**Loyalty Customer Transaction**

|  |  |
| --- | --- |
| Date | 01/24/2010 |
| Version | 1.1 |
| Status | Wait to approve |
| Author | Hung Pham |
| Review By | Dat Tran |
| Approved By |  |

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Description | Author |
| 01/24/2010 | 1.0 | Initial draft | Hung Pham |
| 01/25/2010 | 1.1 | Modify Message Format | Hung Pham |
| 01/28/2010 | 1.2 | Add function and separate message for more details. | Hung Pham |
| 02/01/2010 | 1.3 | Separate Message for detail purpose. | Hung Pham |
| 03/02/2010 | 1.4 | Update for error message,MTI,ATC,TTC | Hung Pham |
| 04/15/2010 | 1.5 | Add message sample. | Hung Pham |
| 04/20/2010 | 1.6 | Update message sample | Hung Pham |

Table of Contents

[1 Transaction general description. 3](#_Toc259617653)

[2 Message format 3](#_Toc259617654)

[2.1 Add Point Transaction 3](#_Toc259617655)

[2.1.1 Specification Message Format: 3](#_Toc259617656)

[2.2 Subtract Point Transaction 6](#_Toc259617657)

[2.2.1 Specification Message Format: 6](#_Toc259617658)

[2.3 Balance Inquiry Transaction 9](#_Toc259617659)

[2.3.1 Specification Message Format: 9](#_Toc259617660)

[2.4 Redemption Transaction 12](#_Toc259617661)

[2.4.1 Specification Message Format: 12](#_Toc259617662)

[3 Common Field Specification : 15](#_Toc259617663)

[4 Conditional Code 15](#_Toc259617664)

# Transaction general description.

Loyalty Customer transaction is used to being payable in cash append with ATM card or Loyalty Card to get points from the system.

# Message format

## Add Point Transaction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field No | Data Element Name | Attribute | Request | Respone | Note |
|  | MTI | n 4 | M | M | HEX |
|  | Bitmap | b 8 |  |  | HEX |
| 3 | Processing code | n 6 | M | M | HEX |
| 4 | Amount Transaction | n 12 | M |  | HEX |
| 35 | Track 2 Data | z..37 | M |  | HEX |
| 39 | Response Code | an 2 |  | M | ASCII |
| 41 | Card Acceptor Terminal ID | ans 8 | M | M | ASCII |
| 42 | Card Acceptor Identification Code | ans 15 | M | M | ASCII |
| 48 | Reserse Private | ans…999 |  | M | Length of field (Hex) and Content of field (ASCII). |
| 61 | Reverse Private | ans …999 |  | M | Length of field (Hex) and Content of field (ASCII). Use Tag Length value for each message. |

### Specification Message Format:

#### MTI (Message Type Indicator) :

|  |  |  |
| --- | --- | --- |
| Request | Respone | Description |
| 0200 | 0210 | Add Point |

#### Field No : 3 Processing code

The processing code is the contructed data element composed of tree subfield :

* Transaction Type code,AN2
* Account Type Code 1,AN2
* Account Type Code 2,AN2 (skip : default : 00)
* **The transaction Type Code(TTC)** is used along with MTI as a key to uniquely identify the type of transaction being processed.

Request

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0200 | 40 | Add Point |

Response

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0210 | 40 | Add Point |

* **Account Type Code (ATC)**

The transaction code describes the specific transaction type.The Account Type Code 1 describes the account type for debits and inquiry and the “from” account for transfer.

|  |  |
| --- | --- |
| ATC | Description |
| 70 | Loyalty Card |

#### Field 48

|  |  |  |
| --- | --- | --- |
| Tag | Length | Description |
| FF51 | 04 | Points get from the transation |
| FF52 | 04 | Total point |

#### Field 61

|  |  |  |
| --- | --- | --- |
| Tag | Length | Description |
| FF01 | Length of Content of each message | Contents of each message send back to client. |

#### Message sample :

##### Message request:

Header : 6000030000 🡺 5 byte (hex)

MTI : 0200 🡺 2 byte (hex)

Bitmap : 3000000020C00000 🡺 8 byte (Hex)

F3 : 407000 🡺 3 byte (Hex)

F4 : 000000200000 🡺 6 byte (hex)

F35 : 379604215000000046D140610114680300000000 🡺 20 byte ( hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

Total Message length : 5 + 2 + 8 + 3 + 6 + 20 + 8 + 15 = 67 🡺 2 byte (hex) 0043

0043600003000002003000000020C00000407000000000200000379604215000000046D1406101146803000000003232322020202020322020202020202020202020202020

##### Message Response :

Header : 6000000003 🡺 5 byte (hex)

MTI : 0210 🡺 2 byte (hex)

Bitmap : 2000000000C10008 🡺 8 byte (Hex)

F3 : 407000 🡺 3 byte (Hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

F48: 0014FF510430303032FF520430303238 🡺 16 byte

F61 :

Message 1st:

Tag : FF01 => 2 byte hex

Length 1st message : 20 => 0x14 => 1 byte

Message content 1st : 31302042414e204e48414e20414f205448554e20

(Value : 10 BAN NHAN AO THUN)

Message 2nd :

Tag : FF02 => 2 byte

Length 2nd message : 18 => hex 0x12 => 1 byte

Message 2nd content: 32302042414e204e48414e20584520444150

(Value : 20 BAN NHAN XE DAP)

Total F61 : 2 + 1 + 20 + 2 + 1 + 18 = 44 + 2 = 46 ( 2byte to send 0044)

0044FF011431302042414e204e48414e20414f205448554e20FF021232302042414e204e48414e20584520444150

Total Message length : 5 + 2 + 8 + 3 + 8 + 15 + 16 + 46 = 103 🡺 2 byte (hex) 0067

0067600000000302102000000000C1000840700032323220202020203220202020202020202020202020200014FF510430303032FF5204303032380044FF011431302042414e204e48414e20414f205448554e20FF021232302042414e204e48414e20584520444150

## Subtract Point Transaction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field No | Data Element Name | Attribute | Request | Respone | Note |
|  | MTI | n 4 | M | M | HEX |
|  | Bitmap | b 8 |  |  | HEX |
| 3 | Processing code | n 6 | M | M | HEX |
| 4 | Amount Transaction | n 12 | M |  | HEX |
| 35 | Track 2 Data | z..37 | M |  | HEX |
| 39 | Response Code | an 2 |  | M | ASCII |
| 41 | Card Acceptor Terminal ID | ans 8 | M | M | ASCII |
| 42 | Card Acceptor Identification Code | ans 15 | M | M | ASCII |
| 48 | Reserse Private | ans…999 |  | M | Length of field (Hex) and Content of field (ASCII) |
| 61 | Reverse Private | ans …999 |  | M | Length of field (Hex) and Content of field (ASCII). Use Tag Length value for each message |

### Specification Message Format:

#### MTI (Message Type Indicator) :

|  |  |  |
| --- | --- | --- |
| Request | Respone | Description |
| 0200 | 0210 | Subtract Point |

#### Field No : 3 Processing code

The processing code is the contructed data element composed of tree subfield :

* Transaction Type code,AN2
* Account Type Code 1,AN2
* Account Type Code 2,AN2 (skip : default : 00)
* **The transaction Type Code(TTC)** is used along with MTI as a key to uniquely identify the type of transaction being processed.

Request

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0200 | 41 | Subtract Point |

Response

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0210 | 41 | Subtract Point |

* **Account Type Code (ATC)**

The transaction code describes the specific transaction type.The Account Type Code 1 describes the account type for debits and inquiry and the “from” account for transfer.

|  |  |
| --- | --- |
| ATC | Description |
| 70 | Loyalty Card |

#### Field 48

|  |  |  |
| --- | --- | --- |
| Tag | Length | Description |
| FF51 | 04 | Points get from the transation |
| FF52 | 04 | Total point |

#### Message sample :

##### Message request:

Header : 6000030000 🡺 5 byte (hex)

MTI : 0200 🡺 2 byte (hex)

Bitmap : 3000000020C00000 🡺 8 byte (Hex)

F3 : 417000 🡺 3 byte (Hex)

F4 : 000000200000 🡺 6 byte (hex)

F35 : 379604215000000046D140610114680300000000 🡺 20 byte ( hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

Total Message length : 5 + 2 + 8 + 3 + 6 + 20 + 8 + 15 = 67 🡺 2 byte (hex) 0043

0043600003000002003000000020C00000417000000000200000379604215000000046D1406101146803000000003232322020202020322020202020202020202020202020

##### Message Response :

Header : 6000000003 🡺 5 byte (hex)

MTI : 0210 🡺 2 byte (hex)

Bitmap : 2000000000C10008 🡺 8 byte (Hex)

F3 : 417000 🡺 3 byte (Hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

F48: 0014FF510430303032FF520430303238 🡺 16 byte

F61 :

Message 1st:

Tag : FF01 => 2 byte hex

Length 1st message : 20 => 0x14 => 1 byte

Message content 1st : 31302042414e204e48414e20414f205448554e20

(Value : 10 BAN NHAN AO THUN)

Message 2nd :

Tag : FF02 => 2 byte

Length 2nd message : 18 => hex 0x12 => 1 byte

Message 2nd content: 32302042414e204e48414e20584520444150

(Value : 20 BAN NHAN XE DAP)

Total F61 : 2 + 1 + 20 + 2 + 1 + 18 = 44 + 2 = 46 ( 2byte to send 0044)

0044FF011431302042414e204e48414e20414f205448554e20FF021232302042414e204e48414e20584520444150

Total Message length : 5 + 2 + 8 + 3 + 8 + 15 + 16 + 46 = 103 🡺 2 byte (hex) 0067

0067600000000302102000000000C1000841700032323220202020203220202020202020202020202020200014FF510430303032FF5204303032380044FF011431302042414e204e48414e20414f205448554e20FF021232302042414e204e48414e20584520444150

## Balance Inquiry Transaction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field No | Data Element Name | Attribute | Request | Respone | Note |
|  | MTI | n 4 | M | M | HEX |
|  | Bitmap | b 8 |  |  | HEX |
| 3 | Processing code | n 6 | M | M | HEX |
| 35 | Track 2 Data | z..37 | M |  | HEX |
| 39 | Response Code | an 2 |  | M | ASCII |
| 41 | Card Acceptor Terminal ID | ans 8 | M | M | ASCII |
| 42 | Card Acceptor Identification Code | ans 15 | M | M | ASCII |
| 48 | Reserse Private | ans…999 |  | M | Length of field (Hex) and Content of field (ASCII) |
| 61 | Reverse Private | Ans …999 |  | M | Length of field (Hex) and Content of field (ASCII). Use Tag Length value for each message |

### Specification Message Format:

#### MTI (Message Type Indicator) :

|  |  |  |
| --- | --- | --- |
| Request | Respone | Description |
| 0200 | 0210 | Balance Inquiry |

#### Field No : 3 Processing code

The processing code is the contructed data element composed of tree subfield :

* Transaction Type code,AN2
* Account Type Code 1,AN2
* Account Type Code 2,AN2 (skip : default : 00)
* **The transaction Type Code(TTC)** is used along with MTI as a key to uniquely identify the type of transaction being processed.

Request

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0200 | 42 | Balance Inquiry |

Response

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0210 | 42 | Balance Inquiry |

* **Account Type Code (ATC)**

The transaction code describes the specific transaction type.The Account Type Code 1 describes the account type for debits and inquiry and the “from” account for transfer.

|  |  |
| --- | --- |
| ATC | Description |
| 70 | Loyalty Card |

#### Field 48

|  |  |  |
| --- | --- | --- |
| Tag | Length | Description |
| FF51 | 04 | Total Points |

#### Message sample :

##### Message request:

Header : 6000030000 🡺 5 byte (hex)

MTI : 0200 🡺 2 byte (hex)

Bitmap : 2000000020C00000 🡺 8 byte (Hex)

F3 : 427000 🡺 3 byte (Hex)

F35 : 379604215000000046D140610114680300000000 🡺 20 byte ( hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

Total Message length : 5 + 2 + 8 + 3 + 20 + 8 + 15 = 61 🡺 2 byte (hex) 003d

003d600003000002002000000020C00000427000379604215000000046D1406101146803000000003232322020202020322020202020202020202020202020

##### Message Response :

Header : 6000000003 🡺 5 byte (hex)

MTI : 0210 🡺 2 byte (hex)

Bitmap : 2000000000C10008 🡺 8 byte (Hex)

F3 : 427000 🡺 3 byte (Hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

F48: 0007FF510430303235 🡺 9 byte (hex)

F61 :

Message 1st:

Tag : FF01 => 2 byte hex

Length 1st message : 20 => 0x14 => 1 byte

Message content 1st : 31302042414e204e48414e20414f205448554e20

(Value : 10 BAN NHAN AO THUN)

Message 2nd :

Tag : FF02 => 2 byte

Length 2nd message : 18 => hex 0x12 => 1 byte

Message 2nd content: 32302042414e204e48414e20584520444150

(Value : 20 BAN NHAN XE DAP)

Total F61 : 2 + 1 + 20 + 2 + 1 + 18 = 44 + 2 = 46 ( 2byte to send 0044)

0044FF011431302042414e204e48414e20414f205448554e20FF021232302042414e204e48414e20584520444150

Total Message length : 5 + 2 + 8 + 3 + 8 + 15 + 9 + 46 = 96 🡺 2 byte (hex) 0060

0060600000000302102000000000C1000842700032323220202020203220202020202020202020202020200007FF5104303032350044FF011431302042414e204e48414e20414f205448554e20FF021232302042414e204e48414e20584520444150

## Redemption Transaction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field No | Data Element Name | Attribute | Request | Respone | Note |
|  | MTI | n 4 | M | M | HEX |
|  | Bitmap | b 8 |  |  | HEX |
| 3 | Processing code | n 6 | M | M | HEX |
| 4 | Amount Transaction | n 12 | M |  | HEX(Point is contained here) |
| 35 | Track 2 Data | z..37 | M |  | HEX |
| 39 | Response Code | an 2 |  | M | ASCII |
| 41 | Card Acceptor Terminal ID | ans 8 | M | M | ASCII |
| 42 | Card Acceptor Identification Code | ans 15 | M | M | ASCII |
| 48 | Reserse Private | ans…999 |  | M | Length of field (Hex) and Content of field (ASCII) |
| 61 | Reverse Private | Ans …999 |  | M | Length of field (Hex) and Content of field (ASCII). Use Tag Length value for each message |

### Specification Message Format:

#### MTI (Message Type Indicator) :

|  |  |  |
| --- | --- | --- |
| Request | Respone | Description |
| 0200 | 0210 | Redemption |

#### Field No : 3 Processing code

The processing code is the contructed data element composed of tree subfield :

* Transaction Type code,AN2
* Account Type Code 1,AN2
* Account Type Code 2,AN2 (skip : default : 00)
* **The transaction Type Code(TTC)** is used along with MTI as a key to uniquely identify the type of transaction being processed.

Request

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0200 | 44 | Redemption |

Response

|  |  |  |
| --- | --- | --- |
| MTI | TTC | Description |
| 0210 | 44 | Redemption |

* **Account Type Code (ATC)**

The transaction code describes the specific transaction type.The Account Type Code 1 describes the account type for debits and inquiry and the “from” account for transfer.

|  |  |
| --- | --- |
| ATC | Description |
| 70 | Loyalty Card |

#### Field No : 4 Amout Transaction

Point of gift to exchange of redemption transaction is contained here.

#### Field 48

|  |  |  |
| --- | --- | --- |
| Tag | Length | Description |
| FF51 | 04 | Point reserve after transaction |

#### Message sample :

##### Message request:

Header : 6000030000 🡺 5 byte (hex)

MTI : 0200 🡺 2 byte (hex)

Bitmap : 3000000020C00000 🡺 8 byte (Hex)

F3 : 447000 🡺 3 byte (Hex)

F4 : 000000000010 🡺 6 byte (hex)

F35 : 379604215000000046D140610114680300000000 🡺 20 byte ( hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

Total Message length : 5 + 2 + 8 + 3 + 6 + 20 + 8 + 15 = 67 🡺 2 byte (hex) 0043

0043600003000002003000000020C00000447000000000000010379604215000000046D1406101146803000000003232322020202020322020202020202020202020202020

##### Message Response :

Header : 6000000003 🡺 5 byte (hex)

MTI : 0210 🡺 2 byte (hex)

Bitmap : 2000000000C10008 🡺 8 byte (Hex)

F3 : 447000 🡺 3 byte (Hex)

F41 : 3232322020202020 🡺 8 byte(ASCII) 🡺 (222)

F42: 322020202020202020202020202020 🡺 15 byte (ASCII)

F63 : 0007FF510430303138 🡺 9 byte (hex)

F61 :

Tag : FF01 🡺 2 byte hex

Message content length : 25 🡺 0x19 🡺 1 byte hex

Message content : 42414e20565541204e48414e2044554f4320414f205448554e

(Value : BAN VUA NHAN DUOC AO THUN)

F61 total message length = 2 + 1 + 25 = 28 + 2 = 30

0030FF011942414e20565541204e48414e2044554f4320414f205448554e

Total Message length : 5 + 2 + 8 + 3 + 8 + 15 + 9 + 30 = 80 🡺 2 byte (hex) 0050

0050600000000302102000000000C1000844700032323220202020203220202020202020202020202020200007FF5104303031380030FF011942414e20565541204e48414e2044554f4320414f205448554e

# Common Field Specification :

#### Field No : 35 Track 2 Data

The information encoded on the track 2 of the magnetic stripe including field seperator and excluding the start sentinel and end sentinel and longtitude redundancy check (LRC) characters.

|  |  |
| --- | --- |
| Name | Format |
| Primary Account Number | up to 16 digit |
| Field Separator | can be either “=” or “D” |
| Expiration Day | in YYMM format |
| Service Restriction Code | Three Digit |
| Discretionary Data | balance of avaiable digits |

#### Field No : 39 Response code

|  |  |
| --- | --- |
| **Value** | **Description** |
| 00 | TRANSACTION SUCESSFULLY |
| 03 | MID OR TID NOT FOUND |
| 14 | INVALID CARD NUMBER |
| 54 | EXPIRE CARD |
| 12 | OTHER ERROR |
| 15 | INVALID FIELD |

#### Filed No : 41 Card Acceptor Terminal ID “TID”

A code used to uniquely identify the terminal originating a transaction, this code is also referred to as the Terminal Identifier or “TID”.

#### Field No 42 Card Acceptor Identify Code “MID”

A code uniquely identify the card acceptor originating a transaction,this code is also reffered to as the Merchant Identifier or “MID”.

#### Field 61

Send Error message back to client when error occured and send given gift information in case trasaction has been sucessful..

# Conditional Code

|  |  |
| --- | --- |
| Type | Comment |
| O | Option |
| M | Mandantory |