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1 INTRODUCTION

This document contains the specification for SIA SpA's implementation of the ISO 8583-1993 protocol for processing authorization transactions between the international credit and debit card networks and SIA SpA, where SIA acts as the acquiring or issuing processor.

In the acquiring domain, the protocol is used between the Terminal Handler (TH) and SIA SpA, whereas in the issuing processor, the protocol is used between SIA SpA and the issuing institution.

This document will be hereinafter referred to as "ISO 8583 version 93 SIA Protocol".

1.1 Changes from the previous versions

| Data | Author | Reviser | Change | Version |
|------------|-------------|---------|--|---------|
| 30/07/2018 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Added new fields to support Visa Token Service [VTS] transaction - Added new subfield for field 48.64 (Transit Program) to support MC Transit transactions. - Removed 'Encrypted PIN' option from field 053. - New fields added to support MoneySend and OCT transactions [MasterCard/Visa] - Introduced changes to comply with MasterCard 18.q4 and Visa 18.2 releases. | 3.6.0 |
| 11/02/2019 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Added new field 046, 'Fees amount' - Added new Amount Type for field 054, 'Foreign currency transaction surcharge'. - Updated format of fields used in MoneySend service transactions. - Added new value '1781' for field 025 'Message Reason Code' - updated presence requirements for fields 048 and 063. - Introduced changes to support Visa and Mastercard transactions authenticated via 3-D Secure 2.0 protocol. - Introduced changes to comply with MasterCard 18.q4 and Visa 18.2 releases. | 3.7.0 |
| 10/04/2019 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Modified format and description for subfield 48.91.05. - Modified format for subfield 48.90.05. - Added new subfield 44.10. - Modified description for fields/subfields 34, 37, 48.64 and 124. | 3.8.0 |
| 05/07/2019 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Added new values to field 039: 175, 176, 177 (cashback service); 170, 172 (PSD2/SCA compliance); 196 (fraud management, acquiring domain). - Added new values '9648' and '9698' to field 025. - Added a new presence requirement for field 015 for 1100 messages in the acquiring domain. - Added information to field 063 in the acquiring domain. - Added new subfield 44.90 for the Mastercard domain. - Added subfields 048.94 (Consumer Device IP Address), 048.95 (Visa PSD2 Data) and 048.96 (MasterCard PSD2 Data) - Specified the domain requirements for field 039, values '123', '170' and '172'. - Extended applicability of field 024 values '104', '105', '106' and '107' to the issuing domain. - Added new value '109' for field 024 in the issuing. - Extended applicability of field 025 values '1776', '1777', '1778' to the issuing domain. - Added new subfields 121.18 and 121.19. | 3.9.0 |
| 09/08/2019 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Added new values 'C65', 'F07', 'F52', 'F53', 'F54', 'F61' and 'F64' to subfield 48.77. | 4.0.0 |

| Data | Author | Reviser | Change | Version |
|----------|-------------|---------|--|---------|
| | | | <ul style="list-style-type: none"> - Added new value '09' to subfield 111.03.05 - Added new values 'P70' and 'P71' to subfield 48.77 - Added new value 200000 to field 003. - Added new values 200000 to field 003. - Added new values A, B, C, D, S and T to subfields 48.82 and 121.8. - Renamed subfield 48.77 from 'Payment/Funding Transaction Type Indicator' to 'Transaction Type Identifier' - Added new subfield 121.20 - Added new value FT for subfield 111.01. - Added new subfield 44.11. - Added new value '06' to subfield 48.96 - Modified length of subfields 48.90 and 48.90.02 - Added new subfield 48.92 | 4.0.0 |
| | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Modified the description for subfield 48.78. - Added new values 'B' and 'C' for subfield 121.01, byte 9. - Added new value '54' for subfield 48.82. - Added new subfield 48.86. - Added new value '5' to subfield 121.01, byte 1. - Extended applicability of value '200000' in field 003 to the Visa domain. - Modified descriptions for fields 016, 060 and 119. - Added new subfields 047.36, 047.37, 048.38 and 048.39. - Added new value '198' to field 039. | 4.1.0 |
| 07/04/20 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Added new description 'unknown' to value '0' in subfield 22.4. - Redefined field 112 as "reserved for SIA internal use". - Modified length of field 119 to 999 bytes. - Modified description for value '31xx00' in field 003. - Modified fields 031 and 48.39 for PSD2 compliance purposes. - Specified the applicability domain for field 046. - Modified format for subfield 119.21 from 'n20' to 'b20'. - Added a list of possible values for subfields 48.92.83 and 48.92.84. - Modified applicability requirements for values 170 e 172 in field 039. - Defined subfields 44.94, 44.95, 47.95, 47.97, 47.98 and 47.99 as "Reserved for SIA internal use" - Added new subfield 44.12 | 4.1.1 |

| Data | Author | Reviser | Change | Version |
|------------|-------------|---------|--|---------|
| 17/07/2020 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Added new requirement 'uppercase characters only' to field 038 - Added new value 'U' to subfield 48.03.01. - Added new values 'S' and 'U' to subfield 48.03.03. - Added new value 'CB' to subfield 111.01. - Added new subfield 48.90.09. - Added new value '07' to subfield 48.96 - Modified length for subfields 111.01 and 111.02. - Modified format for subfields 111.01.11 and 111.02.11. - Added new subfields 111.01.18 and 111.02.18. - Removed all references to Bankpass service: <ul style="list-style-type: none"> - Redefined subfields 121.1 byte 5 and 121.6 as 'RFU' - Redefined values 'S' and 'T' in subfield 22.4 as 'RFU' - Removed all references to the Umbrella service: <ul style="list-style-type: none"> - Redefined subfield 121.14 as 'RFU' - Removed value '2' for subfield 48.79. - Redefined field 120 as "Reserved for national use" - Extended applicability of field 031 to the DCI Acquiring domain. - Added new subfield 048.40. | 4.1.2 |
| 04/11/2020 | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Italian text translated to English. - New Introduction chapter. - Reference Table in par. 1.2 revised and updated. - Appendix A removed; renamed "Appendix B" to "Appendix A" - Corrected field 049 format in Chapter 3. - Modified description for condition 26 in par. 3.5 - Added new values '210000' and '640000' for field 003. - Modified description for field 004. - Added new value '1411' for field 025. - Added new subfields 13, 14, 15, 16, 17 and 91 to field 044. - Added new subfields 38 and 39 to field 047. - Revised list of values for subfield 053.01; added new subfield 053.03 - Added new Amount Type '59' for field 054. - Modified description for subfield 063.06. Added new subfields 11 and 12 to field 063. - Removed the sentence "In 11yz and 14y0 messages, the code identifies the payment network." from the description of field 093. - Extended applicability of 121.01, byte 8, values 'A' and 'B' to Visa transactions in the acquiring domain. - Added new Response Code (039) value '180' with the description 'Card not eligible for installment' | 4.2.0 |

| Data | Author | Reviser | Change | Version |
|----------|-------------|---------|--|-------------------|
| 20/11/20 | SLM-AFU-FTA | | <p>Added new result code 'M' (currency mismatch) for field 48.82.1 (On-behalf result 1)</p> <p>Added new result code 'M' (currency mismatch) for field 121.8 (SecureCode(Id. Check))</p> <p>Modified table A.4 to account for new values 'M' and 'O' in subfield 22.1 and value '9' in subfield 22.2; modified the description for value 'L' in subfield 22.1.</p> <p>Deleted field 48.90.09 (Token Requestor – Token Service Provider Id)</p> <p>Added field 48.92.86 (Token Requestor – Token Service Provider Id)</p> <p>Changed length of field 48.92: from ans..42 to ans..57</p> | 4.3.0 |
| | SLM-AFU-FTA | | <ul style="list-style-type: none"> - Changed field 104 description to "RFU" - Removed field 104 entry from tables 3.1 and 3.2. - Added JCB to the domains of applicability of fields 121.04 and 121.05. - Added new values to Appendix A.7 - Deleted TTI values C01, C05 and C09, field 48.77 - Changed TTI value names for C03, C04 and C06, field 48.77 - Added TTI values F08, F55, F65, field 48.77 - Changed description for value 07 of field 111.03.03 - Added new tag 04 for subfield 48.37 - Added new subelement 04 for field 48. The field has been created with 3 subfields - Added new subelement 05 for field 48 (Extended STIP Reason Code) - Added new value 165 (closed account) for field 039 (Action code). - Added new value CD (Cash deposit) for field 111.01, Usage 2 Visa (Business Application Identifier) - Added new byte to field 48.95 (position 7): acceptance environment authentication outage indicator - Added note in field 010 (conversion rate, cardholder billing) specifying that the field is only used in the Mastercard domain. - Added new value 9038 (Merchandise return authorization processed in STIP) to field 25 (message reason code). - Added new value 3 to subfield 48.78. - Added new OBS Service 55 and the relevant informations to already existing field 48.82 | Apr 2021 4.4.0 |

1.2 References

| Ref. | Company | Code | Title | Date | Version |
|------|---------|----------------|--|------------|----------------|
| [1] | ISO | ISO 8583 | Financial transaction card originated messages – Interchange message specifications | 15/12/1993 | Second edition |
| [2a] | ISO | 7811 | Identification cards — Recording technique | | |
| [2b] | ISO | 7812 | Identification cards – Identification of issuers | | |
| [2c] | ISO | 7813 | Information technology — Identification cards — Financial transaction cards | | |
| [3] | ISO | 3166 | Codes for the representation of names of countries and their subdivisions | | |
| [4] | ISO | 4217 | Codes for the representation of currencies and funds | | |
| [5] | SIA | SIA-RI-SIC8702 | RETE INTERBANCARIA – Autenticatore AB MODSIA | 08/10/1987 | |
| [6] | SIA | SIA-RI-SICAB1 | Manuale di installazione dell'algoritmo di calcolo della cifra di controllo per le applicazioni bancarie | 18/10/1985 | 1.0 |

Published documents with a more recent version number than the one specified above are valid except where otherwise indicated.

2 OVERVIEW

2.1 ISO 8583 v.93 SIA protocol messages

The following message types are used in ISO 8583 v.93 SIA specification

| | |
|------|-------------------------------------|
| 1100 | Authorization request |
| 1110 | Authorization request response |
| 1120 | Authorization advice |
| 1121 | <i>Authorization advice repeat</i> |
| 1130 | Authorization advice response |
| 1140 | Authorization notification |
| 1304 | File action request |
| 1314 | File action response |
| 1420 | Reversal advice |
| 1421 | <i>Reversal advice repeat</i> |
| 1430 | Reversal advice response |
| 1440 | Reversal notification |
| 1804 | Network management request |
| 1814 | Network management request response |

2.2 Services/message class correlation

The following list details the authorization services and their corresponding message types, in accordance with ISO standards.

| | |
|---|-----------------------------|
| Authorization request not having accounting value | (11yz - authorization) |
| Notification of Authorization not having accounting value | (11yz - authorization) |
| Reversal | (14y0 - reversal) |
| Session start | (18yz - network management) |
| Session end | (18yz - network management) |
| Echo test | (18yz - network management) |

2.3 Message structure

This section specifies name, format and values for ISO 8583 v.93 SIA data fields.

This International Standard uses a concept called a **bitmap**, whereby each data element is assigned a position indicator in a control field, or bit map. A one in the assigned position indicates the presence of a data element in a specific message. A zero in the assigned position indicates the absence of a data element in a specific message.

Every ISO 8583 message is structured as follows:

- Message Type Identifier (Message Type): numeric field identifying the message class and its function;
- one or more bitmaps: each consisting in 64 bits, numbered from left to right, starting with "1";
- message data elements (fields).

For all protocol data elements, listed in ascending order by their position in the bitmap, this document provides the following information:

- its name and position in the bitmap;
- its format and length;
- which messages it is used in, and whether it is mandatory/optional/conditional;
- a description of the element itself;
- any comments, where applicable.

2.4 Data Representation Notations

The following notations are used throughout this document:

| | |
|---|---|
| a | Alphabetic characters, A-Z and a-z |
| n | Numeric digits, 0-9 |
| p | Pad character (space) |
| s | Special characters (including space) |
| an | Alphabetic and numeric characters (excluding spaces and special characters) |
| as | Alphabetic, space and special characters |
| ns | Numeric, space and special characters |
| anp | Alphabetic, numeric and pad (space) characters |
| ans | Alphabetic, numeric, space and special characters |
| DD | Day, 01-31 |
| MM | Month, 01-12 |
| YY | Year (last two digits of calendar year), 00-99 |
| hh | Hour, 00-23 |
| mm | Minute, 00-59 |
| ss | Second, 00-59 |
| LL | Length of variable data that follows, 01-99 |
| LLL | Length of variable data that follows, 001-999 |
| VAR | Variable length data element |
| 3 | Fixed length, 3 characters |
| ..17 | Variable length up to a maximum of 17. |
| Every variable length data element must be preceded by a LL (for variable lengths up to 99 characters) or LLL (for variable lengths between 100 and 999 characters) fixed length attribute indicating the length of the variable data. | |
| For example, Field 2 - PAN is defined a variable length data element with a maximum length of 19 characters. A PAN with a value of '234567891234' (12 characters) will be transmitted as '12234567891234', where the leading '12' indicates the length of the data. | |
| C | Credit amount. Must be followed by a numeric amount in the C+n format |
| D | Debit amount. Must be followed by a numeric amount in the D+n format |
| b | binary representation of data |
| z | second and third track representation, as defined in [2a], [2b], [2c]. |

Numeric fixed length data elements are assumed to be right justified, with leading zeros.

Other fixed length data elements are left justified, padded with blanks.

2.4.1 'Amount' and 'Currency' data elements

'Amount' fields contain a numeric value in the currency specified in the 'Currency' fields. For each amount field, there is a corresponding currency field. For example, the amount indicated by the field 'amount, transaction' is expressed in the currency identified in the 'currency code, transaction' field.

Decimal point separators are not used by the ISO 8583 protocol. For those currencies where a decimal point is commonly used as a separator between a major and a minor currency units, the ISO 4217 currency exponent (referred to as *n*) is used to define the number of decimal places in the relevant amount.

For example, an amount value of '200' expressed in Euro (currency exponent = 2) indicates a 2,00 euro amount. The same value, expressed in Japanese Yen, which has a minor unity exponent of 0, indicates a 200 Yen amount.

2.4.2 Variable-length subfields

Some data elements (fields) are divided into subfields. Subfields may have a fixed or variable length.

Variable-length subfields are encoded in a tag-length-value (TLV) format, consisting of the following parts:

- A Tag field, two bytes, that identifies the content of the Value field
- A Length field, variable length (two or three bytes), that defines the length of the Value field.
Format A uses two bytes; Format B uses three.
- A Value field, variable length, that contains the data specified by the tag

See the following examples:

Format A - LLVAR

| pos 1 | pos 2 | pos 3-4 | pos 5-pos (4+Length) |
|---------------------|-------|--------------|----------------------|
| Tag ID code (00-99) | | Length field | Value field |

Format B - LLLVAR

| pos 1 | pos 2 | pos 3-5 | pos 5-pos (5+Length) |
|---------------------|-------|--------------|----------------------|
| Tag ID code (00-99) | | Length field | Value field |

2.4.3 'Future use' data elements

This document describes all messages and fields in the ISO 8583 v.93 protocol. Some of them are marked as **RFU**, or **Reserved for Future Use**. This identifies those elements which are not currently *not necessary* to carry out the services described in this document

2.4.4 Message authentication

Messages which belong to the 11yz and 14y0 message classes are subject to authentication.

Message authentication is performed using the MOD SIA algorithm to generate the MAC (for a further description of the algorithm, see documents [5] and [6]).

Where a variable length field used by the authentication algorithm is not filled out completely, data must be aligned to the left, and all the remaining positions to the right must be filled in with blanks. This means that all variable length fields will always be filled to their maximum length before being processed by the MOD SIA algorithm.

In cases where one of the input fields needed by the MOD SIA algorithm is not present or does not have a value, the field will be filled in with blanks. More specifically, this applies to the following conditions:

- when field 038 (approval code) does not have a value, depending on the transaction and service type;
- when reversing non-accounting authorizations and field 015 (data settlement) does not have a value in message 1430.

The date included in field 012 'Date And Time, Local Transaction' determines the date of validity of the encryption key to be used for the MOD SIA algorithm.

The first 9 bytes of field 037 'Retrieval Reference Number' are used in place of the C.R.O. field to calculate the authenticator of the message within the MOD SIA algorithm.

The following tables include the message fields belonging to 11yz and 14y0 subject to authentication. The '*' symbol indicates the presence of fields within the message.

2.4.4.1 11yz – Authorization messages

| BIT | Data Element | Format | 1100 | 1110 | 1120 | 1130 | 1140 |
|---------------------------------------|--|----------|------|------|------|------|------|
| 002 | PAN | n19 | * | * | * | * | * |
| 004 | amount, transaction | n12 | * | * | * | * | * |
| 011 | system trace audit number | n6 | * | * | * | * | * |
| 012 | date and time, local transaction | n12 | * | * | * | * | * |
| 032 | acquiring institution identification code | n11 | * | * | * | * | * |
| 033 | forwarding institution identification code | n11 | * | * | * | * | * |
| 037 | retrieval reference number | anp12 | * | * | * | * | * |
| 038 | approval code | anp6 | | * | * | | * |
| 039 | action code | n3 | | * | * | * | * |
| 041 | card acceptor terminal identification | ans8 | * | * | * | * | * |
| 042 | card acceptor identification code | ans15 | * | * | * | * | * |
| 049 | currency code, transaction | a3 or n3 | * | * | * | * | * |
| 052 | PIN | b8 | * | | | | |
| 094 | transaction originator institution identification code | n11 | * | * | * | * | * |
| 117 | date and time, original advice | ans..999 | | | * | * | * |
| Length of message to be authenticated | | | 128 | 129 | 139 | 133 | 139 |

2.4.4.2 13yz – File management messages

| BIT | Data element | Format | 1304 | 1314 |
|---------------------------------------|--|--------|------|------|
| 002 | PAN | n19 | * | * |
| 003 | processing code | n6 | * | * |
| 011 | system trace audit number | n6 | * | * |
| 012 | date and time, local transaction | n12 | * | * |
| 014 | date, expiration | n4 | * | |
| 024 | function code | n3 | * | |
| 025 | message reason code | n4 | * | |
| 033 | forwarding institution identification code | n11 | * | * |
| 039 | action code | n3 | | * |
| 094 | transaction originator institution identification code | n11 | * | * |
| 101 | file name | n17 | * | * |
| Length of message to be authenticated | | | 93 | 85 |

2.4.4.3 14y0 – Reversal messages

| BIT | Data element | Format | 1420 | 1430 | 1440 |
|---------------------------------------|--|----------|------|------|------|
| 002 | PAN | n19 | * | * | * |
| 004 | amount, transaction | n12 | * | * | * |
| 011 | systems trace audit number | n6 | * | * | * |
| 012 | date and time, local transaction | n12 | * | * | * |
| 015 | date, settlement | n6 | | * | |
| 033 | forwarding institution identification code | n11 | * | * | * |
| 037 | retrieval reference number | anp12 | * | * | * |
| 038 | approval code | anp6 | * | | * |
| 039 | action code | n3 | | * | |
| 041 | card acceptor terminal identification | ans8 | * | * | * |
| 042 | card acceptor identification code | ans15 | * | * | * |
| 049 | currency code, transaction | a3 or n3 | * | * | * |
| 056 | original data elements | n35 | * | | * |
| 094 | transaction originator institution identification code | n11 | * | * | * |
| Length of message to be authenticated | | | 150 | 118 | 150 |

Note:

The current MAC algorithm for an ISO message makes use of the RRN value. However, since the RRN is not used in IFUR transaction, the RRN field will be filled in with blanks for the purposes of MAC calculation and verification.

2.4.5 ASCII / EBCDIC Character Sets

ISO 8583 v.93 SIA supports both ASCII and EBCDIC data representation. The choice of which character set to use is left to private agreements.

3 MESSAGE LAYOUTS

3.1 Authorization messages

| | |
|--------------------------------|--------|
| Authorization request | (1100) |
| Authorization request response | (1110) |
| Authorization advice | (1120) |
| Authorization advice response | (1130) |
| Authorization notification | (1140) |

| BIT | Data element | Format | 1100 | 1110 | 1120 | 1130 | 1140 |
|-----|--|-----------|------|------|------|------|------|
| 001 | Bitmap, extended | b8 | | | | | |
| 002 | PAN | n..19 | 43 | 16 | 43 | 16 | 43 |
| 003 | Processing code | n6 | M | ME | M | ME | M |
| 004 | Amount, transaction | n12 | 26 | 26 | 26 | 26 | 26 |
| 006 | Amount, cardholder billing | n12 | 35 | 35 | 35 | 35 | 35 |
| 007 | Date and time, transmission | n10 | O | | O | | O |
| 011 | System trace audit number | n6 | M | ME | M | ME | M |
| 012 | Date and time, local transaction | n12 | M | ME | M | ME | M |
| 014 | Date, expiration | n4 | 02 | | 02 | | 02 |
| 015 | Date, settlement | n6 | 07 | 07 | 07 | 07 | 07 |
| 017 | Date, capture | n4 | | | 22 | | 22 |
| 022 | Point of service data code | an12 | M | | M | | M |
| 023 | Card sequence number | n3 | 58 | 16 | 58 | 16 | 58 |
| 024 | Function code | n3 | M | | M | | M |
| 025 | Message reason code | n4 | 54 | | M | | M |
| 026 | Card acceptor business code | n4 | M | | M | | M |
| 030 | Amounts, original | n24 | | 21 | 21 | | |
| 031 | Acquirer reference data | ans..50 | | 07 | | | |
| 032 | Acquiring institution identification code | n..11 | M | ME | M | ME | M |
| 033 | Forwarding institution identification code | n..11 | M | M | M | M | M |
| 034 | PAN, extended | ns..28 | 15 | 16 | 15 | 16 | 15 |
| 035 | Track 2 data | z..37 | 06 | | 06 | | 06 |
| 037 | Retrieval reference number | anp12 | M | ME | M | ME | M |
| 038 | Approval code | anp6 | | 41 | 41 | | 41 |
| 039 | Action code | n3 | | M | M | M | M |
| 041 | Card acceptor terminal identification | ans8 | M | ME | M | ME | M |
| 042 | Card acceptor identification code | ans15 | 08 | 16 | 08 | 16 | 08 |
| 043 | Card acceptor name/location | ans..99 | M | | M | | M |
| 044 | Additional response data | ans..99 | | 21 | | 21 | |
| 045 | Track 1 data | ans..76 | 52 | | 52 | | 52 |
| 046 | Amount, fees | ans...204 | C | | | | |
| 047 | Additional data - national | ans..999 | O | | O | | O |
| 048 | Additional data - private | ans..999 | O | 64 | O | 64 | O |
| 049 | Currency code, transaction | n3 | 26 | 16 | 26 | 16 | 26 |

| BIT | Data element | Format | 1100 | 1110 | 1120 | 1130 | 1140 |
|-----|---|----------|------|------|--------|------|------|
| 051 | Currency code, cardholder billing | a3 or n3 | 04 | 04 | 04 | 04 | 04 |
| 052 | PIN | b8 | 56 | | | | |
| 053 | Security related control information | an..48 | 57 | | | | |
| 054 | Amounts, additional | ans..120 | 08 | 09 | 08, 09 | | 08 |
| 055 | Integrated circuit card system related data | b..255 | 55 | 60 | 60 | | 60 |
| 057 | Authorization life cycle code | n3 | O | 16 | | | |
| 058 | Authorizing agent institution identification code | n..11 | | O | 20 | | 20 |
| 063 | Network data - private | ans..999 | 21 | 21 | 21 | 21 | |
| 093 | Transaction destination institution identification code | n..11 | M | ME | M | ME | M |
| 094 | Transaction originator institution identification code | n..11 | M | ME | M | ME | M |
| 100 | Receiving institution identification code | n..11 | M | M | M | M | M |
| 111 | MoneySend/OCT Reference Data | ans..999 | 62 | | 63 | | 63 |
| 117 | Advice/notification date and time | ans..999 | | | M | ME | M |
| 121 | Ecommerce data | ans..999 | 59 | | | | |
| 124 | DCC data | ans..999 | C | | C | | |
| 125 | New PIN data | b..8 | 21 | | | | |
| 126 | Fraud Scoring data | ans..999 | 61 | | 61 | | |
| 127 | Additional information | ans..999 | 08 | C | | | |
| 128 | MAC | n8 | O | O | O | O | O |

3.2 Reversal messages

Reversal advice (1420)

Reversal advice response (1430)

Reversal notification (1440)

| BIT | Data element | Format | 1420 | 1430 | 1440 |
|-----|----------------------------------|--------|------|------|------|
| 001 | Bit map, extended | b8 | | | |
| 002 | PAN | n..19 | 43 | 16 | 43 |
| 003 | Processing code | n6 | 03 | 16 | 03 |
| 004 | Amount, transaction | n12 | M | ME | M |
| 006 | Amount, cardholder billing | n12 | 35 | 35 | 35 |
| 011 | Systems trace audit number | n6 | M | ME | M |
| 012 | Date and time, local transaction | n12 | M | ME | M |
| 015 | Date, settlement | n6 | 07 | 07 | 07 |
| 022 | Point of service data code | an12 | 55 | | 55 |
| 023 | Card sequence number | n3 | 16 | 16 | 16 |
| 024 | Function code | n3 | M | | M |
| 025 | Message reason code | n4 | M | | M |
| 028 | Date, reconciliation | n6 | M | ME | M |
| 029 | Reconciliation indicator | n3 | 23 | 23 | 23 |
| 030 | Amounts, original | n24 | 21 | | 21 |

| BIT | Data element | Format | 1420 | 1430 | 1440 |
|-----|---|----------|-------|------|-------|
| 032 | Acquiring institution identification code | n..11 | M | ME | M |
| 033 | Forwarding institution identification code | n..11 | M | M | M |
| 034 | PAN, extended | ns..28 | 15 | 16 | 15 |
| 037 | Retrieval reference number | anp12 | M | ME | M |
| 038 | Approval code | anp6 | 53 | | 53 |
| 039 | Action code | n3 | | M | M |
| 041 | Card acceptor terminal identification | ans8 | M | ME | M |
| 042 | Card acceptor identification code | ans15 | 08 | 16 | 08 |
| 043 | Card acceptor name/location | ans..99 | O | | O |
| 045 | Track 1 data | ans..76 | 50 | 50 | 50 |
| 048 | Additional data, private | ans..999 | O | 64 | O |
| 049 | Currency code, transaction | n3 | M | ME | M |
| 051 | Currency code, cardholder billing | n3 | 04 | 04 | 04 |
| 054 | Amounts, additional | ans..120 | 08,09 | | 08,09 |
| 055 | Integrated circuit card system related data | b..255 | 60 | | 60 |
| 056 | Original data elements | n..35 | M | | M |
| 058 | Authorizing agent institution identification code | n..11 | 17 | | 17 |
| 063 | Network data - private | ans..999 | 21 | 21 | |
| 093 | Transaction destination institution identification code | n..11 | M | ME | M |
| 094 | Transaction originator institution identification code | n..11 | M | ME | M |
| 100 | Receiving institution identification code | n..11 | M | M | M |
| 111 | MoneySend/OCT Reference Data | ans..999 | 62 | | 62 |
| 117 | Advice/notification date and time | ans..999 | M | ME | M |
| 124 | DCC data | ans..999 | C | | |
| 128 | MAC | n8 | O | O | O |

3.3 File Management messages

File Action request (1304)

File Action request response (1314)

| BIT | Data element | Format | 1304 | 1314 |
|-----|---|----------|------|------|
| 001 | Bit map, extended | b8 | | |
| 002 | PAN | n..19 | 43 | 16 |
| 003 | Processing code | n6 | M | ME |
| 011 | System trace audit number | n6 | M | ME |
| 012 | Date and time, local transaction | n12 | M | ME |
| 014 | Date, expiration | n4 | M | |
| 024 | Function code | n3 | M | |
| 025 | Message reason code | n4 | M | |
| 033 | Forwarding institution identification code | n..11 | M | M |
| 039 | Action code | n3 | | M |
| 044 | Additional response data | ans..99 | | 21 |
| 063 | Network data - private | ans..999 | | C |
| 072 | Data record | ans..999 | M | ME |
| 093 | Transaction destination institution identification code | n..11 | M | ME |
| 094 | Transaction originator institution identification code | n..11 | M | ME |
| 100 | Receiving institution identification code | n..11 | M | M |
| 101 | File name | n..17 | M | ME |
| 128 | MAC | n8 | O | O |

3.4 Network management messages

Network Management request (1804)

Network Management response (1814)

| BIT | Data element | Format | 1804 | 1814 |
|-----|---|----------|------|------|
| 001 | Bit map, extended | b8 | | |
| 011 | Systems trace audit number | n6 | M | ME |
| 012 | Date and time, local transaction | n12 | M | ME |
| 024 | Function code | n3 | M | |
| 039 | Action code | n3 | | M |
| 059 | Transport data | ans..999 | M | ME |
| 093 | Transaction destination institution identification code | n..11 | M | ME |
| 094 | Transaction originator institution identification code | n..11 | M | ME |

3.5 Field condition codes

| | |
|----|--|
| C | Conditional |
| O | Optional |
| M | Mandatory |
| ME | Mandatory echo. Shall echo the same data as the original message. |
| 00 | Reserved for ISO use |
| 02 | Mandatory if information is available and not read electronically from the card. |
| 03 | Mandatory, shall contain the same data as the original authorization (11xx) or financial presentment (12xx) message |
| 04 | Mandatory if "Amount, cardholder billing" or "Amount, cardholder billing fee" is present. |
| 06 | Mandatory if track data is captured at the point of service. |
| 07 | Optional. Present if populated by the Network or by the Issuer in 11yz or 14y messages. Present in 1100 messages if populated by the Terminal Handler for MIT (Merchant Initiated Transactions) |
| 08 | Optional. Present if populated by the acquirer |
| 09 | Optional. Present if populated by the issuer |
| 15 | Mandatory when PAN begins with 59 and contains a separator |
| 16 | Mandatory in a response message if the data element was present in the original request or advice message. If present, it shall contain the same data as the original message. |
| 17 | Mandatory in the advice/notification if the data element was present in the original authorization / financial presentment request / advice notification message. If present, it shall contain the same data as the original message. |
| 20 | Mandatory when the institution that processed (approved or denied) an authorization is not the same institution identified in the primary account number. |
| 21 | Refer to the field's description in chapter 4. |
| 22 | Mandatory if different from "Date and time, local transaction". |
| 26 | Mandatory for all processing codes except for inquiry services, i.e. processing code 3xxxxx. |
| 35 | Mandatory in 11yz and 14y0 messages in the issuing domain. Response messages shall contain the same value as in the request, with the exception of 1110 messages with a partial approved amount ("Action Code" in field 039 set to '002'). |
| 36 | Mandatory if the value differs from the value in "Card acceptor business code" (field 026). |
| 39 | Mandatory for transactions originated by an international credit or debit card. |
| 41 | Mandatory when "Action Code" in field 039 is between '000' and '007' |
| 43 | The field is mandatory when PAN does not begin with '59' (otherwise, field 034, "PAN, extended" is used) |
| 52 | The field is mandatory for transactions originating abroad |
| 53 | Mandatory in the advice/notification message if the field was present in the original message. If present, it shall contain the same value as the original message. |
| 54 | The field is mandatory for chip-based transactions, or when one of the conditions listed in Appendix A.3 apply. |
| 55 | Mandatory for chip-based transactions |
| 56 | Present for magnetic stripe-only cards' transactions according to the card network's specification. Mandatory in microchip-based transactions if the card's CVM list requires online PIN verification. |
| 57 | Mandatory if field 052 (PIN) is present. |
| 58 | Mandatory for microchip-based transaction if the information is stored on the card. |

| | |
|----|--|
| 59 | Mandatory for internet transactions |
| 60 | Refer to the card Network's specification |
| 61 | Conditional for transactions originating abroad if the Issuer participates in VISA Advanced Authorization or MasterCard fraud scoring services. |
| 62 | Mandatory for MasterCard MoneySend/OCT Payment Transactions; Optional for MoneySend Funding Transactions. Mandatory for VISA Enhanced OCT transaction where Sender Data and Business Application Identified (BAI) are provided. |
| 63 | Mandatory if present in the original transaction as received from the card's network. |
| 64 | Optional echo in the issuing domain only. |

3.6 Protocol data elements

| Bit | Field name | Type | Format |
|-----|--|--------------|---------|
| 001 | Bit Map | | b8 |
| 002 | PAN (Primary Account Number) | LLVAR | n..19 |
| 003 | processing code | | n6 |
| 004 | amount, transaction | | n12 |
| 005 | amount, reconciliation | | n12 |
| 006 | amount, cardholder billing | | n12 |
| 007 | date and time, transmission | MMDDhhmmss | n10 |
| 008 | amount, cardholder billing fee | | n8 |
| 009 | conversion rate, reconciliation | | n8 |
| 010 | conversion rate, cardholder Billing | | n8 |
| 011 | systems trace audit number | | n6 |
| 012 | date and time, local transaction | YYMMDDhhmmss | n12 |
| 013 | date, effective | YYMM | n4 |
| 014 | date, expiration | YYMM | n4 |
| 015 | date, settlement | YYMMDD | n6 |
| 016 | date, conversion | MMDD | n4 |
| 017 | date, capture | MMDD | n4 |
| 018 | merchant type | | n4 |
| 019 | country code, acquiring institution | | n3 |
| 020 | country code, primary account number | | n3 |
| 021 | country code, forwarding institution | | n3 |
| 022 | point of service data code | | an12 |
| 023 | card sequence number | | n3 |
| 024 | function code | | n3 |
| 025 | message reason code | | n4 |
| 026 | card acceptor business code | | n4 |
| 027 | approval code length | | n1 |
| 028 | date, reconciliation | YYMMDD | n6 |
| 029 | reconciliation indicator | | n3 |
| 030 | amounts, original | | n24 |
| 031 | acquirer reference data | LLVAR | ans..99 |
| 032 | acquiring institution identification code | LLVAR | n..11 |
| 033 | forwarding institution identification code | LLVAR | an..11 |
| 034 | PAN, extended | LLVAR | ns..28 |
| 035 | track 2 data | LLVAR | z..37 |
| 036 | track 3 data | LLLVAR | z..104 |
| 037 | retrieval reference number | | anp12 |
| 038 | approval code | | anp6 |
| 039 | action code | | n3 |
| 040 | service code | | n3 |
| 041 | card acceptor terminal identification | | ans8 |
| 042 | card acceptor identification code | | ans15 |

| | | | |
|-----|---|--------|-----------------|
| 043 | card acceptor name/location | LLVAR | ans..99 |
| 044 | additional response data | LLVAR | ans..99 |
| 045 | track 1 data | LLVAR | ans..76 |
| 046 | amounts, fees | LLLVAR | ans..204 |
| 047 | additional data - national | LLLVAR | ans..999 |
| 048 | additional data - private | LLLVAR | ans..999 |
| 049 | currency code, transaction | | a3 o n3 |
| 050 | currency code, reconciliation | | a3 o n3 |
| 051 | currency code, cardholder billing | | a3 o n3 |
| 052 | personal identification number (PIN) data | | b8 |
| 053 | security related control information | LLVAR | an..48 |
| 054 | amounts, additional | | ans..120 |
| 055 | integrated circuit card system related data | LLLVAR | b..255 |
| 056 | original data elements | LLVAR | n..35 |
| 057 | authorization life cycle code | | n3 |
| 058 | authorizing agent institution identification code | LLVAR | an..11 |
| 059 | transport data | LLLVAR | ans..999 |
| 060 | <i>reserved for national use</i> | LLLVAR | <i>ans..999</i> |
| 061 | <i>reserved for national use</i> | LLLVAR | <i>ans..999</i> |
| 062 | <i>reserved for private use</i> | LLLVAR | <i>ans..999</i> |
| 063 | <i>reserved for private use</i> | LLLVAR | <i>ans..999</i> |
| 064 | message authentication code field | | b8 |
| 065 | <i>reserved for ISO use</i> | | b8 |
| 066 | amounts, original fees | | ans..204 |
| 067 | extended payment code | | n2 |
| 068 | country code, receiving institution | | n3 |
| 069 | country code, settlement institution | | n3 |
| 070 | country code, authorizing agent institution | | n3 |
| 071 | message number | | n8 |
| 072 | data record | LLLVAR | ans..999 |
| 073 | date, action | YYMMDD | n6 |
| 074 | credits, number | | n10 |
| 075 | credit, reversal number | | n10 |
| 076 | debits, number | | n10 |
| 077 | debits, reversal number | | n10 |
| 078 | transfer, number | | n10 |
| 079 | transfer, reversal number | | n10 |
| 080 | inquiries, number | | n10 |
| 081 | authorizations, number | | n10 |
| 082 | inquiries, reversal number | | n10 |
| 083 | payments, number | | n10 |
| 084 | payments, reversal number | | n10 |
| 085 | fee collections, number | | n10 |
| 086 | credits, amount | | n16 |
| 087 | credits, reversal amount | | n16 |
| 088 | debits, amount | | n16 |

| | | | |
|-----|--|--------|----------|
| 089 | debits, reversal amount | | n16 |
| 090 | authorizations, reversal number | | n10 |
| 091 | country code, transaction destination institution | | n3 |
| 092 | country code, transaction originator institution | | n3 |
| 093 | transaction destination institution identification code | LLVAR | an..11 |
| 094 | transaction originator institution identification code | LLVAR | an..11 |
| 095 | card issuer reference data | LLVAR | ans..99 |
| 096 | key management data | LLLVAR | b..999 |
| 097 | amount, net reconciliation | | x+n16 |
| 098 | payee | | ans25 |
| 099 | settlement institution identification code | LLVAR | an..11 |
| 100 | receiving institution identification code | LLVAR | an..11 |
| 101 | file name | LLVAR | ans..17 |
| 102 | account identification 1 | LLVAR | ans..28 |
| 103 | account identification 2 | LLVAR | ans..28 |
| 104 | transaction description | LLLVAR | ans..100 |
| 105 | credits, chargeback amount | | n16 |
| 106 | debits, chargeback amount | | n16 |
| 107 | credits, chargeback number | | n10 |
| 108 | debits, chargeback number | | n10 |
| 109 | credits, fee amount | LLVAR | ans..84 |
| 110 | debits, fee amount | LLVAR | ans..84 |
| 111 | MoneySend/OCT Reference Data | LLLVAR | ans..999 |
| 112 | <i>reserved for ISO use</i> | LLLVAR | ans..999 |
| 113 | <i>reserved for ISO use</i> | LLLVAR | ans..999 |
| 114 | <i>reserved for ISO use</i> | LLLVAR | ans..999 |
| 115 | <i>reserved for ISO use</i> | LLLVAR | ans..999 |
| 116 | <i>reserved for national use</i> | | ans..999 |
| 117 | Advice/notification date and time | LLLVAR | ans..999 |
| 118 | <i>reserved for national use</i> | LLLVAR | ans..999 |
| 119 | <i>reserved for national use</i> | LLLVAR | ans..999 |
| 120 | <i>reserved for national use</i> | LLLVAR | ans..999 |
| 121 | Ecommerce data | LLLVAR | ans..999 |
| 122 | <i>reserved for national use</i> | LLLVAR | ans..999 |
| 123 | <i>reserved for private use</i> | LLLVAR | ans..999 |
| 124 | DCC data | LLLVAR | ans..999 |
| 125 | New PIN data | LLLVAR | b..8 |
| 126 | <i>reserved for private use – Fraud Scoring data</i> | LLLVAR | ans..999 |
| 127 | <i>reserved for private use – Additional information</i> | LLLVAR | ans..999 |
| 128 | message authentication code field | | n8 |

4 DATA ELEMENT DEFINITION

4.1 Bit map and bit map, extended (001)

| | |
|--------------|-----------|
| Format | b8 |
| Message Type | all |
| Presence | Mandatory |

Description

The Bit Map is a 64-bit series used to identify the presence (marked by a "1") or absence (marked by a "0") of the elements of the message which range from 1 to 64.

The Bit Map is always present.

Bit map, extended

| | |
|--------------|-------------|
| Format | b8 |
| Message Type | all |
| Presence | Conditional |

Description

It is the first element of the protocol. It can be omitted if none of the message elements from 65 to 128 is present.

The Bit Map, extended is a 64-bit series used to identify the presence (marked by a "1") or absence (marked by a "0") of the elements of the message which range from 65 to 128.

4.2 Primary account number (PAN) (002)

| | |
|--------------|---|
| Format | n..19 LLVAR |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

The PAN is a series of digits used to identify the cardholder's account or relationship.

The PAN is the 'Identification Number' that identifies the cardholder and the issuer to whom the transaction must be forwarded. It must conform to the standard PAN encoding requirements as documented in the ISO 7812 specifications [2].

In case of a transaction originating from a microchip card with magnetic stripe, field 002 must contain the value stored in the chip.

Comments

It is always present in the 11yz and 14y0 messages except when the PAN begins with "59" and contains a separator, as detailed in document [2]. In this case, field 034 'PAN, extended' must be used.

It must be present in response messages if included in the request message.

4.3 Processing code (003)

| | |
|--------------|---|
| Format | n6 |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Mandatory |

Description

Contains a code that identifies the cardholder transaction type and the cardholder account types that are affected by the transaction.

The following is a list of values given to the field according to the service provided and the infrastructure or terminal where the service originates.

| | |
|--------|---|
| 000000 | Purchase of goods or service |
| 010000 | Cash Advance - Primary Bank Account |
| 011000 | Cash Advance - Secondary Bank Account |
| 090000 | Goods and services with cash disbursement |
| 110000 | Quasi cash (dominio issuing Visa) |
| 140000 | Mobile phone top-up |
| 150000 | Miscellaneous Top-up |
| 170000 | Manual Cash Advance |
| 200000 | Purchase Return/Refund |
| 210000 | Deposit |
| 260000 | Original Credit Transaction (Visa) |
| 280000 | Payment transaction (MasterCard) |
| 300000 | Balance Inquiry - Primary Bank Account |
| 301000 | Balance Inquiry - Secondary Bank Account |
| 31XX00 | Balance Inquiry – Debit - reserved for private use (acquiring domain) |
| 360000 | Account verification/Card update |
| 380000 | Ministatement Primary Bank Account - Balance Inquiry |
| 381000 | Ministatement Secondary Bank Account - Balance Inquiry |
| 640000 | Currency Exchange |
| 900000 | PIN Management |
| 970000 | File Management |
| 980000 | Digitization Management |

Comments

In 1110 and 1130 response message, the field will contain the same value from the original request or advice message..

In 1420 and 1430 messages, the field will contain the same values from the original authorization class message.

The "Balance Inquiry" service is provided only for ATM transactions originated from MasterCard cards (all brands). In the Acquiring domain, the expected value is '300000' .

The "PIN Management" service is provided only in the Acquiring domain and it is related to the EMV transactions originating by ATM terminals and MasterCard cards.

4.4 Amount, transaction (004)

| | |
|--------------|--|
| Format | n12 |
| Message Type | 1100 1110 1120 1130 1140 |
| Presence | Conditional (1100 1110 1120 1130 1140) Mandatory (1420 1430 1440) |

Description

The transaction amount in the local currency of the acquirer, or source location of the transaction, specified by the currency code in field 49.

Can be set to zeros for inquiry services (processing code 3xxxxx), Chargeback Extension Requests, or Automated Fuel Dispenser (AFD) Advices.

Comments

This field is mandatory in all 11yz, 1x0z, 1x2z, 1x3z and 1x4z messages for all processing codes (field 003), with the exception of inquiry transactions, (processing code 3xxxxx), Chargeback Extension Request or AFD Advice:

- Issuing domain - when present, can be set to zero
- Acquiring domain – must be present and set to zero.

Issuing domain: In 1110 response messages, the field is always present except for Inquiry transactions (processing code 3xxxxx). In messages 1110 with a positive response code, the value is the same as in the request messages.

Acquiring domain: in 1110 response messages, the field is always present and, in case of authorized transactions, it will contain the amount approved by the Issuer. If the transaction is approved with a partial amount, the requested 'original' amount is carried in field 030 (amounts, original) (see section 4.30). If the transaction is denied, the field is filled out with zeros and the 'original' amount contained in the request is carried in field 030 (amounts, original) (see section 4.30).

See the following table for a summary of message 1110:

| Authorization granted | Action code | Amount, transaction | Original amount, transaction (subfield of field 030 – amounts, original) |
|-----------------------|-----------------------------------|-------------------------------------|--|
| full approval | 000/ 001/ 003/ 004/ 005/ 007/ 060 | transaction amount | - |
| partial approval | 002 (approved for partial amount) | transaction amount (Issuing domain) | |
| | | Amount approved (Acquiring domain) | original requested amount |
| decline/reject | | Zero | original requested amount |

4.5 Amount, reconciliation (005) – RFU

4.6 Amount, cardholder billing (006)

| | |
|--------------|---|
| Format | n12 |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

The transaction amount in the cardholder account currency, as indicated in field 51 "currency code, cardholder billing".

In cases where SIA has been given mandate to verify the cardholder's funds availability, the amount indicated in field 006 in 11xx messages, for transactions originating from merchants that support partial amount authorization (msg. 11xx – 48.14 = '1'), will be the lesser amount between the original amount in Euros and the card's availability.

In 1110 messages with action code "002 – approved for partial amount", field 6 will contain the partial amount authorized by the authorizing institution.

4.7 Date and time, transmission (007)

| | |
|--------------|---|
| Format | n10 MMDDhhmmss |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

The date and time the message was sent by the message initiator sends this message, expressed in Co-ordinated Universal Time (UTC) (in accordance with ISO 8601).

The value in the response messages is the same as the one in the request messages.

In 11yz messages, the value to be sent to the issuers is populated by SIA for requests and notifications coming from the international Networks.

In 1420 reversal advice messages, the value is the same contained in the original 11yz messages.

4.8 Amount, cardholder billing fee (008) – RFU

4.9 Conversion rate, reconciliation (009) – RFU

4.10 Conversion rate, cardholder billing (010)

| | |
|--------------|---|
| Format | n8 |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

The conversion rate used to convert the transaction amount (expressed in field 004) into the cardholder billing amount (expressed in field 006). The 'amount, cardholder billing' is found by multiplying 'amount, transaction' by field 010.

In 11yz messages, the field is populated by SIA for requests and notifications originating abroad.

The leftmost digit identifies the number of digits that follow the decimal point, or the number of positions the decimal point should be moved from the right. The remaining digits identify the conversion rate.

For example, assuming that the conversion rate is expressed by the number 0,001234567 (nine digits following the decimal point), the content in the field will appear as: **91234567**.

Comments

Used only in the Mastercard domain. If present in 1100, 1120 or 1420 messages, it is echoed in the corresponding 1110, 1130 or 1430 reply messages.

4.11 System trace audit number (011)

| | |
|--------------|-----------|
| Format | n6 |
| Message Type | all |
| Presence | Mandatory |

Description

A number assigned by the message initiator to identify a transaction. The systems trace audit number must remain unchanged in all messages pertaining to the same transaction exchanged by two subjects.

The institution receiving the request message does not validate this value and forwards it unchanged in the response message.

It must never be all zeros.

If more than two subjects are involved, the value must remain the same in the exchange between the same two subjects. This value must be unique for each party within a 24 hour time period.

4.12 Date and time, local transaction (012)

| | |
|--------------|------------------|
| Format | n12 YYMMDDhhmmss |
| Message Type | all |
| Presence | Mandatory |

Description

The date and time at which the transaction takes place, expressed in the local time of the card acceptor location.

The response message must echo the same value present in the request.

For advice and notification messages belonging to message classes 11yz and 14y0, the value must be the same as the one in the original authorization request. Field 117, 'Date and time, notification', will contain the actual date and time when the advice or notification message is sent.

4.13 Date, effective (013) – RFU

4.14 Date, expiration (014)

| | |
|--------------|---------------------|
| Format | n4 YYMM |
| Message Type | 1100 1120 1140 1304 |
| Presence | Conditional |

Description

The year and month after which the Issuer designates the card as “expired”.

For EMV transactions, the field must be populated with the value contained in the chip data, tag 5F24, “Application expiration date”.

4.15 Date, settlement (015)

| | |
|--------------|---|
| Format | n6 YYMMDD |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

The year, month and date when the transaction data will be made available to the clearing system.

[Issuing services]:

In 11yz messages, the field is present if populated by the Networks.

[Acquiring domain]:

- in 1110 messages, the field is present if populated by the Networks or by the Issuer;
- In 1120 and 1420 messages, it will echo the same value contained in Field 015 in the original authorization request;
- in 1100 messages pertaining to Merchant Initiated Transactions (MIT), it will echo the same value contained in the 1110 message sent in response original authorization request.

4.16 Date, conversion (016)

| | |
|--------------|-------------|
| Format | n4 MMDD |
| Message Type | 1110 |
| Presence | Conditional |

Description

The month and day the conversion rate is effective to convert the transaction amount from the acquirer currency to the cardholder currency.

Comments

SIA internal sue field only. Reserved for the Mastercard acquiring domain.

4.17 Date, capture (017)

| | |
|--------------|-------------|
| Format | n4 MMDD |
| Message Type | 1120 1140 |
| Presence | Conditional |

Description

The month and day the acquirer processed the transaction data.

Comments

Mandatory if the date is different than the one in Field 012, 'date and time, local transaction'. Used, for example, when the POS linked to a TH operate in "data capture" mode: in this case, the date specifies the day the TH receives the log from the POS.

4.18 Merchant, type (018) – RFU

4.19 Country code, acquiring institution (019)

| | |
|--------------|--------------------------|
| Format | n3 |
| Message Type | 1100 1120 1140 1420 1440 |
| Presence | Conditional; see below |

Description

The acquiring institution's country code.

Comments

Only mandatory for American Express acquiring services, for merchants operating abroad.

4.20 Country code, PAN (020) – RFU

4.21 Country code, forwarding institution (021) – RFU

4.22 Point of service data code (022)

| | |
|--------------|---|
| Format | an12 |
| Message Type | 1100 1120 1140 |
| Presence | Mandatory (1100 1120 1140) Conditional (1420 1440) |

Description

A series of codes intended to identify how a transaction completed at the POS.

The Terminal Handler shall populate the field with the combination of information which best represents the POS environment at the time the transaction took place, as agreed with the acquirer.

In 1120 and 1140 messages, the value will be the same as in the original authorization. In 1120 and 1140 messages, the value will be the same as in the original authorization.

For a complete listing of all possible values and their descriptions, please refer to appendix [A.4](#).

4.23 Card sequence number (023)

| | |
|--------------|---|
| Format | n3 |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

A number used to distinguish among different cards having the same PAN (Field 002) or extended PAN (Field 034).

Comments

The field is populated for contact and contactless transactions if the information is present on the card. Response messages must contain the same value contained in the authorization request message.

4.24 Function code (024)

| | |
|--------------|-------------------------------|
| Format | n3 |
| Message Type | 1100 1120 1140 1420 1440 1804 |
| Presence | Mandatory |

Description

This field details the specific purpose of the message within its message class.

Comments

For a complete listing of all possible values and their descriptions, please refer to appendix [A.2](#).

4.25 Message reason code (025)

| | |
|--------------|--|
| Format | n4 |
| Message Type | 1100 1120 1140 1420 1440 1804 |
| Presence | Mandatory (1120 1140 1420 1440 1804) Conditional (1100) |

Description

This field details the reason why the message is sent.

Comments

In 1100 messages the field is populated:

- for a transaction originating from a microchip card;
- when one of the conditions detailed in appendix [A.3](#) apply.

For a complete listing of all possible values and their descriptions, please refer to appendix [A.3](#).

4.26 Card acceptor business code (026)

| | |
|--------------|----------------|
| Format | n4 |
| Message Type | 1100 1120 1140 |
| Presence | Mandatory |

Description

A code which describes the merchant's type of business, also known as Merchant Category Code (MCC).

4.27 Approval code length (027) – RFU

4.28 Date, reconciliation (028) – RFU

4.29 Reconciliation, indicator (029) – RFU

4.30 Amounts, original (030)

| | |
|--------------|---------------------|
| Format | n24 |
| Message Type | 1110 1120 1420 1440 |
| Presence | Conditional |

Description

In 11yz messages, this field specifies the original amount of the transaction (Field 004 "amount, transaction" in the 1100 message).

In 14yz messages, it is used in partial reversals to specify the previously authorized, original amount.

The field consist of two subfields in fixed length format totaling 24 digits:

- a. Original amount, transaction
- b. Original Amount, reconciliation

| | |
|------------------------------|---------------------------------|
| pos 1..12 | pos 13..24 |
| Original amount, transaction | Original amount, reconciliation |

The amounts in this fields will not be considered for reconciliation purposes.

Comments

In 1110 messages, the field is populated when the authorization request is approved and the value of Field 024 ('function code') in the corresponding 1100 request message is different from '108' (inquiry) and '174' (ATC update).

In 14y0 messages, the field is populated when the value of Field 024 (function code) is equal to 401 (partial reversal, transaction did not complete for full amount); it specifies the original amount of the previously authorized transaction.

Also, in the acquiring domain:

- the field is populated in 1110 messages when the transaction is authorized for a partial amount. The first subfield (bytes 1-12) contains the originally requested amount (field 004 from the original 1100 message) while the second subfield (bytes 13-24) is set to zeros.
- the field is populated for 1120 pre-authorization confirmation advices. The first subfield (bytes 1-12) contains the authorized amount (field 004 from the original 1100 message) while the second subfield (bytes 13-24) is set to zeros.

4.31 Acquirer reference data (031)

| | |
|--------------|------------------------|
| Format | ans..50 LLVAR |
| Message Type | 1100 1110 |
| Presence | Conditional, see below |

Description

Reserved for the American Express and DCI Acquiring domain.

In 1100 messages related to a Merchant-Initiated, Credential On File transaction, it must be used to identify the Original Transaction ID, i.e., the TID of the original transaction setting up the MIT mandate.

In 1110 messages, it is used to forward the Transaction Identifier (TID) (n..15), a unique identifying code assigned by the Networks.

4.32 Acquirer institution identification code (032)

| | |
|--------------|---|
| Format | n..11 LLVAR |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Mandatory |

Description

A code used to identify the acquirer. It identifies the entity which has a legal relationship with the merchant for the acceptance of international credit and debit cards and the acquisition and processing of transactions. In response messages, it must contain the same value from the original request or advice message.

Comments

In Visa 'Mobile Update Request' transactions, the value is assigned by Visa.
See Appendix [A.6](#) for rules on how to populate this field.

4.33 Forwarding institution identification code (033)

| | |
|--------------|---|
| Format | n..11 LLVAR |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Mandatory |

Description

A code used to identify the institution forwarding the message.

Comments

See Appendix [A.6](#) for rules on how to populate this field.

4.34 PAN, extended (034)

| | |
|--------------|---|
| Format | n..28 LLVAR |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

Identifies a customer account and is used when the PAN begins with 59 BIN and contains a separator (as specified in [1]). It is mandatory in 14yz messages if present in the original 11yz message.

In the American Express Acquiring domain, the field is used in 1110 messages to transmit the 'Primary Account Number, Extended' received from the Network for Expressway Transit transactions.

In the Mastercard Acquiring domain, it can be used to transmit the account PAN in a tokenized transaction, based on private agreements.

In response messages, it must contain the same value from the original request or advice message.

4.35 Track 2 data (035)

| | |
|--------------|----------------|
| Format | z..37 LLVAR |
| Message Type | 1100 1120 1140 |
| Presence | Conditional |

Description

The information encoded on track 2 of the magnetic stripe as specified in ISO 7813 (excluding beginning and ending sentinels and LRC characters as defined therein). For Contact or Contactless Chip Card transactions, this field will contain the Track 2 Equivalent Data from the chip (EMV tag '57').

Field 35 must contain whatever is read from the POS; not all 37 characters may always be present.

4.36 Track 3 data (036) – RFU

4.37 Retrieval Reference Number (RRN) (037)

| | |
|--------------|---|
| Format | anp 12 |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Mandatory |

Description

A reference number supplied by the system retaining the original source information of the transaction (usually, the acquirer) and used to assist in locating that information, or a copy thereof. The RRN identifies all the messages within a given transaction set.

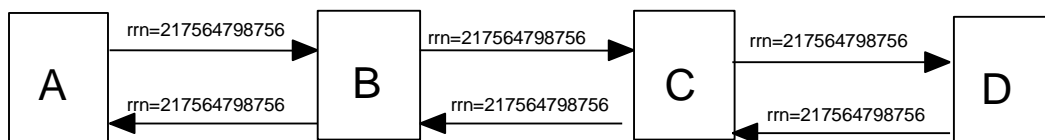
Comments

In the Issuing domain, the field will echo the same value received from the International Networks.

In the acquirer domain, Terminal Handlers are encouraged to use Visa *ydddhhttttt* format, where *ydddh* stands for Julian date + the hours value from the transaction date and time, and *ttttt* is a unique transaction code.

In response messages, it must contain the same value from the request message. In advice and notification messages, it must contain the same value from the originating message. In 14y0 messages, it must contain the same value from the 11yz messages.

Therefore, the RRN must remain unchanged in all the messages in a given transaction set:



A transaction involving four entities. In each separate route, field 37 maintains the same value as assigned by the message originator (institution A).

4.38 Approval code (038)

| | |
|--------------|--------------------------|
| Format | anp 6 |
| Message Type | 1110 1120 1140 1420 1440 |
| Presence | Conditional |

Description

A code assigned by the authorizing institution, indicating approval.

Mandatory when field 039 'Action Code' is between 000 and 060.

It is present in 1420 messages when present in related 1100 messages.

The field admits only uppercase characters.

4.39 Action code (039)

| | |
|--------------|------------------------------------|
| Format | n3 |
| Message Type | 1110 1120 1130 1140 1430 1440 1814 |
| Presence | Mandatory |

Description

A code which defines the action taken or to be taken, as well as the reason for taking this action.

For a complete listing of possible values, refer to Appendix [A.1](#).

4.40 Service code (040) – RFU

4.41 Card acceptor terminal identification (041)

| | |
|--------------|------------------------------------|
| Format | ans8 |
| Message Type | 1100 1110 1120 1130 1140 1420 1440 |
| Presence | Mandatory |

Description

Unique code, assigned by the Terminal Handler, identifying a terminal at the card acceptor location.

In Visa 'Mobile Update Request' transactions, the value is assigned by Visa.

In response messages, it must contain the same value from the original request or advice message.

4.42 Card acceptor identification code (042)

| | |
|--------------|---|
| Format | ans15 |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Conditional |

Description

A code assigned by the acquirer, identifying the card acceptor that defines the point of the transaction

In Visa 'Mobile Update Request' transactions, the value is assigned by Visa.

In 'Visa Personal Payments' transactions, the field is populated by Visa with the value 'VPP4403'.

In 'Visa Personal Payments – Immediate Payment' transactions, the field is populated by Visa with the value 'VPP4403IP'.

In response messages, it must contain the same value from the original request or advice message.

Comments

Present if assigned by the acquirer

4.43 Card acceptor name/location (043)

| | |
|--------------|----------------|
| Format | ans..99 LLVAR |
| Message Type | 1100 1120 1140 |
| Presence | Mandatory |

Description

The name and location of the card acceptor, as known to the card acceptor.

The field must consist of six subfields totaling up to 99 characters. The first three subfields (name, street, city) are of variable length, separated from the remaining subfields and each other by a back slash character (\). The remaining three subfields are fixed format, as shown below:

| | |
|-------------------|---|
| name\street\city\ | ans..83 |
| postal code | ans 10 |
| region | ans 3 |
| country code | a3 (see ref. [3] for a list of possible values) |

Where 'name' refers to the merchant's "doing business as" name.

When a fixed length is not available, it must be space filled.

In Visa 'Mobile Update Request' transaction, the field is structured as follows:

| | |
|--|--------|
| Fixed value 'MOBILE REQUEST' postal code | ans 14 |
| Processing type | ans 2 |
| RFU | ans 9 |
| Fixed value 'VE MOBILE GW ' postal code | ans 13 |
| Acquiring Institution Country Code | ans 2 |

In the Acquiring Mastercard domain, it must be used to contain the Payment Facilitator (when present), in full or in abbreviated form, followed by an asterisk and the sub-merchant name.

4.44 Additional response data (044)

| | |
|--------------|---------------|
| Format | ans..99 LLVAR |
| Message Type | 1110 1130 |
| Presence | Conditional |

Description

A field used for additional miscellaneous information that may be required in the response message, where not specifically provided by the standard protocol [1].

The field supports the following subfields in TLV format:

| | |
|-------|---|
| 01 | Referral Data |
| 02 | Formal Error |
| 03 | Message to POS |
| 04 | CVV2/CVC2/4DBC Verification Result Code |
| 05 | CAVV/AEUV Verification Result code |
| 06 | Routing Information |
| 07 | AVS Result – Address Verification Service Result Code |
| 08 | MDES File Action Error Code |
| 09 | VTs File Action Error Code (issuing); Card Type (acquiring) |
| 10 | Payment Account Reference |
| 11 | VTs Token Data |
| 12 | Banking account number |
| 13 | Event ID |
| 14 | Merchant ZIP Code |
| 15 | Client ZIP Code |
| 16 | Unlock/Activation Date |
| 17 | Card Plafond Availability |
| 18-40 | RFU - system |
| 41-89 | RFU - national |
| 90 | Issuer PIN request in a single TAP mode |
| 91 | Additional Token C0 data |
| 92-93 | RFU - private |
| 94-95 | RFU - private, SIA exclusive use |
| 96-97 | RFU - private |
| 98 | Amex POINT OF SERVICE DATA CODE |
| 99 | Amex AAV/AE verification result |

Code: 44.01 **Referral Data**
Format: n..16
Presence: Conditional. Can be present in 1110 messages for some Action Code (039) values.
Description: The referral phone number to be contacted in the cases indicated by the Card Issuer.

Code: 44.02 **Formal Error**
Format: n3
Presence: Conditional. Can be present in response messages when Action Code (039) is '904' (format error).
Description: Identifies the field in error in the original request or advice message.

Code: 44.03 **Message to POS**
Format: ans..16
Presence: Optional for 1110 messages.
Description: Contains additional information that can be printed or displayed by the POS.

Code: 44.04 **CVV2/CVC2/4DBC Verification Result Code**
Format: a1
Presence: [Issuing Domain]: Conditional. Must be present in 1110 messages when field 48 (Additional Data, Private) in the original 1100 messages specifies that the [Acquiring domain]: Optional
Description: A code describing the result of CVV2 / CVC2 / 4DBC verification. Must be one of the following values:

| |
|--|
| M: CVV2/CVC2/ 4DBC match |
| N: CVV2/CVC2/ 4DBC not valid |
| P: not processed |
| S: CVV2/ CVC2/4DBC should be on the card but the merchant indicates it is not |
| U: the issuer is not certified or does not support this service |

Code: 44.05 **CAVV/AEVV Result Code**
Format: n1
Presence: Conditional. Used in Visa Issuing and American Express Acquiring domains. Can be present in 1110 messages related to 3-D Secure Electronic Commerce transactions.
Description: A code describing the result of CAVV/AEVV verification. Must be one of the following values:

| |
|--|
| 0: CAVV could not be validated |
| 1: failed validation – authentication (using issuer keys) |
| 2: passed validation – authentication (using issuer keys) |
| 3: passed validation – attempt (using issuer keys) |
| 4: failed validation – attempt (using issuer keys) |
| 5: not used (RFU) |
| 6: not validated (using network keys, reserved for use by network) |
| 7: failed validation – attempt (using network keys) |
| 8: passed validation – attempt (using network keys) |
| 9: failed validation – attempt (issuer ACS not available, network keys) |
| A: passed validation – attempt (issuer ACS not available, network keys) |
| B: passed validation-information only, no liability shift (reserved for use by network) |
| C: not validated – attempt (no result provided by issuer, reserved for use by network) |
| D: not validated – authentication (no result provided by issuer, reserved for use by network) |
| U: unchecked (reserved for use by American Express) |

Code: 44.06 **Routing Information**
Format: an1
Presence: Conditional for 1110 messages. Present based on private agreements with the acquirer.
Description: A code detailing the entity whom the request message was routed to. Can be one of the following values:

| |
|--------------------------------|
| O: On Us |
| V: Visa |
| M: MasterCard / Maestro |



Code: 44.07 **AVS Result**
Format: an1
Presence: Conditional in the Acquiring Domain. Can be present in 1110 messages for card-not-present transactions.
Description: The result of cardholder data verification following an Address Verification request.
 Can be one of the following values:

| COD | MC | Visa | JCB |
|----------|--|--|---|
| A | Address matches, postal code does not. | Street addresses match. Postal/ZIP codes mismatch . The street addresses match. The postal/ZIP codes do not match; or postal/ZIP code is missing | Street Address matches, postal code does not |
| B | Visa only. Street address match. Postal code not verified because of incompatible formats. (Acquirer sent both street address and postal code.) | Street addresses match Postal/ZIP code not verified. The street addresses match. The postal/ZIP code is not verified due to incompatible formats. Acquirer sent both street address and postal/ZIP code. | |
| C | Visa only. Street address and postal code not verified because of incompatible formats. (Acquirer sent both street address and postal code.) | Street address not verified Postal/ZIP code not verified. The street address and postal/ZIP code are not verified due to incompatible formats. Acquirer sent both street address and postal code. | |
| D | Visa only. Street address and postal code match. | Street addresses match Postal/ZIP codes match Street address matches. Postal/ZIP code matches. | Street address matches and postal codes match |
| F | Visa only. Street address and postal code match. Applies to U.K. only. | Street addresses match Postal codes match UK only Street address matches. Postal code matches. | |
| G | Visa only. Non-AVS participant outside the U.S.; address not verified for international transaction. | Address not verified (International Transaction) Address information for an International Transaction is not verified. Issuer is not an AVS participant, or AVS data was present in the request but the Issuer did not return an AVS result. This code is the equivalent to U for a Domestic Transaction. | Address information not verified for international transactions |
| I | Visa only. Address information not verified for international transaction. | Address not verified Address information not verified. | Address information not verified |
| M | Visa only. Street addresses and postal code match. | Street addresses match Postal/ZIP codes match Street address matches. Postal code matches. | |

| | | | |
|--------------|---|---|--|
| N | Neither address nor postal code matches. | No match Either the postal/ZIP code or the street address, or both, do not match. Acquirer sent postal/ZIP code only; street address only; or postal/ZIP code and street address. | Neither address or postal code matches |
| P | Visa only. Postal codes match. Street address not verified because of incompatible formats. (Acquirer sent both street address and postal code.) | Street address not verified Postal/ZIP code match Street address not verified because of incompatible formats. Postal code matches. Acquirer sent both street address and postal code. | Postal code matches, street address not verified because of incompatible formats |
| R | Retry, system unable to process. | Retry. Issuer unavailable or request timed out. VEAS uses code R when Issuers are unavailable. Issuers should refrain from using this code. | |
| S | AVS currently not supported. | | |
| U | No data from issuer/Authorization Platform | | No data from Issuer |
| K | | "U" Address not verified (Domestic Transaction) Address information for a Domestic Transaction is not verified. Issuer is not an AVS participant, or AVS data was present in the request but the Issuer did not return an AVS result. This code is the equivalent to G for an International Transaction. | |
| W | For U.S. addresses, nine-digit postal code matches, address does not; for address outside the U.S., postal code matches, address does not. | | |
| X | For U.S. addresses, nine-digit postal code and address matches; for addresses outside the U.S., postal code and address match. | | |
| Y | For U.S. addresses, five-digit postal code and address matches. | Street addresses match Postal /ZIP codes match Street address matches. Postal/ZIP code matches. | |
| Z | For U.S. addresses, five-digit postal code matches, address does not. | Street addresses mismatch Postal/ZIP codes match The postal/ZIP code matches. The street address does not match; or street address not included in the request. | |
| Space | | | AVS Data was not provided. |

Code: 44.08 **MDES File Action Error Code**
Format: an3
Presence: Conditional. Reserved for use in the Mastercard Issuing domain for MDES Token Update operations. Can be present in 1314 (File Action Request Response) messages, for some values of field 039 (Action Code).
Description: Specifies the field code contained in field 72 (Data record) of the 1304 message (File Action Request) which caused the update to be rejected.

Code: 44.09 **[Issuing Domain] VTS File Action Error Code**
Presence: Conditional. Reserved for use in the Visa Issuing domain for VTS Token Update operations.
Format: an4
Description: Specifies the error code returned by the VTS platform following an unsuccessful message 1304 (File Action request) for a token data update operation. For the full range of valid error codes please refer to the VTS platform support documentation.

Code: 44.09 **[Acquiring Domain] Card Type**
Presence: Conditional for 1110 messages, based on agreements with the acquirer.
Format: an3
Description: Card type code
Can be one of the following values:

| | |
|-------|-------------------|
| "VIS" | VISA |
| "MCR" | MasterCard Credit |
| "MAE" | MasterCard Debit |

Code: 44.10 **Payment Account Reference (PAR)**
Presence: Conditional for 1110 messages in the Acquiring domain.
Format: an29
Description: a unique value, assigned by the networks, attributed to all tokens associated with a given PAN.

Code: 44.11 **VTS Token Data**
Format: ans..13
Presence: Conditional in the Visa Issuing domain for VTS transactions.
Description: Contains token information returned by Visa in transactions originated by the issuer and intended for use with the VTS service.
The field supports the following subfields in TLV format:

Code: 44.11.06 **Token Expiration Date**
Format: n-4
Description: Token expiration date in the YYYYMM format.

Code: 44.11.08 **Token Status**
Format: an-1
Description: VTS Token status code. Can be one of the following:
'A' = Active for payment
'I' = Inactive for payment (not yet active)
'S' = Temporarily suspended for payments
'D' = Permanently deactivated for payments



Code: 44.12 **Bank Account Number**
Format: n14
Presence: Optional for 1110 messages.
Description: The Bank Account Number associated with the cardholder.

Code: 44.13 **Event ID**
Format: an4
Presence: Optional for 1110 messages.
Description: Reject Reason from the Issuer.

Code: 44.14 **Merchant ZIP Code**
Format: an9
Presence: Optional for 1110 messages.
Description: ZIP Code of the Merchant indicated in the original 1100 message.

Code: 44.15 **Client ZIP Code**
Format: an5
Presence: Optional for 1110 messages.
Description: ZIP Code of the client's home.

Code: 44.16 **Unlock/Activation Date**
Format: n8 YYYYMMDD
Presence: Optional for 1110 messages.
Description: Date of activation of the Credit Card.

Code: 44.17 **Card Plafond Availability**
Format: n10
Presence: Optional for 1110 messages.
Description: Card plafond availability at transaction time.

Code: 44.90 **MasterCard Issuer PIN request in a single tap mode**
Format: an1
Presence: Conditional. Can be present in 1110 messages in the acquiring domain for transactions originated in the EEA (European Economic Area).
Description: A code indicating that the issuer requests the cardholder to enter the PIN in "single tap" mode. When present, must have a fixed value of '1' ('Issuer requests PIN in single tap mode').

Code: 44.91 **Reserved for SIA use - Additional eCommerce data**
Format: an2
Presence: Conditional in 1110 messages in the acquiring domain, based on bilateral agreements.
Description: Used for converting information from response messages in the Base 24 BIC ISO format. Contains data from subfields E-COM-FLG e AUTHN-COLL-IND in Token C0.

Code: 44.98 **Amex Point of Service Data Code**
Format: n..12
Presence: Optional. Can be present in 1110 messages for the American Express Acquiring domain.
Description: Contains the data field 022 (POS Data Code) from the related 1100 message sent by SIA to American Express, encoded under American Express GCAG (Global Credit Authorization Guide) protocol.

Code: 44.99 **Amex AAV/AE Verification result**
Format: an..9
Presence: Optional. Can be present in 1110 messages for the American Express Acquiring domain.
Description: The results of Automated Address Verification (AAV), AE format, for card-not-present transactions.

4.45 Track 1 data (045)

| | |
|--------------|-------------------------------|
| Format | ans..76 LLVAR |
| Message Type | 1100 1120 1140 1420 1430 1440 |
| Presence | Conditional |

Description

The information encoded on track 1 of the magnetic stripe as specified in ISO 7813 (excluding beginning and ending sentinels and LRC characters as defined therein).

Comments

Use of this field is dependent on bilateral agreements.

4.46 Amount, fees (046)

| | |
|--------------|-----------------|
| Format | ans..204 LLLVAR |
| Message Type | 1100 |
| Presence | Conditional |

Description

The fees associated with the transaction.

This field can consist of up to 6 occurrences. Each occurrence consists of 6 fixed length subfields, as follows:

- Fee type code, n2
- Currency Code, fee, n3
- Amount, fee, x+n8
- Conversion rate, fee, 8
- Amount, reconciliation fee, x+n8
- Currency code, reconciliation fee, n3

These subfields are further detailed below:

a) Fee Type Code

| Fee Type Code | Description |
|---------------|---------------------------------|
| 00 | Transaction fee (surcharge fee) |

b) Currency Code, fee

The same value of field 049 'Currency code, transaction'.

c) Amount, fee

The fee amount, in the currency specified in b) "currency code, fee".

"x" can be D=Debit or C=Credit

d) Conversion Rate

The leftmost digit identifies the number of digits that follow the decimal point, or the number of positions the decimal point should be moved from the right. The remaining digits identify the conversion rate.

For example, assuming that the conversion rate is expressed by the number 0,001234567 (nine digits following the decimal point), the content in the field will appear as: 91234567.

e) Amount, reconciliation fee

The reconciliation fee amount, in the currency specified in f) "Currency code, reconciliation fee". "x" can be D=Debit or C=Credit

Comments

Only used in the Acquiring domain.

4.47 Additional data - national (047)

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1120 1140 |
| Presence | Optional |

Description

Reserved for national organizations to define data unique to country applications. The use of this data element is under the control of national bodies.

The Identification Code can assume one of the following values:

| | |
|-------|--|
| 01 | Payment Method |
| 02 | Service Code |
| 03-12 | Reserved for BCM/PGB network use |
| 13 | Cardholder email address |
| 14 | Cardholder IP address |
| 15 | Cardholder name |
| 16 | Cardholder surname |
| 17 | Service fee |
| 18 | Intermediation fee |
| 19 | Bank fee |
| 20 | Reserved for BCM/PGB network use |
| 21 | Network code |
| 22 | [Amex Address Verification Service] Service Indicator / Address Type |
| 23 | [Amex Address Verification Service] Cardholder Postal Code |
| 24 | [Amex Address Verification Service] Cardholder Address |
| 25 | [Amex Payment Aggregators and OptBlue Participants] Seller ID |
| 26 | [Amex Payment Aggregators and OptBlue Participants] Seller email address |
| 27 | [Amex Payment Aggregators and OptBlue Participants] Seller telephone no. |
| 28 | [Amex] Token Requestor ID (TRID) |
| 29 | [Amex] Last 4 PAN Return Indicator |
| 30 | User ID |
| 31 | Originating channel |
| 32 | MAC Address |
| 33 | User Agent |
| 34 | Device ID |
| 35 | Authentication Type |
| 36 | External Acquirer (Reserved for SIA use) |
| 37 | External Parameter (Reserved for SIA use) |

| | |
|-------|---|
| 38 | VPOS Unique Transaction ID (Reserved for SIA use) |
| 39 | Payment Indicator (Reserved for SIA use) |
| 40-94 | RFU |
| 95 | Reserved for SIA use |
| 96 | RFU |
| 97-99 | Reserved for SIA use |

Code: 47.01 **Payment Method**
Format: n..2
Description: The method of payment, as chosen by the cardholder (for example, installment payments). Use of this field is dependent on bilateral agreements.

Code: 47.02 **Service Code**
Format: an..2
Description: Used for SIA Self-Service feature. The subfield can assume the following values:

| | | |
|----|-----------------------------|--|
| 22 | Mobile phone top-up | |
| 32 | Road tax payments | |
| 87 | Postal money order payments | |

Code: 47.13 **Cardholder email address**
Format: ans..60
Description: Used in the American Express Acquiring domain. Also used or for internal Fraud Scoring services.

Code: 47.14 **Cardholder IP address**
Format: ans..15
Description: Used in the American Express Acquiring domain, or for Fraud Scoring services.

Code: 47.15 **Cardholder First Name**
Format: an..15
Description: Used in the American Express Acquiring domain.

Code: 47.16 **Cardholder Surname**
Format: ans..30
Description: Used in the American Express Acquiring domain.

Code: 47.17 **Service fee**
Format: n10
Description: The amount of the fee amount expressed in euro, applied by the institution providing the service specified in subfield 02, "Service Code".
Comments: Currently used for postal money order payments.

Code: 47.18 **Intermediation fee**
Format: n10
Description: The amount of the fee, expressed in euro, applied by the intermediary institution specified in subfield 02, "Service Code".
Comments: Currently used for postal money order payments.

Code: 47.19 **Bank fee**
Format: n10
Description: The amount, expressed in euro, of the fee applied by the acquiring bank.
Comments: Currently used for postal money order payments.

Code: 47.21 **Network Code**
Format: n3
Description: Acquiring domain only. A code indicating the payment network. Can be one of the following:

- 001 = UnionPay (Mono/Old BIN Table)
- 002 = Visa o Plus (Reserved for SIA use)
- 003 = MasterCard (Reserved for SIA use)
- 004 = Maestro (Reserved for SIA use)
- 300 = UnionPay (Nuova Bin Table UPI Only)
- 301 = UnionPay (Nuova BIN Table UPI Cobranded)

Comments: Use of this field is dependent on bilateral agreements.

Code: 47.22 **Service Indicator / Address Type**
Format: an1
Description: American Express Acquiring domain only. Specifies which information must be included in the Address Verification request to the network.

| Value | MC equivalent | Visa equivalent | JCB equivalent |
|-------|--|--|--|
| "1" | AVS Service ind. 1 Postal Code (9) + Address (20) | | |
| "2" | AVS Service ind. 2 Postal Code (9) + Address (5) | | JCB AVS Postal Code (9) + Address (5) |
| "3" | AVS Service ind. 3 Postal Code (9) + Address (5) | | |
| "4" | AVS Service ind. 4 Postal Code (9) + Address (5) | | |
| "5" | | Tag C0 <i>Postal Code</i> (9) + Tag CF <i>Address</i> (40) | |
| "6" | | Tag D0 <i>UK Compressed AVS Data</i> (14) | |
| "7" | | Tag D4 <i>Cardholder Name</i> (26) | |

Code: 47.23 **Cardholder Postal Code**
Format: ans..9
Description: American Express Acquiring domain only. Used for Address Verification purposes.



Code: 47.24 **Cardholder Address**
Format: ans..40
Description: American Express Acquiring domain only. Used for Address Verification purposes.

Code: 47.25 **Seller ID**
Format: an20
Description: American Express Acquiring domain only.

Code: 47.26 **Seller email address**
Format: ans..40
Description: American Express Acquiring domain only.

Code: 47.27 **Seller telephone no.**
Format: an20
Description: American Express Acquiring domain only.

Code: 47.28 **Token Requestor ID (TRID)**
Format: n11
Presence: American Express Acquiring domain, Payment Token transactions only. The field is Mandatory for Payment Token transactions where the Token Requestor ID is requested.
Description: A numeric value that uniquely identifies the Payment Token requestor.

Code: 47.29 **Last 4 PAN Return Indicator**
Format: a1
Description: American Express Acquiring domain, Payment Token transactions, 1100 messages only. Enables a Merchant to request the last four digits of the PAN be returned in the 1110 response message. When present, contains a fixed value of 'Y'.

Code: 47.30 **User ID**
Format: ans..99
Description: User identification code. Used for Fraud Scoring purposes, based on bilateral agreements.

Code: 47.31 **Originating channel**
Format: an..3
Description: The source channel for the transaction. Used for Fraud Scoring purposes, based on bilateral agreements.

Code: 47.32 **Mac Address**
Format: ans..30
Description: The Mac Address of the device originating the authorization request. Used for Fraud Scoring purposes, based on bilateral agreements.



| | | |
|---------------------|--|-----------------------------------|
| Code: | 47.33 | User Agent |
| Format: | ans..30 | |
| Description: | A string of text, beginning `user-agent`, sent from the browser to the server to identify the cardholder device's application. The first 30 characters must be provided. Used for Fraud Scoring purposes, based on bilateral agreements. | |
| Code: | 47.34 | Device ID |
| Format: | ans..99 | |
| Description: | The identification code of the device originating the authorization request. Used for Fraud Scoring purposes, based on bilateral agreements. | |
| Code: | 47.35 | Authentication Type |
| Format: | an..3 | |
| Description: | Used for Fraud Scoring purposes, based on bilateral agreements. | |
| Code: | 47.36 | External Acquirer |
| Format: | an..99 | |
| Description: | Reserved for SIA internal use (VPOS) | |
| Code: | 47.37 | External Parameter |
| Format: | an..99 | |
| Description: | Reserved for SIA internal use (VPOS) | |
| Code: | 47.38 | VPOS Unique Transaction ID |
| Format: | an..50 | |
| Description: | Reserved for SIA internal use (VPOS) | |
| Code: | 47.39 | Payment Indicator |
| Format: | an1 | |
| Description: | Reserved for SIA internal use (VPOS) | |

4.48 Additional data - private (048)

| | |
|--------------|-------------------------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1110 1120 1140 1420 1440 |
| Presence | Optional |

Description

Reserved for private data. The use of this data element is determined by bilateral agreement.

The Identification Code can assume one of the following values:

| | |
|-------|--|
| 01 | CVV2/CVC2/4DBC presence indicator |
| 02 | CVV2/CVC2/4DBC value |
| 03 | Visa validation service results |
| 04 | Cross-Border Fee Manager ECB Rate Service |
| 05-12 | RFU |
| 13 | Mobile Phone Top-up Data |
| 14 | Partial Authorization Indicator |
| 15-25 | RFU |
| 26 | MasterCard Wallet Program Data |
| 27-31 | RFU |
| 32 | MasterCard Assigned Id |
| 33 | HCE Token Data |
| 34 | Payment Initiation Channel |
| 35 | Payment Account Data |
| 36 | IBAN |
| 37 | Additional Merchant Data |
| 38 | Installment Payment Data |
| 39 | Amex Acceptance Environment Data |
| 40 | Diners Acceptance Environment Data |
| 41-55 | RFU |
| 56 | MasterCard - Security Services Additional Data for Issuers |
| 57-63 | RFU |
| 64 | MasterCard - Transit Program |
| 65-75 | RFU |
| 76 | Visa Quasi-cash Transaction Type Indicator |
| 77 | Payment/Funding Transaction Type Indicator |
| 78 | SIA Wallet Indicator |
| 79 | Routing Information |
| 80 | Mastercard-RBI Terminal Compliant Indicator |
| 81 | Mastercard-Sanction Screening Score |
| 82 | MasterCard (On-behalf Services) |
| 83 | MDES Token Data-1 |
| 84 | MDES Token Data-2 |
| 85 | MDES Additional Transaction Analysis |
| 86 | Mastercard OBS 54 service - result 2 |
| 87-89 | RFU |
| 90 | VTs Token Data |
| 91 | VTs Activate Verification Data |
| 92 | VTs Token Data-2 |
| 93 | RFU |
| 94 | Consumer Device IP Address (RFU) |
| 95 | Visa PSD2 Data |
| 96 | MasterCard PSD2 Data |
| 97-98 | RFU |

| | |
|---------------------|--|
| 99 | Miscellaneous data |
| Code: | 48.01 CVV2/CVC2/4DBC presence indicator |
| Format: | n1 |
| Presence: | Can be present in 1100 messages. |
| Description: | Used in mail order, telephone order and electronic commerce transactions. Can assume one of the following values: <ul style="list-style-type: none"> 0 CVV2/CVC2/4DBC value is deliberately bypassed or is not provided by merchant 1 CVV2/CVC2/4DBC value is present 2 CVV2/CVC2/4DBC value is on the card but is illegible 9 Cardholder states that the card has no CVV2/CVC2/4DBC imprint |
| Code: | 48.02 CVV2/CVC2/4DBC value |
| Format: | n..4 |
| Presence: | Can be present in 1100 messages. |
| Description: | The CVV2/CVC2/4DBC value CVV2 value from the signature panel of the card. |
| Code: | 48.03 Visa validation service results |
| Format: | ans..15 |
| Presence: | Issuing domain only. Can be present in 1100 and 1120 messages. |
| Description: | Contain one or more result codes related to the validations performed by Visa on behalf of the issuer. Supports the following subfields in TLV format: <ul style="list-style-type: none"> Code: 48.03.01 CVV/iCVV pre-validation result Format: an-1 Description: The result of the CVV/iCVV validation performed by Visa on behalf of the issuer. Can be one of the following: <ul style="list-style-type: none"> 'M' : CVV/iCVV verification successful 'N' : CVV/iCVV verification failed 'P' : CVV/iCVV verification not performed 'U' : CVV, iCVV, or dCVV could not be verified Code: 48.03.02 Online CAM pre-validation result Format: an-1 Description: The result of the Online Card Authentication Method (CAM) validation performed by Visa on behalf of the issuer: <ul style="list-style-type: none"> 'M' : CAM verification successful 'N' : CAM verification failed 'P' : CAM verification not performed Code: 48.03.03 CVV2 pre-validation result Format: an-1 Description: The result of the CVV2 validation performed by Visa on behalf of the issuer: <ul style="list-style-type: none"> 'M' : CVV2 verification successful 'N' : CVV2 verification failed 'P' : CVV2 verification not performed 'S' : CVV2 should be on the card 'U' : Issuer does not participate in CVV2 service or participates but has not provided Visa with encryption keys, or both |

Code: 48.03.04

TAVV/DTVV pre-validation result

Format: an-1

Description: The3 result of the TAVV/DTVV validation:

'M' : TAVV/DTVV verification successful

'N' : TAVV/DTVV verification failed

'I' : TAVV/DTVV verification not performed

Code: 48.04

Cross-Border Fee Manager ECB Rate Service (Mastercard Only)

Format: ans..99

Presence: Optional

Description: The CBFM ECB Rate Service is available to EEA issuers to help them meet their obligations per the European Commission's Regulation 2019/518. The regulation requires issuers in the EEA to notify cardholders of the current issuer cost of conversion in comparison to the ECB rates on the same currency pair

Code: 48.04.01

Reference Conversion Rate

Format: n..8

Description: Position 1 indicates the number of positions the decimal point should be moved from the right. Must be in the range of 0-7. Positions 2-8 indicates the conversion rate. (Mastercard CIS protocol, DE 48.60.1).

Code: 48.04.02

Independent Sales Organization ID - RFU

Format: a..1

Description: provides the algebraic sign of the Reference Conversion Rate Differential. (Mastercard CIS protocol, DE 48.60.2).
Can assume one of the following values:

'C' indicates that DE 10 (Conversion Rate, Cardholder Billing) is larger than or equal to DE 48, subelement 04, subfield 01 (Reference Conversion Rate)

'D' indicates that DE 10 (Conversion Rate, Cardholder Billing) is smaller than DE 48, subelement 04, subfield 01 (Reference Conversion Rate)

Code: 48.04.03

Reference Conversion Rate Percent Differential

Format: n..6

Description: provides a percentage of DE 48, subelement 60, subfield 01 (Reference Conversion Rate) to communicate the effective currency conversion markup of the transaction. It carries a percentage value with an implied two-position decimal. (Mastercard CIS protocol, DE 48.60.3).



Code: 48.05 **Extended STIP Reason Code**
Format: an-1
Description: This field will contain the extended STIP reason code with one of the new values:

- '2' Missing expiration date
- '3' VSDC default response code decline (CAM fail)
- '4' CVV2 default response code decline
- '5' Declined key-entered transaction in STIP
- '6' Risky country response code
- '7' Interlink pre-auth completion history
- '8' OCT rule decline
- '9' Domestic PIN at POS set to decline in STIP
- 'A' AA score greater than value specified by issuer
- 'B' AA score greater than STIP MCC threshold
- 'C' Processed by Smarter STIP

Code: 48.13 **Mobile Phone Top-up Data**
Format: ans17+ans30
Presence: Can be present in 1100 messages.
Description: The field consists of the following two subfields.

| | |
|------------------------------------|---|
| Mobile Phone Number | The phone number of the wireless phone for which the customer is purchasing extra service (Mastercard DE 48, subelement 13, subfield 1) |
| Mobile Phone Service Provider Name | The name, or other identifier, of the mobile phone service provider. (Mastercard DE 48, subelement 13, subfield 2 according to CIS specification) |

Code: 48.14 **Partial Authorization Indicator**
Format: n1
Presence: Can be present in 1100 messages.
Description: Specifies whether the POS supports partial authorizations. Can assume one of the following values:

- '0' not applicable
- '1' Terminal supports partial authorization
- '2' Terminal does not support partial authorization responses, and the amount is an estimate.
- '3' Terminal supports partial authorization responses, and the amount is an estimate.

Code: 48.26 **Wallet Program Data**
Format: an 3
Presence: Optional in 1100 e 112x messages
Description: Present for Mastercard Digital Enablement Service (MDES) or Masterpass transactions. Identifies the Wallet Provider for the transaction. Cannot contain all zeros, spaces, or special characters.
Can assume one of the following values:

- '101' Masterpass
- '103' Apple Pay
- '216' Android Pay
- '217' Samsung Pay
- '327' Merchant Tokenization

Code: 48.32 **MasterCard Assigned Id**
Format: an 6
Presence: Optional in 1100 e 112x messages in the Acquiring domain.
Description: The customer ID number assigned by Mastercard to the acquirer.

Code: 48.33 **HCE Data**
Format: n26
Description: Used in HCE-based token transactions. The field consist of the following three fixed-length subfields.

| Subfield | Format and length (bytes) | Values | Description |
|-------------------------|---------------------------|--|---|
| Actual PAN | n19 | n/a | The PAN associated to the token in field 002, left-justified. When subfield "Transaction validation result" indicates an error condition, the value is not relevant. |
| Card expiration date | n4 YYMM | n/a | The expiration date for the card associated to the token in field 002. When subfield "Transaction validation result" indicates an error condition, the value is not relevant. |
| Transaction validations | n3 | 000 - no transaction error conditions. 010 - incorrect mPin (two tries left) 012 - incorrect mPin (one try left) 015 - mPin blocked 025 - unknown Token 028 - incorrect "Account parameters" status 031 - incorrect ARQC 032 - incorrect ATC 999 - HCE data service unavailable | Specifies the results of the transaction validations performed by the HCE server. |

Code: 48.34 **Payment Initiation Channel**
Format: an-2
Presence: Optional in the Mastercard Acquiring domain for MDES token transactions.
Description: The type of device from which the transaction originated.
 See Appendix [A.5](#) for a list of possible values.

Code: 48.35 **Payment Account Data**
Format: an..33
Presence: Optional in Mastercard MDES and Visa VTS token transactions for pre-digitization and authorizations.
Description: Unique code associated with a PAN and with all tokens related to that PAN.

Code: 48.35.01 **Payment Account Reference (PAR)**
Format: an..29
Description: Unique code associated with a PAN and with all tokens related to that PAN.



Code: 48.36 **IBAN**
Format: ans-35
Description: Used The International Bank Account Number (IBAN) associated with the card which originated the transaction.

Code: 48.37 **Additional Merchant Data**
Format: ans..49
Presence: Must be present in Visa and Mastercard Acquiring domains for transactions involving a Service Provider such as a Payment Facilitator or an Independent Sales Organization.
Description: The codes assigned by the Networks to payment service providers and sub-merchants. The field supports the following subfields in TLV format:

Code: 48.37.01 **Payment Facilitator ID**
Format: n..11
Description: The Payment Facilitator ID assigned by Mastercard or Visa (Mastercard CIS protocol, DE 48.37.1; Visa VIP protocol, field 104.56.1).

Code: 48.37.02 **Independent Sales Organization ID - RFU**
Format: n..11
Description: The Independent Sales Organization ID assigned by Mastercard or Visa. (Mastercard CIS protocol, DE 48.37.2; Visa VIP protocol, field 104.56.3).
Currently not in use (RFU)

Code: 48.37.03 **Sub-Merchant ID**
Format: ans..15
Description: The Merchant ID of the submerchant. (Mastercard CIS protocol, DE 48.37.3; Visa VIP protocol, field 104.56.2).

Code: 48.37.04 **Merchant Country of Origin**
Format: n..3
Description: The ISO numeric country code for the home country of the government that owns or controls the merchant that initiated the transaction. (Mastercard CIS protocol, DE 48.37.4).
Currently not in use for Visa (RFU)

Code: 48.38 **Installment Payment Data**
Format: ans..255
Description: Installment plan payment method additional information. The field supports the following subfields in TLV format:

Code: 48.38.01 **Number of installments**
Format: n2
Description: Total number of installments

Code: 48.39 **AMEX Acceptance Environment Data**
Format: n..99
Presence: Optional in the American Express Acquiring domain
Description: Additional data for use with remote, Credential on File and Merchant Initiated Transactions. The field supports the following subfields in TLV format:

Code: 48.39.01 **MIT Indicator**
Format: n1
Description: Initiating party indicator. Can assume the following values:
 '0' = Customer Initiated Transaction (CIT)
 '1' = Merchant Initiated Transaction (MIT)

Code: 48.39.02 **Secure Corporate Payment Exemption Indicator**
Format: n1
Description: Secure corporate payment process and protocol SCA exemption indicator.
 Can assume one of the following values:
 '0' = not claimed
 '1' = claimed

Code: 48.40 **Diners Acceptance Environment Data**
Format: n..99
Presence: Optional in the Diners acquiring domain
Description: Additional data for use with remote, Credential on File and Merchant Initiated Transactions.
 It supports the following subfields in TLV format:

Code: 48.40.01 **MIT Indicator**
Format: n1
Description: Initiating party indicator. Can assume the following values:
 '0' = Customer Initiated Transaction (CIT)
 '1' = Merchant Initiated Transaction (MIT)
 Must be present and set to '1' for MIT transactions.

Code: 48.40.02 **SCA Exemption Indicator**
Format: n2
Description: The Strong Customer Authentication exemption requested by the Acquirer.
 Can assume one of the following values:
 01 = Low Value Amount Transaction
 02 = Delegated Authentication
 03 = Secure Corporate Transaction
 04 = Transaction Risk Analysis (TRA)

Code: 48.56 **Mastercard Security Services Additional Data for Issuers**
Format: an..96
Presence: Optional in the Mastercard Acquiring domain.
Description: Additional data for use with Mastercard embedded security services for issuers. The field consists of a variable numbers of up to 16 occurrences of six-character subfield. Each subfield begins with a three-character code identifying the real-time monitoring service used, as shown below:

| | |
|--------------|-----|
| Service Type | an3 |
| Service Data | an3 |

Refer to Appendix [A7](#) for a complete listing of possible values.



Code: 48.64 **Transit Program data**
Format: n-4
Presence: Optional in 1100 and 1120 transit transactions in the Mastercard, UPI and JCB Acquiring domains.
Description: Data used to identify transit transactions. ~~The value from this field is transferred to CIS DE 48.64 in the message to Mastercard.~~ Refer to Mastercard CIS Specification for additional information.

Code: 48.76 **Visa Quasi-Cash Transaction Indicator**
Format: an-1
Presence: Conditional in 1100, 1120, 1140, 1420, 1440 messages when card acceptor business code is '6051' (quasi-cash).
Description: A code identifying the type of Quasi-cash transaction.
The following value is currently supported:
 '1' - Cryptocurrency purchase

Code: 48.77 **Transaction Type Identifier**
Format: an-3
Presence: Optional in Mastercard Issuing domain. Can be present in 1100, 1110 (echo), 1120, 1140, 1420, 1430 (echo), 1440 messages.
Description: Indicates the type of additional transaction purpose, as received from Mastercard. Can assume one of the following values:

| | |
|-----|---|
| C02 | Rebate |
| C03 | rePower |
| C04 | Gaming |
| C06 | Payment of a credit card balance with cash or check - valid for Colombia domestic transactions only |
| C07 | <i>MoneySend</i> Person to Person |
| C51 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C52 | <i>MoneySend</i> Account-to-Account Transfers |
| C53 | <i>MoneySend</i> Agent Cash Out |
| C54 | <i>MoneySend</i> Credit Card Bill Payment |
| C55 | <i>MoneySend</i> Business Disbursement |
| C56 | <i>MoneySend</i> Government/Non-profit Disbursement |
| C57 | <i>MoneySend</i> Acquirer Merchant Settlement |
| C58 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C59 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C60 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C61 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C62 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C63 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C64 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| C65 | <i>MoneySend Business to Business Transfer</i> |
| C66 | <i>MoneySend</i> Additional Payment Indicator (RFU) |
| F07 | P2P Transfer |
| F08 | <i>MoneySend</i> Person-to-Person Transfer to Card Account |
| F52 | Account-to-Account Transfer |
| F53 | Agent Cash Out |
| F54 | Credit Account Bill Payment |
| F55 | <i>MoneySend</i> Business Disbursement |
| F61 | Staged Wallet Load |

| | |
|-----|--|
| F64 | Prepaid Card Load |
| F65 | <i>MoneySend</i> General Business-to-Business Transfer |
| P70 | Cryptocurrency |
| P71 | High-risk Securities |

Code: 48.78 **SIA Wallet Indicator**
Format: an-1
Presence: Optional in 1100 and 1120 messages.
Description: Indicates whether the transaction originated from a SIA wallet. Can assume one of the following values:

- '0' (default when missing) - the transaction did not originate from a SIA Wallet
- '1' the transaction originated from a SIA Wallet
- '2' the transaction originated from a SIA Wallet using a QR Code
- '3' the transaction originated from a SIA Wallet using a combination of QR Code and Transaction ID

Code: 48.79 **Routing Information**
Format: an-1
Presence: Optional in 1100 and 1120 message.
Description: The entity through which the transaction was routed to SIA. Can assume one of the following values:

- '0' (network) — The transaction was received directly from the international network;
- '1' (On-us) — The transaction was received from the issuer, or from a subject delegated by the issuer, having first collected it in its role as an Acquirer for the international networks, or through its privative cards acquiring system.

Code: 48.80 **Mastercard - Terminal Compliant Indicator**
Format: an-1
Presence: Must be present in card present, POS transactions acquired in India.
Description: Specifies whether or not a POS terminal from which the transaction originated is Terminal Line Encryption (TLE) and Unique Key Per Terminal (UKPT)/Derived Unique Key Per Terminal (DUKPT) compliant. May assume one of the following values:

| |
|---|
| 0 not certified |
| 1 'TLE' certified only |
| 2 'UKPT/DUKPT' certified only |
| 3 'TLE' and 'UKPT/DUKPT' certified |

Code: 48.81 **Mastercard – Sanction Screening Score**
Format: an-3
Description: The Sanctions Score value populated by MasterCard. The score will be provided based on the Sender name (consumer, business, government, and non-government) matched against key screening lists such as the OFAC Specially Designated Nationals and Blocked Persons List, UN List, and EU List. The score will be 3 bytes and between a value of 000-100, or 999. A higher score indicates a closer match to names on the applicable screening lists, while lower scores indicate a less likely match. When a score cannot be determined, the value will be 999.

Code: 48.82 **Mastercard – (On-behalf [OB] Services)**
Format: an..30
Presence: Optional. It can be present in 1100 and 1120 messages in the Mastercard Issuing domain for Issuers participating in MasterCard on-behalf services.
Description: Contains a list of the on-behalf Service performed on the transaction and the results. The field consists of up to 10 occurrences, each related to a different service. Each occurrence consists of the following subfields:

| | |
|--------------------|-----|
| On-Behalf Service | an2 |
| On-behalf result 1 | an1 |

Listed below are all the possible values for the services for which SIA provides processing services beyond the mere forwarding of the information. For a complete list of On-Behalf services and results, please refer to Mastercard's documentation.

| On-Behalf Service | On-Behalf result | Note |
|--|---|---|
| 05 = Mastercard <i>SecureCode (Id. Check)</i> AAV Verification Service | I = Invalid AAV U = Unable to process V = Valid K = No matching key file for this PAN, PAN expiry date, and KDI combination X = Security platform time out Z = Security platform system error A = AAV and Amount Checked B = Balance to Verify C = Consider the amount D = DS Transaction ID Failed S = DS Transaction ID Present – See Balance to Verify T = Transaction ID Present – Consider the amount M = (currency mismatch) | Optional in 1100 and 1120 messages for transactions where Mastercard validates the AAV. |
| 06 = Mastercard <i>SecureCode (Id. Check)</i> Dynamic AAV Verification in Stand-In Processing | I = Invalid AAV U = Unable to process V = Valid K = No matching key file for this PAN, PAN expiry date, and KDI combination X = Security platform time out Z = Security platform system error | Optional in 1100 and 1120 messages for transactions where Mastercard validates the AAV. |
| 18 = Fraud Scoring Service | C = Fraud Scoring Service was performed successfully U = Fraud Scoring Service was not performed successfully | Optional in 1100 and 1120 messages. |
| 33 = MoneySend Blocking Service | N = MoneySend Issuer Monitoring–MoneySend Transaction Count exceeded O = MoneySend Issuer Monitoring–Aggregate transaction amount limit exceeded P = MoneySend Issuer Monitoring–Transaction amount limit exceeded U = Unable to process W = MoneySend Mastercard Blocking–Country not allowed for the MoneySend Transaction V = Valid | Optional in 1100 and 1120 messages for MoneySend transactions. |

| | | |
|---|---|---|
| 50 = MDES Pan Mapping | C = Conversion To Token completed successfully I = Invalid Token (RFU) U = Unable to process (RFU) F = Format Error (RFU) | Optional in 1100 and 1120 messages for MDES transactions. Values 'I', 'U', 'F' are reserved for future use because transactions with Token Conversion unsuccessful, or not performed, are currently not being forwarded. |
| 51 = MDES Chip pre-Validation Service | A = ATC outside allowed range (applicable when ATC value is dynamic [varying] value) E = ATC Replay F = Format Error G = Application Cryptogram is valid but not an ARQC nor a TC, status of TVR/CVR unknown I = Invalid Cryptogram T = Valid ARQC/TC and ATC; TVR/CVR invalid U = Unable to process X = Security platform time out Z = Security platform system error V = Valid ARQC/TC and ATC | Optional in 1100 and 1120 messages for MDES transactions. |
| 52 = MasterCard Digital Enablement Service CVC 3 Pre-Validation | A = ATC outside allowed range (applicable when ATC value is dynamic [varying] value) E = CVC 3 ATC Replay H = Invalid Time Validation I = Invalid CVC 3 N = Unpredictable Number Length Indicator Mismatch U = Unable to process K = No matching key file for this PAN, PAN expiry date, and KDI combination X = Security platform time out Z = Security platform system error V = Valid | Optional in 1100 and 1120 messages for MDES transactions. |
| 54 = Mastercard Digital Enablement Service Digital Payment Data Validation Service | A = the transaction amount in DE 4 is less than or equal to the estimated amount in the cryptogram B = the transaction amount in DE 4 is greater than the estimated amount in the cryptogram by greater than 0% to 19.99% C = the transaction amount in DE 4 is greater than the estimated amount in the cryptogram by 20% or more | |

| | | |
|--|--|--|
| 55 = Mastercard Merchant Validation Service for Mastercard Digital Enablement Service Transactions | M = The submitted merchant data is a match to Mastercard's merchant data N = The submitted merchant data is not a match to Mastercard's merchant data | Optional in 1100 and 1120 messages for MDES transactions. |
| 61 = MDES Cloud-Based Payments Chip pre-Validation Service 62 = MasterCard Digital Enablement Service Cloud-Based Payments Magnetic Stripe Pre-Validation Service | D = ATC Invalid—Not in list of currently active Single-Use Keys E = ATC Replay F = Format Error I = Invalid MD AC and UMD AC H = Invalid Time Validation K = No matching key file for this PAN, PAN expiry date and KDI combination L = Invalid MD AC; Valid UMD AC M = Valid MD AC; Invalid UMD AC (Mobile PIN Try Counter Max Limit Reached, Token Suspended) N = Unpredictable Number Length Indicator Mismatch P = Valid MD AC; invalid UMD AC (invalid mobile PIN) T = Invalid TVR/CVR U = Unable to process X = Security platform time out Z = Security platform system error V = Valid | Optional in 1100 and 1120 messages for MDES transactions. Values 'H' and 'N' apply to On-Behalf Service '62'. Value 'T' apply to On-Behalf Service '61'. |

Code: 48.83 **MDES Token Data-1**
Format: ans..63
Presence: Conditional. It can be present in MDES transactions in the issuing domain only.
Description: Provides additional information about the token in MDES transactions.
The field supports the following subfields in TLV format:

Code: 48.83.01 **Token Type**
Format: an-1
Description: The MDES Token Type Indicator.
Can assume one of the following values:

'H' = MDES HCE/Cloud-based Payments Device Token
'C' = MDES Secure Element Device Token
'F' = MDES Card on File Token

Code: 48.83.02 **Token**
Format: n..19
Description: Specifies the Token value.

Code: 48.83.03 **Token Expiration Date**
Format: n-4
Description: The token expiration date in YYYY format.

Code: 48.83.04 **Token Assurance Level**
Format: n-2
Description: A value indicating the confidence level of the token to PAN/cardholder binding.

Code: 48.83.05 **Token Requestor Id**
Format: n-11
Description: The ID assigned to the Token Requestor by the Token Service Provider.

Code: 48.83.06 **Storage Technology**
Format: an-2
Description: The Storage Technology of a requested or created token.
 Can assume one of the following values:
 '01' = Device Memory
 '02' = Device Memory protected by Trusted Platform Module (TPM)
 '03' = Server
 '04' = Trusted Execution Environment (TEE)
 '05' = Secure Element (SE)
 '06' = Virtual Execution Environment (VEE)

Code: 48.84 **MDES Token Data-2**
Format: ans-48
Presence: Conditional. . It can be present in MDES transactions in the issuing domain only.
Description: Provides additional information about the token in MDES transactions.
 The field supports the following subfields in TLV format:

Code: 48.84.01 **Token Transaction Identifier**
Format: ans-44
Description: The calculated Token Transaction Identifier.

Code: 48.85 **Additional Transaction Analysis**
Format: ans..97
Presence: Conditional. It can be present in MDES transactions in the issuing domain only.
Description: Provides information about the MDES validations in contact-less or DSRP transactions.
 The field supports the following subfields in TLV format:

Code: 48.85.01 **Transaction Disposition**
Format: an-2
Description: The overall disposition of the transaction based on the applicable transaction validation results and corresponding decision matrix.
 Can assume one of the following values:
 'CI' = Continue processing with information
 'CW' = Continue processing with warning
 'DI' = Decline issuer decision
 'DS' = Decline suspicious

Code: 48.85.02 **Test Results**
Format: an..87
Description: provides the list of failed validations. If several failed validations generate the same test result code, the code will only be reported one time.
 Can assume one or more of the following values:

 'CAM' = Invalid Card Authentication
 'CCH' = Cross channel
 'CRN' = Consent Requirement not fulfilled
 'CVF' = Cardholder verification (on terminal) was not successful
 'CVU' = CVM requirements not fulfilled
 'CVX' = Status CVM unknown
 'DAF' = ODA failed

'DAU' = Data not consistent with application
 'DMM' = Data mismatch
 'DNC' = ODA was not performed
 'EXP' = Token expired
 'FER' = Format error
 'FUZ' = Fuzzing
 'ICT' = Not a valid cryptogram type
 'NMK' = No matching key file/KDI combination
 'OVE' = CDCVM retry exceeded—token suspended
 'OVF' = CDCVM failed
 'OVP' = CDCVM (was possible but) not performed
 'OVU' = CDCVM not performed
 'PKC' = ODA compromised
 'PPP' = PIN Pad Problem
 'PTB' = PIN on terminal bypass
 'PWE' = Possible wedge attack
 'REP' = ATC replay—Same UN
 'SKC' = Key compromised
 'SNA' = Request service not allowed for this product
 'UTP' = Unable to process
 'WOC' = Wallet overrule of Mastercard decision on CDCVM

Code: 48.86 **Mastercard – OBS 54 - result 2**
Format: an..3
Presence: Conditional. It can be present in MDES transactions in the issuing domain only.
Description: On-behalf MasterCard Service 54 (OBS) result 2.

Code: 48.86.01 **OBS Service Type**
Format: an-2
Description: Fixed value = '54'

Code: 48.86.02 **OBS Service Result**
Format: an-1
Description: Can assume one of the following values:

'M' = The incoming Remote Commerce Acceptor Identifier is a match to the merchant data within the cryptogram
 'N' = The incoming Remote Commerce Acceptor Identifier is not a match to the merchant data within the cryptogram, or the identifier is not present in the incoming transaction

Code: 48.90 **VTS Token Data**
Format: ans..99
Presence: Conditional. It can be present in VTS transactions in the issuing domain only.
Description: Provides additional information about the token in VTS transactions. The field supports the following subfields in TLV format:

Code: 48.90.01 **Token value**
Format: n..19
Description: The Token that is used to replace the cardholder PAN.

Code: 48.90.02 **Token Assurance Level (RFU)**
Format: an-2
Description: A value indicating the confidence level of the token to PAN/cardholder binding. Reserved for future uses. Included for documentation purposes only.

Code: 48.90.03 **Token Requestor Id**
Format: n-11
Description: The ID assigned to the Token Requestor by the Token Service Provider.

Code: 48.90.05 **Token Reference Id**
Format: an-32
Description: An alternative token identification code.

Code: 48.90.06 **Token Expiration Date**
Format: n-4
Description: The token expiration date in YYMM format.

Code: 48.90.07 **Token Type**
Format: an-2
Description: The VTS token type.
Can assume one of the following values:

'01' = ECOM/COF (e-commerce card on file)
'02' = SE (secure element)
'03' = CBP (cloud-based payment)
'05' = E-commerce enabler
'06' = Pseudo account

Code: 48.90.08 **Token Status**
Format: an-1
Description: The VTS token status. Can assume one of the following values:

'A' = Active for payment
'I' = Inactive for payment (not yet active)
'S' = Temporarily suspended for payments
'D' = Permanently deactivated for payments

Code: 48.91 **VTS Activation Verification Data**
Format: ans..19
Presence: Conditional. It can be present in VTS transactions in the issuing domain only.
Description: VTS Activation Verification results as provided by Visa.
The field supports the following subfields in TLV format:

Code: 48.91.04 **AAM Velocity Checking Result**
Format: n-2
Description: Active Account Management (AAM) Velocity Checking Result. Can assume one of the following values:

'02' = Time-to-live exceeded
'03' = Count exceeded
'04' = Amount exceeded

Code: 48.91.05 **Cardholder Verification Methods Identified by Cardholder Device**

Format: b-32

Description: The cardholder verification method used in the VTS transaction. The field is in a bitmap format. Only the first byte is currently used with the following structure (starting from the Most Significant Bit):

- Bit 1: Unknown
- Bit 2: None
- Bit 3: Signature
- Bit 4: Online PIN
- Bit 5: Passcode
- Bit 6: Cardholder device code
- Bit 7: Fingerprint biometric verified by cardholder device
- Bit 8: Cardholder device pattern

Code: 48.91.08 **Token Verification Result Code**

Format: ans-1

Description: TAVV/DTVV validation result. Can assume one of the following values:

- '1' = TAVV cryptogram failed validation
- '2' = TAVV cryptogram passed validation
- '3' = DTVV or Visa-defined format cryptogram failed validation
- '4' = DTVV or Visa-defined format cryptogram passed validation

Code: 48.92 **VTS Token Data-2**

Format: ans..57

Presence: Conditional. It can be present in VTS transactions in the issuing domain only.

Description: Provides additional information about the token in VTS transactions. The field supports the following subfields in TLV format:

Code: 48.92.80 **Bound Device Index**

Format: n..b1

Description: Index number from the Visa database where the device ID is stored.

Code: 48.92.81 **Token User Identifier**

Format: n..11

Description: A unique value that identifies the entity that initiates a payment request.

Code: 48.92.82 **Token User Application Type**

Format: b1

Description: The application type of the token user. Can assume one of the following values:

- '00' = Unknown
- '01' = Web
- '02' = Mobile web
- '03' = Mobile application
- '04' = Marketplace application
- '05' = Voice application
- '06' = Biometric application
- '07–FF' = Reserved

Code: 48.92.83

Format: b1

Description: An authentication factor used by token requestors and merchants to authenticate the cardholder at time of transaction. Can assume one of the following values:

Token Authentication Factor A

| Authentication Factor Values | |
|--|---|
| Value | Authentication Method Description |
| 00 | No Authentication Method Acquired |
| 01 | Username / Password |
| 02 | Passcode or Password |
| Consumer Device Cardholder Verification Method (CDCVM) | |
| 10 | Passcode |
| 11 | Password |
| 12 | Pattern |
| 13 | Biometric Fingerprint |
| 14 | Biometric Facial Recognition |
| 15 | Biometric Iris Recognition |
| 16 | Biometric Voice Recognition |
| 17 | Behavioral Biometric |
| One Time Passcode (OTP) | |
| 30 | Short Message System (SMS Text) |
| 31 | Email |
| 32 | Hardware Token Without User Verification |
| 33 | Hardware With User Verification |
| 34 | Soft Token |
| 35 | Any Other Method |
| 40 | Knowledge Based Authentication |
| 41 | Out of Band (OOB) Authentication |
| 42 | Local Authentication |
| Fast Identity Online (FIDO) | |
| 50 | Possession Only. No User Verification |
| 51 | With User Verification (Biometric) |
| 52 | With User Verification (Passcode/Password) |
| 60 | SE Based Token: Cryptogram generated from a SE device for a device-bound token was provided, establishes possession factor. |
| 61 | Device Bound Token: Device bound token (token reference) was provided by token requestor along with proof of device used for binding token, establishes possession factor |

Code: 48.92.84

Format: b1

Description: An authentication factor used by token requestors and merchants to authenticate the cardholder at time of transaction. Can assume one of the following values:

Token Authentication Factor B

| Authentication Factor Values | |
|--|---|
| Value | Authentication Method Description |
| 00 | No Authentication Method Acquired |
| 01 | Username / Password |
| 02 | Passcode or Password |
| Consumer Device Cardholder Verification Method (CDCVM) | |
| 10 | Passcode |
| 11 | Password |
| 12 | Pattern |
| 13 | Biometric Fingerprint |
| 14 | Biometric Facial Recognition |
| 15 | Biometric Iris Recognition |
| 16 | Biometric Voice Recognition |
| 17 | Behavioral Biometric |
| One Time Passcode (OTP) | |
| 30 | Short Message System (SMS Text) |
| 31 | Email |
| 32 | Hardware Token Without User Verification |
| 33 | Hardware With User Verification |
| 34 | Soft Token |
| 35 | Any Other Method |
| 40 | Knowledge Based Authentication |
| 41 | Out of Band (OOB) Authentication |
| 42 | Local Authentication |
| Fast Identity Online (FIDO) | |
| 50 | Possession Only. No User Verification |
| 51 | With User Verification (Biometric) |
| 52 | With User Verification (Passcode/Password) |
| 60 | SE Based Token: Cryptogram generated from a SE device for a device-bound token was provided, establishes possession factor. |
| 61 | Device Bound Token: Device bound token (token reference) was provided by token requestor along with proof of device used for binding token, establishes possession factor |

Code: 48.92.85 **Token Authentication Amount**
Format: b3
Description: Payment amount made visible by the token requestor to the consumer at the time of purchase. May be used to support dynamic linking requirements of PSD2/RTS.
Note: This amount is seven right-most digit of payable amount excluding minor units, converted from decimal to binary. Minor units excluded specified by country code in Field 49 — Currency Code, Transaction.

Code: 48.92.86 **Token Requestor – Token Service Provider Id**
Format: n-11
Description: Contains the Token Requestor - Token Service Provider Id value assigned by the Token Service Provider.

Code: 48.94 **Consumer Device IP Address (RFU)**
Format: ans..39
Presence: Optional in the Visa Issuing domain for 1100 messages.
Description: The IP address of the consumer device in use. Can contain an internet protocol version 4 (IPv4) or internet protocol version 6 (IPv6) address.

Code: 48.95 **Visa PSD2 Data**
Format: ans..99
Presence: Conditional. It can be present in 1100 and 1120 messages for Visa transactions in the acquiring and issuing domains.
Description: Contains EU PSD2 Strong Consumer Authentication-related data.
The field is positional with the following layout and values:

Byte 1: **8A - Delegated Authentication Indicator**
Format: n1

'0' = Delegated authentication does not apply to the transaction
'1' = Issuer has delegated SCA

Byte 2: **84 - Trusted Merchant Exemption Indicator**
Format: n1

'0' = Trusted merchant exemption does not apply to the transaction
'1' = Transaction exempt from SCA as it originated at a merchant trusted by the cardholder

Byte 3: **87 - Low Value Exemption indicator**
Format: n1

'0' = Low value exemption does not apply to the transaction
'1' = Transaction exempt from SCA as the merchant/Acquirer has determined it to be a Low Value Payment

Byte 4: **88 - Secure Corporate Payment (PSP) Indicator**
Format: n1

'0' = PSP exemption does not apply to the transaction
'1' = Transaction exempt from SCA as the merchant/Acquirer has determined it is a secure corporate payment

Byte 5: **89 - Transaction Risk Analysis (TRA) Exemption Indicator**
Format: n1
 '0' = TRA exemption does not apply to the transaction
 '1' = Transaction exempt from SCA as the merchant/Acquirer has determined it to be low risk in accordance to the criteria defined by PSD2/RTS

Byte 6: **80 - Initiating Party Indicator**
Format: n1
Presence: Issuing domain only
 '0' = Transaction not initiated by Merchant
 '1' = Transaction initiated by Merchant

Bytes 7: **87 – Acceptance environment authentication outage indicator**
Format: an1
Presence: Issuing domain only
 '0' = no authentication outage
 '1' = authentication outage

Bytes 8 – 99: RFU

Code: 48.96 **Mastercard PSD2 Data**
Format: ans..99
Presence: Conditional. It can be present in 1100 and 1120 messages for Mastercard transactions in the acquiring and issuing domains.
Description: Contains EU PSD2 Strong Consumer Authentication-related data. The field is positional with the following layout and values:

Bytes 1-2: **Mastercard SCA exemptions**
Format: an2
 '00' = No exemption request
 '01' = Merchant Initiated Transaction (MIT)
 '02' = Acquirer Low-Fraud and Transaction Risk Analysis
 '03' = Recurring Payment
 '04' = Low-Value Payment
 '05' = Strong Customer Authentication (SCA) Delegation
 '06' = Secure Corporate Payment
 '07' = Authentication Outage Exception

Byte 3: **Single tap indicator**
Format: an1
 '0' = Merchant is not capable of single tap processing
 '1' = Merchant is capable of single tap processing

Byte 4: **Response to PIN Request**
Format: an1
 '0' = Transaction does not contain an intentionally-duplicated ATC value
 '1' = Transaction contains an intentionally-duplicated (replayed) ATC value in a single tap transaction scenario

Bytes 5 – 99: RFU

Code: 48.99 **Additional data**
Format: ans..99
Presence: Optional field. Can be present in 1100, 1120, 1140, 1420 or 1440 messages.
Description: Additional data for information purposes only. Use of this field is dependent on bilateral agreements.

4.49 Currency code, transaction (049)

| | |
|--------------|---|
| Format | n3 |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1140 |
| Presence | Conditional |

Description

Specifies the local currency of the acquirer or source location of the transaction, used in field 004 (Amount, Transaction).

Comments

Mandatory in 11yz messages when 004 (Amount, Transaction) is present.
Mandatory in 14y0 messages if present in the original message, and in Response message if present in the Request message; must contain the same value.

4.50 Currency code, reconciliation (050) – RFU

4.51 Currency code, cardholder billing (051) – RFU

4.52 Personal Identification Number (PIN) data (052)

| | |
|--------------|-------------|
| Format | b8 |
| Message Type | 1100 |
| Presence | Conditional |

Description

The encrypted PIN block, where a PIN is a number assigned to a cardholder for unique identification at the point of service or ATM.

Comments

Present for magnetic stripe-only transactions according to the card network's specification.
Mandatory in microchip-based transactions if the card's CVM list requires online PIN verification.

4.53 Security related control information (053)

| | |
|--------------|---|
| Format | an..48 LLVAR |
| Message Type | 1100 |
| Presence | Conditional; mandatory when field 052 is present. |

Description

Identifies security management information used in the current transaction, or specifies security management information to be used in future transactions.

The field supports the following subfields in TLV format:

Code: 53.01 PIN Encryption Method

Format: n1

Description: The method used to encrypt the pin block in field 052.
Can assume one of the following values:

- 1 -3 = Obsolete
- 4 = Triple DES encryption, static key
- 5 = Triple DES encryption, dynamic key
- 6 = Triple DES encryption, dynamic key, custom algorithm 1

Code: 53.02 Dynamic Key

Format: an..32

Description: The dynamic key used to encrypt the pin block in field 052. The dynamic key is encrypted under a previously shared key.
This subfield is populated only if subfield 53.01 is '3', '5' or '6'.

Code 53.03 Master Key generation and version code

Format: an6

Description: The generation and version code of the master key used in dynamic key pin block encoding by acquirers using a customized pin encryption algorithm.
Use of this subfield is dependent on bilateral agreements. Must be present when the Pin Encryption Method in subfield 53.01 is set to '6';
The subfield will contain the following data:

| | |
|----------|---|
| byte 1-2 | Key generation of the Master Key |
| byte 3-4 | Key version of the Master Key |
| byte 5-6 | Year of validity of the pinblock Key (format: YY) |

4.54 Amounts, additional (054)

| | |
|--------------|------------------------|
| Format | ans..120 LLLVAR |
| Message Type | 1100, 1110, 1120, 1420 |
| Presence | Conditional |

Description

Contains information on up to 6 additional amounts and related account data.

The fields consists of up to 6 occurrences. Each occurrence consists of four fixed-length 20-characters subfields:

| | | |
|-----------------------------------|-------|--|
| Account type, Additional Amounts | n2 | A code identifying the account type. '00' = Primary Account (default value) '01' = Secondary Account |
| Amount type, Additional Amounts | n2 | A code describing the use of the amount indicated in bytes 9–20. '01' = Ledger balance' (acquiring domain) '02' = Available balance '40' = Amount, cashback '42' = Amount, surcharge (issuing domain) '43' = Total cumulative authorized amount '58' = Point of interaction amount (DCC) '59' = Maximum deposit amount '90' = Foreign currency transaction surcharge |
| Currency Code, Additional Amounts | n3 | A code identifying the currency used in bytes 9-20. |
| Amount, Additional Amounts | x+n12 | Additional amount (x can be 'D' = Debit or 'C' = Credit) |

Comments:

Cashback transactions

Field 054 (Amounts, additional) will contain the cashback amount requested by the cardholder, identified by value '40' in the Amount Type subfield.

The cashback can only be populated in 1100 messages only for transactions with field 003 (Processing Code) value '090000'.

What follows is an example of a 180,00 € purchase transaction with an additional 50,00 € cashback amount:

| | |
|--------------------------------|--------------------------|
| Field 003 (Processing Code) | = '090000' |
| Field 004 (Transaction Amount) | = '000000023000' |
| Field 054 (Additional amounts) | = '0040978D000000005000' |

Surcharge

Field 054 (Amounts, additional) will contain the surcharge amount identified by value '42' in the Amount Type subfield. Field 004 "Amount, transaction" will contain the total amount including the surcharge.

A surcharge amount can be present in 1100, 1120 e 1420 messages in the issuing domain.

What follows is an example of a 100,00 € purchase with a 2,00 € surcharge:

| | |
|--------------------------------|--------------------------|
| Field 004 (Transaction Amount) | = '000000010200' |
| Field 054 (Additional amounts) | = '0042978D000000000200' |

Balance Inquiry –Issuing domain

Subfield 2 (Amount Type) will be '02' (Available Balance).

Subfield 4 (Amount) can be used in 1100 message to contain the Available Balance calculated by SIA, when SIA has been given mandate to do so. Used in 1110 messages to convey the Available Balance reported by the issuer.

In a denied Balance Inquiry transaction, field 054 must not be present.

Balance Inquiry –Acquiring Domain

The field will contain the Available Balance amount in the Acquirer currency and, optionally, in the Cardholder Billing currency as provided by the Network and the Issuer. Therefore, two occurrences with the same Subfield 2 (Amount Type) set to '02' (Available Balance) may be present, related to different currencies.

In a denied Balance Inquiry transaction, field 054 must not be present.

Total cumulative authorized amount

Used in 1100 or 1120 messages in the Visa Issuing domain for Merchant-Initiated Transactions.

Field 054 may contain the total cumulative authorized amount for a series of incremental transactions, where Subfield 2 (Amount type) is set to '43'.

Foreign Currency Transactions Surcharge

Field 054, Subfield 2 (Amount type) '90' can be used to contain the surcharge applied to foreign currency transaction amounts, calculated by SIA on a percentage basis, where SIA has been given mandate to do so.

Use of this amount type is dependent on bilateral agreements.

4.55 Integrated Circuit Card System-Related Data (055)

| | |
|--------------|-------------------------------|
| Format | b..255 LLLVAR |
| Message Type | 1100 1110 1120 1140 1420 1440 |
| Presence | Conditional |

Description

Contains data related to integrated circuit card systems. The fields consists in a series of subfields encoded in TLV (Tag Length Value) format. Subfields and their values may vary according to different message types and Network rules.

Comments

Must always be present when the transaction originated from a chip card.

In messages 1110, 1120, 1140, 1420 and 1440, the field must conform to the International Networks' policies. For 1100 messages in the Acquiring domain, AID data (tag '4F') or Dedicated File Name (tag '84') are always mandatory.

For more information, refer to the Network's specific documentation on the subject.

4.56 Original data element (056)

| | |
|--------------|-------------|
| Format | n..35 LLVAR |
| Message Type | 1420 1440 |
| Presence | Mandatory |

Description

Contains data from the original message, intended to identify a transaction for correction or reversal. The field consists of the following subfields:

- | | | |
|---|-------------|---------------|
| a) Original Message Type Identifier | | n4 |
| b) Original System Trace Audit Number | (field 011) | n6 |
| c) Original Date and Time, Local Transaction | (field 012) | n12 |
| d) Original Acquiring Institution Identification Code | (field 032) | n..11 (LLVAR) |

Comments

Field 056, together with Field 002 (Primary Account Number), Field 037 (Retrieval reference number) and Field 038 (Approval Code), can be used to uniquely identify a transaction.

4.57 Authorization life cycle code (057)

| | |
|--------------|--|
| Format | n3 |
| Message Type | 1100 1110 |
| Presence | Optional (1100) Conditional Echo (1110) |

Description

A value in calendar days, hours or minutes which defines the time period for which the acquirer is requesting guarantee of funds, or that the card issuer shall guarantee funds for a financial presentment which may follow, starting from the date indicated in field 012 (Date and Time, Local Transaction).

The field consists of the following subfields:

| | |
|----------|---|
| pos. 1 | Time code 1 = Calendar days 2 = Hours 3 = Minutes |
| pos. 2-3 | Time Interval (the number or reiterations indicated in byte 1) 01-99 |

For example, for a value of 30 minutes, field 057 will be set to '330'.

4.58 Authorizing Agent Institution Identification Code (058)

| | |
|--------------|--|
| Format | an..11 LLVAR |
| Message Type | 1110 1120 1140 1420 1440 |
| Presence | Optional (1110) Conditional (1120 1140 1420 1440) |

Description

A code identifying the authorizing agent institution.

Comments

Can be present in 1110 messages if populated by the authorizing agent.

Can be present in 1420 and 1440 messages if present in the original 1100 message.

Can be present in 1120 and 1140 messages when:

1. the Terminal Handler is sending a notification for a transaction authorized on behalf of the issuer (if the authorization is granted by the POS, the field is not sent)
2. the Terminal Handler is sending a notification following an authorization where field 058 was present in the 1110 message.

4.59 Transport data (059)

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1804 1814 |
| Presence | Mandatory |

Description

Data and information reserved for private use.
The field supports the following subfields in TLV format:

| | |
|-------|----------------------------------|
| 01-02 | Reserved for BCM/PGB Network use |
| 03 | Service data |
| 04-99 | RFU |

Code: 59.03 **Service Data**
Format: ans..20
Description: Contains data from the originator of the message that shall be returned unaltered in a response message.

4.60 Monitoring data (060)

| | |
|--------------|---------------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1110 1420 1430 |
| Presence | Conditional |

Description

Data used for monitoring services purposes.

Comments

Reserved for SIA internal use.

4.61 Reserved for national use (061)

4.62 Reserved for SIA's internal use (062)

4.63 Network data - private (063)

| | |
|--------------|------------------------------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1110 1120 1130 1314 1420 1430 |
| Presence | Conditional |

Description

Contains additional codes assigned by the Networks or by the Acquirer.
The field supports the following subfields in TLV format:

| | |
|-------|--|
| 01 | Mastercard Financial Network Code and Banknet Reference Number |
| 02 | Mastercard Original Trace id |
| 03 | Visa TID |
| 04 | Terminal Handler transaction ID |
| 05 | Visa Validation Code |
| 06 | Acquirer Transaction Identifier |
| 07-08 | RFU |
| 09 | Authorization CRO |
| 10 | Visa Original TID |
| 11 | SIA TID |
| 12 | Original SIA TID |
| 13-99 | RFU |

Code: 63.01 **Mastercard Financial Network Code and Banknet Reference Number**
Format: an..50
Presence: Optional in the MasterCard Acquiring domain. Must be present in 1100 messages for subsequent MIT transactions if present in the original transaction's 1110 message.
Description: A unique transaction identifier provided by MasterCard. (Mastercard CIS protocol, DE 63)

Code: 63.02 **Mastercard Original Trace id**
Format: an..15
Presence: Optional in 1100, 1120, 1140, 1420 , 1430, 1440 messages in the Mastercard Issuing domain. Reserved for internal SIA use in the acquiring domain.
Description: Contains data from the original transactions' field 063 and field 015. Can be present in 1100 messages for Mastercard's 'Travel&Entertainment' subsequent incremental transactions. (Mastercard CIS protocol, DE 48.63)

Code: 63.03 **Visa TID**
Format: an..15
Presence: Optional in the Visa Acquiring and Issuing domains.
Description: A unique transaction identifier provided by Visa. (Visa VIP protocol, field 62.2)

Code: 63.04 **Terminal Handler transaction ID**
Format: an..99
Presence: Optional in 1100, 1110, 1420, 1430 messages.
Description: A unique terminal identification code assigned by the Terminal Handler.

Code: 63.05 **Visa Validation Code**
Format: an..4
Presence: Optional in 1110 messages in the Visa domain. Not used in incremental authorizations.



Description: A code calculated by Visa in order to ensure that key fields in the authorization requests match their respective fields in deferred clearing messages.

Code: 63.06 **Acquirer Transaction Identifier**

Format: an..15

Presence: Optional in 1100, 1110, 1120 1130 and 1430 messages in the Acquiring domain. Can be present if provided by the Acquirer. The value in the original 1110 message can be echoed in related 1120 (pre-authorization confirmation/completion advice) and 1420 messages.

Description: A unique transaction identifier provided by the Acquirer. In the not-on-us Acquiring domain, it can be used to convey the Transaction ID generated by the Acquirer, based on the agreements between SIA and the Acquirer.

In the on-us Acquiring domain, it can be used to forward the SIA-generated Transaction Identifier ("SIA TID") in 1110, 1130 and 1430 response messages to the Acquirer. It should be included in 1100 Merchant-Initiated (MIT) authorization requests to provide the SIA TID of the original transaction setting up the MIT mandate ("SIA Original TID").

Code: 63.09 **Authorization CRO ("Codice Riferimento Operazione")**

Format: n..11

Presence: Optional in the Acquiring domain. Can be present in 1110 messages to the Terminal Handler, according to bilateral agreements. In this case, any related 1120 (authorization confirmation) and 1420 (reversal advice) messages must echo the same value.

Description: A unique transaction identifier generated by SIA for cash withdrawal transactions.

Code: 63.10 **Visa Original TID**

Presence: Optional in the Visa Issuing domain. Can be present in 1100 or 1120 messages for incremental authorizations.

Format: an..15

Description: The unique Transaction Identifier provided by Visa for the original transaction. (Visa VIP protocol, field 152 usage 2, ID 03)

Code: 63.11 **SIA TID**

Presence: Conditional in the Issuing domain for on-us transactions. Can be present in 1100, 1110, 1120, 1130, 1420 and 1430 messages.

Format: an..15

Description: A unique Transaction Identifier provided by SIA to the issuer for on-us transactions.

Code: 63.12 **Original SIA TID**

Presence: Conditional in the Issuing domain for on-us transactions. Can be present in 1100 messages for MIT and Incremental authorizations.

Format: an..15

Description: The SIA TID from the original transaction, as forwarded to the issuer.

4.64 Message authentication code field (064) - RFU

4.65 Reserved for ISO use (065)

4.66 Amounts, original fees (066) – RFU

4.67 Extended payment data (067) – RFU**4.68 Country code, receiving institution (068) – RFU****4.69 Country code, settlement institution (069) – RFU****4.70 Country code, authorization agent institution (070) – RFU****4.71 Message number (071) – RFU****4.72 Data record (072)**

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1304 1314 |
| Presence | Conditional |

Description

Other data required to be passed to support an administrative or file action message.
Currently used in the Mastercard and Visa Issuing domains to support MDES and VTS post-digitization phase.
Please refer to the Networks' documentation for further details.

4.73 Date, action (073) – RFU**4.74 Credits, number (074) – RFU****4.75 Credits, reversal number (075) – RFU****4.76 Debits, number (076) – RFU****4.77 Debits, reversal number (077) – RFU**

- 4.78 Transfer, number (078) – RFU**
- 4.79 Transfer, reversal number (079) – RFU**
- 4.80 Inquiries, number (080) – RFU**
- 4.81 Authorization, number (081) – RFU**
- 4.82 Inquiries, reversal number (082) – RFU**
- 4.83 Payment, number (083) – RFU**
- 4.84 Payment, reversal number (084) – RFU**
- 4.85 Fee collections, number (085) – RFU**
- 4.86 Credits, amounts (086) – RFU**
- 4.87 Credits, reversal amounts (087) – RFU**
- 4.88 Debits, amount (088) – RFU**
- 4.89 Debits, reversal amount (089) – RFU**
- 4.90 Authorization, reversal number (090) – RFU**

4.91 Country code, transaction destination institution (091) – RFU

4.92 Country code, transaction originator institution (092) – RFU

4.93 Transaction destination institution identification code (093)

| | |
|--------------|---|
| Format | an..11 LLVAR |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 1804 1814 |
| Presence | Mandatory |

Description

A code identifying the institution that is the transaction destination.

In response messages, it must be the same value as in the original request message.

Comments

In response messages, it must be the same value as in the original request message.

In 18yz messages it identifies the receiving institution; the ABI code is used as a default. See Appendix [A.6](#) for rules on how to populate this field in relation with other fields.

4.94 Transaction originator institution identification code (094)

| | |
|--------------|---|
| Format | an..11 LLVAR |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 1804 1814 |
| Presence | Mandatory |

Description

A code identifying the institution that is the transaction originator.

Comments

In response messages, it must be the same value as in the original request message. When available, the ABI code is used as a default; otherwise, the Company Code is used instead. See Appendix [A.6](#) for rules on how to populate this field in relation with other fields.

4.95 Card issuer reference data (095) – RFU

4.96 Key management data (096) – RFU

4.97 Amount, net reconciliation (097) – RFU

4.98 Payee (098) – RFU

4.99 Settlement institution identification code (099) – RFU

4.100 Receiving institution identification code (100)

| | |
|--------------|---|
| Format | an..11 LLVAR |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Mandatory |

Description

A code identifying the receiving institution.

Comments

When available, the ABI code is used as a default; otherwise, the Company Code is used instead. See Appendix [A.6](#) for rules on how to populate this field in relation with other fields.

4.101 File name (101)

| | |
|--------------|----------------|
| Format | ans..17 LLLVAR |
| Message Type | 1304 1314 |
| Presence | Conditional |

Description

The actual or abbreviated name of the file being accessed.

Currently used in the Mastercard and Visa Issuing domains to support MDES and VTS post-digitization phase. Please refer to the Networks' documentation for further details.

4.102 Account identification 1 (102) – RFU

4.103 Account identification 2 (103) – RFU

4.104 Transaction description data (104) – RFU

4.105 Credits, chargeback amount (105) – RFU

4.106 Debits, chargeback amount (106) – RFU

4.107 Credits, chargeback number (107) – RFU

4.108 Debits, chargeback number (108) – RFU

4.109 Credits, fee amounts (109) – RFU

4.110 Debits, fee amounts (110) – RFU

4.111 MoneySend/OCT Reference Data (111)

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1120 1420 |
| Presence | Conditional |

Description

Used in the Mastercard and Visa Issuing domains.

The field supports different formats, depending on the usage. The current usages are as follows:

- 01 - Mastercard transactions
- 02 - Visa transactions

4.111.1 Field 111 Usage 01 - Mastercard

The field is mandatory for Payment Transactions and optional for Funding Transactions. It is not used otherwise.

The field supports the following subfields in TLV format:

| | |
|----|-----------------------------|
| 01 | Receiver/Recipient Data |
| 02 | Sender Data |
| 03 | Transaction Data |
| 04 | Language Description |
| 05 | Digital Account Information |

Code: 111.01 Mastercard **Receiver/Recipient Data**

Format: ans..358

Description: In a Money Send transaction, this subfield contains the receiver name, address, phone number, date of birth, and account details of the Receiver/Recipient.
It supports the following subfields in TLV format:

Code: 111.01.01 Mastercard **Receiver/Recipient First Name**

Format: ans..35

Description: The first name (Consumer/Business) of the Receiver/Recipient. Mandatory for cross-border MoneySend Payment Transactions; optional for MoneySend Funding Transactions and domestic MoneySend Payment Transactions.

- Code:** 111.01.02 Mastercard **Receiver/Recipient Middle Name**
Format: ans-1
Description: The middle name initial of the Receiver/Recipient. The field is optional.
- Code:** 111.01.03 Mastercard **Receiver/Recipient Last Name**
Format: ans..35
Description: The last name (Consumer/Business) of the Receiver/Recipient. Mandatory for cross-border MoneySend Payment Transactions; optional for MoneySend Funding Transactions and domestic MoneySend Payment Transactions.
- Code:** 111.01.04 Mastercard **Receiver/Recipient Street Address**
Format: ans..50
Description: Street Address of the Receiver/Recipient. The field is optional.
- Code:** 111.01.05 Mastercard **Receiver/Recipient City**
Format: ans..25
Description: City of the Receiver/Recipient. The field is optional.
- Code:** 111.01.06 Mastercard **Receiver/Recipient State/Province Code**
Format: ans..3
Description: The state/province code of the Receiver/Recipient. Cannot contain spaces or invalid code when country is U.S. or Canada. The field is optional.
Note: Data representation must be a3 for MoneySend Funding and Payment transactions.
- Code:** 111.01.07 Mastercard **Receiver/Recipient Country**
Format: ans-3
Description: ISO country code of the Receiver/Recipient. The field is optional.
- Code:** 111.01.08 Mastercard **Receiver/Recipient Postal Code**
Format: ans..10
Description: Postal code of the Receiver/Recipient. The field is optional.
- Code:** 111.01.09 Mastercard **Receiver/Recipient Phone Number**
Format: ans-20
Description: Phone number code of the Receiver/Recipient. The field is optional.
- Code:** 111.01.10 Mastercard **Receiver/Recipient Date of Birth**
Format: n8
Description: Date of birth of the Receiver/Recipient in the MMDDYYYY format. The field is optional.
- Code:** 111.01.11 Mastercard **Receiver/Recipient Account Number**
Format: ans..50
Description: Account number of the Receiver/Recipient. The field is optional.
- Code:** 111.01.12 Mastercard **Receiver/Recipient Identification Type**
Format: n2
Description: Identification type of the Receiver/Recipient. The field is optional and can assume one of the following values :

| | |
|-------|-------------------------|
| 00 | Passport |
| 01 | National ID card |
| 02 | Driver's License |
| 03 | Other government-issued |
| 04 | Other |
| 05-10 | Reserved |

- Code:** 111.01.13 Mastercard **Receiver/Recipient Identification Number**

| | | |
|---------------------|---|---|
| Format: | ans..25 | |
| Description: | Identification number of the Receiver/Recipient. The field is optional. | |
| Code: | 111.01.14 Mastercard | Receiver/Recipient Identification Country Code |
| Format: | ans-3 | |
| Description: | Identification country code of the Receiver/Recipient. The field is optional. | |
| Code: | 111.01.15 Mastercard | Receiver/Recipient Identification Expiration Date |
| Format: | n-8 | |
| Description: | Identification expiration date of the Receiver/Recipient. The field is optional. | |
| Code: | 111.01.16 Mastercard | Receiver/Recipient Identification Nationality |
| Format: | ans-3 | |
| Description: | Identification Nationality of the Receiver/Recipient. The field is optional. | |
| Code: | 111.01.17 Mastercard | Receiver/Recipient Identification Country of Birth |
| Format: | ans-3 | |
| Description: | Identification country of birth of the Receiver/Recipient. The field is optional. | |
| Code: | 111.01.18 Mastercard | Receiver/Recipient Account Number Type |
| Format: | n..2 | |
| Descrizione: | Account type of the receiver. The field is optional and conditioned by the presence of field 111.01.11 | |
| Code: | 111.02 Mastercard | Sender Data |
| Format: | ans..358 | |
| Description: | In a Money Send transaction, this subfield contains the receiver name, address, phone number, date of birth, and account details of the Sender. It supports the following subfields in TLV format: | |
| Code: | 111.02.01 Mastercard | Sender First Name |
| Format: | ans..35 | |
| Description: | The first name (Consumer/Business/Government/Non-Government Organization) of the Sender. The field is mandatory for MoneySend Payment Transactions; optional for MoneySend Funding Transactions. | |
| Code: | 111.02.02 Mastercard | Sender Middle Name |
| Format: | ans-1 | |
| Description: | The middle name initial of the Sender. The field is optional. | |
| Code: | 111.02.03 Mastercard | Sender Last Name |
| Format: | ans..35 | |
| Description: | The last name (Consumer/Business) of the Sender. The field is mandatory for MoneySend Payment Transactions; optional for MoneySend Funding Transactions. | |
| Code: | 111.02.04 Mastercard | Sender Street Address |
| Format: | ans..50 | |
| Description: | Street Address of the Sender. The field is mandatory for MoneySend Payment Transactions; optional for MoneySend Funding Transactions. | |
| Code: | 111.02.05 Mastercard | Sender City |
| Format: | ans..25 | |
| Description: | City of the Sender. The field is optional. | |

Code: 111.02.06 Mastercard **Sender State/Province Code**
Format: ans..3
Description: The state/province code of the Sender. The field is optional. Cannot contain spaces or invalid code when country is U.S. or Canada.
Note: Data representation must be a-3 for MoneySend Funding and Payment transactions.

Code: 111.02.07 Mastercard **Sender Country**
Format: ans-3
Description: ISO country code of the Sender. The field is mandatory for MoneySend Payment Transactions; optional for MoneySend Funding Transactions.

Code: 111.02.08 Mastercard **Sender Postal Code**
Format: ans..10
Description: Postal code of the Sender. The field is optional.

Code: 111.02.09 Mastercard **Sender Phone Number**
Format: ans-20
Description: Phone number code of the Sender. The field is optional.

Code: 111.02.10 Mastercard **Sender Date of Birth**
Format: n8
Description: Date of birth of the Sender in the MMDDYYYY format. The field is optional.

Code: 111.02.11 Mastercard **Sender Account Number**
Format: ans..50
Description: The Sender account number that was used to fund the money transfer. The field is mandatory for MoneySend Payment Transactions; optional for MoneySend Funding Transactions.

Code: 111.02.12 Mastercard **Sender Identification Type**
Format: n2
Description: Identification type of the Sender. The field is optional and can assume one of the following values:

| | |
|-------|-------------------------|
| 00 | Passport |
| 01 | National ID card |
| 02 | Driver's License |
| 03 | Other government-issued |
| 04 | Other |
| 05-10 | Reserved |

Code: 111.02.13 Mastercard **Sender Identification Number**
Format: ans..25
Description: Identification number of the Sender. The field is optional.

Code: 111.02.14 Mastercard **Sender Identification Country Code**
Format: ans-3
Description: Identification country code of the Sender. The field is optional.

Code: 111.02.15 Mastercard **Sender Identification Expiration Date**
Format: n-8
Description: Identification expiration date of the Sender. The field is optional.

Code: 111.02.16 Mastercard **Sender Identification Nationality**
Format: ans-3
Description: Identification Nationality of the Sender. The field is optional.

Code: 111.02.17 Mastercard **Sender Identification Country of Birth**

Format: ans-3

Description: Identification country of birth of the Sender. The field is optional.

Code: 111.02.18 Mastercard **Sender Account Number Type**

Format: n..2

Descrizione: Account type of the sender. The field is optional and conditioned by the presence of field 111.02.11

Code: 111.03 Mastercard **MoneySend Transaction Data**

Format: ans..143

Description: contains the transaction reference number, funding source, participation ID, and additional data related to MoneySend transactions.

The field supports the following subfields in TLV format:

Code: 111.03.01 Mastercard **Unique Transaction Reference**

Format: ans-19

Description: The Unique Transaction Reference number for Mastercard MoneySend payment and funding transactions.

The field is optional. If present, it must assume one of the following values:

| Byte | Format | Value |
|-------|--------|-------------------------------------|
| 1 | n1 | '0' (fixed value) |
| 2-7 | n6 | ICA |
| 8 | n1 | Year, last digit |
| 9-11 | n3 | Julian date |
| 12-17 | n6 | Hour, in the hhmmss format |
| 18-19 | n2 | Transaction sequence number (01-99) |

Code: 111.03.02 Mastercard **Additional Message**

Format: ans..65

Description: The field is optional.

Code: 111.03.03 Mastercard **Funding Source**

Format: n2

Description: The transaction funding source. The field is mandatory for MoneySend Payment Transactions; optional for MoneySend Funding Transactions. If present, it must assume one of the following values:

| | |
|----|----------------------|
| 01 | Credit |
| 02 | Debit |
| 03 | Prepaid |
| 04 | Deposit Account |
| 05 | Mobile Money Account |
| 06 | Cash |
| 07 | Other |

Code: 111.03.04 Mastercard **Participation ID**

Format: ans..30

Description: Participation ID details of the Sender. The field is optional.

Code: 111.03.05 Mastercard **Transaction Purpose**

Format: n2

Description: The field is optional. If present, it must assume one of the following values:

| | |
|-------|---------------------------------------|
| 00 | Family Support |
| 01 | Regular Labor Transfers (expatriates) |
| 02 | Travel & Tourism |
| 03 | Education |
| 04 | Hospitalization & Medical Treatment |
| 05 | Emergency Need |
| 06 | Savings |
| 07 | Gifts |
| 08 | Other |
| 09 | Salary |
| 10-15 | Reserved |

Code: 111.04 Mastercard **MoneySend Language Description**
Format: ans..63
Description: Contains additional language details supported by the customer.
It supports the following subfields in TLV format:

Code: 111.04.01 Mastercard **Language Identification**
Format: ans-3
Description: Contains information about the language selected by the customer. The field is optional.

Code: 111.04.02 Mastercard **Language Data**
Format: b..50
Description: Contains additional MoneySend information in the language selected by the customer. The field is optional.

Code: 111.05 Mastercard **Digital Account Information**
Format: ans..99
Description: Contains data specific to Mastercard Merchant Presented QR transactions.
It supports the following subfields in TLV format:

Code: 111.05.01 Mastercard **Digital Account Reference Number**
Format: n..19
Description: A value provided in a Mastercard Merchant Presented QR Payment Transaction to allow Receiving Institutions the ability to initiate a refund to the consumer via the Originating Institution.

4.111.2 Field 111 Usage 02 - Visa

The field is mandatory for enhanced OCT transactions.
The field supports the following subfields in TLV format:

| | |
|----|---------------------------------------|
| 01 | Business Application Identifier (BAI) |
| 02 | Sender Data |

Code: 111.01 Visa **Business Application Identifier (BAI)**
Format: a2
Presence:
Description: Contains information on the type of OCT Transactions.
 Can assume one of the following values:

| | |
|----|--|
| AA | = Account to Account ¹ |
| BI | = Money transfer—bank-initiated |
| BB | = Business to business |
| BP | = Non-card bill payment |
| CB | = Consumer bill payment |
| CD | = Cash deposit |
| FD | = Funds disbursement (general) |
| FT | = Funds transfer |
| GD | = Government Disbursement |
| GP | = Gambling Payout (other than online gambling) |
| LO | = Loyalty and Offers |
| MD | = Merchant Disbursement |
| OG | = Online Gambling Payout |
| PD | = Payroll/pension disbursement |
| PP | = Person to Person ² |
| WT | = Wallet transfer |

¹. AA applies to transactions where the sender and recipient are the same person.

². PP applies to transactions where the sender and recipient are not the same person.

More valid BAI values are available under VIP technical specification, but they are not used in OCT/Visa Direct transactions.

Code: 111.02 Visa **Sender Data**
Format: an..197
Description: Additional information about the entity funding the transaction.
 It consists of the following subfields in TLV formats.
 Sender Reference Number (subfield 01) and Sender Account Number (subfield 02) must always be present. The other subfields are optional.

Code: 111.02.01 Visa **Sender Reference Number**
Format: an16
Description: Contains a transaction reference number that is provided by the originator or acquirer and can be used to uniquely identify the entity funding the transaction.

Code: 111.02.02 Visa **Sender Account Number**
Format: an34
Description: The account number of the entity funding the transaction.



| | | |
|---------------------|---|-----------------------|
| Code: | 111.02.03 Visa | Sender Name |
| Format: | an30 | |
| Description: | The name of the entity funding the transaction. | |
| Code: | 111.02.04 Visa | Sender Address |
| Format: | an35 | |
| Description: | The address of the entity funding the transaction. | |
| Code: | 111.02.05 Visa | Sender City |
| Format: | an25 | |
| Description: | The city of the entity funding the transaction. | |
| Code: | 111.02.06 Visa | Sender State |
| Format: | an2 | |
| Description: | The geographical state or province of the entity funding the transaction. The subfield is mandatory when Sender Country (subfield 07) is 124 (Canada) o 840 (U.S.). | |
| Code: | 111.02.07 Visa | Sender Country |
| Format: | an3 (3-digit ISO country code) | |
| Description: | The country of the entity funding the transaction. | |
| Code: | 111.02.0A Visa | Recipient Name |
| Format: | an30 | |
| Description: | The name of the entity receiving the funds. The subfield is mandatory for cross-border money transfers. | |

4.112 Reserved for SIA internal use (112)

4.113 Reserved for ISO use (113)

4.114 Reserved for ISO use (114)

4.115 Reserved for ISO use (115)

4.116 Reserved for SIA internal use (116)

4.117 Advice/Notification date and time (117)

| | |
|--------------|-------------------------------|
| Format | ans..999 LLLVAR |
| Message Type | 1120 1130 1140 1420 1430 1440 |
| Presence | Mandatory |

Description

the date and time that the advice is entered into the network, in the MMDDhhmmss format. The value remains unchanged for all the messages in the transactions.

In a repeat message, the value from the original advice is used.

4.118 Reserved for national use (118)

4.119 Digital Payment Data (119)

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 |
| Presence | Conditional |

Description

Additional information for token transactions.

The field supports the following subfields in TLV format:

| | |
|-------|--|
| 01 | Mastercard DSRP Cryptogram |
| 02 | Mastercard Estimated Amount |
| 03 | Mastercard Remote Commerce Acceptor Identifier |
| 04 | Token Requestor ID |
| 05-20 | RFU |
| 21 | VISA TAVV Cryptogram |
| 22-99 | RFU |

Code: 119.01 **Mastercard DSRP Cryptogram**

Format: ans28 (base 64 encoded)

Presence: Conditional. Used in 1100 messages in the Acquiring domain.

Description: Contains the DSRP cryptogram.

Code: 119.02 **Mastercard Estimated Amount**

Format: n12

Presence: Conditional. Used in 1100 messages in the Issuing domain.

Description: The estimated purchase amount of the transaction when the payment request is presented to the consumer during checkout. This amount may not always be the final amount.

Code: 119.03 **Mastercard Remote Commerce Acceptor Identifier**

Format: ans...150 (base 64 encoded)

Presence: Conditional in 1100 messages.

Description: The merchant identifier, such as the merchant business website URL or reverse domain name, as presented to the consumer during checkout.



Code: 119.04 **Token Requestor ID**
Format: n11
Presence: Conditional. Used in 1100 messages in the Acquiring domain.
Description: Token Requestor Identifier for M4M (MDES for Merchant) transactions.

Code: 119.21 **Visa TAVV Cryptogram**
Format: b20
Presence: Conditional. Used in 1100 messages in the Acquiring domain.
Description: Token Authentication Verification Value cryptogram.

4.120 Reserved for national use (120)

4.121 Reserved for national use – E-commerce data (121)

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1120 |
| Presence | Conditional |

Description

Contains additional information for e-commerce transactions.
The field supports the following subfields in TLV format:

| | |
|-------|--|
| 01 | Security level |
| 02-03 | RFU |
| 04 | Transaction Id (XID) |
| 05 | Cardholder Authentication Verification Value (CAVV/AEVV) |
| 06 | RFU |
| 07 | UCAF Data (Secure Code/Id. Check) |
| 08 | AAV/CAVV Pre-validation result |
| 09 | SecureCode/VBV Enrollment state |
| 10 | Electronic Commerce Indicator (ECI) |
| 11 | VISA - Agent Unique ID |
| 12 | VISA - Additional Authentication Method |
| 13 | VISA - Additional Authentication Reason Code |
| 14 | RFU |
| 15 | Amex – Token Data Block A |
| 16 | Amex – Token Data Block B |
| 17 | Directory Server Transaction Id. |
| 18 | Mastercard - E-commerce Security Level Indicator and UCAF Collection Indicator |
| 19 | Visa - mail/phone/electronic commerce and payment indicator |
| 20 | Mastercard DSRP Cryptogram |
| 21-99 | RFU |

Code: 121.01 **Security level**
Format: an10
Presence: Mandatory in 1100 messages for Ecommerce transactions in the Acquiring and Issuing domains.
Description: Contains miscellaneous information on the security level of card-not-present transactions. It consists of the following fixed-length, one-byte subfields:

Code: 121.01.01 **Security Type**
Description: Provides information on the type of cardholder authentication. Can assume one of the following values:

- 1** = Cardholder authenticated using one of the following methods:
 - 3-D Secure 1.0 or 3-D Secure 2.x.
 - MARP (Mastercard transactions only)
 - MasterPass (Mastercard transactions only)
 - DSRP (Mastercard transactions only)
 Refer to byte 8 and 9 for additional details.
- 0,2** = Cardholder not authenticated
 Refer to byte 8 for information on the authentication protocol attempted without success.
- 3** = Authentication attempted ('Attempt'/'Merchant only Authenticated') using one of the following methods:
 - 3DS1.0 / 3DS2.x protocol
 - MasterPass and 3DS protocol (Mastercard transaction)
 Refer to byte 8 for additional details.
- 4** = Cardholder authenticated in a 'DSRP with UCAF Data' Mastercard transaction. Refer to byte 8 (for transactions in the acquiring domains) or 9 (for transactions in the issuing domain) for additional details..
- 5**= Cardholder not authenticated in a Mastercard DTI (Digital Transaction Insight) transaction, for data sharing purposes only.

Code: 121.01.02 **RFU**
Description: Obsolete. Set to '0'.

Code: 121.01.03 **RFU**
Description: Obsolete. Set to '0'.

Code: 121.01.04 **Chip Cryptogram Presence**
Description: Chip Cryptogram presence indicator. Can assume one of the following values:
 0 = not present
 1 = present

Code: 121.01.05 **RFU**
Description: Obsolete. Set to '0'.

Code: 121.01.06 **UCAF Data Presence (Mastercard)**
Description: UCAF data presence indicator. Can assume one of the following values:
 0 = not present
 1 = present
 3 = Mastercard-assigned Static AAV

Code: 121.01.07

CAVV/AEVV Data Presence (Visa/Amex)

Description: CAVV data presence indicator. Can assume one of the following values:

0 = not present

1 = present

Code: 121.01.08

Authentication Protocol

Description: The authentication protocol used to authenticate the cardholder.

| Authentication protocol | Applicability | | | |
|---|---------------|------|------------|------|
| | Acquiring | | Issuing | |
| | Mastercard | Visa | Mastercard | Visa |
| 0 = Unspecified | | | X | X |
| 1 = 3-D Secure 1.0 authentication | X | X | X | X |
| 2 = MARP authentication | | | X | |
| 3 = Masterpass transaction, cardholder not authenticated | X | | X | |
| 4 = Masterpass transaction, 3-D Secure 1.0 authentication | X | | X | |
| 5 = Masterpass transaction, MARP authentication | | | X | |
| 8 = Proprietary wallet (Acquiring domain) | X | X | | |
| 9 = MDES/DSRP transaction, Issuer Risk Based Decisioning | X | | | |
| A = MDES/DSRP transaction, Merchant Risk Based Decisioning | X | X | | |
| B = MDES/DSRP Incremental/partial shipment/recurring transaction. Refer to the original authorization for cardholder authentication details. | X | X | | |
| C = 3-D Secure 2.x authentication | X | X | X | X |
| D = Masterpass transaction, 3-D Secure 2.x authentication | X | | X | |
| E = DSRP authentication | | | X | |

Code: 121.01.09

Authentication method

Description: The method used for cardholder authentication, according to the protocol described in byte 8. Used in the issuing domains only.

| Cardholder authentication mode | Applicability | |
|---|---------------|------|
| | Mastercard | Visa |
| 0 = Unspecified. | X | X |
| 1 = 3-D Secure 2.x authentication using Risk Based decisioning | | X |
| 2 = 3-D Secure 2.x Issuer Risk Based decisioning | X | |
| 3 = 3-D Secure 2.x Challenge authentication | X | X |
| 4 = 3-D Secure 2.x using Merchant Risk Based Decisioning - Acquirer exemption | X | |
| 5 = 3-D Secure 2.x using Issuer Risk Based Decisioning | X | |
| 6 = 3-D Secure 2.x Challenge authentication in a Recurring/Partial shipment transaction. | X | |
| 7 = Merchant Risk Based decisioning in a Masterpass transaction | X | |
| 8 = Issuer Risk Based decisioning in a DSRP transaction | X | |
| 9 = Merchant Risk Based decisioning in a DSRP transaction | X | |
| A = Recurring/partial shipment DSRP transaction | X | |
| B = Cardholder authenticated in a 3-D Secure 2.x AAV refresh (AAV renewal required by the merchant due to reached expiration date) | X | |
| C = 3DS2.0 - Push confirmation for EMV 3DS only | | X |

For 3-D Secure 2.x transactions, more information on the authentication process may be available from the AAV/CAVV data in subfields 121.06 or 121.07.



Code: 121.01.10

RFU

Description: set to '0'

Code: 121.04 **3-D Secure eCommerce Transaction Identifier (XID)**

Format: b20

Presence: Optional in the Visa, JCB and American Express domains

Description: Binary value, generated by the merchant, which uniquely identifies the transaction.

Code: 121.05 **Cardholder Authentication Verification Value (CAVV/AEVV)**

Format: b20

Presence: Conditional in the Visa, JCB and American Express domains

Description: The CAVV (Visa), AEVV or AV data field generated during the cardholder authentication process. The actual content depends on protocol details (such as the 3-D Secure protocol version). Refer to the networks' specification for further details.

Code: 121.07 **UCAF data (Mastercard Secure Code/Id. Check)**

Format: ans..32

Presence: Conditional in the Mastercard Acquiring and Issuing domains

Description: Contains the UCAF data generated during the cardholder authentication phase. The actual content depends on protocol details (such as the 3-D Secure protocol version). Refer to the network's specification for further details.

Code: 121.08 **AAV/CAVV Pre-validation result**

Format: an1

Presence: Conditional in the Visa and Mastercard domains.

Description: Used in the Visa and Mastercard Issuing domains. Can assume one of the following values:

| MasterCard | Visa |
|--|---|
| A = AAV and Amount Checked | 2, 3, 8, A, B = CAVV successfully validated |
| B = Balance to Verify | 0, 1, 4, 7, 9 = CAVV Invalid |
| C = Consider the Amount | U = Unable to validate |
| D = DS Transaction ID Failed | Space = NO UCAF |
| I = Invalid AAV | |
| K = No matching key file for this PAN, PAN expiry date and KDI combination | |
| M = Currency mismatch | |
| S = DS Transaction ID Present – See Balance to Verify | |
| T = Transaction ID Present – Consider the Amount | |
| U = Unable to process | |
| V = Valid AAV | |
| X = Security platform time out | |
| Z = Security platform processing error | |
| Space = NO UCAF | |



Code: 121.09 **SecureCode/VBV enrollment state**
Format: an1
Presence: Conditional. It can be present in Mastercard or Visa transactions in the issuing domain only.
Description: The card's enrollment state for the Secure Code/VBV service, 3-D Secure protocol version 1.0. Not used for 3-D Secure 2.x protocol versions, as all cards are considered enrolled by default. Can assume one of the following values:

'R' card is enrolled
'N' card is not enrolled

Comments: The subfield is populated only for secure transactions with enrolled cards if the Issuer has requested the activation of the 3D Secure service for the BIN to which the card belongs to.

Code: 121.10 **Electronic Commerce Indicator (ECI)**
Format: an1
Presence: Conditional in the American Express, JCB and Diners acquiring domains
Description: Can assume one of the following values:

'0' Authenticated with AEVV
'1' Attempted with AEVV
'2' Not Authenticated

Code: 121.11 **V.me Agent Unique ID**
Format: an5
Presence: Conditional in the Visa Issuing domain
Description: The subfield is present in "V.me" wallet transactions. It contains the value 'a9001' identifying the 'Visa Europe V.me' platform.

Code: 121.12 **V.me Additional Authentication Method**
Format: an2
Presence: Conditional in the Visa Issuing domain
Description: The subfield is present in "V.me" wallet transactions. It identifies the cardholder authentication method and can assume one of the following values:

'01' V.me authentication only
'02' Additional 3-D Secure authentication performed, in addition to V.me authentication.
'03' Additional 3-D Secure authentication attempted but not successful, in addition to V.me authentication.
'04' Additional one-time password (OTP) authentication, in addition to V.me authentication.

Code: 121.13 **V.me Additional Authentication Reason Code**
Format: an2
Presence: Conditional in the Visa Issuing domain
Description: The subfield is present in "V.me" wallet transactions. It identifies the entity which requested the additional cardholder authentication, in addition to the one provided by the V.me platform. It must contain a valid code in the '01-1C' range. Please refer to Visa documentation for further details.



Code: 121.15 **Amex – Token Data Block A**
Format: b20
Presence: Conditional in the American Express acquiring domain
Description: Used for America Express "in-app" token transactions. Contains bytes 1-20 of the cryptogram.

Code: 121.16 **Amex – Token Data Block B**
Format: b20
Presence: Conditional in the American Express acquiring domain
Description: Used for America Express "in-app" token transactions. Contains bytes 21-40 of the cryptogram.

Code: 121.17 **Directory Server Transaction Id.**
Format: ans36
Presence: Conditional in the Mastercard acquiring and issuing domains
Description: 3-D Secure 2.x transactions only. Contains the unique Directory Server Transaction Identifier generated during the authentication process.

Code: 121.18 **Mastercard - Electronic Commerce Security Level Indicator and UCAF Collection Indicator**
Format: n3
Presence: Conditional. It can be present in Mastercard transactions in the issuing domain only.
Description: Contains an original data element (data element 48.42.1) of Mastercard CIS protocol that specifies the three-digit Mastercard Electronic Commerce Security Level Indicator (SLI) and UCAF Collection Indicator. Refer to Mastercard specification for further details.

Code: 121.19 **Visa - mail / phone / electronic commerce and payment indicator**
Format: b1
Presence: Conditional. It can be present in Visa transactions in the issuing domain only.
Description: Contains an original data element (field 60.8) of Visa VIP protocol that identifies the type of mail/telephone order or the level of security used in an e-commerce transaction over an open network (for example, the Internet). Refer to Visa specification for further details.

Code: 121.20 **Mastercard DSRP Cryptogram**
Format: ans..32
Presence: Conditional in the Mastercard acquiring domain for "DSRP with UCAF data" transactions.
Description: Contains the DSRP cryptogram for "DSRP with UCAF data" transactions.

4.122 Digitization Data (122)

Contains data used in pre or post digitization transactions originated from Mastercard MDES or Visa VTS services. Refer to other SIA documentation for further details.

4.123 Reserved for private use (123) - RFU

4.124 Reserved for private use – DCC Data (124)

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1120 1420 |
| Presence | Conditional |

Description

In 1100 and 1120 messages in the Acquiring domain, it contains the DCC data as populated by the Terminal Handler.

The field consists of the following subfields:

| 1100 and 1120 messages | | |
|------------------------------|--------|--|
| DCC data element | Format | Values |
| DCC data identifier | an2 | '01' |
| DCC data length | n2 | '25' |
| Cardholder's currency code | n3 | ISO currency code |
| Conversion rate | n8 | as provided by DCC |
| Cardholder's currency amount | n12 | as provided by DCC |
| DCC status flag | n2 | '00' non-DCC transaction '01' RFU '02' DCC canceled by user '03' DCC transaction '04'-'99' RFU |

When reversing a DCC transaction, the terminal handler populates field 124 in the 1420 message with the following DCC data. The terminal handler has the responsibility to store and provide the data required for both customer-initiated and system-generated reversals.

The field consists of the following subfields:

| 1420 messages | | |
|------------------------------|--------|--|
| DCC data element | Format | Values |
| DCC data identifier | an2 | "01" |
| DCC data length | n2 | "25" |
| Cardholder's currency code | n3 | as in the original 1100 message to be reversed |
| Conversion rate | n8 | as in the original 1100 message to be reversed |
| Cardholder's currency amount | n12 | as in the original 1100 message to be reversed |
| DCC status flag | n2 | as in the original 1100 message to be reversed |

Comments

Chip-based DCC transactions require 2 addition tags to be present in field 055 (ICC System Related Data):

- TAG 5F2A (Cryptogram Transaction Currency Code):
In EMV contact chip transactions it assumes the same values as the 'Cardholder's currency code' in field 124 (see above); in contactless transactions, it contains the terminal's ISO currency code.
- TAG 9F02 (Cryptogram Transaction Amount)
In EMV contact chip transactions it assumes the same values as the 'Cardholder's currency amount' in field 124 (see above); in contactless transactions, it contains the amount in the terminal's currency.

4.125 New PIN data (125)

| | |
|--------------|-------------|
| Format | b..8 LLLVAR |
| Message Type | 1100 |
| Presence | Conditional |

Description

Contains the new PIN in a Pin Change transaction from ATM. The related data format, encryption method and enciphering key are the same as those used for the current PIN that is stored in DE 52.

The field is present in 1100 message in the Acquiring domain or in 1100/1120 messages in the Issuing domain.

4.126 Reserved for private use (126) – Fraud Scoring data

| | |
|--------------|-----------------|
| Format | ans..999 LLLVAR |
| Message Type | 1100 1120 |
| Presence | Conditional |

Description

Contains additional information for use with Real Time Fraud Scoring services.

The field supports the following subfields in TLV format:

| | |
|-------|---|
| 01 | RFU |
| 02 | VISA - Advanced Authorization Data |
| 03-10 | RFU |
| 11 | MasterCard – On-behalf Fraud Scoring Result |
| 12 | MasterCard – Fraud Scoring Data |
| 13 | Mastercard– Brazil Merchant Fraud Scoring |
| 14-99 | RFU |

Code: 126.02 VISA – Real Time Scoring Data

Format: n3

Presence: Optional in 1100 and 1120 for Issuers participating in Visa Advanced Authorization Data services.

Description: Contains Visa Advanced Authorization (VAA) Risk Score in a range from 001 to 999. A higher score indicates a higher risk.

Code: 126.11 MasterCard – Fraud Scoring Service Result

Format: an1

Presence: Optional in 1100 e 1120 messages in the Mastercard Issuing domain when the issuer participates in MasterCard Fraud Scoring Service.

Description: The Fraud Scoring Service Result can assume one of following values:

| |
|---|
| C Fraud Scoring Service was performed successfully |
| U Fraud Scoring Service was not performed successfully |

Code: 126.12 **MasterCard – Fraud Scoring Data**
Format: an..32
Presence: Optional in 1100 e 1120 messages in the Mastercard Issuing domain when the issuer participates in MasterCard Fraud Scoring Service.
Description: On a fraud scoring service transaction, contains the fraud score and additional information on rules and reason codes. The first three digits provides a rules score of 000–999, where 000 indicates the least likely fraudulent transaction and 999 indicates the most likely fraudulent transaction.
Refer to Mastercard specification for further details.

Code: 126.13 **Mastercard– Brazil Merchant Fraud Scoring**
Format: an4
Presence: Optional in 1100 e 1120 messages in the Mastercard Issuing domain for card-not-present transaction form acquirers in Brazil.
Description: Contains the Merchant Fraud Score data provided by acquirers in Brazil, in the range -999 to +999, justified with leading zeros if the value is less than three digits.

4.127 Reserved for private use (127) – Additional information

| | |
|--------------|-------------------------------------|
| Format | ans..999 LLVAR / LLLVAR (see below) |
| Message Type | 1100 1110 |
| Presence | Conditional |

Description

Field reserved for private miscellaneous information populated by the acquirer for authorization or fraud monitoring purposes.
Use of this field is dependent on bilateral agreements.

This is a variable length field. Depending on the usage, it can assume either Format A or Format B as originally described in chapter 2.

Format A uses a two-digit length indicator; Format B uses a three-digit length indicator.

Format A - LLVAR

| | | | |
|---------------------|-------|--------------|----------------------|
| pos 1 | pos 2 | pos 3-4 | pos 5-pos (4+Length) |
| Tag ID code (00-99) | | Length field | Value field |

Format B - LLLVAR

| | | | |
|---------------------|-------|--------------|----------------------|
| pos 1 | pos 2 | pos 3-5 | pos 5-pos (5+Length) |
| Tag ID code (00-99) | | Length field | Value field |

The field supports the following subfields in TLV format:

| Code | Description | Applicability | |
|-------|--|---------------|----------|
| | | Format A | Format B |
| 01-46 | RFU | | |
| 47 | American Express Additional Data, National | | x |
| 48 | Additional Information - pass through | | x |
| 49-62 | RFU | | |
| 63 | American Express Private Use Data | | x |

| | | | |
|-------|---------------------|---|--|
| 64-89 | RFU | | |
| 90 | Account Code | X | |
| 91 | Merchant IP address | X | |
| 92 | PAN Hash | X | |
| 93 | RFU | | |
| 94 | Cardholder name | X | |
| 95 | Cardholder surname | X | |
| 96 | Email address | X | |
| 97 | Device Fingerprint | X | |
| 98 | Order ID | X | |
| 99 | RFU | | |

Code: 127.47 **Amex Additional Data, National**
Format: ans..262
Presence: Optional in 1100 messages in the American Express acquiring domain
Description: Contains additional information for card-not-present transaction in the American Express acquiring domain.

Code: 127.48 **Additional Information - pass through**
Format: ans..995
Presence: Optional in 1100 and 1110 messages.
Description: Used for the exchange of generic information between two different subjects. SIA is not involved in the exchange and does not perform any validation on the data in this field.

Code: 127.63 **Amex Private Use Data**
Format: an..205
Presence: Optional in 1100 messages in the American Express acquiring domain.
Description: Contains additional information for card-not-present transaction in the American Express acquiring domain.

Code: 127.90 **Account Code**
Format: ans..50
Presence: Optional. Can be present in 1100 messages.
Description: The cardholder's Account code as provided by the merchant.

Code: 127.91 **Merchant IP address**
Format: ans..30
Presence: Optional in 1100 messages
Description: The Merchant's device IP address

Code: 127.92 **PAN hash**
Format: ans..50
Presence: Optional in 1100 messages
Description: The hash value of the Primary Account Number (PAN).

Code: 127.94 **Cardholder name**
Format: ans..50
Presence: Optional in 1100 messages
Description: The first name of the cardholder.

Code: 127.95 **Cardholder surname**
Format: ans..50
Presence: Optional in 1100 messages
Description: The surname of the cardholder.

Code: 127.96 **Cardholder Email address**
Format: ans..50
Presence: Optional in 1100 messages
Description: The cardholder's email address as provided by the merchant.

Code: 127.97 **Device Fingerprint**
Format: ans..30
Presence: Optional in 1100 messages
Description: The fingerprint of the device which originated the transaction.

Code: 127.98 **Order ID**
Format: ans..50
Presence: Optional in 1100 messages
Description: Contains a code identifying the order.

4.128 Message authentication code (128)

| | |
|--------------|---|
| Format | n8 (n5+'000') |
| Message Type | 1100 1110 1120 1130 1140 1420 1430 1440 |
| Presence | Optional |

Description

A code used to validate the source and the text of the message between the sender and the receiver. The field is left-justified and right-padded with zeros.

Comments

Use of this field is dependent on bilateral agreements.

APPENDIX A – FIELD VALUES

The following tables describe the valid values for some fields and their meaning.

Specific conditions of use of these values are to be defined between the entities involved.

A.1 Field 039 (Action Code)

The valid values of field 039 (Action Code) are listed below:

| Code | Description |
|----------------|---|
| 000-099 | Used in 1110, 1120, 1121, 1140 and 1210, 1220, 1221 and 1240 messages to indicate that the transaction has been approved. |
| 000 | Approved |
| 001 | Honor with identification |
| 002 | Approved for partial amount |
| 003 | Approved (VIP) |
| 004 | Approved, update track 3 |
| 005 | Approved, account type specified by card issuer |
| 006 | Approved for partial amount, account type specified by card issuer |
| 007 | Approved, update ICC |
| 008 | Continue, but require additional authentication (MDES Digitazion transaction) |
| 009 | Approved, with balance (not implemented on all platforms) |
| 010-059 | reserved for ISO use |
| 060 | No Reason To Decline |
| 061-079 | reserved for national use |
| 080-099 | reserved for private use |
| 100-199 | Used in 1110, 1120, 1121, 1140 and 1210, 1220, 1221 and 1240 messages to indicate that the transaction has been processed for authorization by or on behalf of the card issuer and has been denied (not requiring a card pick-up) |
| 100 | Do Not Honor |
| 101 | Expired Card |
| 102 | Suspected Fraud |
| 103 | Card Acceptor Contact Acquirer |
| 104 | Restricted Card |
| 105 | Card Acceptor Call Acquirer's Security Department |
| 106 | Allowable PIN Tries Exceeded |
| 107 | Refer To Card Issuer |
| 108 | Refer to card issuer's special conditions |
| 109 | Invalid Merchant |
| 110 | Invalid Amount |
| 111 | Invalid Card Number |
| 112 | PIN Data Required |
| 113 | Unacceptable Fee |
| 114 | No Account Of Type Requested |
| 115 | Requested Function Not Supported |

| | |
|---------|--|
| 116 | Not Sufficient Funds |
| 117 | Incorrect PIN |
| 118 | No Card Record |
| 119 | Transaction Not Permitted To Cardholder |
| 120 | Transaction Not Permitted To Terminal |
| 121 | Exceeds Withdrawal Amount Limit |
| 122 | Security Violation |
| | Exceeds Withdrawal Frequency Limit. |
| 123 | In the Acquiring domain, it can also indicate 'Additional Cardholder Authentication Required' in compliance with PSD2 regulations. |
| 124 | Violation Of Law |
| 125 | Card Not Effective |
| 126 | Invalid PIN block |
| 127 | PIN length Error |
| 128 | PIN key Synch Error |
| 129 | Suspected Counterfeit Card |
| 130 | Issuer Visa Mobile Update Service unavailable |
| 131 | PIN not changed |
| 132 | Unacceptable PIN – Transaction Declined – Retry |
| 133-159 | Reserved for ISO use |
| 160-164 | Reserved for PagoBancomat |
| 165 | Closed account |
| 166-169 | Reserved for national use |
| 170 | Online PIN Requested for SCA (Visa and Mastercard Issuing domain; Visa, Mastercard and UPI acquiring domain) |
| 171 | reserved for national use |
| 172 | Additional Customer Authentication Required (Visa and Mastercard Issuing domain; Visa and UPI acquiring domain) |
| 173-174 | reserved for national use |
| 175 | The merchant and cardholder are not in the same Europe country where the Cash-Back service is available |
| 176 | The Cash-Back amount is more than the maximum Cash-Back amount |
| 177 | The Cash-Back amount is equal to the total transaction amount |
| 178 | Invalid authentication |
| 179 | Invalid or missing ICC data |
| 180 | Card not eligible for installment |
| 181-187 | Reserved for private use |
| 188 | Invalid CVV2 / CVC2 |
| 189 | Invalid CAVV / AAV |
| 190-194 | Reserved for private use |
| 195 | Geoblocking [DECLINE] |
| 196 | Acquirer Risk/Fraud Management decline |
| 197-198 | reserved for private use |
| 199 | Suspected Invalid AAV |

| | |
|----------------|---|
| 200-299 | Used in 1110, 1120, 1121, 1140 and 1210, 1220, 1221 and 1240 messages to indicate that the transaction has been processed for authorization by or on behalf of the card issuer and has been denied, requiring the card to be picked up. |
| 200 | Do not honor |
| 201 | Expired card |
| 202 | Suspected Fraud |
| 203 | Card acceptor Contact Acquirer |
| 204 | Restricted Card |
| 205 | Card Acceptor Call Acquirer's Security Department |
| 206 | Allowable PIN Tries Exceeded |
| 207 | Special conditions |
| 208 | Lost Card |
| 209 | Stolen Card |
| 210 | Suspected Counterfeit Card |
| 211-259 | Reserved for ISO use |
| 260-279 | Reserved for national use |
| 280-299 | Reserved for private use |
| 300-399 | Used in 1314, 1324, 1325 and 1344 messages to indicate the result of the file action. |
| 300 | Successful |
| 301 | Not supported by receiver |
| 302 | Unable to locate record on file |
| 303 | Duplicate record, old record replaced |
| 304 | Field edit error |
| 305 | File locked out |
| 306 | Not successful |
| 307 | Format error |
| 308 | Duplicate, new record rejected |
| 309 | Unknown file |
| 360 | Record not in active status |
| 361 | Record permanently deleted |
| 362 | Delete request less than 540 days |
| 363 | Security violation |
| 400-499 | Used in 1430, 1432, 1440 and 1442 messages to indicate the result of the reversal or chargeback |
| 400 | Accepted |
| 401-459 | Reserved for ISO use |
| 460-479 | Reserved for national use |
| 480-499 | Reserved for private use |
| 500-599 | Used in 1510,1512,1530 and 1532 messages to indicate the result of a reconciliation. |
| 600-699 | Used in 1614, 1624, 1625, and 1644 messages |

| | |
|----------------|--|
| 700-799 | Used in 1720, 1721, 1740, 1722, 1723 and 1742 messages |
| 800-899 | Used in 1814, 1824, 1825 and 1844 messages. |
| 800 | Accepted |
| 801-859 | reserved for ISO use |
| 860 | Unable to open session |
| 861-879 | Reserved for national use |
| 880-899 | Reserved for private use |
| 900 | Advice acknowledged, no financial liability accepted |
| 901 | Advice acknowledged, financial liability accepted |
| 902-949 | Used in request response and advice response messages to indicate transaction could not be processed. |
| 902 | Invalid Transaction |
| 903 | Re-enter transaction |
| 904 | Format Error |
| 905 | Acquirer not supported by switch |
| 906 | Cutover In Process |
| 907 | Card Issuer Or Switch Inoperative |
| 908 | Transaction Destination Cannot Be Found For Routing |
| 909 | System Malfunction |
| 910 | Card issuer signed off |
| 911 | Card issuer timed out |
| 912 | Card issuer unavailable |
| 913 | Duplicate transmission |
| 914 | Not able to trace back to original transaction |
| 915 | Reconciliation cutover or checkpoint error |
| 916 | MAC incorrect |
| 917 | MAC key sync error |
| 918 | No communication keys available for use |
| 919 | Encryption key sync error |
| 920 | Security software/hardware error — try again |
| 921 | Security software/hardware error — no action |
| 922 | Message Number Out Of Sequence |
| 923 | Request In Progress |
| 924 | MDES File Update Service unavailable |
| 925 | VTS File Update Service unavailable |
| 926 | Missing or invalid data |
| 927 | Invalid SCK |
| 928-929 | reserved for ISO use |
| 930-936 | reserved for PagoBancomat |
| 937-939 | reserved for national use |
| 940-949 | reserved for private use |
| 950-999 | Used in advice response messages (1x3x) to indicate the reason for rejection of the transfer of financial liability. |

| | |
|---------|-----------------------------------|
| 950 | Violation of business arrangement |
| 951-983 | Reserved for ISO use |
| 984-991 | Reserved for national use |
| 992-999 | Reserved for private use |

A.2 Campo 024 (function code)

The valid values of field 024 (Function Code) are listed below:

| Code | Description |
|----------------|---|
| 000-099 | reserved for ISO use |
| 100 199 | Used in 1100, 1101, 1120, 1121 and 1140 messages |
| 100 | Original authorization — amount accurate |
| 101 | Original authorization — amount estimated (Acquiring domain) |
| 102 | Replacement authorization — amount accurate (Acquiring domain) |
| 103 | Replacement authorization — amount estimated (Acquiring domain) |
| 104 | Resubmission—amount accurate |
| 105 | Resubmission—amount estimated |
| 106 | Supplementary authorization — amount accurate |
| 107 | Supplementary authorization — amount estimated |
| 108 | Inquiry |
| 109 | Reauthorization |
| 110-115 | Reserved for ISO use |
| 116 | Completion of one or more previously approved pre-authorizations (Following an original pre-authorization and subsequent incremental authorizations - Acquiring domain) |
| 117-139 | Reserved for ISO use |
| 140 | Notification of successful withdrawal (Acquiring domain) |
| 141-159 | Reserved for ISO use |
| 160 | Reserved for national use |
| 161 | Reserved for PagoBancomat |
| 162-168 | Reserved for national use |
| 168 | Reserved for PagoBancomat |
| 169 | Reserved for national use |
| 170 | Preauthorization with International card (in the Acquiring domain, used for Automated Fuel Dispenser transactions only) |
| 171 | Preauthorization completion with International card (in the Acquiring domain, used for Automated Fuel Dispenser transactions only) |
| 172 | Recurring transaction |
| 173 | Installment payment |
| 174 | ATC update request |
| 175 | Visa Mobile Update Request |
| 176-179 | Reserved for national use |
| 180 | PIN Change from ATM |
| 181 | PIN Unblock (Acquiring domain) |
| 182 | MDES Pre/Post Digitization Transaction |
| 183 | VTS Pre/Post Digitization Transaction |
| 184-189 | RFU |
| 190 | Account Status Check (transit TAT transactions, American Express Acquiring domain) |
| 191 | ATC Synchronization (transit TAT transactions, American Express Acquiring domain) |
| 192-193 | RFU |
| 194 | ExpressPay Translation – PAN request (transit TAT transactions, American Express Acquiring domain) |
| 195 | RFU |

| | |
|----------------|---|
| 196 | ExpressPay Translation (PAN and Expiration Date request). Amex – for transit TAT transactions |
| 197 | Pin Change da Issuer (Issuing domain) |
| 198 | Number of installments over limit |
| 199 | RFU |
| 200-299 | Used in 1200,1201,1220,1221 and 1240 messages |
| 300-399 | Used in 1304, 1305, 1324, 1325 and 1344 messages |
| 302 | Change record |
| 400-449 | Used in 1420, 1421 and 1440 messages |
| 400 | Full reversal, transaction did not complete as approved |
| 401 | Partial reversal, transaction did not complete for full amount |
| 402-419 | Reserved for ISO use |
| 420-439 | Reserved for national use |
| 440-449 | Reserved for private use |
| 450-499 | Used in 1422, 1423 and 1442 messages to indicate the function of the chargeback |
| 500-599 | Used in 1500,1501, 1502, 1503, 1520,1521, 1522, 1523, 1540 and 1542 message |
| 600 649 | Used in 1604,1605,1624,1625 and 1644 messages for retrievals |
| 650-699 | Used in 1604,1605,1624,1625 and 1644 messages for administrative messages |
| 700-799 | Used in 1720,1721,1740,1722,1723 and 1001 1742 messages |
| 800-899 | Used in 1804,1805,1824, 1825 and 1844 messages |
| 800 | Reserved for ISO use |
| 801 | System condition/sign-on |
| 802 | System condition/sign-off |
| 803 | System condition/target system unavailable |
| 804 | System condition/message originator's system in backup |
| 805 | System condition/special instruction |
| 806 | System condition initiate alternate routing |
| 807-810 | Reserved for ISO use |
| 811 | System security/key change |
| 812 | System security/security alert |
| 813 | System security/password change |
| 814 | System security/device authentication |
| 815-820 | Reserved for ISO use |
| 821 | System accounting/cutover |
| 822 | System accounting checkpoint |
| 823-830 | Reserved for ISO use |
| 831 | System audit control/echo test |
| 832-859 | Reserved for ISO use |
| 860-879 | Reserved for national use |
| 880-899 | Reserved for private use |
| 900-939 | reserved for ISO use |
| 940-969 | reserved for national use |
| 970-999 | reserved for private use |

A.3 Field 025 (Message Reason Code)

The valid values of field 025 (Message Reason Code) are listed below:

| Code | Description |
|------------------|--|
| 0000-0999 | reserved for ISO |
| 1000-1499 | Reason for an advice/notification message rather than a request message |
| 1000 | Stand-in processing at the card issuer's option |
| 1001 | Card issuer signed off |
| 1002 | Card issuer timed out on original request |
| 1003 | Card issuer unavailable |
| 1004 | Terminal processed |
| 1005 | ICC processed |
| 1006 | Under floor limit |
| 1007 | Stand-in processing at the acquirer's option |
| 1008-1139 | Reserved for ISO use |
| 1140 | Notification of successful withdrawal (Acquiring domain) |
| 1141-1150 | Reserved for ISO use |
| 1151-1155 | Reserved for national use – PagoBancomat |
| 1156-1374 | Reserved for national use |
| 1375 | Forced STIP because of NO – force STIP – original response from issuer |
| 1376-1402 | Reserved for private use |
| 1403 | Transaction processed by the international network; reason unspecified. |
| 1404 | Preauthorization completion advice (in the Acquiring domain, used for Automated Fuel Dispenser transactions only) |
| 1405 | Transaction Blocking |
| 1406 | MoneySend transaction denied by Mastercard based on Mastercard Blocking service rules |
| 1407 | MoneySend transaction denied by Mastercard base on MoneySend Issuer Transaction Controls service rules. |
| 1408 | ICC transaction denied due to cryptographic key not found. |
| 1409 | MDES transaction denied by Mastercard - cryptographic validation failed |
| 1410 | VTs transaction denied by Visa - digitization failed |
| 1411 | Pin Change confirmation |
| 1412-1439 | Reserved for private use |
| 1440 | Completion of pre-authorization sequence that may have contained one or more incremental authorizations (Acquiring domain) |
| 1441 | VTs digitization notification advice. |
| 1442-1499 | reserved for private use |
| 1500-1999 | Reason for a request message rather than an advice/notification message |
| 1500 | ICC application, common data file unable to process |
| 1501 | ICC application, application data file unable to process |
| 1502 | ICC random selection |

| | |
|------------------|--|
| 1503 | Terminal random selection |
| 1504 | Terminal not able to process ICC |
| 1505 | On line forced by ICC (CDF or ADF) |
| 1506 | On line forced by card acceptor |
| 1507 | On line forced by CAD to be updated |
| 1508 | On line forced by terminal |
| 1509 | On line forced by card issuer |
| 1510 | Over floor limit |
| 1511 | Merchant suspicious |
| 1512-1650 | Reserved for ISO use |
| 1651-1775 | Reserved for national use |
| 1776 | No show (merchant/back-office initiated) |
| 1777 | Unscheduled credential on file transaction |
| 1778 | Delayed charges (merchant/back-office initiated) |
| 1779 | First credential on file (customer initiated - Acquiring domain) |
| 1780 | Inquiry used to store credentials for a subsequent recurring payment (Customer Initiated - Acquiring domain) |
| 1781 | Original authorization to be stored for possible future delayed charges transactions (Merchant Initiated - Acquiring domain) |
| 1782 | Deferred authorization |
| 1783-1999 | Reserved for private use |
| 2000-2999 | Reason for a representment |
| 3000-3999 | Reason for a file action |
| 3400 | Mastercard online File Maintenance for MDES Token Update |
| 3401 | Mastercard online File Maintenance for MDES Pan Update (Deactivate/Suspend/Resume Token) |
| 3402 | VTs Token Maintenance File |
| 3403 | VTs Pan Maintenance File |
| 4000-4499 | Reason for a reversal |
| 4000 | Customer cancellation |
| 4001 | Unspecified, no action taken |
| 4002 | Suspected malfunction |
| 4003 | Format error, no action taken |
| 4004 | Completed partially |
| 4005 | Original amount incorrect |
| 4006 | Response received too late |
| 4007 | Card acceptor device unable to complete transaction |
| 4008 | Deposit out of balance |
| 4009 | No check in envelope |
| 4010 | Payment out of balance |
| 4011 | Deposit out of balance/applied contents |
| 4012 | Payment out of balance/applied contents |
| 4013 | Unable to deliver message to point of service |
| 4014 | Suspected malfunction/card retained |

| | |
|------------------|---|
| 4015 | Suspected malfunction/card returned |
| 4016 | Suspected malfunction/track 3 not updated |
| 4017 | Suspected malfunction/no cash dispensed |
| 4018 | Timed-out a taking money/ no cash dispensed |
| 4019 | Timed-out a taking card/ card retained and no cash dispensed |
| 4020 | Invalid response, no action taken |
| 4021 | Timeout waiting for response |
| 4022 | PIN not changed (Acquiring domain) |
| 4023-4199 | Reserved for ISO use |
| 4200 | Reversal notification issued under the Acquirer's responsibility |
| 4201 | Transaction rejected by card |
| 4202-4350 | Reserved for national use |
| 4351 | Suspected fraud |
| 4352-4499 | Reserved for private use |
| 4500-4999 | Reason for a chargeback |
| 5000-5999 | Reason for a reconciliation |
| 6000-6499 | Reason for a retrieval request |
| 6500-6599 | Reason for an administrative message |
| 6600-6799 | reserved for ISO use reserved for national use |
| 6800-6999 | reserved for private use |
| 7000-7999 | Reason for a fee collection message |
| 9038 | (Merchandise return authorization processed in STIP) |
| 9600-9699 | Message Reason for authorization requests denied by SIA on behalf of the customer. Used in 112x authorization advice message in the Issuing domain and are used in place of 1000-1499 values if so requested by the customer. |
| | Note that: |
| | - range 9600-9647 is reserved to transaction rejected in 'quick-kill' mode. |
| | - range 9650-9697 is reserved to transaction rejected in down option mode. |
| | - values 9648 and 9698 identify a transaction approved on behalf. |
| | -- value 9699 indicates a rejected transaction due to the connection being inoperative and the down option processing option not being configured. |

Security-related message reason codes

| | |
|-------------|--------------------|
| 9600 / 9650 | Invalid online pin |
| 9601 / 9651 | Invalid CVV1/CVC1 |
| 9602 / 9652 | Invalid CVV2/CVC2 |
| 9603 / 9653 | Invalid ARQC |
| 9604 / 9654 | Invalid AAV/CAVV |

9605-9609 /
9655-9659 RFU

Service restriction message reason codes

9610 / 9660 Blacklisted card
 9611 / 9661 Card not found in the positive file (unknown PAN)
 9612 / 9662 Card not found in the positive file (unknown expiration date or card sequence number)
 9613 / 9663 Deleted card
 9614 / 9664 Inactive card
 9615 / 9665 Expired Card
 9616 / 9666 Pan entry mode not allowed
 9617 / 9667 Processing code not allowed
 9618 / 9668 Limit of consecutive invalid CVV2/CVC2 exceed
 9619 / 9669 Maximum PIN try limit exceeded
 9620 / 9670 PIN required but not present
 9621 / 9671 ATC out of sequence
 9622 / 9672 Merchant supports 3-D Secure, but cardholder not authenticated (attempt)
 9623-9630 /
9673-9680 RFU

Optional validation services reason codes

9631 / 9681 Insufficient funds
 9632 / 9682 Error in interaction between card and terminal in a contact chip transaction
 9633 / 9683 OBS (on-behalf service) Mastercard validation error
 9634 / 9684 "Scudo antifrode" error
 9635 / 9685 "Geoblocco" error
 9636 / 9686 Falcon error
 9637-9639
9687-9689 RFU

System-related message reason codes

9640 / 9690 Generic system error
 9641-9647 /
9691-9697 RFU

Other message reason codes

9648 / 9698 Transaction authorized in online (OLCA) / down option mode.
 9699 Connection inoperative and down option not configured.

A.4 Field 022 (Point Of Service Data Code)

The valid values of field 022 (Message Reason Code) are listed below:

Byte 1 — Card data input capability

Indicates the primary means of getting the information on the card into the terminal.

| Code | Description |
|------|-----------------------------------|
| 0 | unknown |
| 1 | manual, no terminal |
| 2 | magnetic stripe read |
| 3 | bar code |
| 4 | OCR |
| 5 | ICC (see *) |
| 6 | key entered |
| 7 | reserved for ISO use |
| 8 | reserved for national use |
| 9 | reserved for private use |
| A-I | reserved for ISO use |
| J-K | reserved for national use |
| L | c-less EMV (hybrid terminal) |
| M | c-less EMV (c-less only terminal) |
| N | c-less magnetic stripe |
| O | mPOS cless only COTS |
| P | reserved for national use |
| S-Z | reserved for private use |

* CAD, ICC, ADF and CDF are terms defined in ISO 10202. For the purposes of this International Standard, CAD shall be synonymous with terminal

Byte 2 — Cardholder authentication capability

Indicates the primary means of verifying the cardholder at this terminal. When no order of priorities can be made, value "6" shall be used.

| Code | Description |
|------|---------------------------------------|
| 0 | no electronic authentication |
| 1 | PIN |
| 2 | electronic signature analysis |
| 3 | biometrics |
| 4 | biographic |
| 5 | electronic authentication inoperative |
| 6 | other |
| 7 | reserved for ISO use |
| 8 | reserved for national use |
| 9 | Software-based pin entry |
| A-I | reserved for ISO use |
| J-R | reserved for national use |

S-Z reserved for private use

Byte 3 — Card capture capability

Indicates whether or not the terminal has the ability to capture a card.

| Code | Description |
|------|---------------------------|
| 0 | none |
| 1 | capture |
| 2-4 | reserved for ISO use |
| 5-7 | reserved for national use |
| 8-9 | reserved for private use |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Z | reserved for private use |

Byte 4 — Operating environment (*)

Indicates if the terminal is attended by the card acceptor and its location.

| Code | Description |
|------|---|
| 0 | no terminal used or unknown |
| 1 | on premises of card acceptor, attended |
| 2 | on premises of card acceptor, unattended |
| 3 | off premises of card acceptor, attended |
| 4 | off premises of card acceptor, unattended |
| 5 | on premises of cardholder, unattended |
| 6-7 | reserved for ISO use |
| 8 | reserved for national use |
| 9 | Mobile POS Acceptance Device |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Y | reserved for private use |
| Z | Transit Access Terminal – TAT |

* If both values 4 and 5 apply, 5 shall be used

Byte 5 — Cardholder present

Indicates if the cardholder is present at the point of service or not, and if not, the reason why.

| Code | Description |
|------|--|
| 0 | cardholder present |
| 1 | cardholder not present, unspecified |
| 2 | cardholder not present, mail order |
| 3 | cardholder not present, telephone |
| 4 | cardholder not present, standing authorization |
| 5 | cardholder not present, e-commerce |
| 6 | reserved for ISO use |
| 7 | reserved for national use |
| 8 | reserved for private use |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Z | reserved for private use |

Byte 6 — Card present

Indicates if the card is present at the point of service or not.

| Code | Description |
|------|---|
| 0 | card not present |
| 1 | card present |
| 2-4 | reserved for ISO use |
| 5-7 | reserved for national use |
| 8-9 | reserved for private use |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Y | reserved for private use |
| Z | Amex Digital Wallet - application initiated (including application initiated Payment Token) transactions. (American Express acquiring domain) |

Byte 7 — Card data input mode

Indicates method used to input the information from the card to the terminal.

| Code | Description |
|------|--|
| 0 | unspecified |
| 1 | manual, no terminal |
| 2 | magnetic stripe read |
| 3 | bar code |
| 4 | OCR |
| 5 | ICC |
| 6 | key entered |
| 7 | reserved for ISO use |
| 8 | reserved for national use – PAN auto-entry via magnetic stripe – the full track data has been read and transmitted in Track 2 Data (bit 035) without alteration or truncation. This mode is only used as fallback to PAN auto-entry via ICC when the IC could not be used |
| 9 | reserved for private use – reserved for national use – PAN auto-entry via magnetic stripe – the FULL track data has been read from the magnetic stripe and transmitted in Track 2 Data (bit 035) or in Track 1 Data (bit 045) without alteration or truncation |
| A-I | reserved for ISO use |
| J | reserved for national use – PAN entry via electronic commerce |
| K | reserved for national use |
| L | c-less EMV |
| M | reserved for national use |
| N | c-less magnetic stripe |
| O | Pan/token via electronic commerce including remote chip |
| P-R | reserved for national use |
| S-V | reserved for private use |
| W | reserved for private use |
| X-Y | reserved for national use |
| Z | Credential On File |

Byte 8 — Cardholder authentication method

Indicates the method for verifying the cardholder identity.

| Code | Description |
|------|---|
| 0 | not authenticated |
| 1 | PIN |
| 2 | electronic signature analysis |
| 3 | biometrics |
| 4 | biographic |
| 5 | manual signature verification |
| 6 | other manual verification (e g, driver's license) |
| 7 | reserved for ISO use |
| 8 | reserved for national use |
| 9 | reserved for private use |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Z | reserved for private use |

Byte 9 — Cardholder authentication entity

Indicates the entity verifying the cardholder identity.

| Code | Description |
|------|---|
| 0 | not authenticated |
| 1 | ICC (*) |
| 2 | CAD (*) |
| 3 | authorizing agent (identified in authorizing agent institution identification code) |
| 4 | by merchant |
| 5 | Other |
| 6 | reserved for ISO use |
| 7 | reserved for national use |
| 8-9 | reserved for private use |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Z | reserved for private use |

* CAD, ICC, ADF and CDF are terms defined in ISO 10202. For the purposes of this International Standard, CAD shall be synonymous with terminal

Byte 10 — Card data output capability

Indicates the ability of the terminal to update the card.

| Code | Description |
|------|---------------------------|
| 0 | Unknown |
| 1 | None |
| 2 | magnetic stripe write |
| 3 | ICC (*) |
| 4-5 | reserved for ISO use |
| 6-7 | reserved for national use |
| 8-9 | reserved for private use |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Z | reserved for private use |

* CAD, ICC, ADF and CDF are terms defined in ISO 10202. For the purposes of this International Standard, CAD shall be synonymous with terminal

Byte 11 — Terminal output capability

Indicates the ability of the terminal to print/display messages.

| Code | Description |
|------|---------------------------|
| 0 | unknown |
| 1 | none |
| 2 | printing |
| 3 | display |
| 4 | printing and display |
| 5-6 | reserved for ISO use |
| 7-8 | reserved for national use |
| 9 | reserved for private use |
| A-I | reserved for ISO use |
| J-R | reserved for national use |
| S-Z | reserved for private use |

Byte 12 — PIN capture capability

Indicates the length of PIN which the terminal is capable of capturing.

| Code | Description |
|------|--|
| 0 | no PIN capture capability |
| 1 | device PIN capture capability unknown |
| 2-3 | reserved for ISO use |
| 4 | four characters |
| 5 | five characters |
| 6 | six characters |
| 7 | seven characters |
| 8 | eight characters |
| 9 | nine characters |
| A | ten characters |
| B | eleven characters |
| C | twelve characters |
| D-I | reserved for ISO use |
| J | reserved for national use – terminal has PIN entry capability but Pin Pad is not currently operative |
| K-R | reserved for national use |
| S-Z | reserved for private use |

A.5 Subfield 48.34 (Payment Initiation Channel)

The valid values of field 048, subfield 34 are listed below. Please note that these values may vary without notice, so the Customer should always be prepared to accept unknown values.

| |
|--|
| 00 = Card |
| 01 = Mobile Network Operator (MNO) controlled removable secure element (SIM or UICC) personalized for use with a mobile phone or smartphone |
| 02 = Key Fob |
| 03 = Watch using a contactless chip or a fixed (non-removable) secure element not controlled by the MNO |
| 04 = Mobile Tag |
| 05 = Wristband |
| 06 = Mobile Phone Case or Sleeve |
| 07 = Mobile phone or smartphone with a fixed (non-removable) secure element controlled by the MNO, for example, code division multiple access (CDMA) |
| 08 = Removable secure element not controlled by the MNO, for example, memory card personalized for used with a mobile phone or smartphone |
| 09 = Mobile Phone or smartphone with a fixed (non-removable) secure element not controlled by the MNO |
| 10 = MNO controlled removable secure element (SIM or UICC) personalized for use with a tablet or e-book |
| 11 = Tablet or e-book with a fixed (non-removable) secure element controlled by the MNO |
| 12 = Removable secure element not controlled by the MNO, for example, memory card personalized for use with a tablet or e-book |
| 13 = Tablet or e-book with fixed (non-removable) secure element not controlled by the MNO |
| 14 = Mobile phone or smartphone with a payment application running in a host processor |
| 15 = Tablet or e-book with a payment application running in a host processor |
| 16 = Mobile phone or smartphone with a payment application running in the Trusted Execution Environment (TEE) of a host processor |
| 17 = Tablet or e-book with a payment application running in the TEE of a host processor |
| 18 = Watch with a payment application running in the TEE of a host processor |
| 19 = Watch with a payment application running in a host processor |
| 20= Card |
| 21= Phone Mobile phone |
| 22= Tablet/e-reader Tablet computer or e-reader |
| 23= Watch/Wristband Watch or wristband, including a fitness band, smart strap, disposable band, watch add-on, and security/ID band |
| 24= Sticker |
| 25= PC or laptop |
| 26= Device Peripheral Mobile phone case or sleeve |
| 27= Tag Key fob or mobile tag |
| 28= Jewelry Ring, bracelet, necklace, and cuff links |
| 29= Fashion Accessory Handbag, bag charm, and glasses |
| 30= Garment Dress |
| 31= Domestic Appliance Refrigerator, washing machine |
| 32= Vehicle, including vehicle attached devices |
| 33= Media/Gaming Device Media or gaming device, including a set top box, media player, and television |
| 34–99 Reserved for future form factors. Any value in this range may occur within form factor and transaction data without prior notice. |

A.6 Rules for fields 032, 033, 093, 094 and 100

The following tables indicate the rules for populating the fields mentioned above and their reciprocal relations:

| | | |
|-------------------------|-----------|---|
| acquirer | field 032 | (Acquirer institution identification code) |
| transaction originator | field 094 | (Transaction originator institution identification code) |
| forwarding institution | field 033 | (Forwarding institution identification code) |
| receiving institution | field 100 | (Receiving institution identification code) |
| transaction destination | field 093 | (Transaction destination institution identification code) |

For a request, advice or notification message:

| Institution identification code | Acquirer to A | A to B | B to C | C to Card Issuer |
|--|---|---------------|---------------|-------------------------|
| acquirer or transaction originator | remains the same throughout the transaction | | | |
| card issuer or transaction destination | remains the same throughout the transaction | | | |
| forwarding institution | (acquirer) | A | B | C |
| receiving institution | A | B | C | (card issuer) |

For a response message:

| Institution identification code | Issuer to C | C to B | B to A | A to Acquirer |
|--|---|---------------|---------------|----------------------|
| acquirer or transaction originator | remains the same throughout the transaction | | | |
| card issuer or transaction destination | remains the same throughout the transaction | | | |
| forwarding institution | (card issuer) | C | B | A |
| receiving institution | C | B | A | (acquirer) |

Note: A, B and C represent potential entities that may be present between acquirer and card issuer.

A.7 Subfield 48.56 - Mastercard Security Services Additional Data for Issuers

The tables below provide a listing of valid values for field 48, subfield 56, as referred to a generic Mastercard monitoring service and reported in Mastercard's specification documents, with the following clarifications:

- 'Subfield1' refers to "Service Type" as described in section 4.48, subfield tag code 56.
- 'Subfield2' refers to "Service Data" as described in section 4.48, subfield tag code 56.

Service Data Content for Mastercard Assurance IQ Service

Following is the Service Data Content for the Mastercard Assurance IQ service.

| Subfield 1 (an-3) | Subfield 2 (an-3) | | | | | | |
|----------------------------------|---|--|---------------|-------------|-------------|---|--|
| | Position 1 | Position 2 | Position 3 | | | | |
| Security Services Indicator | Risk Level | Reason Code 1 | Reason Code 2 | | | | |
| AIQ—Digital Transaction Insights | 0–9 where higher values indicate higher degree of risk. | <p>The following codes apply to both Reason Code fields 1 and 2, where:</p> <ul style="list-style-type: none">• Position 2 = a Mastercard-determined reason code• Position 3 = a merchant-determined reason code <p>NOTE: This information is subject to change.</p> <table><tr><th>Reason Code</th><th>Description</th></tr><tr><td>A</td><td>Risk Event - Suspicious Account Activity</td></tr></table> | | Reason Code | Description | A | Risk Event - Suspicious Account Activity |
| Reason Code | Description | | | | | | |
| A | Risk Event - Suspicious Account Activity | | | | | | |

| Subfield 2 (an-3) | | | |
|-----------------------------|------------|---------------|---|
| Subfield 1 (an-3) | Position 1 | Position 2 | Position 3 |
| Security Services Indicator | Risk Level | Reason Code 1 | Reason Code 2 |
| | | B | Risk Event - Unknown Device/Account Relationship |
| | | C | Risk Event - Device or Profile information associated with fraud |
| | | D | Risk Event - Recent High Risk change to Device or Profile information |
| | | E | Risk Event - Recent change to Device or Profile Information |
| | | F | Risk Event - PAN associated with fraud event |
| | | G | New Account or Insufficient Data |
| | | H | Merchant/Acquirer: Merchant (fraud) risk high (assessed by Mastercard) |
| | | I | Merchant/Acquirer: Merchant (fraud) risk low (assessed by Mastercard) |
| | | J | Environment: Good/Known IP |
| | | K | Cardholder: Billing address - prior history established |
| | | L | Cardholder: Email address - prior history established |
| | | M | Cardholder: Phone Number - prior history established |
| | | O | Cardholder: Card number (PAN) behavior established high trust in the current transaction |
| | | P | Environment: Device known |
| | | Q | Environment: Account established on Device |
| | | R | Environment: Session - Trusted/normal/ innocent session (no man in the middle attack/no bot, not suspicious account activity) |
| | | S | More than one Cardholder category established |
| | | T | More than one Merchant/Acquirer category established |
| | | U | More than one Environment category established |
| | | V | Co-occurring established link between cardholder and Merchant/Acquirer |
| | | W | Co-occurring established link between cardholder and Environment |



| | |
|---|---|
| X | Co-occurring established link between Merchant/Acquirer and Environment |
| Y | All three categories established |
| Z | Most Trusted (future use) |

NOTE: The above codes depict an ordering from negative to positive. This list may be further refined. Reason codes A–H reflect riskier, or less information while reason codes I–Z reflect positive information.

Service Data Content for Decision Intelligence Service—Authorization IQ Feature

Following is the Service Data Content for the Authorization IQ feature of the Decision Intelligence service. Customers that support Decision Intelligence will receive AQV (GDV-based Spend Ranking), AQF (Frequency-based Spend Ranking), and AQS (Segment Qualifier) on all transactions.

NOTE: Positions 2 and 3 use the same reason code definitions.

| Subfield 1 (an-3) | Subfield 2 (an-3) | | |
|------------------------------------|---|--|-------------------------------------|
| | Position 1 | Position 2 | Position 3 |
| Spending Dimension Insights | Overall Account Spending Insights | Channel Spending Insights | Account Transaction Insights |
| AQV—GDV-based Spend Ranking | New (card activity on the network less than 60 days old) | New (card activity on the network less than 60 days old) | |
| Or | | Or | |
| AQF—Frequency-based Spend Ranking | | None (No network activity in the last 12 months or Dormant Card Number) | |
| | High = 1 | | High = 1 |
| | Med-1 = 4 | | Med-1 = 4 |
| | Med-2 = 5 | | Med-2 = 5 |
| | Med-3 = 6 | | Med-3 = 6 |
| | Low = 9 | | Low = 9 |
| AQS—Segment Qualifier | Refer to the Segment Definitions table that follows. | | |

Segment Definitions for Decision Intelligence Service—Authorization IQ Feature

The Authorization IQ feature of the Decision Intelligence service supports the following series of segments under which each transaction is qualified for dimension analysis.

NOTE: New segments may be added to the Authorization IQ feature of the Decision Intelligence service at any time.

| Segment | Segment Qualifier ID |
|--|--|
| Channel: Card Present—Domestic Segments | 000—Card activity on network less than 60 days old |
| Travel | 001 |
| Retail | 002 |
| Gaming | 003 |
| Gambling | 004 |
| Education/Healthcare | 005 |
| Cash (for example: ATM) | 006 |

| Segment | Segment Qualifier ID |
|--|--|
| Fuel | 007 |
| Utilities | 008 |
| Leisure and Entertainment | 009 |
| Digital Goods | 010 |
| Professional Services | 011 |
| Reserved for Future Use | 012–198 |
| Other Card Present—Domestic | 199 |
| Channel: Card Present—Cross-Border Segments | 200—Card activity on network less than 60 days old |
| Travel | 201 |
| Retail | 202 |
| Gaming | 203 |
| Gambling | 204 |
| Education/Healthcare | 205 |
| Cash (for example: ATM) | 206 |
| Fuel | 207 |
| Utilities | 208 |
| Leisure and Entertainment | 209 |
| Digital Goods | 210 |
| Professional Services | 211 |

| | |
|--|--|
| Reserved for Future Use | 212–398 |
| Other Card Present—Cross-Border | 399 |
| Channel: Card Not Present—Domestic Segments | 400—Card activity on network less than 60 days old |
| Travel | 401 |
| Retail | 402 |
| Gaming | 403 |
| Gambling | 404 |
| Education/Healthcare | 405 |
| Cash (for example: ATM) | 406 |
| Utilities | 407 |

| Segment | Segment Qualifier ID |
|--|---|
| Leisure and Entertainment | 408 |
| Digital Goods | 409 |
| Professional Services | 410 |
| Reserved for Future Use | 411–598 |
| Other Card Not Present—Domestic | 599 |
| Channel: Card Not Present—Cross-Border Segments | 600—Card activity on network less than 60 days old |
| Travel | 601 |
| Retail | 602 |
| Gaming | 603 |
| Gambling | 604 |
| Education/Healthcare | 605 |
| Cash (for example: ATM) | 606 |
| Utilities | 607 |
| Leisure and Entertainment | 608 |
| Digital Goods | 609 |
| Professional Services | 610 |
| Reserved for Future Use | 611–798 |
| Other Card Not Present—Cross-Border | 799 |
| Reserved for Future Use | 800–899 |
| Dormant Card Number | 900—Previously active card with no activity on the network in the last 120 days |
| Reserved for Future Use | 901–999 |

Service Data Content for Consumer Controls

Following is the Service Data Content for Consumer Controls.

| Subfield 1 (an-3) | Subfield 2 (an-3) | |
|-----------------------|-------------------|------------------------|
| Service Code | Reason Code | Description |
| INC—Consumer Controls | AAL | Alert All Transactions |
| | ABD | Alert Budget |

| Subfield 1 (an-3) | Subfield 2 (an-3) | |
|-------------------|-------------------|--------------------------------|
| Service Code | Reason Code | Description |
| | ACB | Alert Cross-border |
| | ACH | Alert Transaction Channel |
| | AFL | Alert Filter |
| | AGE | Alert Transaction Geography |
| | AMC | Alert Merchant Category Code |
| | ATA | Alert Transaction Amount |
| | DBD | Decline Budget |
| | DCB | Decline Cross-border |
| | DCD | Decline Card Disabled |
| | DCH | Decline Transaction Channel |
| | DFL | Decline Filter |
| | DGE | Decline Transaction Geography |
| | DMC | Decline Merchant Category Code |
| | DTA | Decline Transaction Amount |
| | NAT | No Action Taken |

ARA Reason Code and Descriptions

| ARA reason code | Risk Level | Descriptions |
|-----------------|------------|--|
| AAA | high | Suspicious Account Activity, Merchant (fraud) risk low (assessed by Mastercard) |
| AAB | high | Suspicious Account Activity, Merchant (fraud) risk low (assessed by Mastercard), Good/Known IP |
| AAC | high | Suspicious Account Activity, Merchant (fraud) risk low (assessed by Mastercard), Recent High Risk Change to Device or Profile Information |
| AAD | high | Suspicious Account Activity, Merchant (fraud) risk low (assessed by Mastercard), Recent change to Device or Profile Information |
| AAE | high | Suspicious Account Activity, Merchant (fraud) risk low (assessed by Mastercard), Unknown Device/Account Relationship |
| AAF | high | Cardholder Billing address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Unknown Device/Account Relationship |
| AAG | high | Suspicious Account Activity, Merchant (fraud) risk low (assessed by Mastercard), Session - Trusted/normal/innocent session (no man in the middle attack/no bot, not suspicious account activity) |

| | | |
|-----|--------|---|
| AAH | high | PAN associated with fraud event, Merchant (fraud) risk low (assessed by Mastercard), Unknown Device/Account Relationship |
| AAI | high | New Account or Insufficient Data, Merchant (fraud) risk low (assessed by Mastercard), Unknown Device/Account Relationship |
| AAJ | high | Card number(PAN) behavior established high trust in the current transaction, Merchant (fraud) risk low (assessed by Mastercard), Unknown Device/Account Relationship |
| AAK | medium | New Account or Insufficient Data, Merchant (fraud) risk low (assessed by Mastercard), Session - Trusted/normal/innocent session (no man in the middle attack/no bot, not suspicious account activity) |
| AAL | medium | New Account or Insufficient Data, Merchant (fraud) risk low (assessed by Mastercard) |
| AAM | medium | New Account or Insufficient Data, Merchant (fraud) risk low (assessed by Mastercard), Recent change to Device or Profile Information |
| AAN | medium | Cardholder Shipping address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Recent High Risk Change to Device or Profile Information |
| AAO | medium | New Account or Insufficient Data, Merchant (fraud) risk low (assessed by Mastercard), Recent High Risk Change to Device or Profile Information |
| AAP | medium | Cardholder Phone number prior history established, Merchant (fraud) risk low (assessed by Mastercard), Unknown Device/Account Relationship |
| AAQ | medium | Cardholder Card number(PAN) behavior established high trust in the current transaction, Merchant (fraud) risk low (assessed by Mastercard), Recent High Risk Change to Device or Profile Information |
| AAR | medium | Cardholder Phone number prior history established, Merchant (fraud) risk low (assessed by Mastercard), Recent High Risk Change to Device or Profile Information |
| AAS | medium | New Account or Insufficient Data, Merchant (fraud) risk high (assessed by Mastercard) |
| AAT | medium | Cardholder Billing address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Recent High Risk Change to Device or Profile Information |
| AAU | medium | Cardholder Phone number prior history established, Merchant (fraud) risk low (assessed by Mastercard), Good/Known IP |
| AAV | medium | Cardholder Billing address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Recent change to Device or Profile Information |

| | | |
|-----|--------|--|
| AAW | medium | Cardholder Billing address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Good/Known IP |
| AAX | medium | Cardholder Billing address prior history established, Merchant (fraud) risk low (assessed by Mastercard) |
| AAV | medium | PAN associated with fraud event, Merchant (fraud) risk low (assessed by Mastercard), Good/Known IP |
| AAZ | medium | PAN associated with fraud event, Merchant (fraud) risk low (assessed by Mastercard), Session - Trusted/normal/innocent session (no man in the middle attack/no bot, not suspicious account activity) |
| ABA | medium | PAN associated with fraud event, Merchant (fraud) risk low (assessed by Mastercard), Recent change to Device or Profile Information |
| ABB | medium | Limited information and refer to DTI reason code |
| ABC | low | Cardholder Card number (PAN) behavior established high trust in the current transaction, Merchant (fraud) risk low (assessed by Mastercard), Recent change to Device or Profile Information |
| ABD | low | Cardholder Billing address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Session - Trusted/normal/innocent session (no man in the middle attack/no bot, not suspicious account activity) |
| ABE | low | Cardholder Shipping address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Session - Trusted/normal/innocent session (no man in the middle attack/no bot, not suspicious account activity) |
| ABF | low | Cardholder Phone number prior history established, Merchant (fraud) risk low (assessed by Mastercard), Session - Trusted/normal/innocent session (no man in the middle attack/no bot, not suspicious account activity) |
| ABG | low | Cardholder Phone number prior history established, Merchant (fraud) risk low (assessed by Mastercard) |
| ABH | low | Cardholder Shipping address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Recent change to Device or Profile Information |
| ABI | low | Cardholder Shipping address prior history established, Merchant (fraud) risk low (assessed by Mastercard) |
| ABJ | low | Cardholder Shipping address prior history established, Merchant (fraud) risk low (assessed by Mastercard), Good/Known IP |
| ABK | low | Cardholder Phone number prior history established, Merchant (fraud) risk low (assessed by Mastercard), Recent change to Device or Profile Information |

Subelement 57—Security Services Additional Data for Acquirers

DE 48, subelement 57 (Security Services Additional Data for Acquirers) supports Mastercard embedded security services for acquirers.

| Attribute | Description |
|----------------------|---|
| Subelement ID: | 57 |
| Data Representation: | an...99; LLVAR The "LL" length field of LLVAR must be an integral multiple of 6, not to exceed 96. |
| Length Field: | 2 |
| Data Field: | Contents of subfields |
| Subfields: | 2 |
| Justification: | N/A |
| Usage | |