST65 | Exceeded monthly limit in number of transaction |
| ST66 | Password input failure | ST67 | Mismatch of password |
| ST68 | Suspension of service use | ST69 | The selected payment service is not available. Please try another payment method. |
| ST70 | The selected payment service is not available due to policy. Please contact Hecto Financial Customer Center. (1600-5220) | ST72 | ARS secondary authentication required for payment |
| ST86 | Authentication failure. (Mobile phone verification) | ST87 | Non-subscriber for easy user verification. (Mobile phone verification) |
| VTIM | TIMEOUT of relay institution | ST99 | Easy payment system is under maintenance |

## Financial Institution Identifiers

Financial institution unique identification codes are as follows.

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Financial Institution** | **Code** | **Financial Institution** |
| 002 | KDB | 088 | Shinhan Bank |
| 003 | IBK | 089 | Kbank |
| 004 | Kookmin Bank | 090 | Kakao Bank |
| 007 | Suhyup Bank | 209 | Yuanta Securities |
| 011 | Nonghyup Bank | 218 | KB Securities |
| 012 | National Agricultural Cooperative Federation (NACF) | 238 | Mirae Asset Daewoo |
| 020 | Woori Bank | 240 | Samsung Securities |
| 023 | SC Bank | 243 | Korea Investment & Securities |
| 027 | Citi Bank | 247 | NH Investment & Securities |
| 031 | Daegu Bank | 261 | Kyobo Securities |
| 032 | Busan Bank | 262 | Hi Investment & Securities |
| 034 | Kwangju Bank | 263 | Hyundai Motor Securities |
| 035 | Jeju Bank | 264 | Kiwoom Securities |
| 037 | Jeonbuk Bank | 265 | eBest Investment Securities |
| 039 | Kyongnam Bank | 266 | SK Securities |
| 045 | Korea Federation of Community Credit Cooperatives (KFCC) | 267 | Daishin Securities |
| 048 | National Credit Union Federation of Korea (NACUFOK) | 269 | Hanwha Investment & Securities |
| 050 | Korea Federation of Savings Banks (KFSB) | 270 | Hana Financial Investment |
| 054 | HSBC Bank | 278 | Shinhan Financial Investment |
| 055 | Deutsche Bank | 279 | DB Securities |
| 057 | JP Morgan Chase Bank | 280 | Eugene Investment & Securities |
| 060 | Bank of America | 287 | Meritz Securities |
| 062 | Industrial and Commercial Bank of China | 290 | BOOKOOK Securities |
| 064 | National Forestry Cooperatives Federation (NFCF) | 291 | Shinyoung Securities |
| 071 | Korea Post | 292 | CAPE Investment & Securities |
| 081 | KEB Hana Bank | 103 | SBI Savings Bank |