

Transaction XML Reporting Guide

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Global Processing Services
6th Floor, Victoria House, Bloomsbury Square, London, WC1B 4DA
Support Email: ops24@globalprocessing.com
Support Phone: +442037409682

For the latest technical documentation, see the [Developer Portal](#).

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SECTION 1: GETTING STARTED

You should read this section if you are new to GPS XML reports and want to understand what types of reports are available how they are provided.

Topics covered in this section:

- [About this Guide](#)
- [Introduction](#)
- [Transactional Data Files](#)
- [Transactional Data Schema](#)

Tip: To find out what has changed, see the [Document History](#).

1.1 About this Guide

This document is intended as a reference guide, to provide information on the available GPS XML reports. It describes the Transaction XML Data Schema elements, sub-elements and attributes.

Target Audience

Technical team(s) responsible for the handling and processing of the GPS transaction XML files. You should have reasonable knowledge of XML/XSD and of the Cards industry.

What's Changed?

If you want to find out what's changed since the previous release, see the [Document History](#) section.

1.1.1 How to use this Guide

If you are new to GPS and want to understand when and how XML files are provided to you, the types of XML files available and how they can be used,

see the [Introduction](#) and [Transactional Data Files](#) topics.

To view an example of a Transaction XML file, see [Transaction XML Example](#).

To view the current data schema, see [Transaction XML Schema](#).

Note: For upcoming/future versions of the Transaction XML schema, see the [XSD Schemas](#) section on the Developer Portal.

For information about the record types and fields in the Transaction XML file, see [Primary Elements](#).

1.1.2 Other Documentation

Refer to the table below for a list of other relevant documents that should be used together with this guide.

Document	Description
Balance XML Guide	Describes the structure and content of the Balance XML report.
External Host Interface (EHI) Guide	Provides details of the GPS External Host Interface (EHI).
Smart Client Guide	Describes how to use the GPS Smart Client to manage your account.
Web Services Guide	Describes how to use the GPS web services API.

Tip: For the latest technical documentation, see the [Developer Portal](#).

1.2 Introduction

GPS provide a number of daily XML reports, containing details of transactions processed on the system during the past 24 hours.

This includes both authorisations and financial transactions.

Reports are provided by Secure File Transfer Protocol (SFTP).

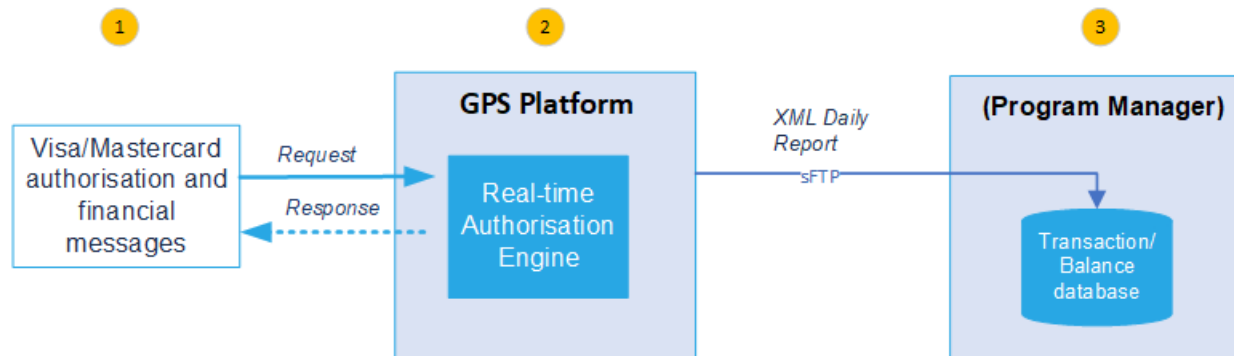


Figure 1-1: XML Reporting

1.2.1 Types of XML Reports

GPS provides the following daily reports to Program Managers:

- **Transaction XML Report** - contains details of daily transactions
- **Balance XML Report** - provides details of the balance on each card

For Issuers and Self-Issuers, GPS provides two additional reports:

- **Fee Collection Report** - daily report which gives a summary of Scheme (VISA/Mastercard) Fees by ICA and currency
- **Quarterly Management Report (QMR)** - quarterly report which contains information needed to complete your regulatory Quarterly Management Report

Transaction XML Report

The Transaction XML report provides details of authorisation and financial advices and any other non-scheme transactions that take place, such as card loads/unloads, balance adjustments (via web services), cardholder fees generated by GPS (you have set up in your fee groups), network scheme fees.

You can use this report to reconcile against Mastercard or Visa settlement advices.

You can also use it to reconcile with data received from EHI.

The format and content of the transaction XML report is described in this guide.

Balance XML Report

Balance XML reports are relevant where GPS maintains details of card balances, such as in EHI modes 2,3,4 and 5 or where EHI is not being used.

The Balance XML report provides details of the balance on each card as at midnight UK time¹ or the time when the XML is run (configurable). You can use this report to confirm how much money is on the card according to GPS system's (where GPS maintain the balance). You can compare this to information you hold in your local card database. For more information, see the [Balance XML Reporting Guide](#).

Fee Collection Report

Fee Collection reports are provided to issuers and self-issuers.

The report is a daily summary of Scheme (Mastercard/Visa) fees by ICA and currency and can be used to reconcile against the Mastercard/Visa Settlement summary reports. It includes transaction categories such as Interregional non-financial ATM transaction fees, fees for ATM PIN management and ATM Balance Inquiry fees. For more information, contact your GPS Implementation Manager or Account Manager.

Quarterly Management Report (QMR)

Quarterly Management reports (Mastercard and Quarterly Operating Certificate - Visa) are provided to issuers and self-issuers.

The report provides details needed for quarterly reporting to the Scheme, and includes details such as the number of live cards, card issued, and information on card activity and status. For more information, contact your GPS Implementation Manager or Account Manager.

¹Local UK time, which is either Greenwich Mean Time (GMT) or British Summer Time (BST); For details, see: <https://www.gov.uk/when-do-the-clocks-change>.

1.3 Transactional Data Files

GPS can supply you with daily Transaction XML files. Transaction XML files are delivered to you via sFTP.

Note: sFTP files are deleted from the GPS sFTP server after two calendar days. They are stored on our archive server for a limited period.

1.3.1 Sending of Files

Transactional data files are created every day (excluding UK Public Holidays). When we have received the settlement information from the card scheme, we send this to you. For UK issuers, this is in the afternoon, between 2:30-5pm, UK time¹. For issuers in other regions, the timings may vary.

Mastercard Cycles

Mastercard has 6 cycles clearing cycles per day, seven days per week. After each clearing cycle, Mastercard sends us clearing files, which contain the settlement data.

We wait until we process all 8 cycles before generating the transaction XML report. We send you a single daily file.

Data from cycles 5-8 from the night before and 1-4 from current day form a complete settlement day picture for most regions. These contain all the information you need to reconcile your settlements with Mastercard.

Asia-Pacific

For Asia-Pacific clients we process cycles 2-8 for the previous day and cycle 1 from the current day, and include them in the daily transaction XML report.

Visa Cycles

Visa provide 2 files (Domestic and International) each day with different timings for some regions (For example, Australia and Hong Kong). There is a maximum filesize so for the largest clients it is possible that more than one Domestic and/or International file will be received on the same day..²

After processing, we will create the transaction XML file and send to you.

1.3.2 File Contents

The daily transaction XML file contains:

- All presentments that have a settlement date of this day (D)
- Any presentments that have a settlement date of day D-1 and arrived too late for the previous day's XML generation
- All non-presentment transactions for day D-1.

1.3.3 File Format and Encryption

For an example of a transaction XML file, see [Transaction XML Example](#).

File Naming Convention

The transaction XML files use the following naming convention:

GPS-PPPttxnexpYYYYMMDD.xml

Where:

- PPP= name of the Program Manager
- YYYY= year (4 digits)

- MM = month (2 digits)
- DD = day (2 digits)

For example:

GPS-NWCtxnexp20210130.xml

Encryption

XML files are encrypted using PGP, which requires sharing of keys. For details, contact your implementation manager.

Encoding / Type

Transaction XML data files are well-formed XML (UTF-8 encoded).

Note: XML is case-sensitive, ensure you follow the correct casing for all XML elements and attribute names when processing the message.

¹Local UK time, which is either Greenwich Mean Time (GMT) or British Summer Time (BST). For details, see: <https://www.gov.uk/when-do-the-clocks-change>.

²Visa Domestic cycle at 9am and International cycle at mid-day, 7 days a week.

1.4 Transaction Matching

All transactions reported to GPS via the card schemes (Visa and Mastercard) are included in both the EHI data feed and transaction XML reports. You can use the information in the XML reports to match and reconcile against data received via EHI, check for any duplicate records, and match authorisation records (e.g., authorisation advices and authorisation reversals) to financial records (e.g., presentments and chargebacks).

1.4.1 Matching Authorisations to Financial Records

Within the Transaction XML report, you can use the following fields to match records:

Field Type	CardAuthorisation Record	CardFinancial Record
Unique identifier of an authorisation transaction	AuthId	AuthId
Approval code generated by the issuer and printed on the receipt	ApprCode	ApprCode
Unique identifier of a financial record	-	FinId
Unique identifier of a presentment record	-	PresentmentId
Information used to uniquely identify the transaction	Trace	-

1.4.2 Matching Transaction XML Records to EHI Records

You can use the following fields to match Transaction XML records to EHI records:

Field Type	Transaction XML Record	EHI Record
Unique identifier of the card linked to the transaction	PAN	Token
Unique identifier of an authorisation transaction	AuthId	TXn_ID
Unique identifier of a financial record	FinId	TXn_ID
Information used to uniquely identify the transaction	Trace	traceid_lifecycle

For details of EHI fields, refer to the [External Host Interface \(EHI\) Guide](#).

1.5 Transactional Data Schema

The Transactional Data Schema (TDS) describes the structure and possible data values of the GPS Transactional XML file.

You can validate the transaction XML files you receive against the Schema (XSD file) to check it is in the correct format.

The TDS is an evolving standard and is subject to change as the standard evolves. When we make changes to the TDS, we will implement a new version and notify you.

1.5.1 Schema Versions

The schema is not publicly available. GPS sends schema files when a new version of the XML is published. The schema filename indicates the schema version number. The schema file contains a comments section with details of version changes.

For an example of the current Transactional Data Schema, see [Transaction XML Schema](#).

For a history of changes to the Transactional Data Schema, see [Schema Changes](#).

Note: For upcoming/future versions of the Transaction XML schema, see the [XSD Schemas](#) section on the Developer Portal.

1.5.2 Schema Elements

An XML file conforming to the schema consists of the following elements:

- [Primary elements](#)
- [Sub-elements and attributes](#)

SECTION 2: PRIMARY ELEMENTS

This section describes the Primary Elements within a transaction XML message.

Topics covered in this section:

- [Primary Elements](#)
- [CardAuthorisation](#)
- [CardFinancial](#)
- [CardChrgBackRepRes](#)
- [CardFee](#)
- [MasterCardFee](#)
- [CardLoadUnload](#)
- [ApprovedAgencyBanking](#)
- [DeclinedAgencyBanking](#)
- [AgencyBankingFee](#)
- [CardBalAdjust](#)
- [CardEvent](#)
- [FXConversion](#)

2.1 Primary Elements

Primary Elements are listed within a **<Transactions>** parent element, which defines the top-level entities of the message. See the table below for details.

Element Name	Description	Data Type	Occurs
CardAuthorisation	Describes an Authorisation or Reversal.	<CardAuthorisation>	0 - n
CardFinancial	Describes a Financial Advice or Financial Reversal.	<CardFinancial>	0 - n
CardChrgBackRepRes	Describes a Chargeback, Chargeback Reversal, Representment or Representment Reversal.	<CardChrgBackRepRes>	0 - n
CardFee	Describes a fee (and commission).	<CardFee>	0 - n
MasterCardFee	Describes a MasterCard fee.	<MasterCardFee>	0 - n
CardLoadUnload	Described a Card Load, Card Load Reversal, Card Unload and Card Unload Reversal.	<CardLoadUnload>	0 - n
ApprovedAgencyBanking	Describes an approved Agency Banking transaction (relevant only if you are using the Agency Banking service)	<ApprovedAgencyBanking>	0 - n
DeclinedAgencyBanking	Describes declined Agency Banking transaction (relevant only if you are using the Agency Banking service)	<DeclinedAgencyBanking>	0 - n
AgencyBankingFee	describe any bank charges applied to Agency Banking transaction (relevant only if you are using the Agency Banking service).	<AgencyBankingFee>	0 - n
CardBalAdjust	Describes a card account Balance Adjustment or Reversal.	<CardBalAdjust>	0 - n
CardEvent	Describes a card status change event.	<CardEvent>	0 - n
FXConversion	Describes Foreign Exchange (FX) rate conversion.	<FXConversion>	0 - n
WalletTransaction	Describes a wallet account transaction.	<WalletTransaction>	0 - n

Note: The presence of primary elements within an XML message depends on the card activity for the period being reported. For example, **<CardChrgBackRepRes>** elements are only present when a chargeback (or reversal) or Representment (or reversal) is reported.

Transactional XML example showing several Primary Elements

```
<?xmlversion="1.0"encoding="utf-8"?>
<Transactions>
<CardAuthorisation>...detail omitted...</CardAuthorisation>
<CardBalAdjust>...detail omitted...</CardBalAdjust>
<CardChrgBackRepRes>...detail omitted...</CardChrgBackRepRes>
<CardFee>...detail omitted...</CardFee>
<CardFinancial>...detail omitted...</CardFinancial>
<CardLoadUnload>...detail omitted...</CardLoadUnload>
<MasterCardFee>...detail omitted...</MasterCardFee>
<FXConversion>...detail omitted...</FXConversion>
<WalletTransaction>...detail omitted...</WalletTransaction>
</Transactions>
```

2.2 CardAuthorisation

CardAuthorisation provide details of payment authorisation advices. There are two types of CardAuthorisation records:

- Authorisation Advice
- Authorisation Reversal

You can use the [RecType](#) element to determine the type of record.

You can use the [AuthId](#) element to uniquely identify the record and distinguish it from all other CardAuthorisation records.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
RecType	Record type, indicates <i>Advice</i> or <i>Reversal</i> .	<RecType>	Yes	See the RecType sub-element
AuthId	Unique identifier for this CardAuthorisation record.	xs:unsignedLong	Yes	0 to 2 ⁶⁴
AuthTxnId	Alternative unique identifier of a CardAuthorisation record.	xs:unsignedInt	Yes	0 to 2 ³²
LocalDate	The date and time the record was generated by the terminal (POS or ATM) or acquirer.	<LocalDate>	Yes	See the LocalDate sub-element
LocalDateUTC	The transaction date and Time in UTC as received from Mastercard and Visa.	Numeric	Yes	Format: MMDDHHMMSS 10 digits
SettlementDate	The date the transaction was processed (in UK time).	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
Account	Details of the cardholder account.	<Account>	Yes	See the Account sub-element
TxnCode	Indicates the type of transaction.	<TxnCode>	Yes	See the TxnCode sub-element
TxnAmt	Indicates the value of the transaction requested by the cardholder.	<BasicAmount>	Yes	See the TxnAmt sub-element
CashbackAmt	Details of cashback requested by the cardholder.	<BasicAmount>	Yes	See the CashbackAmt sub-element
BillAmt	The amount posted to the cardholder account. This DOES NOT include interchange.	<RateAmount>	Yes	See the BillAmt sub-element
ApprCode	The Approval Code generated by the issuer and printed on the receipt.	<ApprCode>	Yes	See the ApprCode sub-element
Trace	Information used to uniquely identify the transaction.	<Trace>	Yes	See the Trace sub-element
MerchCode	A unique code identifying the Merchant (also known as the <i>Card Acceptor Identifier</i>).	<MerchCode>	Yes	See the MerchCode sub-element
Term	Describes the terminal used for the transaction.	<Term>	Yes	See the Term sub-element
Schema	Indicates the name of the card scheme.	<Schema>	Yes	See the Schema sub-element
Txn	Describes the validation and authentication properties used in a transaction.	<Txn>	Yes	See the Txn sub-element
MsgSource	Describes the derivative source of the record.	<MsgSource CardAuthorisation>	Yes	See the MsgSource sub-element

Child Element	Description	Data Type	Required	Constraints / Permitted Values
PaddingAmt	The amount of padding applied to the authorisation, whereby “padding” is defined as the amount by which the Authorisation is Greater than the corresponding Financial Transaction.	<BasicAmount>	Yes	See the PaddingAmt sub-element
Rate_Fee	The amount of any rate-based POS or ATM fee that was charged.	xs:decimal	Yes	
Fixed_Fee	The amount of any fixed POS or ATM fee that was charged.	xs:decimal	Yes	
CommissionAmt	The amount of commission applied to the authorisation, whereby “commission” is defined as an indication of the charges applicable to the corresponding Financial Transaction.	<BasicAmount>	Yes	See the CommissionAmt sub-element
Classification	Merchant classification.	<Classification>	Yes	See the Classification sub-element
Response	Indicates transaction approval.	<Response>	Yes	See the Response sub-element
OrigTxnAmt	The value of the original transaction amount requested by the cardholder; only used in CardAuthorisation reversals.	<PartialAmount>	If Applicable	Only applicable if the RecType is “REV”, See the OrigTxnAmt sub-element
ReversalReason	The reason for the reversal; only used in CardAuthorisation reversals.	<ReversalReason>	If Applicable	Only applicable if the RecType is “REV”. See the ReversalReason sub-element
PaymentToken	This element is populated from Payment Token data when a Payment Token was used for the transaction. If no Payment Token was used, then the <i>PaymentToken</i> element is omitted.	<PaymentToken>	If Applicable	See the PaymentToken sub-element
Sender	Provides details of the sender of the payment, where there is a money transfer.	<Sender>	If Applicable	See the Sender sub-element
Receiver	Provides details of the receiver of the payment, where there is a money transfer.	<Receiver>	If Applicable	See the Receiver sub-element
FXConv	Provides details of the Foreign Exchange (FX) rate conversion in a CurrencyCloud transaction. This can be used to reconcile the POS transaction FX movements, if any was done.	<FXConv>	If Applicable	See the FXConv sub-element.

Example

```

<CardAuthorisation>
  <RecType>ADV</RecType>
  <AuthId>101455187</AuthId>
  <AuthTxnID>11606448</AuthTxnID>
  <LocalDate>2021060125959</LocalDate>
  <LocalDateUTC>0601225959</LocalDateUTC>
  <SettlementDate>20210602</SettlementDate>
  <Card PAN="1234567812345678"product=""programid=""branchcode=""productID=""></Card>
  <Account no="123456789"type="01"></Account>
  <TxnCode direction="debit"Type="pos"Group="pos"></TxnCode>
  <TxnAmt value="10.00"currency="826"></TxnAmt>
  <CashbackAmt value="0.00"currency="826"></CashbackAmt>
  <BillAmt value="10.00"currency="826"rate="1.000000"></BillAmt>
  <ApprCode></ApprCode>
  <Trace auditno="987654"origauditno=""Retrefno="112233445566"></Trace>
  <MerchCode>012345678912</MerchCode>
  <Term code="00012345"location="A Shop"street="A Street"city="A City"
country="GB"inputcapability="6"authcapability="7"></Term>
  <Schema>ECRD</Schema>
  <Txn cardholderpresent="5"cardpresent="0"cardinputmethod="V"
cardauthmethod="9"cardauthentity="8"TVR="0"></Txn>

```

```
<MsgSource value="62"domesticMaestro="no"></MsgSource>
<PaddingAmt value="0.00"currency="826"></PaddingAmt>
<Rate_Fee value="0.00"></Rate_Fee>
<Fixed_Fee value="0.20"></Fixed_Fee>
<CommissionAmt value="0.00"currency="826"></CommissionAmt>
<Classification MCC="5942"></Classification>
<Response approved="no"actioncode="1"responsecode="21"></Response>
<PaymentToken id="26025313" creator="MC-MDES" expdate="2024-04-
30" type="SE" status="00" creatorstatus="A" wallet="APPLE" devicetype="M" lang="" activationexpiry="2021-03-02 11:52:00" activ-
ationmethod="1" />
<OrigTxnAmt value="0.00"currency="826"></OrigTxnAmt>
<ReversalReason>0</ReversalReason>
<Sender firstname="FRST" middlename="M" lastname="LST NME" streetaddress="RM R STREET S STREETI " city="MAIN" province-
code="MD" country="MDA"

postcode
="00000"
dateofbirth="07051999" accountnumber="4779300008363000" idtype="04" idnbr="2014011000399" idctrycode="MDA" nationality="MDA"
phonenumbr="2811131" idexpdate="102020" acctnbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Sender>
<Receiver firstname="FRST" middlename="M" lastname="LST NME" streetaddress="RM R STREET S STREETI
" city="MAIN" provincecode="MD" country="MDA"

postcode
="00000"
dateofbirth="07051999" accountnumber="4779300008363000" idtype="04" idnbr="2014011000399" idctrycode="MDA" nationality="MDA"
phonenumbr="2811131" idexpdate="102020" acctnbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Receiver>
</CardAuthorisation>
```

2.3 CardBalAdjust

CardBalAdjust records are used to indicate balance adjustments to a card's account.

You can use the **AdjustId** element to uniquely identify the record and distinguish it from all other CardBalAdjust records.

Child Element	Description	Data Type	Required	Constraints/ Permitted Values
LocalDate	The date and time the record was generated by the terminal (POS or ATM) or acquirer.	<LocalDate>	Yes	See the LocalDate sub-element
AdjustId	Identifier of this adjustment.	xs:unsignedLong	Yes	0 to 2^64
MessageId	Message identifier supplied in the request for this adjustment.	xs:unsignedInt	If Applicable	0 to 2^32
SettlementDate	The date the transaction has been processed.	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
Account	Details of the cardholder account.	<Account>	Yes	See the Account sub-element
Amount	The amount, currency and direction (debit/credit) for the load and unload.	<DirectionAmount>	Yes	See the Amount sub-element
VoidedAdjustId	Identifier of the balance adjustment reversed/voided by this item. Only appears if there is a reversal.	xs:unsignedInt	If Applicable	0 to 2^32
MerchCode	A unique code identifying the Merchant (also known as the Card Acceptor Identifier).	<MerchCode>	Optional	See the MerchCode sub-element
Desc	A text description of the unload.	<Desc>	Yes	See the Desc sub-element
AdjustType	The type of adjustment: <i>Actual</i> or <i>Block</i> .	<AdjustType>	Yes	See the AdjustType sub-element

Example

```
<CardBalAdjust>
  <LocalDate>20100824200216</LocalDate>
  <AdjustId>123456789</AdjustId>
  <MessageId>123456789</MessageId>
  <SettlementDate>20100825</SettlementDate>
  <CardPAN="1234567812345678"product=""programid=""branchcode=""productID=""></Card>
  <Accountno="123456789"type="01"></Account>
  <Amountdirection="credit"value="20.00"currency="826"></Amount>
  <VoidedAdjustId></VoidedAdjustId>
  <MerchCode></MerchCode>
  <Desc>CAP Settlement</Desc>
  <AdjustType>Block</AdjustType>
</CardBalAdjust>
```

2.4 CardChrgBackRepRes

The CardChrgBackRepRes describes the following record types:

- Chargeback Advice
- Chargeback Reversal
- Representment Advice
- Representment Reversal

You can use the [AdjustId](#) element to uniquely identify the record and distinguish it from all other CardChrgBackRepRes records.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
RecordType	Indicates the type of CardChrgBackRepRes record.	xs:string	Yes	Valid values are: CB = Chargeback Advice CBREV = Chargeback Reversal REPRES = Representment Advice REPRESREV = Representment Reversal
ChgbackRepresId	Unique identifier for this CardChrgBackRepRes record.	xs:unsignedLong	Yes	0 to 2 ⁶⁴
LocalDate	The date and time the record was generated by the terminal (POS or ATM) or acquirer.	<LocalDate>	Yes	See the LocalDate sub-element
SettlementDate	The date the transaction has been processed.	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
Account	Details of the cardholder account.	<Account>	Yes	See the Account sub-element
TxnCode	Indicates the type of transaction.	<TxnCode>	Yes	See the TxnCode sub-element
TxnAmt	Indicates the value of the transaction requested by the cardholder.	<BasicAmount>	Yes	See the TxnAmt sub-element
CashbackAmt	Details of any cashback amount requested by cardholder, if no cashback is requested then populate with a zero value and the transaction currency code.	<BasicAmount>	Yes	See the CashbackAmt sub-element
BillAmt	The amount posted to the cardholder account. This does not include interchange.	<RateAmount>	Yes	See the BillAmt sub-element
ApprCode	The <i>approval code</i> generated by the issuer and printed on the receipt.	<ApprCode>	Yes	See the ApprCode sub-element
Trace	Information used to uniquely identify the transaction.	<Trace>	Yes	See the Trace sub-element
MerchCode	A unique code identifying the Merchant (also known as the <i>Card Acceptor Identifier</i>).	<MerchCode>	Yes	See the MerchCode sub-element
Term	Describes the terminal used for the transaction.	<Term>	Yes	See the Term sub-element
Schema	Indicates the name of the card scheme.	<Schema>	Yes	See the Schema sub-element
Txn	Describes the validation / authentication properties used in a transaction.	<Txn>	Yes	See the Txn sub-element

Child Element	Description	Data Type	Required	Constraints / Permitted Values
MsgSource	Describes the derivative source of the record.	<MsgSource>	Yes	See the MsgSource sub-element
Repeat	Information to show the number of the chargeback/representment.	xs:unsigned Byte	Yes	Valid values are: 1 = First chargeback / representment 2 = Second Chargeback / representment
SettlementAmt	The amount posted to the settlement account.	<SettlementAmt>	Yes	See the Settlement sub-element
Fee	Interchange or service fee amount posted to the settlement account.	<DirectionAmount>	Yes	See the Fee sub-element
ARN	Acquirer Reference Number.	<ARN>	Yes	See the ARN sub-element
FIID	Forward Institution Identification code.	<FIID>	Yes	See the FIID sub-element
RIID	Receiving Institution Identification code.	<RIID>	Yes	See the RIID sub-element
ReasonCode	Message reason code.	xs:string	Yes	See Message Reason Codes
Classification	Merchant classification for the transaction.	<Classification>	Yes	See the Classification sub-element
OrigTxnAmt	Original transaction amount. The value of the original transaction requested by the cardholder. This is used in the case of the transaction being a partial chargeback-/representment, chargeback reversals or representment reversals.	<PartialAmount>	If applicable	See the OrigTxnAmt sub-element
PartialReversal	Indicates if the amount reversed is a partial amount of the original chargeback.	Xs:boolean	If applicable	Valid values are: true = Partial Reversal; false = Full Reversal If not supplied, assumes "false".
SettlementCycle	Shows the settlement cycle for the chargeback.	<SettlementCycle>	Yes	See the SettlementCycle sub-element
ReconciliationDate	Shows the reconciliation date for the chargeback.	<ReconciliationDate>	Yes	See the ReconciliationDate sub-element
ReconciliationCycle	Shows the reconciliation cycle for the chargeback.	<ReconciliationCycle>	Yes	See the ReconciliationCycle sub-element
Usage	Indicates whether the chargeback is manually credited to the card.	<Usage>	Yes	See the Usage sub-element
Pending_Billing_Amount	Value of the chargeback billing amount.	< Pending_Billing_Amount>	Yes	See the Pending_Billing_Amount sub-element
SettlementIndicator	Indicator for <i>Domestic</i> or <i>International</i> settlement.	SettlementIndicator	If applicable	See the SettlementIndicator sub-element
Additional_Amt_DE54	Additional amounts field where additional fees such as card network fees are held.	<Additional_Amt_DE54>	If applicable	See the Additional_Amt_DE54 sub-element
ChargebackRefNum	Chargeback reference number, as displayed in Smart Client.	<ChargebackRefNum>	If applicable	See the Chargeback-RefNum sub-element

Example

```
<CardChrgBackRepRes>
<RecordType>REPRES</RecordType>
<ChgbackRepresId>101476320</ChgbackRepresId>
<LocalDate>20100805142639</LocalDate>
<SettlementDate>20100825</SettlementDate>
<Card PAN="1234567812345678" product="" programid="" branchcode="" productID=""></Card>
<Account no="123456789" type="01"></Account>
<TxnCode direction="debit" Type="pos" Group="pos"></TxnCode>
<TxnAmt value="24.95" currency="826"></TxnAmt>
<CashbackAmt value="0.00" currency="826"></CashbackAmt>
<BillAmt value="24.95" currency="826" rate="1.000000"></BillAmt>
<ApprCode>231290</ApprCode>
<Trace auditno="112233" origauditno="0" Retrefno="998877665544"></Trace>
<MerchCode>987654</MerchCode>
<Term code="" location="A Shop" street="A Street" city="A City" country="GB"
inputcapability="5" authcapability="1"></Term>
<Schema>ECRD</Schema>
<Txn cardholderpresent="0" cardpresent="1" cardinputmethod="5"
cardauthmethod="1" cardauthentity="1" TVR="0"></Txn>
<MsgSource value="67" domesticMaestro="no"></MsgSource>
<Repeat>2</Repeat>
<SettlementAmt value="24.8" currency="826" rate="1.000000"
date="20100825"></SettlementAmt>
<Fee direction="credit" value="3.330000" currency="826" value2="3.3300"></Fee>
<ARN>12345678901234567890123</ARN>
<FIID>00000000001</FIID>
<RIID>000000000002</RIID>
<ReasonCode></ReasonCode>
<Classification MCC="4812"></Classification>
<OrigTxnAmt value="0.00" currency="826" partial="no"
origItemId="12345"></OrigTxnAmt>
<PartialReversal>false</PartialReversal>
<SettlementIndicator>0</SettlementIndicator>
<SettlementCycle>01</SettlementCycle>
<ReconciliationDate>20100825</ReconciliationDate>
<ReconciliationCycle>06</ReconciliationCycle>
<Usage>M</Usage>
<Pending_Billing_Amount>500.50</Pending_Billing_Amount>
<Additional_Amt_DE54> 0058156D000000009450</Additional_Amt_DE54>
<ChargebackRefNum />
</CardChrgBackRepRes>
```

2.5 CardFee

The CardFee primary element is used to describe Card Fee records. Distinguishing between the permissible types is achieved using the FeeClass child element as described below.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
CardFeeld	Identifier for this CardFee record. Not necessarily unique. If there is a non-domestic fee and an FX fee on the same transaction, they will share the same CardFeeld .	xs:unsignedLong	Yes	0 to 2 ⁶⁴
LocalDate	The date and time the record was generated by the terminal (POS or ATM) or acquirer.	<LocalDate>	Yes	See the LocalDate sub-element
SettlementDate	The date when the transaction has been processed.	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Provides details of the card to which the fee relates.	<Card>	Yes	See the Card sub-element
Account	Provides details of the cardholder account to which the fee relates.	<Account>	Yes	See the Account sub-element
Txld	If applicable, the <i>Finld</i> of the related <i>CardFinancial</i> (transaction) record for this CardFee record (foreign key). For Fee Collection records, it will show the <i>Authld</i> of the related <i>CardAuthorisation</i> record, if one can be found. If no matching <i>CardAuthorisation</i> or <i>CardFinancial</i> record can be found, it will show 0.	xs:unsignedLong	Yes	0 to 2 ⁶⁴ If not applicable, use default value 0
TxnCode	Indicates the type of transaction.	<TxnCode>	No	See the TxnCode sub-element
MerchCode	A unique code identifying the Merchant (also known as the <i>Card Acceptor Identifier</i>)	<MerchCode>	No	See the MerchCode sub-element
MsgSource	Describes the derivative source of the record.	<MsgSource>	No	See the MsgSource sub-element
FeeClass	Describes the derivation and nature of the fee.	<FeeClass>	Yes	See the FeeClass sub-element
LoadUnloadId	If applicable - the LoadUnloadId of the related CardLoadUnload record for this CardFee Record (foreign key).	xs:unsignedLong	Optional	0 to 2 ⁶⁴
Desc	Fee description.	<Desc>	Yes	See the Desc sub-element
FeeAmt	The FeeAmt represents the fee amount. - When FeeClass type is 1 then it is the fee amount for a Card Load, Expiry, Recurring payment, FX, SMS, Domestic or non-Domestic Fee as set up by the Programme Manager. - When FeeClass type is 4 or 5 then it is a Scheme fee, such as an Interchange, Chargeback or ATM Fee Collection Fee from the Scheme.	<Direction Amount>	Optional	See the FeeAmt sub-element
Amt	This amount is described as follows: - For Scheme fees (see FeeClass: type = 2, 4 and 5), this is the settlement amount posted to the settlement account. - When the fee is NOT a Settlement (see FeeClass: type = 1), this is the fee billed (posted) to the cardholder's account.	<Direction Amount>	Yes	See the Amt sub-element When a fee is levied against the Cardholder, the normal direction is: "debit" for FeeClass type = 1, 2 & 5 "credit" for FeeClass Type = 4
FIID	Forward Institution identification code.	<FIID>	Optional	See the FIID sub-element
ReasonCode	Message reason code.	xs:string	Yes	Only applicable for Set-

Child Element	Description	Data Type	Required	Constraints / Permitted Values
				tlement See Message Reason Codes.htm For Fees, see the FeeClass sub-element
Recon	Details of the reconciliation.	<Recon>	Optional	See the Recon sub-element

Example

```

<CardFee>
  <CardFeeId>123456789</CardFeeId>
  <LocalDate>20100824000000</LocalDate>
  <SettlementDate>20100825</SettlementDate>
  <Card PAN="1234567812345678"product=""programid=""branchcode=""productID=""></Card>
  <Account no="123456789"type="01"></Account>
  <TxId>123456789</TxId>
  <TxnCode direction="debit"Type="fee"Group="pos"></TxnCode>
  <MerchCode>0123456789</MerchCode>
  <MsgSource value="19"domesticMaestro="no"></MsgSource>
  <FeeClass interchangeTransaction="no"type="0"code="0"></FeeClass>
  <LoadUnloadID>123456789</LoadUnloadID>
  <Desc>012345</Desc>
  <FeeAmt direction="debit"value="0.16"currency="826"></FeeAmt>
  <Amt direction="debit"value="0.16"currency="826"></Amt>
  <FIID>000000000001</FIID>
  <ReasonCode>7621</ReasonCode>
  <Recon date="20170909" cycle="01"/>
</CardFee>

```

2.6 CardFinancial

The CardFinancial primary element is used to describe the following records:

- Financial Advice, or
- Financial Reversal

You can use the [RecordType](#) element to determine the type of record.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
RecordType	Record type, indicates <i>Advice</i> or <i>Reversal</i> .	xs:string	Yes	Valid values are: ADV, REV
FinId	Unique identifier for this CardFinancial record.	xs:unsignedLong	Yes	0 to 2 ⁶⁴
AuthId	The AuthId of the related CardAuthorisation record for this CardFinancial Record (primary key). Only present if there was a card authorisation.	xs:unsignedLong	If Applicable	0 to 2 ⁶⁴
PresentmentId	Alternative unique identifier for this CardFinancial Record, primary key in GPS.	xs:unsignedInt	Yes	0 to 2 ³²
LocalDate	The local date/time of the transaction (where the transaction was done).	<LocalDate>	Yes	See the LocalDate sub-element
LocalDateUTC	The transaction date and Time in UTC as received from Mastercard and Visa.	Numeric	Yes	Format: MMDDHHMMSS 10 digits
SettlementDate	The settlement date for the transaction (UK date or as supplied by Mastercard).	<SettlementDate>	Yes	See the SettlementDate sub-element
SchemeSettlementDate	Settlement date value for the transaction by Mastercard or GPS.	<SchemeSettlementDate>	Yes	See the SchemeSettlementDate sub-element
SchemeReconciliationDate	The Mastercard/Visa reconciliation date for the transaction.	<SettlementDate>	Yes	See the SettlementDate sub-element
CycleNumber	Reconciliation cycle number (relevant to Mastercard only).	<CycleNumber>	Yes	See the CycleNumber sub-element
Card	Provides details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
Account	Provides details of the cardholder account.	<Account>	Yes	See the Account sub-element
TxnCode	Indicates the type of transaction.	<TxnCode>	Yes	See the TxnCode sub-element
TxnAmt	The transaction amount.	<BasicAmount>	Yes	See the TxnAmt sub-element
CashbackAmt	The Cashback amount (if applicable).	<BasicAmount>	Yes	See the CashbackAmt sub-element
BillAmt	The amount posted to the cardholder account. This DOES NOT include interchange.	<RateAmount>	Yes	See the BillAmt sub-element
ApprCode	The <i>Approval Code</i> generated by the issuer and printed on the receipt.	<ApprCode>	Yes	See the ApprCode sub-element
Trace	Information used to uniquely identify	<Trace>	Yes	See the Trace sub-element

Child Element	Description	Data Type	Required	Constraints / Permitted Values
	the transaction. (Mastercard only; Visa will be empty)			ment
MerchCode	A unique code identifying the Merchant (also known as the <i>Card Acceptor Identifier</i>)	<MerchCode>	Yes	See the MerchCode sub-element
Term	Details of the terminal on which the transaction was actioned.	<Term>	Yes	See the Term sub-element
Schema	Indicates the name of the card scheme.	<Schema>	Yes	See the Schema sub-element
Txn	Describes the validation / authentication properties used in a transaction.	<Txn>	Yes	See the Txn sub-element
MsgSource	Describes the derivative source of the record.	<MsgSource>	Yes	See the MsgSource sub-element
Fee	The interchange fee.	<DirectionAmount>	Yes	See the Fee sub-element
FeeAmt	The fee amount. This is the sum total of any rate fee and fixed fee applied to the transaction (see Rate_Fee and Fixed_Fee in the CardAuthorisation record).	<DirectionAmount>	Yes	See the FeeAmt sub-element
FeeClass	Describes the derivation and nature of the fee.	<FeeClass>	Yes	See the FeeClass sub-element
SettlementAmt	The settlement amount (Mastercard only).	<SettlementAmt>	Yes	See the Settlement sub-element
ARN	The Acquirer Reference Number.	<ARN>	Yes	See the ARN sub-element
FIID	Forward Institution Identification code.	<FIID>	Yes	See the FIID sub-element
RIID	Receiving Institution Identification code.	<RIID>	Yes	See the RIID sub-element
ReasonCode	Message reason code.	xs:string	Yes	See Message Reason Codes
Classification	Merchant classification for the transaction.	<Classification>	Yes	See the Classification sub-element
Response	Indicates whether transaction was approved or not.	<Response>	Yes	See the Response sub-element
OrigTxnAmt	Original Transaction Amount. The value of the original transaction requested by the cardholder. This is used in the case of the transaction being a reversal.	<PartialAmount>	If Applicable	See the OrigTxnAmt sub-element
CCAAmount	The Currency Conversion Assessment amount (Mastercard only; Visa will always be zero).	<CCAAmount>	Yes	See the CCAAmount sub-element
SettlementIndicator	Indicator for Domestic or International settlement.	<SettlementIndicator>	If Applicable	See the SettlementIndicator sub-element
Additional_Amt_DE54	Additional amounts field where additional fees like transport fees are	<Additional_Amt_DE54>	If applicable	See the Additional_Amt_DE54 sub-element

Child Element	Description	Data Type	Required	Constraints / Permitted Values
	held.			
BSA	Business Service Arrangement type code (Mastercard only; Visa will always be empty).	<BSA>	If applicable	See the BSA sub-element
PaymentToken	This element is populated from Payment Token data when a Payment Token was used for the transaction. If no Payment Token was used, then the <i>PaymentToken</i> element is omitted.	<PaymentToken>	If Applicable	See the PaymentToken sub-element
FXConv	Provides details of the Foreign Exchange (FX) rate conversion in a CurrencyCloud transaction. This can be used to reconcile the POS transaction FX movements, if any was done.	<FXConv>	If Applicable	See the FXConv sub-element.

Example (Advice)

```

<CardFinancial xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <RecordType>ADV</RecordType>
  <FinId>8047556522</FinId>
  <AuthId>8039647703</AuthId>
  <PresentmentID>2593993647</PresentmentID>
  <LocalDate>2021060125959</LocalDate>
  <LocalDateUTC>0601225959</LocalDateUTC>
  <SettlementDate>20210602</SettlementDate>
  <SchemeSettlementDate>20210602</SchemeSettlementDate>
  <SchemeReconciliationDate>20210602</SchemeReconciliationDate>
  <CycleNumber>04</CycleNumber>
  <Card PAN="9141259979348098" product="MCRD" programid="ANFUKP" branchcode="MAES" productid="3010" />
  <Account no="125997934" type="01" />
  <TxnCode direction="debit" Type="pos" Group="pos" />
  <TxnAmt value="70.0000" currency="826" />
  <CashbackAmt value="0.00" currency="826" />
  <BillAmt value="70.0000" currency="826" rate="1.000000" />
  <ApprCode>128534</ApprCode>
  <Trace auditno="264318" origauditno="264318" Retrefno="030345820984" />
  <MerchCode>3487717</MerchCode>
  <Term code=" " location="B & Q 1130" street="UNIT 1 IMPERIAL RETAIL PARK" city="BRISTOL" country="GB" input-
  capability="0" authcapability="1" />
  <Schema>MCRD</Schema>
  <Txn cardholderpresent="0" cardpresent="1" cardinputmethod="7" cardauthmethod="1" cardauthentity="2" />
  <MsgSource value="67" domesticMaestro="no" />
  <Fee direction="credit" value="0.665000" currency="826" value2="0.6700" />
  <FeeAmt direction="debit" value="0.00" currency="826" />
  <FeeClass interchangeTransaction="no" type="1" code="1" />
  <SettlementAmt value="70.0000" currency="826" rate="1.000000" />
  <ARN>85481471120303458209843</ARN>
  <FIID>012216</FIID>
  <RIID>023264</RIID>
  <ReasonCode>1401</ReasonCode>
  <Classification MCC="5200" />
  <Response approved="yes" />
  <OrigTxnAmt value="70.0000" currency="826" />
  <CCAAmount value="0.00" currency="826" included="no" />
  <SettlementIndicator>0</SettlementIndicator>
  <Additional_Amt_DE54 />
  <BSA>4</BSA>
  <PaymentToken id="27718344" creator="MC-MDES" expdate="2024-05-
  31" type="SE" status="00" creatorstatus="A" wallet="APPLE" devicetype="M" lang="" activationexpiry="2021-04-14 19:42:00" activ-
  ationmethod="1" />
</CardFinancial>

```

2.7 CardLoadUnload

The CardLoadUnload primary element is used to describe the following records:

- Card Loads (loading funds onto a card account) and Card Load Reversals
- Card Unloads (discharging funds from a card account) and Card Unload Reversals

You can use the **RecordType** element to determine the type of record.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
RecordType	Indicates whether this is a Card Load, Load Reversal, Unload or Unload reversal.	xs:string	Yes	Valid values are: • LOAD • LOADREV • UNLOAD • UNLOADREV
LoadUnloadId	A unique identifier for this CardLoadUnload record.	xs:unsignedLong	Yes	0 to 2 ⁶⁴
MessageId	Message identifier supplied in the request for this Card Load/Unload.	xs:unsignedInt	If Applicable	0 to 2 ³²
LocalDate	The local date and time of the Load/Unload.	<LocalDate>	Yes	See the LocalDate sub-element
SettlementDate	The settlement date and time for the Load/Unload.	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Provides details of the attributes of the card.	<Card>	Yes	See the Card sub-element
Account	Details of the cardholder account.	<Account>	Yes	See the Account sub-element
MerchCode	A unique code identifying the Merchant (also known as the Card Acceptor Identifier).	<MerchCode>	Optional	See the MerchCode sub-element
Amount	The value of the Load, Load Reversal, Unload or Unload Reversal.	<BasicAmount>	Yes	See the BasicAmount sub-element
VoidedLoadUnloadId	The <i>CardLoadUnload</i> / <i>LoadUnloadId</i> of the previous record which this voids. This element is only required on Load Reversal or Unload Reversal types.	xs:unsignedint	If Applicable	0 to 2 ³²
Desc	Description of the card load or unload, as supplied when the card was loaded or unloaded.	<Desc>	Yes	See the Desc sub-element
Load	Describes Load/Unload source and type.	<LoadSource>	Yes	See the LoadSource sub-element

Example (Load)

```
<CardLoadUnload>
  <RecordType>LOAD</RecordType>
  <LoadUnloadId>123456789</LoadUnloadId>
  <MessageId>123456789</MessageId>
  <LocalDate>20100824200003</LocalDate>
  <SettlementDate>20100825</SettlementDate>
  <Card PAN="1234567812345678"product=""programid=""branchcode=""productID=""></Card>
  <Account no="123456789"type="01"></Account>
  <MerchCode>0123456789</MerchCode>
  <Amount direction="debit"value="20.00"currency="826"></Amount>
  <VoidedLoadUnloadId>0123456789</VoidedLoadUnloadId>
  <Desc>Card Load</Desc>
  <Load Source="9"Type="1"FixedFee="0.00"Rate_Fee="0.00"/>
</CardLoadUnload>
```

2.8 MasterCardFee

MasterCardFee records are used to describe non-card Mastercard Fees. They only appear in the transaction XML if the Mastercard ICA is not shared between clients.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
RecordType	Record type, used to distinguish between data types.	xs:string	Yes	See the RecordType sub-element.
MastercardFeeld	Unique identifier for this fee record.	xs:unsignedint	Yes	0 to 2 ³² .
MTID	Message Type Identifier. Takes values as supplied by Mastercard in the Chargeback Fee or Fee collection data	xs:unsignedint	Yes	Examples: 1442, 1644 and 1740. See Message Reason Codes
Function_Code_024	Function Code for the fee record.	<FunctionCode>	Yes	See the FunctionCode sub-element.
Conversion_Rate_Reconciliation	Factor used in converting transaction amount to reconciliation amount.	xs:unsignedint	Yes	0 to 2 ³² .
Additional_Data_048	The additional data received from Mastercard.	xs:string	Yes	String. Refer to the Mastercard IPM Clearing Formats manual .
LocalDate	The local date and time of the transaction.	<LocalDate>	Yes	See the LocalDate sub-element.
SettlementDate	The settlement date and time for the transaction.	<SettlementDate>	Optional	See the SettlementDate sub-element.
FeeClass	Describes the derivation and nature of the fee.	<MasterCard FeeClass>	Yes	For MasterCardFee records the FeeClass type="0", code="0" and interchangeTransaction="no".
Desc	Fee description. This field may be empty.	<Desc>	Optional	See the Desc sub-element.
FeeAmt	The fee amount as received from Mastercard. Note: for a chargeback, this field provides details of any chargeback fees. For details of the chargeback amount, see BillAmt in the CardChrgBackRepRes record.	<Direction Amount>	Yes	See the FeeAmt sub-element.
Amt	The net transaction amount expressed in the original transaction currency, as advised by Mastercard.	<Direction Amount>	Yes	See the Amt sub-element.
ReasonCode	Message reason code.	xs:string	Yes	See Message Reason Codes .
Data_Record_072	Free form text for Mastercard fee messages.	xs:string	Optional	String, Refer to Mastercard IPM Clearing Formats Manual.
DE93_Txn_Dest_ID	Identifies the transaction destination institution.	xs:string	Yes	Length 6 - 11 digits.
DE94_Txn_Orig_ID	Identifies the transaction originator institution.	xs:string	Optional	Length 6 - 13 digits.
File_ID_PDS0105	Identifies the logical data file exchanged between GPS and the clearing system.	xs:string	Yes	See the PDS0105 sub-element.
FileProcessDate	Date the Fee collection file was processed.	xs:string	Yes	In the format: YYYYMMDD HHMMSS.
Recon	Details of the reconciliation.	<Recon>	Optional	See the Recon sub-element.
Settlement	Details of the settlement.	<Settlement>	Optional	See the Settlement sub-element.

Example

```
<MasterCardFee>
  <RecordType>FC</RecordType>
  <MastercardFeeId>1234567</MastercardFeeId>
  <MTID>1740</MTID>
  <Function_Code_024>783</Function_Code_024>
  <Conversion_Rate_Reconciliation_009>0.825000</Conversion_Rate_Reconciliation_009>
  <Additional_Data_048>
0137017000328517251008510148008840297820158030MCC1010501      17090901      NNNNNN015906787894      0091585000      1EU-
00000008M17090901170911010165001M01910012</Additional_Data_048>
  <LocalDate>20170908000000</LocalDate>
  <SettlementDate>20170911</SettlementDate>
  <FeeClass interchangeTransaction="no" type="0" code="0" memberID="014015"/>
  <Desc/>
  <FeeAmt direction="credit" value="0.4000" currency="840" />
  <Amt direction="credit" value="0.3300" currency="978"/>
  <ReasonCode>7802</ReasonCode>
  <Data_Record_072>INTERCHANGE COMPLIANCE ADJUSTMENT FOR : 09/08/17</Data_Record_072>
  <DE93_Txn_Dest_ID>014015</DE93_Txn_Dest_ID>
  <DE94_Txn_Orig_ID>003285</DE94_Txn_Orig_ID>
  <File_ID_PDS0105>T112.0011709090000001218101101      </File_ID_PDS0105>
  <FileProcessDate>20170909040640</FileProcessDate>
  <Recon date="20170909" cycle="01"/>
  <Settlement date="20170911" cycle="01"/>
</MasterCardFee>
```

2.9 CardEvent

Note: In the event that the CardEvent records in the Transaction XML exceed 2GB in size, then the CardEvent records will be delivered in separate reports, that will follow the naming convention: GPS-XXXtxnexpYYYYMMDD.CardEventN.xml”, where XXX is the client’s XML prefix, and N is the sequence number of the chunk of 250,000 CardEvent records delivered separately.

CardEvent records are used to indicate status changes to a given card.

Child Element	Description	Data Type	Required	Constraints/ Permitted Values
Card	Details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
Event	Details of the event.	<Event>	Yes	See the Event sub-element

Example

```
<CardEvent>
  <Card PAN="1234567812345678"product=""programid=""branchcode=""productID=""></Card>
  <Event Type="StatusChange"Source="0"StatCode="62"OldStatCode="00"Date="20210307153523" transactionid=""></Event>
</CardEvent>
```

2.10 Approved Agency Banking Transaction

Note: This element is only relevant if you are using the Agency Banking service.

The ApprovedAgencyBanking primary element is used to describe the following accepted activity:

- BACS or Faster Payment Receipt and reversal
- Outbound Faster Payment or Direct Debit Payment and reversal
- Transfers between card holder's own accounts and reversals
- Inter-program payments between the Programme Manager's customers and reversals

You can use the **CashType** element to uniquely identify the record and distinguish it from all other CardEvent records.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
CashType	Cash type, indicates type of receipt, payment or cash transfer.	xs:string	Yes	Valid values are: • RCP (Receipt) • RCPREV (Reversal) • PAY (Payment) • PAYREV (Reversal) • TFR (Transfer) • P2P (Peer-to-Peer) • P2PREV (Peer-to-Peer reversal)
BankingId	Unique identifier for this ApprovedAgencyBanking record.	xs:unsignedLong	Yes	0 to 2 ⁶⁴
File	Provides details of the file within which notification of the receipt was received or the name of the file in which the outbound payment was submitted for settlement.	<File>	Optional	See the File sub-element
SettlementDate	The settlement date for the transaction.	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Provides details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
AgencyAccount	Provides details of the cardholder account and Agency Bank account details.	<AgencyAccount>	Yes	See the AgencyAccount sub-element
External	Provides details of the external bank account on the opposite end of the transaction (i.e., source of a receipt or destination of a payment).	<External>	Yes	See the External sub-element
CashCode	Provides details of the cash transaction.	<CashCode>	Yes	See the CashCode sub-element
Desc	The reference quoted on the receipt or payment. This field may be empty.	<Desc>	Yes	See the Desc sub-element
CashAmt	The amount of the receipt or payment before deduction of any applicable bank charges	<RateAmount>	Yes	See the CashAmt sub-element
Fee	The fee applied to the cash receipt or payment.	<Fee>	Yes	See the Fee sub-element
BillAmt	The amount posted to the cardholder account.	<RateAmount>	Yes	See the BillAmt sub-element
OrigTxnAmt	Original transaction amount. The value of the original transaction requested by the cardholder. This is used in the case of the transaction being a reversal.	<PartialAmount>	If Applicable	See the OrigTxnAmt sub-element

Example

```
<ApprovedAgencyBanking>
  <CashType>RCP</CashType>
  <BankingId>101472047</BankingId>
```

```
<File filedate=20100824155111 filename="ABC123xyz"></File>
<SettlementDate>20100825</SettlementDate>
<Card PAN="1234567812345678" product="" programid="" branchcode="" productid="" ></Card>
<AgencyAccount no="123456789" type="01" sortcode="123456"
  bankacc="12345678" name="John Smith"></AgencyAccount>
<External sortcode="123456" bankacc="12345678"
  name="Joe Bloggs"></External>
<CashCode direction="credit" CashType="bac" CashGroup="rcp"></CashCode>
<Desc>Bank Reference</Desc>
<CashAmt value="20.00" currency="826"></CashAmt>
<Fee direction="debit" value="1.50" currency="826"></Fee>
<BillAmt value="18.50" currency="826" rate="1.000000"></BillAmt>
<OrigTxnAmt value="0.00" currency="826" partial="no"
  origItemId="12345"></OrigTxnAmt>
</ApprovedAgencyBanking>
```

2.11 Declined Agency Banking Transaction

Note: This element is only relevant if you are using the Agency Banking service.

The DeclinedAgencyBanking primary element is used to describe the following declined activity for which the cardholder did not receive or lose value:

- BACS or Faster Payment Receipt and reversal
- Outbound Faster Payment or Direct Debit Payment and reversal
- Transfers between card holder's own accounts and reversals
- Inter program payments between the Programme Manager's customers and reversals

You can use the **CashType** element to uniquely identify the record and distinguish it from all other DeclinedAgencyBanking records.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
CashType	Cash type, indicates type of receipt, payment or cash transfer.	xs:string	Yes	Valid values are: • RCP (Receipt) • RCPREV (Reversal) • PAY (Payment) • PAYREV (Reversal) • TFR (Transfer)
BankingId	Unique identifier for this ApprovedAgencyBanking record.	xs:unsignedLong	Yes	0 to 2 ⁶⁴
File	Provides details of the file within which notification of the receipt was received or the name of the file in which the outbound payment was submitted for settlement.	<File>	Optional	See the File sub-element
SettlementDate	The value date for the transaction.	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Provides details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
AgencyAccount	Provides details of the cardholder account and Agency Bank account details	<AgencyAccount>	Yes	See the AgencyAccount sub-element
External	Details of the external bank account on the opposite end of the transaction (i.e., source of a receipt or destination of a payment).	<External>	Yes	See the External sub-element
CashCode	Provides details of the cash transaction.	<CashCode>	Yes	See the CashCode sub-element
Desc	The reference quoted on the receipt or payment. This field may be empty.	<Desc>	Yes	See the Desc sub-element
CashAmt	The amount of the receipt or payment before deduction of any applicable bank charges.	<RateAmount>	Yes	See the CashAmt sub-element
DeclineReason	The reason a receipt was declined and returned to source or a payment request was rejected and not processed.	<DeclineReason>	Yes	See the DeclineReason sub-element
OrigTxnAmt	Original transaction amount. The value of the original transaction requested by the cardholder. This is used in the case of the transaction being a reversal.	<PartialAmount>	If Applicable	See the OrigTxnAmt sub-element

Example

```
<DeclinedAgencyBanking>
  <CashType>RCP</CashType>
  <BankingId>101472047</BankingId>
  <File filename="ABC123xyz"></File>
  <SettlementDate>20100825</SettlementDate>
  <Card PAN="1234567812345678" product="" programid="" branchcode="" productid=""></Card>
  <AgencyAccount no="123456789" type="01" sortcode="123456"></AgencyAccount>
</DeclinedAgencyBanking>
```

```
    bankacc="12345678" name="John Smith"></AgencyAccount>
  <External sortcode="123456" bankacc="12345678"
    name="Joe Bloggs"></External>
  <CashCode direction="credit" CashType="bac" CashGroup="rcp"></CashCode>
  <Desc>Bank Reference</Desc>
  <CashAmt value="20.00" currency="826"></CashAmt>
  <DeclineReason>01</DeclineReason>
  <OrigTxnAmt value="0.00" currency="826" partial="no"
    origItemId="12345"></OrigTxnAmt>
</DeclinedAgencyBanking>
```

2.12 Agency Banking Fee

Note: This element is only relevant if you are using the Agency Banking service.

The AgencyBankingFee primary element is used to describe any bank charges applied to an Agency Banking transaction.

Child Element	Description	Data Type	Required	Constraints / Permitted Values
BankingFeeld	Unique identifier for this ApprovedAgencyBanking record.	xs:unsignedInt	Yes	0 to 2 ³²
SettlementDate	The settlement date for the transaction.	<SettlementDate>	Yes	See the SettlementDate sub-element
Card	Provides details of the card used in the transaction.	<Card>	Yes	See the Card sub-element
AgencyAccount	Provides details of the cardholder account and Agency Bank account details.	<AgencyAccount>	Yes	See the AgencyAccount sub-element
AbId	The BankingId of the related ApprovedAgencyBanking or DeclinedAgencyBanking record for this Agency Banking Fee Record (foreign key).	xs:string	Yes	0 to 2 ⁶⁴ If not applicable, use default value 0
Desc	The reference quoted on the bank charge. This field may be empty.	<Desc>	Yes	See the Desc sub-element
Amt	The amount of the bank charge applied to the receipt or payment.	<Direction Amount>	Yes	See the Amt sub-element

Example

```
<AgencyBankingFee>
  <BankFeeId>123456789</BankFeeId>
  <SettlementDate>20100825</SettlementDate>
  <Card PAN="1234567812345678" product="" programid="" branchcode="" productid=""></Card>
  <AgencyAccount no="123456789" type="01" sortcode="123456"
    bankacc="12345678" name="John Smith"></AgencyAccount>
  <AbId>101472047</AbId>
  <Desc>012345</Desc>
  <Amt direction="debit" value="1.50" currency="826"></Amt>
</AgencyBankingFee>
```

2.13 FXConversion

FXConversion records are used to indicate Foreign Exchange (FX) rate conversion.

Child Element	Description	Data Type	Required	Constraints/ Permitted Values
TransactionId	ID of the transaction table entry	Bigint	Yes	The <AuthId>, the unique identifier of the CardAuthorsation XML record that gave rise to this FX conversion
WalletTransactionId	The <WalletTransactionId> of the related WalletTransaction XML record. Only present for Multi-FX transactions	Bigint	Yes	0 for POSFX, or the <WalletTransactionId> of the related WalletTransaction XML record
BookingType	Transaction type that triggered the FX conversion, such as an authorisation or presentment	Char(1)	Yes	See the BookingType sub-element
BookingStatus	Status of the booking	xs:string	Optional	Maximum length 1. See the BookingStatus sub-element
FXRateBooked	FX rate sent in the presentment message	xs:decimal	Yes	No constraints
FXRateCardHolder	FX rate sent in the authorisation message	xs:decimal	Yes	No constraints
ProviderCode	FX provider source for this rate	xs:string	Yes	Maximum length 8
FixedAmountFlag	FX fixed amount charge for this transaction	xs:string	Yes	Maximum length 1. Permitted values: S' - Source or 'D' - Destination'
SettlementDate	The settlement date as returned by the FX provider	SettlementDate	Optional	No constraints
SourceCurrency	Source (Card) Currency (numeric code)	Char(3)	Yes	Standard currency numeric code, e.g. 826 for GBP
DestinationCurrency	Destination (Transaction) Currency (numeric code)	Char(3)	Yes	Standard currency numeric code, e.g. 826 for GBP

Example

```
<FXConversion xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransactionId>6459161819</TransactionId>
  <WalletTransactionId>278654</WalletTransactionId>
  <BookingType>A</BookingType>
  <BookingStatus>B</BookingStatus>
  <FXRateBooked>1.10</FXRateBooked>
  <FXRateCardHolder>1.11</FXRateCardHolder>
  <ProviderCode>CCI</ProviderCode>
  <FixedAmountFlag>S</FixedAmountFlag>
  <SettlementDate>2020-09-02T13:00:00</SettlementDate>
  <SourceCurrency>826</SourceCurrency>
  <DestinationCurrency>978</DestinationCurrency>
</FXConversion>
```

2.14 WalletTransaction

WalletTransaction records are linked to an existing transaction and are used to provide details of transactions on a Multi-FX wallet account.

You can use the **Id** element to uniquely identify the record and distinguish it from all other WalletTransaction records.

Child Element	Description	Data Type	Required	Constraints/ Permitted Values
Id	Unique identifier for this wallet transaction record.	bigint	Yes	0 to 2 ⁶⁴
TransactionId	Identifier for the underlying transaction (e.g., authorisation or financial).	bigint	Yes	0 to 2 ⁶⁴
SequenceNumber	Sequence number for the transaction, starting from 1.	int	Yes	0 to 2 ³²
OperationType	Type of operation (e.g., 1= authorisation, 2 = Financial).	int	Yes	See the OperationType sub-element.
Source	Details of the source wallet account from which funds are taken.	<Source>	Yes	See the Source sub-element.
Destination	Details of the destination wallet account to which funds are transferred.	<Destination>	Yes	See the Destination sub-element.
Other	Non-wallet amount and currency (e.g., for loads and unloads).	<Other>	Optional	See the Other sub-element.
FxRate	The FX rate applied to this transaction.	decimal (19,8)	Yes	Decimal value: Precision = 19 digits, scale = 8 digits.

Example

```

<WalletTransaction>
  <Id>6</Id>
  <TransactionId>7899161819</TransactionId>
  <SequenceNumber>2</SequenceNumber>
  <OperationType>1</OperationType>
  <Source walletid="879" basecurrency="978" balancechange="10.5000" blockchange="5.5000" newbalance="5.0000" newblock="10.0000"/>
  <Destination walletid="1253" balancechange="15.5000" blockchange="5.5000" newbalance="10.0000" newblock="20.0000"/>
  <Other amount="15.5000" currency="AUD"/>
  <FxRate>1.100000000</FxRate>
</WalletTransaction>

```

SECTION 3: SUB-ELEMENTS AND ATTRIBUTES

This section contains details of the transaction XML schema sub-elements and attributes

3.1 Sub-elements and Attributes

This section describes the message [sub-elements](#) and [attributes](#).

3.1.1 Sub-elements

Sub-elements are listed below in alphabetical order.

Account	BSA	Destination	LocalDate	ReconciliationCycle	SettlementIndicator
Additional_Amt_DE54	Card	External	MastercardFeeClass	RecordType	SchemeSettlementDate
AdjustType	CashAmt	Event	MerchCode	RecType	Source
AgencyAccount	CashbackAmt	Fee	MsgSource	Response	Term
Amount	CashCode	FeeAmt	OperationType	ReversalReason	Trace
Amt	CCAAmount	FeeClass	OrigTxnAmt	RIID	Txn
ApprCode	ChargebackRefNum	FIID	Other	Schema	TxnAmt
ARN	Classification	File	PaddingAmt	Sender	TxnCode
BasicAmount	CommissionAmt	FunctionCode	Pending_Billing_Amount	Settlement	Usage
BillAmt	CycleNumber	FXConv	Recon	SettlementAmt (Mastercard only)	
BookingType	DeclineReason	LoadSource	Receiver	SettlementCycle	
BookingStatus	Desc	LoadType	ReconciliationDate	SettlementDate	

Account

The **Account** element describes a card account.

Attribute	Description	Data Type	Required	Constraints / Permitted Values								
no	The 9 digit GPS public token linked to the card Primary Account Number (PAN).	xs:string	Yes	Alphanumeric, maximum 28 characters.								
type	Card type	xs:string	Yes	Numeric string, maximum 2 characters. Valid values are:<table><tr><th>Value</th><th>Description</th></tr><tr><td>00</td><td>Domestic Maestro</td></tr><tr><td>01</td><td>MasterCard</td></tr><tr><td>02</td><td>VisaCard</td></tr></table>	Value	Description	00	Domestic Maestro	01	MasterCard	02	VisaCard
Value	Description											
00	Domestic Maestro											
01	MasterCard											
02	VisaCard											

Example

```
<Account no="123456789" type="01"></Account>
```

Additional_Amt_DE54

The **Additional_Amt_DE54** element contains additional amount information about the transaction, if relevant. For example, for purchase with cashback transactions, the additional amounts field displays the cashback amount.

Description	Base Data Type	Constraints / Permitted Values
Additional fees data	xs:string	Alphanumeric, maximum 123 characters.

Example

```
<Additional_Amt_DE54>0040985D000000020000</Additional_Amt_DE54>
```

AdjustType

The **AdjustType** element shows the type of balance adjustment – either *Actual* (the money was deducted) or *Blocked* (the amount on the card has been blocked).

Description	Base Data Type	Constraints / Permitted Values
Type of balance adjustment	xs:string	Maximum length 6 characters.

Example

```
<AdjustType>Actual</AdjustType>
```

AgencyAccount

The **AgencyAccount** element describes a card account and the related agency bank account.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
no	Cardholder Account Number	xs:string	Yes	Alphanumeric, maximum 28 characters.
type	Account type	xs:string	Yes	Numeric string, maximum 2 characters Valid values are: 00 = Domestic Maestro; 01 = MasterCard
sortcode	Agency sort code	xs:string		Alphanumeric, maximum 6 characters.
bankacc	Allocated agency bank account	xs:string		Alphanumeric, maximum 8 characters.
name	Cardholder name	xs:string		Alphanumeric, maximum 28 characters.

Example

```
<AgencyAccount no="123456789" type="01" sortcode="123456" bankacc="12345678" name="John Smith"></AgencyAccount>
```

Amount

The **Amount** element describes a monetary amount.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
direction	The direction of the cash movement.	<Direction>	Yes	See direction .
value	The monetary amount.	xs:decimal	Yes	Decimal value.
currency	The 3 character ISO currency code.	xs:unsigned Short	Yes	See ISO Currency Codes .

Example

```
<Amount direction="debit" value="0.95" currency="826"></Amount>
```

Amt

The **Amt** element describes the net transaction amount of the original transaction, as reported by Mastercard.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
direction	The direction of the cash movement.	<Direction>	Yes	See direction .
value	The net transaction value.	xs:decimal	Yes	Decimal value.
currency	The 3-character ISO currency code.	xs:unsigned short	Yes	See ISO Currency Codes .

Example

```
<Amt direction="debit" value="0.95" currency="826"></Amt>
```

ApprCode

The **ApprCode** element describes the approval or authorisation code from the Issuer (the 6 digit number printed on the customer's receipt, to indicate a successful payment).

Description	Base Data Type	Constraints / Permitted Values
Approval Code	xs:string	Alphanumeric, maximum 6 characters.

Example

```
<ApprCode>123456</ApprCode>
```

ARN

The **ARN** element indicates the Acquirer Reference Number as generated by the acquirer.

Description	Base Data Type	Constraints / Permitted Values
Acquirer Reference Number	xs:string	Alphanumeric, maximum 23 characters.

Example

```
<ARN>12345678901234567890123</ARN>
```

BasicAmount

The **BasicAmount** data type describes a monetary amount loaded or unloaded from a card.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The monetary value.	xs:decimal	Yes	Decimal value (6 decimal places).
value2	The 4-decimal place version of the value. (optional)	xs:decimal	Yes	Decimal value (4 decimal places)
currency	The ISO 3-character currency code.	xs:unsigned Short	Yes	See ISO Currency Codes .

Example

```
<BasicAmount value="0.95"currency="826"></BasicAmount>
```

BillAmt

The **BillAmt** element describes the amount billed; this does not include interchange.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the billing amount.	xs:decimal	Yes	Decimal value.
currency	The currency of the transaction (3 digit ISO currency code).	xs:unsigned Short	Yes	See ISO Currency Codes .
rate	The conversion rate used to calculate the billing amount value.	<RateAmount>	Yes	Decimal value, maximum 9 decimal places, using conventional rounding down (1-4) and up (5-9).

Example

The **BillAmt** shown below represents 10 GBP at an exchange rate of 1:1.

```
<BillAmt value="10.00"currency="826"rate="1.00000000"></BillAmt>
```

BookingType

The **BookingType** element shows the transaction type that triggered the FX conversion, such as an authorisation or presentment.

Code	Description
A	A normal Authorisation has triggered this
C	Credit to cardholder (refund or Payment Out)
E	Auth Expiry Reversal
M	Manual, back office foreign exchange (for future use)
P	Unauthorised Presentment
R	Triggered by an Auth Reversal
Q	Presentment Reversal
S	Surplus, returned funds after a presentment
T	Topup - Additional funds required after a presentment
U	Partial Authorisation Reversal
W	Inter-Wallet transfer

Example

The **BookingType** shown below represents a normal authorisation.

```
<BookingType>A</BookingType>
```

BookingStatus

The **BookingStatus** element shows the status of the booking.

Code	Description
B	Booked
R	Reversed
X	Retries exceeded
E	Error other than a timeout

Example

The **BookingStatus** shown below represents a booked transaction.

```
<BookingStatus>B</BookingStatus>
```

BSA

The **BSA** element describes the Business Service Arrangement (BSA) type code, as provided by Mastercard. This field can have values of:

- 1 = Inter-regional ; 2 = Intra-regional
- 3 = Inter-country* (also called subregional)
- 4 = Intra-country (also called domestic)
- 8 = Member-to-member (also called bilateral)

Description	Base Data Type	Constraints / Permitted Values
Business Service Arrangement type code.	xs:string	Numeric, maximum 1 character.

Example

```
<BSA>4</BSA>
```

Card

The **Card** element describes the key attributes of a payment card.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
PAN	Primary Account Number if PCI DSS Compliant, else the GPS 16-digit public token.	<PAN>	Yes	See PAN .
product	The Card Scheme associated with the card. For example: MCRD - Mastercard; VISA - Visa; MAES - Maestro	xs:string	Optional	Alphanumeric, maximum 4 characters.
programid	Program identifier, the co-brand (i.e. GPS Sub-Scheme) that the Program Manager operates.	xs:string	Optional	Alphanumeric, maximum 50 characters.
branchcode	The branch code (or Agent Code) associated with the card.	xs:string	Optional	Alphanumeric, maximum 8 characters.
productID	The GPS product ID associated with the card.	numeric	Optional	Numeric, maximum 5 characters.

Example

```
<Card PAN="1234567812345678"product=""programid=""branchcode=""productID=""></Card>
```

CashAmt

The **CashAmt** element describes the cash amount of the receipt or payment before any bank charges are deducted.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the cash amount.	xs:decimal	Yes	Decimal value.
currency	The currency of the transaction (3 digit ISO currency code).	xs:unsigned Short	Yes	See ISO Currency Codes .

Example

```
<CashAmt value="10.00" currency="826"></CashAmt>
```

CashbackAmt

The **CashbackAmt** element describes the cashback amount requested by the cardholder. If no cashback has been requested then the element is presented with the *value* attribute set at zero and the *currency* attribute value defaulted to the transaction currency.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The transaction value.	xs:decimal	Yes	Decimal value.
currency	The currency of the transaction (3 digit ISO currency code).	xs:unsigned Short	Yes	See ISO Currency Codes .

Example

```
<CashbackAmt value="10.00"currency="826"></CashbackAmt>
```

CashCode

The **CashCode** element describes transaction type and direction.

Attribute	Description	Data Type	Required	Constraints / Permitted Values																
direction	The direction of the transaction.	<Direction>	Yes	See direction .																
CashType	The type of transaction.	xs:string	Yes	Takes one of the following values: <table><tr><th>CashType</th><th>Description</th></tr><tr><td>bac</td><td>BACS</td></tr><tr><td>CHAPS</td><td>CHAPS</td></tr><tr><td>fpv</td><td>Faster Payment (Receipt or payment)</td></tr><tr><td>ddp</td><td>Direct Debit Payment</td></tr><tr><td>cbt</td><td>Cardholder initiated balance transfer between own accounts</td></tr><tr><td>ipp</td><td>Inter program payment between two customers within same agency sort code</td></tr><tr><td>p2p</td><td>Peer-to-peer payment between two cardholders</td></tr></table>	CashType	Description	bac	BACS	CHAPS	CHAPS	fpv	Faster Payment (Receipt or payment)	ddp	Direct Debit Payment	cbt	Cardholder initiated balance transfer between own accounts	ipp	Inter program payment between two customers within same agency sort code	p2p	Peer-to-peer payment between two cardholders
CashType	Description																			
bac	BACS																			
CHAPS	CHAPS																			
fpv	Faster Payment (Receipt or payment)																			
ddp	Direct Debit Payment																			
cbt	Cardholder initiated balance transfer between own accounts																			
ipp	Inter program payment between two customers within same agency sort code																			
p2p	Peer-to-peer payment between two cardholders																			
CashGroup	The summary group type of the transaction.	xs:string	Yes	Takes one of the following values: <table><tr><th>CashType</th><th>Description</th></tr><tr><td>rcp</td><td>Receipt</td></tr><tr><td>pay</td><td>Payment</td></tr></table>	CashType	Description	rcp	Receipt	pay	Payment										
CashType	Description																			
rcp	Receipt																			
pay	Payment																			

Example

```
<CashCode direction="debit" CashType="fpv" CashGroup="pay"></CashCode>
```

CCAAmount (Mastercard only)

The **CCAAmount** element describes the Currency Conversion Assessment (CCA) amount as calculated by the network (Mastercard only). The **currency** attribute value defaults to the CardFinancial (Presentment) billing currency.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The Currency Conversion Assessment value.	xs:decimal	Yes	Decimal value.
currency	The Currency transaction described in ISO Standard Currency code.	xs:unsigned Short	Yes	See ISO Currency Codes .
included	Clarifies whether the CCA amount has been included in the FX fee, which is a product-level configuration option.	<YesNoString>	Yes	Valid values are: • yes • no

Example

```
<CCAAmount value="0.01"currency="826" included="no"></CCAAmount>
```

ChargebackRefNum

The **ChargebackRefNum** element holds the chargeback CycleID value and is shown as *Chargeback Ref Num* in Smart Client.

Description	Base Data Type	Constraints / Permitted Values
Unique for a Chargeback record. Normally 10 characters long.	xs:string	Numeric. Maximum 50 characters.

Example

```
<ChargebackRefNum>9034102149</ChargebackRefNum>
```

Classification

The **Classification** element describes the Merchant Category Code (MCC), which is used to classify the type of business service provided by the merchant.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
MCC	Merchant Category Code	<MCC>	Yes	See MCC .

Example

```
<Classification MCC="5659"></Classification>
```

CommissionAmt

The **CommissionAmt** element describes the value of the commission applied to a Card Authorisation only. The *commission* is the fees that GPS applies to the card, based on the Fee configuration for the card (combination of the rate fee and fixed fee). For more information, see the [GPS Fees Guide](#).

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the commission amount.	xs:decimal	Yes	Decimal value.
currency	The three-digit ISO currency code.	xs:unsigned Short	Yes	See ISO Currency Codes .

Example

```
<CommissionAmt value="0.95"currency="826"></CommissionAmt>
```

CycleNumber

The **CycleNumber** element describes the Mastercard clearing cycle number and applies to a card financial transaction only.

Note: Not applicable to Visa transactions; Visa do not have the concept of settlement or reconciliation cycles.

Permitted Value	Description	Data Type
01	Cycle number 01	xs:string
02	Cycle number 02	xs:string
03	Cycle number 03	xs:string
04	Cycle number 04	xs:string
05	Cycle number 05	xs:string
06	Cycle number 06	xs:string

Example

```
<CycleNumber>03</CycleNumber>
```

DeclineReason

The **DeclineReason** element describes the reason a receipt was rejected and returned to source or a payment request was declined and not processed.

Description	Data Type	Constraints / Permitted Values	
The reason a receipt or payment was declined.	xs:string	Maximum length two characters:	
		Value	Description
		00	Not specified

Description	Data Type	Constraints / Permitted Values	
		Value	Description
		01	Insufficient funds
		02	Maximum number of transactions exceeded
		03	Transaction exceeds maximum permitted value
		04	Maximum account balance exceeded
		05	Black listed destination
		06	Not a valid account
		07	Account closed
		08	Cardholder deceased
		09	No valid Direct Debit instruction

Example

```
<DeclineReason>01</DeclineReason>
```

Desc

The **Desc** element provides descriptive text that can be used to provide a comment on a transaction. You can supply this value when initiating a card load or unload via web services. Alternatively, GPS will provide the description when the load occurs as a result of a balance transfer between primary and secondary cards.

Note: For Agency banking transactions, this element can be empty.

Description	Base Data Type	Constraints / Permitted Values
Descriptive Text or reference	xs:string	Maximum length 127 characters.

Example

```
<Desc>Some Descriptive Text</Desc>
```

Destination

The **Destination** element provides details of the destination wallet account to which funds are transferred in a Multi-FX wallet transaction.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
walletid	ID of the destination wallet account.	bigint	Yes	0 to 2 ⁶⁴
balancechange	Change in destination wallet account balance amount.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4 digits.
blockchange	Change in destination wallet account blocked amount.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4 digits.
newbalance	New destination wallet account balance.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4 digits.
newblock	New destination wallet account blocked amount.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4 digits.

Example

```
<Destination walletid="1253" balancechange="15.5000" blockchange="5.5000" newbalance="10.0000" newblock="20.0000"/>
```

External

The **External** element describes the other bank account in a payment transfer transaction.

Attribute	Description	Data Type	Constraints / Permitted Values
sortcode	Source or destination sort code.	xs:string	Numeric 6 characters.
bankacc	Source or destination bank account.	xs:string	Numeric 8 characters.
name	Sender or recipient's name.	xs:string	Alphanumeric, maximum 28 characters.

Example

```
<External sortcode="123456" bankacc="12345678" name="John Bloggs"></External>
```

Event

The **Event** element describes an event that has changed a card's status.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
Type	The type of event.	xs:string	Yes	Valid values are: Upgraded, Renewed, Lost, Stolen, Cancelled, PINAttemptsExceeded, Voided, Expired, Activation, UnBlocked, StatusChange and ReportedToSAFE
Source	The item source (ItemSrc) of a card activation. Only applies to card activations.	xs:unsignedbyte	If applicable	See ItemSrc in the Web Services Guide . Defaults to 0.
ActivationDate	The Date of activation. Only applies to card activations.	xs:string	If applicable	
ConvertedDate	The date of conversion from a virtual to a physical card.	xs:string	If applicable	
StatCode	Status code of the card after the event.	xs:string	Yes	See <i>Status Codes</i> in the Web Services Guide .
OldStatCode	Status code of the card before the event.	xs:string	Yes	See <i>Status Codes</i> in the Web Services Guide .
Date	Date and time of the event (UK daylight savings time).	xs:string	Yes	Format: YYYYMMDDHHMMSS
transactionid	The unique transaction ID for a <i>ReportedToSafe</i> event. Can be used to track Mastercard SAFE reporting transactions.	xs:string	If applicable	Numeric. Only applicable if the event Type is <i>ReportedToSAFE</i> .

Example - StatusChange

```
<Event Type="StatusChange" Source="0" StatCode="62" OldStatCode="00" Date="20210307153523" transactionid="" ></Event>
```

Example - ReportedToSafe

```
<Event Type="ReportedToSAFE" Source="0" StatCode="" OldStatCode="" Date="20210307153523" transactionid="1234567890" ></Event>
```

Fee

The **Fee** element describes a fee amount.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
direction	The direction of the fee.	<Direction>	Yes	See direction .
value	The value of the fee amount(PDS0147).	xs:decimal	Yes	Decimal value.
currency	The 3 digit ISO standard currency code.	xs:unsigned short	Yes	See ISO Currency Codes .
value2	The value of the fee amount(PDS0146). Only for Mastercard records.	xs:decimal	Optional	Decimal value.

Example

```
<Fee direction="debit" value="3.330000" currency="826" value2="3.3300" ></Fee>
```

FeeAmt

The **FeeAmt** element describes the fee amount as received from Mastercard.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
direction	The direction of the fee.	<Direction>	Yes	See direction .
value	The value of the fee. For Programme Manager fees, this is the sum total of any rate fee, fixed fee or other fee applied to the transaction (see Rate_Fee and Fixed_Fee in the CardAuthorisation record). For Scheme fees it is the fee amount as received from the Scheme.	xs:decimal	Yes	Decimal value.
currency	The 3-digit ISO standard currency code.	xs:unsigned short	Yes	See ISO Currency Codes .

Example

```
<FeeAmt direction="debit" value="0.95" currency="826"></FeeAmt>
```

FeeClass

The **FeeClass** element describes the nature of a fee.

Attribute	Description	Data Type	Required	Constraints / Permitted Values															
interchangeTransaction	Valid values are “yes” and “no” Note: will be yes when FeeClass “type” is 4 or 5	<YesNoString>	Yes	Valid values are: • yes • no															
type	Describes the type of the fee.	xs:string	Yes	Valid values are:<table><tr><th>Value</th><th>Description</th><th>Fee Type</th></tr><tr><td>1</td><td>Cardholder fee: In this case the account number in the fee message refers to the cardholder’s account.</td><td>Cardholder Fee</td></tr><tr><td>2</td><td>MasterCard funds transfer settlement fee</td><td>Settlement Fee</td></tr><tr><td>4</td><td>MasterCard interchange received fee</td><td>Settlement Fee</td></tr><tr><td>5</td><td>MasterCard interchange fee to be paid</td><td>Settlement Fee</td></tr></table> For a card Financial, FeeClass element record, the type attribute always has a value of 1.	Value	Description	Fee Type	1	Cardholder fee: In this case the account number in the fee message refers to the cardholder’s account.	Cardholder Fee	2	MasterCard funds transfer settlement fee	Settlement Fee	4	MasterCard interchange received fee	Settlement Fee	5	MasterCard interchange fee to be paid	Settlement Fee
Value	Description	Fee Type																	
1	Cardholder fee: In this case the account number in the fee message refers to the cardholder’s account.	Cardholder Fee																	
2	MasterCard funds transfer settlement fee	Settlement Fee																	
4	MasterCard interchange received fee	Settlement Fee																	
5	MasterCard interchange fee to be paid	Settlement Fee																	
code	Specifies the type of cardholder fee.	xs:string	Yes	The value specified below depends upon the message code (fee identifier), see Fee Class Element Code Attribute Values Where the FeeClass type attribute is 0,2,4 or 5, then the code attribute will be 0. For a card Financial, FeeClass element record, the code attribute always has a value of 1.															
memberID	Specifies the ICA	xs:string	No	Only applicable to MastercardFee .															

Example

```
<FeeClass interchangeTransaction="no"type="1"code="1"></FeeClass>
```

FIID

The **FIID** element describes the Forwarding Institution Identification Code (FIID).

Description	Base Data Type	Constraints / Permitted Values
A code identifying the forwarding institution	xs:string	Alphanumeric, maximum 11 characters.

Example

```
<FIID>0123456</FIID>
```

File

The **File** element describes the file in which the receipt was notified or the outbound payment was submitted for processing. (Used for outbound file-based processing with Agency banking.)

Attribute	Description	Data Type	Required	Constraints / Permitted Values
filedate	Date and time of file containing receipt or date the	xs:string	Yes	Maximum 14 characters, date and time in the

Attribute	Description	Data Type	Required	Constraints / Permitted Values
	payment file is generated.			format: YYYYMMDDHHMMSS
filename	Name of file containing receipt or payment.	xs:string	Yes	Alphanumeric, maximum 100 characters.

Example

```
<File filedate="20100824155111" filename="ABC123xyz"></File>
```

FXConv

The **FXConv** element provides details of the Foreign Exchange (FX) rate conversion in a CurrencyCloud transaction. This can be used to reconcile the POS transaction FX movements, if any was done.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
bookingstatus	Status of the booking.	xs:string	Optional	Maximum length 1. Permitted values: B' - Booked, 'R' - Reversed, 'X' - Retries Exceeded
fxratebooked	FX rate for this transaction.	xs:decimal	Yes	No constraints
providercode	FX provider source for the rate.	xs:string	Yes	Maximum length 8
fixedamountflag	FX fixed amount charge for this transaction.	xs:string	Yes	Maximum length 1. Permitted values: S' - Source or 'D' - Destination'
settlementdate	The settlement date as returned by the FX provider.	SettlementDate	Optional	No constraints

FunctionCode

The **FunctionCode** element is used by Mastercard to describe the transaction functions the clearing system performs.

Permitted Value	Description	Data Type
400	Denotes 'Full'. Used for Mastercom Chargebacks.	integer
451	Denotes 'Partial'. Used for Mastercom Chargebacks.	integer
603	Retrieval Request.	integer
605	Retrieval Request Acknowledgement.	integer
685	Financial Position Detail (Chargeback -Mastercom).	integer
700	Fee Collection (Member-generated)/ For Mastercom pre-arbitration or arbitration case filing.	integer
780	Fee Collection Return (Member-generated).	integer
781	Fee Collection Resubmission (Member-generated).	integer
782	Fee Collection Arbitration Return (Member-generated).	integer
783	Fee Collection (Clearing System-generated).	integer
790	Fee Collection (Funds Transfer)—applies only in the IPM Pre-edit system to UK Domestic Maestro transactions.	integer

LoadSource

The **LoadSource** element describes the source of the Card Load or Unload.

Attribute	Description	Data Type	Constraints / Permitted Values
Source	The source of the Load / Unload request.	xs:string	Maximum length 3 characters. For more information, see Load Sources .
Type	The type of the Load/Unload request. Payment method of funds for the load.	xs:string	0 = Unknown 1 = Cash 2 = Debit card 3 = Credit card 4 = e-Wallet 5 = Bank account
FixedFee	The amount of any Fixed Fee that was applied.	xs:decimal	
Rate_Fee	The amount of any Rate Fee that was applied.	xs:decimal	

Example

```
<LoadSource source="9"Type="1"FixedFee="0.00"Rate_Fee="0.00"/></LoadSource>
```

LoadType

The **LoadType** element describes the type of funds used in a Card Load or Unload transaction.

Description	Data Type	Constraints / Permitted Values																										
The type of fund used in the Card Load or Unload.	xs:string	Maximum length 2 characters.																										
		<table><tr><th>Value</th><th>Description</th></tr><tr><td>0</td><td>Not Specified</td></tr><tr><td>1</td><td>Cash</td></tr><tr><td>2</td><td>Debit card</td></tr><tr><td>3</td><td>Credit Card</td></tr><tr><td>4</td><td>Import</td></tr><tr><td>5</td><td>Savings Stamps</td></tr><tr><td>6</td><td>Cheque</td></tr><tr><td>7</td><td>Standing Order</td></tr><tr><td>8</td><td>Export</td></tr><tr><td>9</td><td>Transfer</td></tr><tr><td>10</td><td>Funding Card</td></tr><tr><td>11</td><td>From/To Offline Balance</td></tr></table>	Value	Description	0	Not Specified	1	Cash	2	Debit card	3	Credit Card	4	Import	5	Savings Stamps	6	Cheque	7	Standing Order	8	Export	9	Transfer	10	Funding Card	11	From/To Offline Balance
		Value	Description																									
		0	Not Specified																									
		1	Cash																									
		2	Debit card																									
		3	Credit Card																									
		4	Import																									
		5	Savings Stamps																									
		6	Cheque																									
		7	Standing Order																									
		8	Export																									
		9	Transfer																									
		10	Funding Card																									
11	From/To Offline Balance																											

Example

```
<LoadType>6</LoadType>
```

LocalDate

The **LocalDate** element describes the date and time when the message was received from the card network in local UK time.

Description	BaseType	Constraints / Permitted Values
Date and time.	xs:string	Maximum 14 characters, date and time in the format: YYYYMMDDHHMMSS

Example

The example below shows a date/time of 2:20.33pm on 25th Jan 2021.

```
<LocalDate>20210125142033</LocalDate>
```

MastercardFeeClass

The **MastercardFeeClass** data type describes the type of Mastercard fee.

Attribute	Description	Data Type	Required	Constraints / Permitted Values		
interchangeTransaction	Valid values are “yes” and “no” Note: will be yes when FeeClass “type” is 4 or 5.	<YesNoString>	Yes	Valid values are: • yes • no		
type	Describes the type of the fee.	xs:string	Yes	Valid values are:		
				Value	Description	Fee Type
				0	Network fee: These are fees generated by Global Processing Services or MasterCard clearing. In this case the account number in the fee message refers to the fee account for Global Processing Services.	Settlement Fee
				2	MasterCard funds transfer settlement fee	Settlement Fee
				4	MasterCard interchange received fee	Settlement Fee
				5	MasterCard interchange fee to be paid	Settlement Fee
code	Specifies the type of card-holder fee.	xs:string	Yes	0		
memberid	Specifies the Mastercard Member ID (i.e. ICA)	xs:string	Yes	Maximum 6 characters. Note: This element is only present when the container element of FeeClass is “MastercardFee”.		

Example

```
<MastercardFeeClass interchangeTransaction="no"type="0"code="0"memberid="012345"></MastercardFeeClass>
```

MerchCode

The **MerchCode** element is the Card Acceptor Merchant Identifier supplied by the acquirer. This a unique number that is used to identify the merchant or originator of the transaction.

Expected Value	BaseType	Constraints / Permitted Values
Merchant Code / Card Acceptor Identifier.	xs:string	Alphanumeric, maximum 15 characters.

Example

```
<MerchCode>ABCD12345678</MerchCode>
```

MsgSource

The **MsgSource** element describes the source from which the message is derived.

Attribute	Description	Data Type	Required	Constraints / Permitted Values	
value	The source from which this message is derived.	xs:decimal	Yes	Maximum length two; must be one of the following values:	
				Value	Description
				12	Outgoing fees to Visa.
				17	Outgoing fees to Mastercard. This must be applied to all outgoing settlement fees.
				62	This value is applicable on CardAuthor-

Attribute	Description	Data Type	Required	Constraints / Permitted Values	
				Value	Description
					isation records only.
				66	ECCEDD or GCMS using the ECCF file format (Mastercard International).
				67	GCMS using IPM file format (Mastercard International).
				74	UK Domestic Maestro using the IPM file format.
				54	Visa International.
domesticMaestro	Indicates Domestic Maestro.	<domesticMaestro>	Yes	See domesticMaestro .	

Example

```
<MsgSource value="67"domesticMaestro="no"></MsgSource>
```

OperationType

The **OperationType** sub-element describes the type of wallet transaction.

ID	Name	Description
1	Authorisation	Authorisation transaction (Point of Sale, e-commerce or ATM).
2	Financial	Financial transaction type (e.g., presentment).
3	Fees	All kinds of non-transaction based fees, such as recurring fees and card usage fees.
4	Loads	Funds loaded to the wallet account using a GPS web service.
5	Unloads	Funds unloaded from the wallet account using a GPS web service.
6	Wallet Transfer	Funds transferred between wallet accounts.
7	Balance Recalculation	Balance recalculation. Certain operations will cause the balance to be recalculated without otherwise affecting the balance.
8	Closure Requested	Request to close the wallet account.
9	Closure Complete	The wallet account is closed after all pending authorisations have been dealt with.
10	Wallet Opening	Used to record the (re-)opening of a wallet account.
11	Authorisation Expiry	Indicates either a forced or automatic authorisation expiry.

Example

```
<OperationType>1</OperationType>
```

OrigTxnAmt

This **OrigTxnAmt** element describes the original transaction amount requested by the cardholder.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the original transaction.	xs:decimal	Yes	Decimal value.
currency	The currency code of the original transaction.	xs:unsignedShort	Yes	See ISO Currency Codes .
partial	Indicates a partial amount.	<YesNoString>	If applicable	Valid values are: • yes

Attribute	Description	Data Type	Required	Constraints / Permitted Values
				no If not supplied, assumes "no".
origItemid	The system trace audit number of the original authorisation, as assigned by the message originator. This can be used to link an authorisation reversal to the original authorisation.	xs:unsignedInt	If applicable	0 to 4,294,967,295

Example

```
<OrigTxnAmt value="0.95"currency="826" partial="yes"origItemId="123456"></OrigTxnAmt>
```

Other

The **Other** element describes the Non-wallet amount and currency (e.g., for loads and unloads)..

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the amount.	decimal (19,8)	Yes	Decimal value: Precision = 19 digits, scale = 8 digits.
currency	The 3 digit ISO standard currency code.	xs:unsignedShort	Yes	Currency in ISO 3-digit number format. See Currency Codes .

Example

```
<Other amount="15.5000" currency="AUD"/>
```

PaddingAmt

The **PaddingAmt** element describes the value of any padding amount applied to an authorisation. This is typically used to mitigate against FX rate fluctuations between the authorisation and the settlement.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the padding amount.	xs:decimal	Yes	Decimal value.
currency	The 3 digit ISO standard currency code.	xs:unsignedShort	Yes	Short value.

Example

```
<PaddingAmt value="0.95"currency="826"></PaddingAmt>
```

PaymentToken

The **PaymentToken** element is populated from Payment Token data when a Payment Token was used for the transaction. If no Payment Token was used, then the **PaymentToken** element is omitted.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
id	Unique GPS ID of the payment token. Only present if transaction relates to a payment token (for example, Apple Pay).	xs:string	Yes	
creator	Identifies which system created the payment token. Only present if the transaction relates to a payment token (for example, Apple Pay).	xs:string	Yes	MDES or VDEP
expdate	Expiry date of the payment token. Only present if the transaction relates to a payment token (for example, Apple Pay).	xs:string	Yes	Format YYYY-MM-DD
type	The type of system the payment token is encoded onto (defines how the payment token PAN is held). Only present if the transaction relates to a payment token (for example, Apple Pay).	xs:string	Yes	See type .

Attribute	Description	Data Type	Required	Constraints / Permitted Values
status	Current status of the payment token as set by GPS. Only present if transaction relates to a payment token (for example, Apple Pay). Please note, this can differ from the status of the PAN.	xs:string	Yes	00 = authorised.
creatorstatus	Current status of the payment token as set by the creator of the payment token. Only present if the transaction relates to a payment token (for example, Apple Pay).	xs:string	Yes	See creatorstatus .
wallet	Wallet that the payment token belongs to. Only present if the transaction relates to a payment token (for example, Apple Pay).	xs:string	Yes	See wallet .
devicetype	Indicates the type of the device in which the payment token is held. Only present if the transaction relates to a payment token (for example, Apple Pay).	xs:string	Yes	See devicetype .
lang	The ISO 639-1 2 character alpha language code reported by the payment token device at digitisation time. Only present if the transaction relates to a payment token (for example, Apple Pay). For a list of ISO 639-1 language codes, see http://www.iso.org Note: this may not be known, in which case the field will be empty.	xs:string	Yes	
activationexpiry	The Date and Time in UTC (GMT) that the activation code in the field PaymentToken_activationCode expires. Only present if the first two characters of ProcCode="34" (payment token activation notification). Note: milliseconds are present, but will always be zero. For Mastercard, seconds will always be zero.	xs:string	Yes	
activationmethod	The method by which the cardholder should obtain the Activation Code (in the field PaymentToken_activationCode) which they must enter into the device holding the payment token in order to activate it. Only present if first two characters of ProcCode="34" (payment token activation notification).	xs:string	Yes	See activationmethod

Example

```
<PaymentToken id="26025313" creator="MC-MDES" expdate="2024-04-30" type="SE" status="00" creatorstatus="A" wallet="APPLE" device-type="M" lang="" activationexpiry="2021-03-02 11:52:00" activationmethod="1" />
```

Pending_Billing_Amount

The **Pending_Billing_Amount** element shows the value of the pending Chargeback amount.

Description	Data Type	Constraints / Permitted Values
Chargeback amount.	xs:decimal	Decimal value.

Example

```
<Pending_Billing_Amount>10.25</Pending_Billing_Amount>
```

Recon

The **Recon** element provides details of the reconciliation date and clearing cycle.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
date	Date the original transaction was reconciled.	xs:string	Optional	Maximum 8 characters. Date in the format: YYYYMMDD
cycle	Indicates which of the Mastercard clearing cycles the transaction was processed in.	xs:string	Optional	Values 01 - 06.

Example

An example of a settlement which occurred in cycle 1 on 11th September 2021 is shown below.

```
<Recon date="20210911" cycle="01"/></recon>
```

Receiver

The **Receiver** element provides details of the receiver of the payment where there is a money transfer. See also [Sender](#).

Attribute	Description	Data Type	Required	Constraints / Permitted Values																					
firstname	FirstName	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
middlename	Middle Name	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
lastname	Last Name	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
streetaddress	Street Address	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
city	City	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
provincecode	Province code	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
country	Country	xs:string	Optional	Normally 3-character alpha ISO code																					
postcode	Postcode	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
dateofbirth	Date of birth	xs:string	Optional	Format: MMDDYYYY																					
accountnumber	Account Number	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
idtype	Id type	xs:string	Optional	<table><tr><th>Value</th><th>Description</th></tr><tr><td>00</td><td>Passport</td></tr><tr><td>01</td><td>National Identification Card</td></tr><tr><td>02</td><td>Driver's License</td></tr><tr><td>03</td><td>Government Issued</td></tr><tr><td>04</td><td>Other</td></tr><tr><td>05-10</td><td>Reserved</td></tr></table>		Value	Description	00	Passport	01	National Identification Card	02	Driver's License	03	Government Issued	04	Other	05-10	Reserved						
				Value	Description																				
				00	Passport																				
				01	National Identification Card																				
				02	Driver's License																				
				03	Government Issued																				
				04	Other																				
				05-10	Reserved																				
idnbr	Id number	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
idctrycode	ID Country Code	xs:string	Optional	Normally 3-character alpha ISO code																					
nationality	Nationality	xs:string	Optional	Normally 3-character alpha ISO code																					
phonenumbr	Phone Number	xs:string	Optional	Alphanumeric, maximum 99 characters.																					
idexpdate	ID expiry Date	xs:string	Optional	Format: MMDDYYYY																					
acctnbrtype	Account Number Type	xs:string	Optional	<table><tr><th>Values</th><th>Description</th></tr><tr><td>00</td><td>Other</td></tr><tr><td>01</td><td>RTN + Bank Account</td></tr><tr><td>02</td><td>IBAN</td></tr><tr><td>03</td><td>Card Account</td></tr><tr><td>04</td><td>Email</td></tr><tr><td>05</td><td>Phone Number</td></tr><tr><td>06</td><td>Bank account number (BAN) + Bank Identification Code (BIC)</td></tr><tr><td>07</td><td>Wallet ID</td></tr><tr><td>08</td><td>Social Network ID</td></tr></table>		Values	Description	00	Other	01	RTN + Bank Account	02	IBAN	03	Card Account	04	Email	05	Phone Number	06	Bank account number (BAN) + Bank Identification Code (BIC)	07	Wallet ID	08	Social Network ID
				Values	Description																				
				00	Other																				
				01	RTN + Bank Account																				
				02	IBAN																				
				03	Card Account																				
				04	Email																				
				05	Phone Number																				
				06	Bank account number (BAN) + Bank Identification Code (BIC)																				
				07	Wallet ID																				
				08	Social Network ID																				
birthctry	Birth Country	xs:string	Optional	Normally 3-character alpha ISO code																					
fundssource	Fund Source	xs:string	Optional	<table><tr><th>Code</th><th>Meaning</th></tr><tr><td>01</td><td>Visa credit</td></tr><tr><td>02</td><td>Visa debit</td></tr><tr><td>03</td><td>Visa prepaid</td></tr><tr><td>04</td><td>Cash</td></tr></table>		Code	Meaning	01	Visa credit	02	Visa debit	03	Visa prepaid	04	Cash										
				Code	Meaning																				
				01	Visa credit																				
				02	Visa debit																				
				03	Visa prepaid																				
				04	Cash																				

Attribute	Description	Data Type	Required	Constraints / Permitted Values	
				Code	Meaning
				05	Debit/deposit access accounts other than those linked to a Visacard (includes checking/savings accounts and proprietary debit/ATM cards)
				06	Credit accounts other than those linked to a Visa card (includes credit cards and proprietary credit lines)
claimcode	Claim Code	xs:string	Optional	Alphanumeric, maximum 99 characters.	

Example

```
<Receiver firstname="FRST" middlename="M" lastname="LST NME" streetaddress="RM R STREET S STREETI
" city="MAIN" provincecode="MD" country="MDA"
postcode
="00000"
dateofbirth="07051999" accountnumber="4779300008363000" idtype="04" idnbr="2014011000399" idctrycode="MDA" nationality="MDA"
phonenumber="2811131" idexpdate="102020" acctnbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Receiver>
```

ReconciliationDate

The **ReconciliationDate** element shows the reconciliation date of a Chargeback record.

Description	Data Type	Constraints / Per
Reconciliation date of Chargeback record.	xs:string	Maximum 8 characters, Date in the format: YYYYMMDD

Example

```
<ReconciliationDate>20200325</ReconciliationDate>
```

ReconciliationCycle

The **ReconciliationCycle** element shows the reconciliation cycle of the Chargeback record.

Description	Data Type	Constraints / Permitted Values
Reconciliation cycle of Chargeback record.	xs:string	Maximum 2 characters, Possible values are 01,02,03,04,05 and 06.

Example

```
<ReconciliationCycle>03</ReconciliationCycle>
```

RecordType

The **RecordType** element is used to distinguish between different fee types. (Relevant to Mastercard only)

Description	Base Data Type	Constraints / Permitted Values	
This can have different values depending on the primary element. For example: For a chargeback, where the value of RecordType is <i>MCB</i> , to find out the chargeback fee amount, refer to the fee amount (<FeeAmt>) of the MasterCardFee record. To view the original chargeback amount, refer to the <BillAmt> in the CardChr-	xs:string	Maximum length 3.	
		Value	Description
		FC	From FeeCollection.
		MCB	Mastercom Chargebacks. Raised either via Mastercom UI or Mastercom SmartClient API.

Description	Base Data Type	Constraints / Permitted Values	
gBackRepRes record. For case filing, where the value of RecordType is <i>MCF</i> , refer to the MasterCardFee record for details of pre-arbitration and arbitration case filing fees.		Value	Description
		MCF	Mastercom pre-arbitration or arbitration case filing.
			Raised either via Mastercom UI or Mastercom Smart-client API.
		VFC	Visa Fee Collection.

Example

```
<RecordType>MCF</RecordType >
```

RecType

The **RecType** element describes whether this record is an advice or a reversal.

Permitted Value	Description	DataType
ADV	Advice Record	xs:string
REV	Reversal Record	xs:string

Example

```
<RecType>ADV</RecType>
```

Response

The **Response** element describes the approval status of a transaction request.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
approved	Approval component.	<approved>	Yes	See approved .
actioncode	Describes the transaction status, which can be either 4 or 0: 4 = indicates a decline or where the transaction type is an authorisation advice 0 = indicates a transaction status that is not a decline or an authorisation advice For a Card Financial, ActionCode is always zero.	xs:string	If applicable	Applies to CardAuthorisation and CardFinancial only.
responsecode	Holds the <i>ResponseStatus</i> field from the authorisation record in the GPS database (as sent to Visa or Mastercard). This is a 2 digit Response Code which is based on the ISO 8583:1987 standard. It corresponds to the DE39 response code field that GPS sent in the response message. In most cases the responsecode field should match the authorisation <i>ResponseStatus</i> you provided in your EHI response. The exception is for EHI modes where: - GPS did not receive your EHI response and made a Stand-In Processing (STIP) decision - GPS received your EHI response, but determined the <i>ResponseStatus</i> was not valid - The EHI response you sent was an internal GPS response code (such as 'C0' or 'C1'). In this case the responsecode field will reflect the response actually sent to Visa/Mastercard (after mapping from an internal GPS EHI ResponseStatus value)	xs:string	If applicable	Applies to CardAuthorisation and CardFinancial only.
additionaldesc	Extra information.	xs:string	If applicable	Maximum 500 characters. Applies to CardAuthorisation

Attribute	Description	Data Type	Required	Constraints / Permitted Values
				only.

Example

```
<Response approved="yes"actioncode="0"responsecode="00"></Response>
```

ReversalReason

The **ReversalReason** element describes the reason for a reversal.

Permitted Value	Description	Data Type
0	Original authorisation was matched, i.e., cancel the original Authorisation value from the BLKAMT field (thereby increasing the AMTAVL balance) because a settlement transaction has been matched and processed. This code would be used if the CardAuthorisation's AuthId is populated in the matching CardFinancial's Child Element AuthId.	xs:string
1	Original authorisation has expired, i.e., Cancel the original Authorisation value from the BLKAMT field (thereby increasing the AMTAVL balance) even though a settlement transaction has not been identified before the expiry of the Authorisation time limit. This code would be used if the CardAuthorisation's AuthId is not present in any CardFinancial's Child Element AuthId.	xs:string
2	Manually deleted, i.e., merchant erroneously processed Authorisation and reversal is processed directly into the processor's system.	xs:string
3	Online reversal, i.e., merchant erroneously processed Authorisation and reversal is entered via the processor's online portal.	xs:string

Example

```
<ReversalReason>0</ReversalReason>
```

RIID

The **RIID** element describes the Receiving Institution Identification Code (RIID). This is the Program Manager's ICA as provided by Mastercard or the equivalent account code from Visa.

Description	Base Data Type	Constraints / Permitted Values
Receiving Institution Identification Code.	xs:string	Alphanumeric, maximum 11 characters.

Example

```
<RIID>00000000123</RIID>
```

Schema

The **Schema** element describes the name of the card scheme processing the transaction. For example: Visa (VISA), Mastercard (MCRD).

Permitted Value	Description	Data Type
CIRR	Euro Cirrus	xs:string
ECRD	EuroCard	xs:string
MAES	Maestro	xs:string
CIMA	Cirrus Maestro	xs:string
MCRD	Mastercard	xs:string
VISA	Visa	xs:string

Permitted Value	Description	Data Type
PLUS	PLUS Card	xs:string

Example

```
<Schema>MCRD</Schema>
```

Sender

The **Sender** element provides details of the sender of the payment, where there is a money transfer. See also [Receiver](#).

Attribute	Description	Data Type	Required	Constraints / Permitted Values														
firstname	FirstName	xs:string	Optional	Alphanumeric, maximum 99 characters.														
middlename	Middle Name	xs:string	Optional	Alphanumeric, maximum 99 characters.														
lastname	Last Name	xs:string	Optional	Alphanumeric, maximum 99 characters.														
streetaddress	Street Address	xs:string	Optional	Alphanumeric, maximum 99 characters.														
city	City	xs:string	Optional	Alphanumeric, maximum 99 characters.														
provincecode	Province code	xs:string	Optional	Alphanumeric, maximum 99 characters.														
country	Country	xs:string	Optional	Normally 3-character alpha ISO code.														
postcode	Postcode	xs:string	Optional	Alphanumeric, maximum 99 characters..														
dateofbirth	Date of birth	xs:string	Optional	Format: MMDDYYYY														
accountnumber	Account Number	xs:string	Optional	Alphanumeric, maximum 99 characters.														
idtype	The type of identification provided by the user.	xs:string	Optional	Values are: <table><tr><th>Value</th><th>Description</th></tr><tr><td>00</td><td>Passport</td></tr><tr><td>01</td><td>National Identification Card</td></tr><tr><td>02</td><td>Driver's License</td></tr><tr><td>03</td><td>Government Issued</td></tr><tr><td>04</td><td>Other</td></tr><tr><td>05-10</td><td>Reserved</td></tr></table>	Value	Description	00	Passport	01	National Identification Card	02	Driver's License	03	Government Issued	04	Other	05-10	Reserved
Value	Description																	
00	Passport																	
01	National Identification Card																	
02	Driver's License																	
03	Government Issued																	
04	Other																	
05-10	Reserved																	
idnbr	Identification number (e.g. passport or driver license number)	xs:string	Optional	Alphanumeric, maximum 99 characters.														
idctrycode	ID country code (e.g. 826)	xs:string	Optional	Normally 3-character alpha ISO code.														
nationality	Nationality	xs:string	Optional	Normally 3-character alpha ISO code.														
phonenumbr	Phone number	xs:string	Optional	Alphanumeric, maximum 99 characters.														
idexpdate	Identification expiry date	xs:string	Optional	Format: MMDDYYYY														

Attribute	Description	Data Type	Required	Constraints / Permitted Values	
acctnbrtype	The type of account number	xs:string	Optional	Values	Description
				00	Other
				01	RTN + Bank Account
				02	IBAN
				03	Card Account
				04	Email
				05	Phone Number
				06	Bank account number (BAN) + Bank Identification Code (BIC)
				07	Wallet ID
				08	Social Network ID
birthctry	Country of birth	xs:string	Optional	Normally 3-character alpha ISO code.	
fundssource	Source of funds	xs:string	Optional	Code	Meaning
				01	Visa credit
				02	Visa debit
				03	Visa prepaid
				04	Cash
				05	Debit/deposit access accounts other than those linked to a Visacard (includes checking/savings accounts and proprietary debit/ATM cards)
				06	Credit accounts other than those linked to a Visa card (includes credit cards and proprietary credit lines)
claimcode	Claim code	xs:string	Optional	Alphanumeric, maximum 99 characters.	

Example

```
<Sender firstname="FRST" middlename="M" lastname="LST NME" streetaddress="RM R STREET S STREETI" city="MAIN" provincecode="MD" country="MDA" postcode="00000" dateofbirth="07051999" accountnumber="4779300008363000" idtype="04" idnbr="2014011000399" idctrycode="MDA" nationality="MDA" phonenumber="2811131" idexpdate="102020" acctnbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Sender>
```

Settlement

The **Settlement** element describes the Settlement details.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
date	Date the original transaction was settled.	xs:string	Optional	Maximum 8 characters, Date in the format: YYYYMMDD
cycle	Indicates which of the Mastercard clearing cycles the transaction was processed in.	xs:string	Optional	Values 01 - 06.

Example

An example of a Settlement which occurred in cycle 1 on 9th September 2017 is shown below.

```
<Settlement date="20170911" cycle="01"/></Settlement>
```

SettlementAmt (Mastercard only)

The **SettlementAmt** element describes the settlement amount.

Note: Only Mastercard send a Settlement Amount. For VISA, SettlementAmt will be the same as the Cardholder Billing amount (**BillAmt**).

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the settlement amount.	xs:decimal	Yes	Decimal value.
currency	The 3 digit ISO code of currency that the transaction will be settled in.	xs:unsigned Short	Yes	See ISO Currency Codes .
rate	The conversion rate used to calculate the settlement amount value.	<Rate>	Yes	Decimal value, maximum 9 decimal places, using conventional rounding down (1-4) and up (5-9).
date	Date the original transaction was settled.	xs:string	If applicable	Maximum 8 characters, Date in the format: YYYYMMDD Only required for chargebacks and representments.

Example

The example below represents 10 GBP at an exchange rate of 1:1.

```
<SettlementAmt value="10.00"currency="826"rate="1.000000000"
date="20100825"></SettlementAmt>
```

SettlementCycle

The **SettlementCycle** element describes the settlement cycle of the Chargeback record.

Description	Data Type	Constraints / Permitted Values
Settlement cycle of a Chargeback record.	xs:string	Maximum length 2 characters. Possible value: 01.

Example

```
<SettlementCycle>01</SettlementCycle>
```

SettlementDate

The **SettlementDate** element describes the date when the transaction will be settled.

Note: in the **CardAuthorisation** element, this field only provides the GPS transaction date.

Description	BaseType	Constraints / Permitted Values
Date (UTC)	xs:string	Maximum 8 characters, date in the format: YYYYMMDD

Example

```
<SettlementDate>20210125</SettlementDate>
```

SettlementIndicator

The **SettlementIndicator** element describes the type of settlement service, for example whether this is International or clearing-only.

Description	Base Data Type	Constraints / Permitted Values
The type of settlement service.	xs:string	Maximum length 1. Values are:

Description	Base Data Type	Constraints / Permitted Values	
		Value	Description
		0	International settlement service.
		3	Clearing-only (valid only for countries with defined service).
		4	Bilateral settlement. (Mastercard Only)
		8	National Net settlement service (valid only for countries with defined service).
		9	BASEII selects the appropriate settlement service based on routing and country-defined default. (Visa Only)

Example

```
<SettlementIndicator>0</SettlementIndicator>
```

SchemeSettlementDate

The **SchemeSettlementDate** element describes the scheme first presentment settlement date in a financial advice or reversal. The data contained in this element is taken from the following data sources received from Mastercard and set by GPS for Visa:

- Mastercard - DE48 PDS0159 subfield 8
- Visa - GPS settlement date

Description	BaseType	Constraints / Permitted Values
Date (UTC)	xs:string	Maximum 8 characters, date in the format: YYYYMMDD.

Example

```
<SchemeSettlementDate>20210125</SchemeSettlementDate>
```

Source

The **Source** element provides details of the source wallet account from which funds are taken.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
walletid	ID of the source wallet account.	bigint	Yes	0 to 2 ⁶⁴
basecurrency	Base currency of the source wallet account.	int	Yes	Currency in ISO 3-digit number format. See Currency Codes
balancechange	Change in source wallet account balance amount.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4 digits.
blockchange	Change in source wallet account blocked amount.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4 digits.
newbalance	New source wallet account balance.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4

Attribute	Description	Data Type	Required	Constraints / Permitted Values
				digits.
newblock	New source wallet account blocked amount.	decimal (19,4)	Yes	Precision = 19 digits, scale = 4 digits.

Example

```
<Source walletid="879" basecurrency="978" balancechange="10.5000" blockchange="5.5000" newbalance="5.0000" newblock="10.0000"/>
```

Term

The **Term** element provides details of the terminal used in a POS card transaction.

Attribute	Description	Data Type	Required	Constraints/Permitted Values.
code	Card acceptor terminal ID (Mastercard DE 41 field). This is a unique code identifying a terminal at the card acceptor location.	<code>	Yes	See code
location	Location - defines the site where the terminal is located. It can be a branch code or store name.	xs:string	Yes	Maximum 64 characters
street	Street - description of the terminal street location.	xs:string	Yes	Maximum 64 characters
city	City	xs:string	Yes	Maximum 64 characters
country	Country code - ISO code.	xs:string	Yes	Must be 2 Characters. See ISO Country Codes .
inputcapability	The primary capability of the terminal for entering card information.	<inputcapability>	Yes	see PDS0105
authcapability	This is the method available to verify the cardholder at this terminal.	<authcapability>	Optional	see authcapability

Example

```
<Term code="N376131"location="A BANK"street="A STREET"city="A CITY"country="GB"inputcapability="5"authcapability="1"></Term>
```

Trace

The **Trace** element provides an audit number that can be used to uniquely identify a transaction.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
auditno	Card scheme system Trace Audit Number. Contains a number that uniquely identifies a transaction. The audit number remains unchanged for all messages within the life of the transaction (i.e. original and reversal). For partial reversals, a new Audit Number is required.	xs:string	Yes	Alphanumeric, maximum 6 characters
origauditno	This is only populated if the containing record is a reversal, and represents information regarding the original transaction.	xs:string	Optional	Alphanumeric, maximum 6 characters
Retrefno	Retrieval Reference Number. Contains a document reference supplied by the system retaining the original source information (ATM acquirer) and is used to assist in locating that information or a copy thereof.	xs:string	Yes	Alphanumeric, maximum 12 characters

Example

```
<Trace auditno="1234"origauditno="345"Retrefno="AN1234"></Trace>
```

Txn

The Txn element describes how a transaction was validated and authenticated.

Attribute	Description	Data Type	Required	Constraints / Permitted Values
cardholderpresent	Indicates whether the cardholder was present during the transaction.	<cardholderpresent>	Yes	see cardholderpresent .
cardpresent	Indicates whether the card was present during the transaction.	<cardpresent>	Yes	See cardpresent .
cardinputmethod	The method used to input the information from the card to the terminal.	<cardinputmethod>	Yes	see cardinputmethod .
cardauthmethod	The cardholder authentication method used in a card transaction.	<cardauthmethod>	Yes	see cardauthmethod .
cardauthentity	The component or person who verified the cardholder identity as reported in the cardauthmethod field.	<cardauthentity>	Yes	see cardauthentity .
TVR	Terminal Verification Results. This is the 10 hexadecimal characters representing the TVR 5 binary bytes. This field should only be interpreted for EMV transactions (Cardauthentity and Cardinputmethod).	xs:unsigned Long	If applicable	This field is only present in financial advices if the acquirer systems provide Chip data Default value is zero.

Example

```
<Txn cardholderpresent="0"cardpresent="1"cardinputmethod="2"cardauthmethod="3"cardauthentity="3"TVR="0"></Txn>
```

TxnAmt

The TxnAmt element describes a transaction amount (value and currency).

Attribute	Description	Data Type	Required	Constraints / Permitted Values
value	The value of the transaction amount.	xs:decimal	Yes	Decimal value.
currency	The transacted currency code.	xs:unsignedShort	Yes	See ISO Currency Codes .

Example

```
<TxnAmt value="10.00"currency="826"></TxnAmt>
```

TxnCode

The TxnCode element describes the transaction type and direction.

Attribute	Description	Data Type	Required	Constraints / Permitted Values						
direction	The direction of the transaction.	<Direction>	Yes	See direction						
Type	Details of the type of transaction.	xs:string	Yes	Must be one of the following values <table><tr><th>Value</th><th>Description</th></tr><tr><td>pos</td><td>Point of Sale transaction.</td></tr><tr><td>atm</td><td>Automated Teller Machine transaction (Cash Withdrawal/Advance)</td></tr></table>	Value	Description	pos	Point of Sale transaction.	atm	Automated Teller Machine transaction (Cash Withdrawal/Advance)
Value	Description									
pos	Point of Sale transaction.									
atm	Automated Teller Machine transaction (Cash Withdrawal/Advance)									

Attribute	Description	Data Type	Required	Constraints / Permitted Values	
				Value	Description
				pos_cb	Point of Sale transaction with cash-back.
				pos_re	Purchase refund.
				fee	Fee collection. If direction is a debit the fee is a credit to the transaction originator. If the direction is a credit then the fee is a debit to the transaction originator.
				tfr	Cardholder funds transfer.
Group	The summary group type of the transaction.	<Group>	Yes	See Group .	
ProcCode	The first two digits of the Processing Code + the two digits of the AccountType + Two digits of the Destination Account. See Processing Codes .	xs:string	If applicable	For example: "000000", "003000", "010000" Note: "390000" is used to identify an Account Verification transaction.	
Partial	If a fee was charged, indicates whether the fee was partial.	xs:string	If applicable	Default:"NA"	
FeeWaivedOff	If a fee was charged and the fee was partial, shows the amount of the fee that was not charged.	xs:decimal	If applicable	Default:0	

Example

```
<TxnCode direction="debit"Type="atm"Group="atm"ProcCode="000000"></TxnCode>
```

Usage

The **Usage** element indicates whether the Chargeback was credited to a card.

Description	Data Type	Constraints / Permitted Values										
Indicates whether the Chargeback is manually credited to card.	xs:string	Maximum 1-character. Possible values are:										
		<table><tr><th>Value</th><th>Description</th></tr><tr><td>0</td><td>Credit acknowledged, cleared and not credited to a card.</td></tr><tr><td>1</td><td>Credit acknowledged, cleared and credited to a card for arbitration Chargeback.</td></tr><tr><td>M</td><td>Mastercard, Credit acknowledged, cleared and credited to a card.</td></tr><tr><td>S</td><td>Related to a Visa card.</td></tr></table>	Value	Description	0	Credit acknowledged, cleared and not credited to a card.	1	Credit acknowledged, cleared and credited to a card for arbitration Chargeback.	M	Mastercard, Credit acknowledged, cleared and credited to a card.	S	Related to a Visa card.
		Value	Description									
		0	Credit acknowledged, cleared and not credited to a card.									
		1	Credit acknowledged, cleared and credited to a card for arbitration Chargeback.									
		M	Mastercard, Credit acknowledged, cleared and credited to a card.									
		S	Related to a Visa card.									

Example

```
<Usage>1</Usage>
```

3.1.2 Attributes

Attributes are listed below in alphabetical order.

approved	cardauthenticity	cardpresent	domesticMaestro	MCC
authcapability	cardauthmethod	code	Group	PAN
cardholderpresent	cardinputmethod	direction	inputcapability	PDS0105

approved

The **approved** attribute describes whether a transaction was approved.

Permitted Value	Description	Data Type
yes	Approved	xs:string
no	Not Approved	xs:string

Example

```
approved="yes"
```

authcapability

The **authcapability** attribute describes the capabilities of the terminal.

Permitted Value	Description	Data Type
0	No electronic authentication	xs:string
1	PIN	xs:string
2	Electronic Signature Analysis	xs:string
3	Biometrics	xs:string
4	Biographs	xs:string
5	Manual signature verification	xs:string
6	Manual other	xs:string
7	Offline PIN	xs:string
8	Online PIN	xs:string
9	3D-Secure	xs:string
10	Account based digital signature	xs:string
11	Public key based digital signature	xs:string
12	Unknown	xs:string
13	RFU	xs:string
14	RFU	xs:string
15	RFU	xs:string
16	RFU	xs:string
17	RFU	xs:string
18	RFU	xs:string
19	RFU	xs:string

Example

```
authcapability="1"
```

cardholderpresent

The **cardholderpresent** attribute describes whether a cardholder was present during a transaction.

Permitted Value	Description	Data Type
0	Cardholder present	xs:string
1	Not present, unspecified	xs:string
2	Not present, mail order	xs:string

Permitted Value	Description	Data Type
3	Not present, telephone	xs:string
4	Not present, standing authorisation	xs:string
5	Not present, electronic order	xs:string
6	Not present, instalment transaction	xs:string
9	Unknown	xs:string

Example

```
cardholderpresent="3"
```

cardauthentity

The **cardauthentity** attribute describes the entity that authenticated the cardholder.

Permitted Value	Description	Data Type
0	Not Authenticated	xs:string
1	Integrated Chip Card	xs:string
2	ISO10202 = Terminal	xs:string
3	Authorising Agent	xs:string
4	Merchant	xs:string
5	Other	xs:string
6	Cardholder device	xs:string
7	Wallet Provider / Token Requestor	xs:string
8	Unknown	xs:string

Example

```
cardauthentity="8"
```

cardauthmethod

The **cardauthmethod** attribute describes the authentication method used in a card transaction.

Permitted Value	Description	Data Type
0	Not authenticated	xs:string
1	PIN	xs:string
2	electronic signature analysis	xs:string
3	Biometrics	xs:string
4	Biographic	xs:string
5	Manual Signature Verification	xs:string
6	Manual Other (e.g. Licence)	xs:string
7	Other	xs:string
8	Unknown	xs:string
9	Passcode/Password (e.g mobile phone unlock code, or One-Time-Passcode sent to cardholder)	xs:string
A	Pattern (e.g. mobile phone device unlock pattern)	xs:string

Permitted Value	Description	Data Type
B	Possession of hardware device (eg phone, number generating keyfob)	xs:string
C	As 'B' but additionally with user verification	xs:string
D	Possession of software application (e.g. passcode generating program)	xs:string
E	As 'D' but additionally with user verification	xs:string
S	3D-secure cardholder authentication	xs:string

Example

```
cardauthmethod="1"
```

cardinputmethod

The **cardinputmethod** attribute describes the method used to input the card data (e.g.,PAN) into the point of sale terminal.

Permitted Value	Description	Data Type
0	unspecified	xs:string
1	manual, no terminal	xs:string
2	magnetic stripe read	xs:string
3	bar code	xs:string
4	OCR	xs:string
5	integrated circuit card (ICC)	xs:string
6	key entered	xs:string
7	contactless ICC	xs:string
C	E-Commerce with channel encryption and chip cryptogram used	xs:string
E	Contactless magnetic stripe	xs:string
F	Account Data on file	xs:string
G	Key entered by acquirer	xs:string
M	MICR reader	xs:string
P	Mobile banking application	xs:string
Q	QR code	xs:string
V	E-Commerce	xs:string
W	DPAN	xs:string

Example

```
cardinputmethod="5"
```

cardpresent

The **cardpresent** attribute indicates whether a card was present during a transaction.

Permitted Value	Description	Data Type
0	Card not present	xs:string
1	Card present	xs:string
9	Unknown	xs:string

Example

```
cardpresent="1"
```

code

The **Code** attribute describes the card acceptor terminal ID (Mastercard DE 41 field). This is a unique code identifying a terminal at the card acceptor location.

Description	Base Data Type	Constraints / Permitted Values
Terminal Code	xs:string	Maximum 8 Characters

Example

```
code="12345678"
```

direction

The **Direction** attribute describes the direction of a cash movement.

Permitted Value	Description	Data Type
credit	Describes a credit transaction.	xs:string
debit	Describes a debit transaction.	xs:string

Example

```
direction="debit"
```

domesticMaestro

The **domesticMaestro** attribute indicates whether a transaction originates from a Domestic Maestro card.

Permitted Value	Description	Data Type
yes	Used to indicate transaction originates from a domestic Maestro card.	xs:string
no	Used to indicate transaction does not originate from a domestic Maestro card.	xs:string

Example

```
domesticMaestro="yes"
```

Group

The **Group** attribute describes the high-level transaction type.

Permitted Value	Description	Data Type
pos	Point of Sale Transactions (including reversals).	xs:string
atm	Automated Teller Machine (ATM) transactions (including reversals).	xs:string
fee	Fees.	xs:string

Example

```
Group="atm"
```

inputcapability

The **inputcapability** attribute describes the card input capability.

0	Unknown	xs:string
1	Manual - no Location	xs:string
2	Magnetic Stripe Read	xs:string
3	Bar Code	xs:string
4	OCR	xs:string
5	EMV contact	xs:string
6	Key Entered	xs:string
7	Contactless Magnetic Stripe	xs:string
8	EMV contactless	xs:string
9	Account Data on file	xs:string
10	QR code	xs:string
11	E-Commerce	xs:string
12	E-Commerce with EMV cryptogram	xs:string
13	MICR reader	xs:string
14	Mobile Banking	xs:string
15	RFU	xs:string
16	RFU	xs:string
17	RFU	xs:string
18	RFU	xs:string
19	RFU	xs:string

Example

inputcapability="6"

MCC

The **MCC** attribute describes the Merchant Category Code (MCC).

Description	Base Data Type	Constraints / Permitted Values
Merchant category code.	xs:string	Maximum 4 characters. Permissible values as per Mastercard Global Rules for Merchant Classification Codes.

Example

MCC="5921"

PAN

The **PAN** attribute contains the Primary Account Number if you are PCI DSS Compliant or otherwise the GPS 16-digit public token.

Description	Base Data Type	Constraints / Permitted Values
PAN (Primary Account	xs:string	Minimum 12 characters, maximum 19 characters

Description	Base Data Type	Constraints / Permitted Values
Number).		

Example

PAN="1234567812345678"

PDS0105

The **PDS0105** attribute describes the name of the financial advice file received from Mastercard.

Description	Base Data Type	Constraints / Permitted Values
File_ID_PDS0105	xs:string	Format as follows : “T112.001” + “YYMMDD” + “00000012181” + XXYYZ Where XX = Clearing cycle indicator Y = delivery cycle ZZ = file number in the given clearing cycle

SECTION 4: APPENDICES

This section contains a list of appendices.

4.1 Appendices

Refer to the table below for details of available appendices:

#	Appendix	Description
4.2	Card Status Codes	Lists the possible card status codes or the status of a payment token.
4.3	FeeClass Element	Details of the FeeClass element.
4.4	ISO Country Codes	List of ISO country codes.
4.5	ISO Currency Codes	List of ISO currency codes.
4.6	Message Reason Codes	List of message reason codes.
4.7	Payment Token Fields	Provides details of possible values for the fields which hold payment token information.
4.8	Load Sources	Provides details of possible values for the source of a Load or Unload request.
4.9	Transaction XML Example	Provides an example of a transaction XML file.
4.10	Transaction XML Schema	Provides a description of the transaction XML schema.

4.2 Card Status Codes

This section lists the possible card status codes. These are status codes that you can set for card via web services or Smart Client. They are also used to indicate the status of a payment token.

Status Code	Description
00	All Good. Indicates that the card is good for use, but does not indicate whether it is active.
01	Refer to card issuer
02	Card not yet activated
04	Capture card
05	Do not honour
14	Invalid card (if you receive this status, it indicates that this card does not exist on the GPS system and was used for a fraudulent transaction)
41	Lost card
43	Stolen card
46	Closed Account
54	Expired card
57	Transaction not permitted to cardholder
59	Suspected Fraud
62	Restricted card
63	Security violation
70	Cardholder to contact issuer
75	Allowable number of PIN tries exceeded
83	Card destroyed
98	Refund given to customer
99	Card voided
G1	A short-term block which temporarily blocks card usage for all card transactions (excluding Credits and Refunds) for a short period.
G2	Short-term full block (all transactions are blocked).
G3	Long-term block (excluding Credits and Refunds).
G4	Long-term full block (all transactions are blocked).
G5	GPS Protect: A short-term block which temporarily blocks card usage for all card transactions (excluding Credits and Refunds) for a short period.
G6	GPS Protect: Short-term full block (all transactions are blocked).
G7	GPS Protect: Long-term block (excluding Credits and Refunds).
G8	GPS Protect: Long-term full block (all transactions are blocked).
G9	IVR Lost/Stolen block. Non-reversable status, equivalent to status code 41.

4.3 “FeeClass” Element “Code” Attribute Values

Code	Description	Fee Category
0	This value must be used when the FeeClass “type” attribute is 0, 2, 4 or 5 , i.e. when it is a settlement fee	Settlement Fee
1	For Card Financial Fee Class element record, The “code” attribute will always have value “1”	Settlement Fee
1000	Cash	Card transaction
1010	Sale/sale with tip	Card transaction
1020	Sale with cashback	Card transaction
1030	Declined transaction	Card transaction
1040	Other transaction (e.g. PIN change)	Card transaction
1060	Currency exchange mark-up percentage	Card transaction
1061	Foreign exchange due to markup on network rate	Card transaction
1062	Currency exchange rate mark-up percentage for authorisation padding	Card transaction
1063	Currency Conversion Assessment(CCA)	Card transaction
1100	Retail club out-of-club fee	Card transaction
2010	Card issue	Card production
2011	Card reissue (renewal)	Card production
2012	Damaged card replacement	Card production
2013	Lost/stolen card replacement	Card production
2014	Card restriction	Card production
2015	Changing card limit	Card production
2016	Authorisation override	Card production
2110	PIN issue	Card production
2111	PIN reissue (new PIN)	Card production
2112	PIN reminder (same PIN)	Card production
2300	Card value load	Card operation
2301	Card activation	Card operation
2302	Status change	Card operation
2303	Balance enquiry	Card operation
2304	Account enquiry	Card operation
2306	Card transfer	Card operation
2307	Card value unload	Card operation
2308	Cardholder registration	Card operation
2309	Card value unload and status change	Card operation
2310	Cardholder details update	Card operation
2311	Set PIN real-time	Card operation
2312	Get PIN real-time	Card operation
2313	Change PIN real-time	Card operation
2314	Generate and Get PIN real-time	Card operation

Code	Description	Fee Category
2320	SMS miscellaneous service fee	Card operation
2401	Card dormancy	Card management
2402	Card management	Card management
2441	Card expiry breakage	Card management
2442	Card lost/stolen breakage	Card management
2443	Account end-of-life breakage	Card management
6000	Non-Domestic Fee	Card transaction

4.4 ISO Country Codes

The table below provides details of ISO country codes.

Value	Country names	Value	Country names	Value	Country names
AD	Andorra	GL	Greenland	NP	Nepal
AE	United Arab Emirates	GM	Gambia	NR	Nauru
AF	Afghanistan	GN	Guinea	NU	Niue
AG	Antigua and Barbuda	GP	Guadeloupe	NZ	New Zealand
AI	Anguilla	GQ	Equatorial Guinea	OM	Oman
AL	Albania	GR	Greece	PA	Panama
AM	Armenia	GS	South Georgia and the South Sandwich Islands	PE	Peru
AN	Netherlands Antilles			PF	French Polynesia
AO	Angola	GT	Guatemala	PG	Papua New Guinea
AQ	Antarctica	GU	Guam	PH	Philippines
AR	Argentina	GW	Guinea-Bissau	PK	Pakistan
AS	American Samoa	GY	Guyana	PL	Poland
AT	Austria	HK	Hong Kong	PM	Saint Pierre and Miquelon
AU	Australia	HM	Heard Island and McDonald Islands	PN	Pitcairn
AW	Aruba	HN	Honduras	PR	Puerto Rico
AX	Åland Islands	HR	Croatia	PS	Palestinian Territory, Occupied
AZ	Azerbaijan	HT	Haiti	PT	Portugal
BA	Bosnia and Herzegovina	HU	Hungary	PW	Palau
BB	Barbados	ID	Indonesia	PY	Paraguay
BD	Bangladesh	IE	Ireland	QA	Qatar
BE	Belgium	IL	Israel	QZ	UNMI Kosovo
BF	Burkina Faso	IM	Isle of Man	RE	Réunion
BG	Bulgaria	IN	India	RO	Romania
BH	Bahrain	IO	British Indian Ocean Territory	RS	Serbia
BI	Burundi	IQ	Iraq	RU	Russian Federation
BJ	Benin	IR	Iran, Islamic Republic of	RW	Rwanda
BL	Saint Barthélemy	IS	Iceland	SA	Saudi Arabia
BM	Bermuda	IT	Italy	SB	Solomon Islands
BN	Brunei Darussalam	JE	Jersey	SC	Seychelles
BO	Bolivia, Plurinational State of	JM	Jamaica	SD	Sudan
BQ	Bonaire, Sint Eustatius and Saba	JO	Jordan	SE	Sweden
BR	Brazil	JP	Japan	SG	Singapore
BS	Bahamas	KE	Kenya	SH	Saint Helena, Ascension and Tristan da Cunha
BT	Bhutan	KG	Kyrgyzstan	SI	Slovenia
BV	Bouvet Island	KH	Cambodia	SJ	Svalbard and Jan Mayen

Value	Country names	Value	Country names	Value	Country names
BW	Botswana	KI	Kiribati	SK	Slovakia
BY	Belarus	KM	Comoros	SL	Sierra Leone
BZ	Belize	KN	Saint Kitts and Nevis	SM	San Marino
CA	Canada	KP	Korea, Democratic People's Republic of	SN	Senegal
CC	Cocos (Keeling) Islands	KR	Korea, Republic of	SO	Somalia
CD	Congo, the Democratic Republic of the	KW	Kuwait	SR	Suriname
CF	Central African Republic	KY	Cayman Islands	SS	South Sudan
CG	Congo	KZ	Kazakhstan	ST	Sao Tome and Principe
CH	Switzerland	LA	Lao People's Democratic Republic	SV	El Salvador
CI	Côte d'Ivoire	LB	Lebanon	SX	Sint Maarten(D)
CK	Cook Islands	LC	Saint Lucia	SY	Syrian Arab Republic
CL	Chile	LI	Liechtenstein	SZ	Swaziland
CM	Cameroon	LK	Sri Lanka	TC	Turks and Caicos Islands
CN	China	LR	Liberia	TD	Chad
CO	Colombia	LS	Lesotho	TF	French Southern Territories
CR	Costa Rica	LT	Lithuania	TG	Togo
CU	Cuba	LU	Luxembourg	TH	Thailand
CV	Cape Verde	LV	Latvia	TJ	Tajikistan
CW	Curaçao	LY	Libyan Arab Jamahiriya	TK	Tokelau
CX	Christmas Island	MA	Morocco	TL	Timor-Leste
CY	Cyprus	MC	Monaco	TM	Turkmenistan
CZ	Czech Republic	MD	Moldova, Republic of	TN	Tunisia
DD	Federal Republic of Germany	ME	Montenegro	TO	Tonga
DE	Germany	MF	Saint Martin (French part)	TR	Turkey
DJ	Djibouti	MG	Madagascar	TT	Trinidad and Tobago
DK	Denmark	MH	Marshall Islands	TV	Tuvalu
DM	Dominica	MK	Macedonia, the former Yugoslav Republic of	TW	Taiwan, Province of China
DO	Dominican Republic	ML	Mali	TZ	Tanzania, United Republic of
DZ	Algeria	MM	Myanmar	UA	Ukraine
EC	Ecuador	MN	Mongolia	UG	Uganda
EE	Estonia	MO	Macao	UM	United States Minor Outlying Islands
EG	Egypt	MP	Northern Mariana Islands	US	United States
EH	Western Sahara	MQ	Martinique	UY	Uruguay
ER	Eritrea	MR	Mauritania	UZ	Uzbekistan
ES	Spain	MS	Montserrat	VA	Holy See (Vatican City State)
ET	Ethiopia	MT	Malta	VC	Saint Vincent and the Grenadines
FI	Finland			VE	Venezuela, Bolivarian Republic of
FJ	Fiji				

Value	Country names	Value	Country names	Value	Country names
FK	Falkland Islands (Malvinas)	MU	Mauritius	VG	Virgin Islands, British
FM	Micronesia, Federated States of	MV	Maldives	VI	Virgin Islands, U.S.
FO	Faroe Islands	MW	Malawi	VN	Viet Nam
FR	France	MX	Mexico	VU	Vanuatu
GA	Gabon	MY	Malaysia	WF	Wallis and Futuna
GB	United Kingdom	MZ	Mozambique	WS	Samoa
GD	Grenada	NA	Namibia	YE	Yemen
GE	Georgia	NC	New Caledonia	YT	Mayotte
GF	French Guiana	NE	Niger	ZA	South Africa
GG	Guernsey	NF	Norfolk Island	ZM	Zambia
GH	Ghana	NG	Nigeria	ZW	Zimbabwe
GI	Gibraltar	NI	Nicaragua		
		NL	Netherlands		
		NO	Norway		

4.5 ISO Currency Codes

The table below lists the ISO and Visa/Mastercard currency codes.

ISO Code	Description	ISO Code	Description	ISO Code	Description
008	Lek	398	Tenge	760	Syrian Pound
012	Algerian Dinar	400	Jordanian Dinar	764	Baht
032	Argentine Peso	404	Kenyan Shilling	776	Tonga Paanga
036	Australian Dollar	408	North Korean Won	780	Trinidad and Tobago Dollar
044	Bahamian Dollar	410	South Korean Won	784	UAE Dirham
048	Bahraini Dinar	414	Kuwaiti Dinar	788	Tunisian Dinar
050	Taka	417	Som	800	Uganda Shilling
051	Armenian Dram	418	Kip	807	Denar
052	Barbados Dollar	422	Lebanese Pound	818	Egyptian Pound
060	Bermudian Dollar	426	Loti	826	Great British Pound
064	Ngultrum	428	Latvian Lats	834	Tanzanian Shilling
068	Boliviano	430	Liberian Dollar	840	US\$
072	Pula	434	Libyan Dinar	858	Peso Uruguayo
084	Belize Dollar	440	Lithuanian Litas	860	Uzbekistan Sum
090	Solomon Islands Dollar	446	Pataca	882	Tala
096	Brunei Dollar	454	Kwacha	886	Yemeni Rial
104	Kyat	458	Malaysian Ringgit	894	Kwacha
108	Burundi Franc	462	Rufiyaa	901	New Taiwan Dollar
116	Riel	478	Ouguiya	929	Mauritania
124	Canadian \$	480	Mauritius Rupee	931	Peso Convertible
132	Cape Verde Escudo	484	Mexican Peso	932	Zimbabwe Dollar
136	Cayman Islands Dollar	496	Tugrik	934	Manat
144	Sri Lanka Rupee	498	Moldovan Leu	936	Ghana Cedi
152	Chilean Peso	504	Moroccan Dirham	937	Bolivar Fuerte
156	Yuan Renminbi	512	Rial Omani	938	Sudanese Pound
170	Colombian Peso	320	Quetzal	941	Serbian Dinar
174	Comoro Franc	524	Nepalese Rupee	943	Metical
188	Costa Rican Colon	532	Antillian Guilder	944	Azerbaijanian Manat
191	Croatian Kuna	533	Aruban Guilder	946	New Leu
192	Cuban Peso	548	Vatu	947	WIR Euro
203	Czech Koruna	554	New Zealand Dollar	948	WIR Franc
208	Danish Krone	558	NICARAGUA Cor-doba Oro	949	New Turkish Lira
214	Dominican Peso	566	Naira	950	CFA Franc BCEAO
230	Ethiopian Birr	578	Norwegian Krone	951	East Caribbean Dol-

ISO Code	Description	ISO Code	Description	ISO Code	Description
232	Nakfa	586	Pakistan Rupee		lar
238	Falkland Islands Pound	590	Balboa	952	CFA Franc BCEAO
242	Fiji Dollar	598	Kina	953	CFP Franc
262	Djibouti Franc	600	Guarani	968	Surinam Dollar
270	Dalasi	604	Nuevo Sol	969	Malagasy Ariary
292	Gibraltar Pound	608	Philippine Peso	970	Unidad de Valor Real
320	Quetzal	634	Qatari Rial	971	Afghani
324	Guinea Franc	643	Russian Ruble	972	Somoni
328	Guyana Dollar	646	Rwanda Franc	973	Kwanza
332	Gourde	654	Saint Helena Pound	974	Belarussian Ruble
340	Lempira	678	Dobra	975	Bulgarian Lev
344	Hong Kong Dollar	682	Saudi Riyal	976	Congolese Franc
348	Florint	690	Seychelles Rupee	977	Convertible Marks
352	Iceland Krona	694	Leone	978	Euro
356	Indian Rupee	702	Singapore Dollar	979	Mexican Unidad de Inversion (UDI)
360	Rupiah	704	Dong	980	Hryvnia
364	Iranian Rial	706	Somali Shilling	981	Lari
368	Iraqi Dinar	710	Rand	984	Mvdol
376	New Israeli Sheqel	748	Lilangeni	985	Zloty
388	Jamaican Dollar	752	Swedish Krona	986	Brazilian Real
392	Yen	756	Swiss Franc	990	Unidades de fomento

4.6 Message Reason Codes

Reason Codes vary depending upon the transaction type (Domestic Maestro/MasterCard International), and the record type involved. The following tables describe all available values.

4.6.1 Domestic Maestro Reason Codes

The table below defines the Message Reason Codes (<ReasonCode>) for the UK Domestic Maestro.

Record Type	Code	Meaning
<CardFinancial>	1400	Not previously authorised
<CardFinancial>	1401	Previously approved authorization - amount same
<CardFinancial>	1402	Previously approved authorization - amount differs
<CardFee>	7601	Recovered card award fee; for collection of reward for a card acceptor or financial institution employee when a card has been recovered
<CardFee>	7604	Emergency card replacement fee; for collection of fees associated with the Emergency Card Replacement
<CardFee>	7777	Merchant Funds Transfer; for a transfer of funds between an acquirer and a merchant's bank, on behalf of a merchant

4.6.2 Mastercard International Reason Codes

The table below defines the Message Reason Codes (<ReasonCode>) for MasterCard International.

Record Type	Code	Meaning
<CardFinancial>	1400	Not previously authorised
<CardFinancial>	1401	Previously approved authorization - amount same
<CardFinancial>	1402	Previously approved authorization - amount differs
Representments/Reversals	2000	General; invalid chargeback
Representments/Reversals	2001	Invalid Acquirer Reference Data on chargeback; no documentation required or provided
Representments/Reversals	2002	Non receipt of required documentation to support chargeback
Representments/Reversals	2003	Correct transaction date provided
Representments/Reversals	2004	Invalid Acquirer Reference Data on chargeback; documentation was received
Representments/Reversals	2005	Correct card acceptor location/description provided
Representments/Reversals	2008	Issuer authorised transaction
Representments/Reversals	2011	Credit previously issued
Representments/Reversals	2700	Chargeback remedied - see corresponding documentation
Representments/Reversals	2701	Duplicate chargeback
Representments/Reversals	2702	Past chargeback time limit
Representments/Reversals	2703	Requested transaction document provided (requires hardship variance)
Representments/Reversals	2704	Invalid merchant message text
Representments/Reversals	2705	Correct MCC provided
Representments/Reversals	2706	Authorisation advised suspicious
Representments/Reversals	2707	No authorization request required nor attempted
Representments/Reversals	2708	Account was not listed on the applicable warning bulletin as of the transaction date

Record Type	Code	Meaning
Representments/Reversals	2709	Documentation received was illegible
Representments/Reversals	2710	Documentation received was invalid/incomplete
Representments/Reversals	2711	Missing documentation is being supplied Reserved for UK domestic use
Representments/Reversals	2712	Other than required/requested documentation provided Reserved for UK domestic use
Representments/Reversals	2713	Invalid Chargeback
Representments/Reversals	2870	Chip Liability Shift Reserved for intra-European use only
Chargebacks / Reversals	4515	Cardholder Denies
Chargebacks / Reversals	4522	Authorisation Declined
Chargebacks / Reversals	4801	Requested transaction data was not received
Chargebacks / Reversals	4802	Requested information illegible or missing
Chargebacks / Reversals	4804	Multiple Processing, Duplicate
Chargebacks / Reversals	4807	Warning bulletin
Chargebacks / Reversals	4808	Requested/required authorization not obtained
Chargebacks / Reversals	4809	Transaction Not Reconciled
Chargebacks / Reversals	4812	Account number was not on file
Chargebacks / Reversals	4831	Transaction amount differs
Chargebacks / Reversals	4834	Duplicate processing
Chargebacks / Reversals	4835	Card not valid or expired
Chargebacks / Reversals	4837	Fraudulent transaction; no cardholder authorization
Chargebacks / Reversals	4840	Fraudulent processing of transaction
Chargebacks / Reversals	4841	Canceled recurring transaction
Chargebacks / Reversals	4842	Late presentment
Chargebacks / Reversals	4846	Correct transaction currency code was not provided
Chargebacks / Reversals	4847	Fraudulent transaction; exceeds floor limit and not authorized
Chargebacks / Reversals	4849	Questionable card acceptor activity
Chargebacks / Reversals	4850	Credit posted as purchase
Chargebacks / Reversals	4853	Cardholder Dispute Defective/Not as Described
Chargebacks / Reversals	4854	Cardholder dispute not elsewhere classified (U.S. only)
Chargebacks / Reversals	4855	Non receipt of merchandise
Chargebacks / Reversals	4857	Card-activated phone transaction
Chargebacks / Reversals	4859	Services not rendered
Chargebacks / Reversals	4860	Credit not processed
Chargebacks / Reversals	4862	Counterfeit transaction; magnetic strip POI fraud
Chargebacks / Reversals	4863	Cardholder does not recognize - Potential fraud Not valid for domestic UK transactions
Chargebacks / Reversals	4870	Chip Liability Shift Reserved for intra-European use
Chargebacks / Reversals	4900	General; invalid second presentment; Second Presentment did not remedy First Chargeback

Record Type	Code	Meaning
Chargebacks / Reversals	4901	Required documentation not received to support prior Second Presentment
Chargebacks / Reversals	4902	Documentation received was illegible
Chargebacks / Reversals	4903	Documentation received was invalid/incomplete
Chargebacks / Reversals	4905	Invalid Acquirer Reference Data in Second Presentment; documentation was received or was not required
Chargebacks / Reversals	4906	Missing documentation is being supplied
Chargebacks / Reversals	4907	Other than required/requested documentation provided Reserved for UK Domestic use
Chargebacks / Reversals	4908	Invalid Acquirer Reference Data in Second Presentment; documentation was received
Chargebacks / Reversals	4999	Domestic Chargeback Dispute Reserved for intra-European use
<CardFee>	7600	Lost/stolen telex/phone fee; for collection of stolen report fee and phone or telex costs incurred for taking a lost or stolen card report
<CardFee>	7601	Recovered card award fee; for collection of reward for a card acceptor or financial institution employee when a card has been recovered
<CardFee>	7602	Emergency cash disbursement fee; for collection of fees associated with the handling of emergency cash disbursements to cardholders. Not valid for intra-European transactions
<CardFee>	7603	Compliance ruling settlement; for collection of a compliance ruling settlement amount
<CardFee>	7604	Emergency card replacement fee; for collection of fees associated with the Emergency Card Replacement Service (ECR)
<CardFee>	7605	Warning bulletin handling fee- issuer originated; for settlement of warning bulletin handling fees in accordance with MasterCard operating rules
<CardFee>	7606	Good faith acceptance settlement; for settlement of the amount of a good faith acceptance
<CardFee>	7607	Collection letter handling fee; for settlement of the amount of a collection letter acceptance
<CardFee>	7608	Telex authorization fee; for collection of fees associated with an international telex authorisation
<CardFee>	7610	Investigation fee; for fee collection when an investigation report has been completed by an investigating member on behalf of the requesting member.
<CardFee>	7611	Retrieval fee reversal; issuer-originated; used to reverse a retrieval request fulfillment fee for documents never received or invalid documents. Note: An issuer would use this code in response to receiving an invalid message from an acquirer containing code 7614,
<CardFee>	7612	Retrieval handling fee; issuer-originated; used to penalize an acquirer for incorrect information verified by the retrieval request document.
<CardFee>	7614	Non-MasterCom fulfillment fee settlement; for settlement of retrieval request fulfillment not processed through the MasterCom system
<CardFee>	7616	Warning bulletin handling fee - acquirer originated; for settlement of warning bulletin handling fees in accordance with MasterCard operating rules. OR Handling fee for second presentment of reason codes 4812 and 4835 for chip transactions where transaction certificate and DE 55 are present in the clearing message. Acquirer originated.
<CardFee>	7617	Adjustment for promotional transactions
<CardFee>	7618	Reversal of previously reimbursed State Fuel Tax. Refer to the MasterCard Government Card Service Guide. Not valid for intra-European transactions
<CardFee>	7619	Emergency card replacement center, cash advance lockbox fee Not valid for intra-European transactions
<CardFee>	7621	ATM Balance Inquiry Fee

Record Type	Code	Meaning
<CardFee>	7622	Handling Fee for Authorisation Related Chargebacks (4807, 4808 and 4847); for issuer use in a Fee Collection (Handling Fee) message after sending First Chargeback for one of the specified authorization related chargebacks. Not valid for intra-European transactions
<CardFee>	7623	Handling Fee for Authorisation Related Chargebacks (4807, 4808 and 4847); for issuer use in a Fee Collection (Handling Fee) message after sending Second Presentment, which indicates that the transaction was authorized. Not valid for intra-European transactions
<CardFee>	7624	Handling Fee for Authorisation Related Chargebacks (4807, 4808 and 4847); for issuer use in a Fee Collection (Handling Fee) message after sending Arbitration Chargeback for one of the specified authorization related chargebacks. Not valid for intra-European transactions
<CardFee>	7625	PIN management Service at ATM For intra-European use only.
<CardFee>	7626	Authorisation reversal; for acquirer use to advise the issuer of an authorization that needs to be reversed
<CardFee>	7627	Failure to provide a merchant advice code in a Fee Collection (Handling Fee) message.
<CardFee>	7628	Reclaim surcharge. This is restricted to intra-European and European transaction-related services.
<CardFee>	7700	Intracurrency agreement settlement; for settlement of amounts in accordance with an intracurrency agreement between transaction originator and transaction destination parties. Not valid for intra-European transactions
<CardFee>	7500 to 7779	Bilateral agreement settlement; for settlement amounts in accordance with a bilateral agreement between transaction originator and transaction destination parties.
<CardFee>	7780 to 7781	Bilateral agreement settlement; for settlement amounts in accordance with a bilateral agreement between transaction originator and transaction destination parties.
<CardFee>	7782 to 7789	Bilateral agreement settlement; for settlement amounts in accordance with a bilateral agreement between transaction originator and transaction destination parties.
<CardFee>	7790 to 7799	Bilateral agreement settlement; for settlement amounts in accordance with a bilateral agreement between transaction originator and transaction destination parties.
<CardFee>	7800	MCBS member settlement; for collection or payment of such things as member assessments, processed through the MasterCard Consolidated Billing System (MCSB). Not valid for intra-European transactions.
<CardFee>	7801	MasterCard compliance case filling fee; for collection of a member arbitration or compliance case filling fee.
<CardFee>	7802	Interchange compliance adjustment; for settlement of financial amounts related to interchange compliance.
<CardFee>	7803	Interchange compliance adjustment reversal; for settlement of financial amounts related to the reversal of a previous interchange compliance adjustment.
<CardFee>	7804	ATM transaction settlement; for settlement of daily ATM transaction amounts.
<CardFee>	7805	ATM intracountry switch fee settlement; for settlement of daily ATM transaction intracountry switch fees. Not valid for intra-European transactions.
<CardFee>	7806	ATM Network Information Control System (NICS) switch fee settlement; for settlement of MDS NICS Switch fees. Not valid for intra-European transactions
<CardFee>	7807	ATM intracountry first chargeback settlement; for settlement of daily ATM transaction intracountry first chargeback amounts. Not valid for intra-European transactions
<CardFee>	7811	Reimbursement of State Fuel Tax. Refer to the MasterCard Government Card Services Guided. Not valid for intra-European transactions

Record Type	Code	Meaning
<CardFee>	7812	Collection of return of collateral for security arrangement. Not valid for intra-European transactions
<CardFee>	7813	Mexico IVA fees Not valid for intra-European transactions
<CardFee>	7814	Mexico IVA Fees Not valid for intra-European transactions
<CardFee>	7815	Mexico IVA fees. Not valid for intra-European transactions
<CardFee>	7820	Disaster Relief Fund Not valid for intra-European transactions
<CardFee>	7821	MCBS Emergency Borrowing Collection. Not valid for intra-European transactions
<CardFee>	7822	Settlement Adjustment. Not valid for intra-European transactions
<CardFee>	7823	MDS Offline Debit Settlement Not valid for intra-European transactions MDS feed via Settlement Account Management system (S.A.M.)

4.7 Payment Token Fields

This section provides details of the fields which hold payment token information.

4.7.1 activationmethod

Describes the method used to activate the payment token. The table below describes the valid options and the content for each method.

PaymentToken_activationMethod	Description	Content included
0	None	Empty
1	SMS to mobile	Mobile phone number held on GPS for the cardholder
2	Email	Email address held on GPS for the cardholder
3	Cardholder to call automated call centre	Call centre number
4	Cardholder to call normal call centre	Call centre number
5	Website	Website URL
6	Mobile application	Mobile application reference
7	Cardholder will receive a voice call	Mobile phone number held on GPS for the cardholder

4.7.2 devicetype

Describes the type of device the payment token is installed on. Below is a list of possible values.

PaymentToken_deviceType	Description
A	Clothing or apparel
B	Mediaor gaming device(e.g., Xbox, TV, set-top box)
C	Card
E	Mini-card. A physical card of reduced dimensions (height and width) which is smaller than the standard ID-1 card size (See ISO 7810 for the ID-1 standard.)
D	Domestic application (e.g., fridge, washing machine)
F	Fob or key fob
G	Mobile tag, case or sleeve
H	Fashion accessory (e.g., handbag, glasses)
J	Jewelry (e.g., necklace, rings, bracelets). For Visa Contactless devices, this implies any wrist-worn device (including watches and wristbands.)
M	Mobile phone
N	Non-Card. This originates from Visa Contactless devices, where it indicates anything except: Card (C), Mini-Card (E), Mobile Phone (M) or Wrist-worn device (J).
P	Personal computer or laptop
R	Wristband
S	Sticker
T	Tablet
U	Unknown
V	Vehicle

PaymentToken_deviceType	Description
W	Watch
X	Mobile phone or tablet
other	Ask GPS for any additional values

4.7.3 type

Describes the type of payment token. Below is a list of possible values.

PaymentToken_type	Description
BW	Browser accessible Wallet
C	Contactless device PAN
CF	Card on File PAN
CL	Cloud-base payments PAN
P	Real PAN
SE	Secure Element PAN
U	Unknown - other PAN mapping not otherwise defined
V	Virtual PAN

4.7.4 creatorstatus

Describes the status of the payment token on the token creator’s system. Below is a list of possible values.

Note: GPS receive this value from the token creator’s system.

PaymentToken_creatorStatus	Description	Is this status reversible?
A	Active	Yes
D	Deleted on cardholder device	No
I	Inactive	Yes
N	Not tokenised	Yes
S	Suspended	Yes
X	Deactivated	No

4.7.5 wallet

Describes the type of eWallet the payment token belongs to. Below is a list of possible values.

PaymentToken_wallet	Description
ADYEN	Adyen (Gateway TSP)
AMAZON	Amazon
ANDROID	Google Pay Wallet (known before 20/2/2018 as “Android Pay Wallet”)
APPLE	Apple Pay Wallet

PaymentToken_wallet	Description
ASIA	Asia Pay
CHUNGHWA	Chungwa
FITBIT	Fitbit Pay Wallet
GARMIN	Garmin Pay
LGPAY	LG Electronics
MASTERPASS	MasterPass from Mastercard
MICROSOFT	Microsoft
MRCHTOKEN	Merchant Tokenisation Program
MTBLANC	Montblanc Pay
PAYNETPHYR	Phyre
RELIANCE	Reliance
SAMA	Saudi Arabia Monetary Authority
SAMSUNG	Samsung Pay Wallet
SECURECO	SecureCo
STOCARD	Stocard Pay Wallet
VISA_DCA	Visa Digital Commerce App
VISACKOUT	Visa Checkout
WORLDPAY	WorldPay
other	Ask GPS for any additional wallets

4.8 Processing Codes

The Processing code (**ProcCode**) is a 6 digit field made up of:

- 2 characters transaction code. See [Transaction Codes](#).
- 2 characters source account type code. See [Account Type Codes](#).
- 2 characters destination account type code. See [Account Type Codes](#).

For transactions initiated via web services or the Cards API, the processing code is formed of:

- 3 digits load source supplied in the request
- 3 digits “999”

4.8.1 Transaction Codes

The first two characters of the processing code is the transaction code, as follows:

Value	Description	Impacts Balance
00	Debits (goods and services)	Yes
01	Debits (for ATM withdrawals, or for cash disbursements using Maestro cards)	Yes
02	Adjustment Credits	Yes
09	Debits (goods with cash back)	Yes
10	Account Funding	Yes
11	Quasi-Cash (eg Gambling chips, money order, wire-transfer)	Yes
12	Debits (for cash advances)	Yes
17	Debits (for cash advances)	Yes
18	Unique Transaction (requires unique MCC)	Yes
19	Debit Adjustments	Yes
20	Credits (for refund)	Yes
21	Credits (for deposit)	Yes
22	Credits - Card Load	Yes
23	Debits - Card Unload	Yes
26	Original Credits	Yes
28	Credits (for Payment Transaction)	Yes
30	Balance inquiry service	No
32	Visa Tokenisation - Tokenisation Eligibility. Only used by Visa.	No
33	MDES / Visa Tokenisation - Tokenisation Authorisation	No
34	MDES/ Visa Tokenisation - Activation Code Notification	No
35	MDES / Visa Tokenisation - Tokenisation Complete Notification	No
36	MDES / Visa Tokenisation - Token Event Notification. See the 'Message_Source' field for which system originated the Token Event. See the 'Message_Why' field for what sort of Token Event occurred.	No
37	Visa Tokenisation - Get Supported Cardholder Authentication Methods (for Approve with Authentication). Only used by Visa.	No
38	Visa Tokenisation - Device Binding. Only used by Visa.	No

Value	Description	Impacts Balance
39	Indicates an Account Verification transaction.	No
70	PIN change	No
71	Card Data File Action (eg new PAN or expdate)	No
72	PIN unblock	No
91	PIN unblock	No
92	PIN change	No

4.8.2 Account Type Codes

The 3rd & 4th digits in Processing code is the Source account type code.

The 5th and 6th digits in Processing code is the Destination account type code.

Both codes are from the following list of account type codes (based on [ISO 8583:2003 Account Type Codes](#)).

Value	Description
00	Default Account (not specified or not applicable)
10	Savings Account
20	Cheque Account
30	Credit Card Account
38	Credit Line Account
39	Corporate Account
40	Universal Account
50	Money Market Investment Account
58	IRA Investment Account
60	Stored Value Account
90	Revolving Loan Account
91	Installment Loan Account
92	Real Estate Loan Account

4.9 Load Sources

Refer to the table below for a list of load sources available for the `<LoadSource>` field.

Source	Description
1	POS standard
2	GPS Kiosk
3	GPS Web Site
4	Card Processor
5	Standard Web Service
6	Agent
7	Head Office
8	Call Centre
9	Customer Web site
10	Wirecard NO LONGER USED
11	Customer kiosk
12	Customer mobile app
13	GPS IVR
14	Unknown
16	Load From Card Request File
17	Corporate
18	epay
19	HOCA Verifiable
20	Post Office
21	HOCA Non Verifiable
22	Paypoint
23	DXB POS Reload
24	TCC Web Report
25	TCC Online
26	VIRGIN POS Reload
27	TCC POS Reload
28	TCC Promotion
29	DXB Zero Load
30	AlFardan Reload
31	UAEx Reload
32	AlAnsari Reload
33	14 day Cool Off
34	Unload to Repatriate
35	Loan Repayment
36	DXB Online

Source	Description
37	Payzone
38	VIRGIN Zero Load
39	VIRGIN POS standard
40	JADE Web Report
41	JADE POS standard
42	JADE POS Reload
43	JADE Zero Load
44	Wirecard-Cadoodz
45	Crunch POS Standard
46	CRUNCH POS Reload
47	Unload Fee Test
48	Balance Transfer Fee Test
49	Sofort Banking
50	Wirecard e-commerce
51	UAExAirport POS Standard
52	UAExAirport Reload
53	Cadoodz Load
54	Cadoodz Reload
55	Cadoodz web unload
56	Sofort Bank Transfer Load
57	Billpay Payment
60	Post Office and Paypoint
61	Credit Limit
62	Credit Card Payment
63	Ukash Payment
64	Bank Transfer
65	Giropay
66	Sofortüberweisung
67	Debit Card
68	Primary Card
74	Master Virtual Card
75	Micropayment
76	MVC Load
77	iMVC Load
78	P2P Transfer
79	Auto-transfer from Primary Card
91	Incoming SEPA Transfers
92	Incoming Direct Debit

Source	Description
93	Outgoing Sepa Transfers
94	Outgoing Direct Debit
95	Voucher
96	Cash Incentive Rewards
97	Entercash
98	Payvision
101	La Banque Postale
102	Loyalty Programme
103	KYC Upgrade_Grp Chng
106	First Load from MVC
107	Cash Deposit
108	International Bank Transfer
109	Balance Transfer - Mtel
110	Balance Transfer - Phyre
111	Balance Transfer - CashTerminal
112	Balance Transfer - Payoo

4.10 Transaction XML Example

Below is an example of a transaction XML report. For a description of the XML schema, see [Transaction XML Schema](#).

```
<?xml version="1.0" encoding="utf-8"?>
<Transactions>
  <!-- Mastercard Accepted Auth -->
  <CardAuthorisation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <RecType>ADV</RecType>
    <AuthId>6335025042</AuthId>
    <AuthTxnID>2226502581</AuthTxnID>
    <LocalDate>20200901000029</LocalDate>
    <SettlementDate>20200901</SettlementDate>
    <Card PAN="2345678901234567" product="MCRD" programid="SAMPLE1" branchcode="" productid="2345"/>
    <Account no="567890123" type="01"/>
    <TxnCode direction="debit" Type="pos" Group="pos" ProcCode="000000" Partial="NA" FeeWaivedOff="0"/>
    <TxnAmt value="0.9900" currency="826"/>
    <CashbackAmt value="0.00" currency="826"/>
    <BillAmt value="0.99" currency="826" rate="1.000000" clientfxrate="0.00000000"/>
    <ApprCode>118703</ApprCode>
    <Trace auditno="123456" origauditno="123456" Retrefno="024469694632"/>
    <MerchCode>987654321234</MerchCode>
    <Term code="00206996" location="APPLE.COM/BILL APPLE.COM/BIL
IRL" street="" city="" country="IE" inputcapability="6" authcapability="12"/>
    <Schema>MCRD</Schema>
    <Txn cardholderpresent="5" cardpresent="0" cardinputmethod="F" cardauthmethod="8" cardauthentity="8"/>
    <MsgSource value="67" domesticMaestro="no"/>
    <PaddingAmt value="0.00" currency="826"/>
    <Rate_Fee value="0.00"/>
    <Fixed_Fee value="0.00"/>
    <CommissionAmt value="0.00" currency="826"/>
    <Classification MCC="5735"/>
    <Response approved="yes" actioncode="0" responsecode="00" additionaldesc=" Accepted by
EHI APPLE.COM/BILL APPLE.COM/BIL IRL"/>
    <OrigTxnAmt value="0.99" currency="826"/>
    <ReversalReason/>
    <Sender firstname="FRST" middlename="M" lastname="LST NME" streetaddress="RM R STREET S STREETI " city="MAIN" province-
code
="MD"
country="MDA" postcode="00000" dateofbirth="07051999" accountnumber="4779300008363000" idtype="04" idnbr="2014011000399" idctry-
code
="MDA"

nationality
="MDA" phonenumber="2811131" idexpdate="102020" acctnbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Sender>
"
    <Receiver firstname="FIRST" middlename="MN" lastname="LAST NAME" streetaddress="SN S STREET S STREETI
city
="MAIN"

provincecode
="MD"
country="MDA" postcode="00000" dateofbirth="08051999" accountnumber="4889300008363000" idtype="04" idnbr="2015011000399" idctry-
code
="MDA"

nationality="MDA" phonenumber="2822231" idexpdate="112020" acctnbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Re-
ceiver>
    <PaymentToken id="11213241" creator="MC-MDES" expdate="2022-01-
31" type="SE" status="00" creatorstatus="A" wallet="APPLE" devicetype="X" lang="en" activationexpiry="2019-12-31
23:59:59.000" activationmethod="3"/>
  </CardAuthorisation>
  <!-- Visa Accepted Auth -->
  <CardAuthorisation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <RecType>ADV</RecType>
    <AuthId>6458932430</AuthId>
    <AuthTxnID>2289985142</AuthTxnID>
    <LocalDate>20200901001051</LocalDate>
    <SettlementDate>20200901</SettlementDate>
    <Card PAN="4567891234567890" product="VISA" programid="VTEST1" branchcode="" productid="6432"/>
    <Account no="789123456" type="02"/>
    <TxnCode direction="debit" Type="pos" Group="pos" ProcCode="000000" Partial="NA" FeeWaivedOff="0"/>
    <TxnAmt value="500.0000" currency="826"/>
    <CashbackAmt value="0.00" currency="826"/>
    <BillAmt value="500.00" currency="826" rate="1.000000" clientfxrate="0.00000000"/>
    <ApprCode>129513</ApprCode>
    <Trace auditno="146889" origauditno="146889" Retrefno="025923146889"/>
    <MerchCode>498750002308287</MerchCode>
    <Term
code="99999999" location="GOOGLE ADS2157005349 Dublin IE" street="" city="" country="IE" inputcapability="1" auth-
capability="12"/>
    <Schema>VISA</Schema>
    <Txn cardholderpresent="5" cardpresent="0" cardinputmethod="V" cardauthmethod="0" cardauthentity="0"/>
    <MsgSource value="54" domesticMaestro="no"/>
    <PaddingAmt value="0.00" currency="826"/>
    <Rate_Fee value="0.00"/>
    <Fixed_Fee value="0.00"/>
    <CommissionAmt value="0.00" currency="826"/>
    <Classification MCC="7311"/>
    <Response approved="yes" actioncode="0" responsecode="00" additionaldesc=" Accepted by
EHI GOOGLE ADS2157005349 Dublin IE"/>
    <OrigTxnAmt value="500.00" currency="826"/>
```

```

        <ReversalReason/>
        <Sender firstname="FRST" middlename="M" lastname="LST NME" streetaddress="RM R STREET S STREETI " city="MAIN" province-
code
="MD"
country="MDA" postcode="00000" dateofbirth="07051999" accountnumber="4779300008363000" idtype="04" idnbr="2014011000399" idctry-
code="MDA" nationality="MDA" phonenumber="2811131"></Sender>
        <Receiver firstname="FIRST" middlename="MN" lastname="LAST NAME" streetaddress="SN S STREET S STREETI
"

city
="MAIN"

provincecode
="MD"

country="MDA" postcode="00000" dateofbirth="08051999" accountnumber="4889300008363000" idtype="04" idnbr="2015011000399" phonenum-
ber="2822231" idexpdate="112020" acctnbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Receiver>
        <FXConv
bookingtype="A" bookingstatus="B" fxratebooked="1.000000" providercode="CCI" fixedamountflag="B" settlementdate="20200902"/>
        <PaymentToken id="26676067" creator="VISA-T" expdate="2023-12-
31" type="CL" status="00" creatorstatus="A" wallet="ANDROID" devicetype="M" lang="en" activationexpiry="2020-10-21
15:06:00.000" activationmethod="1"/>
    </CardAuthorisation>
    <!-- VISA automatic auth removal -->
    <CardAuthorisation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <RecType>REV</RecType>
        <AuthId>6459161818</AuthId>
        <AuthTxnID>2256936860</AuthTxnID>
        <LocalDate>20200901012804</LocalDate>
        <SettlementDate>20200901</SettlementDate>
        <Card PAN="4567891234567890" product="VISA" programid="VTEST1" branchcode="" productid="6432"/>
        <Account no="789123456" type="02"/>
        <TxnCode direction="credit" Type="pos" Group="pos" ProcCode="000000" Partial="NA" FeeWaivedOff="0"/>
        <TxnAmt value="1.0000" currency="840"/>
        <CashbackAmt value="0.00" currency="978"/>
        <BillAmt value="0.85" currency="978" rate="0.850000" clientfxrate="0.00000000"/>
        <ApprCode>178695</ApprCode>
        <Trace auditno="550886" origauditno="550886" Retrefno="025264550886"/>
        <MerchCode>216010000067204</MerchCode>
        <Term code="99999999" location="FACEBOOK.COM 650-543-7818
IE" street="" city="" country="IE" inputcapability="0" authcapability="12"/>
        <Schema>VISA</Schema>
        <Txn cardholderpresent="5" cardpresent="0" cardinputmethod="V" cardauthmethod="0" cardauthentity="0"/>
        <MsgSource value="54" domesticMaestro="no"/>
        <PaddingAmt value="0.03" currency="978"/>
        <Rate_Fee value="0.00"/>
        <Fixed_Fee value="0.00"/>
        <CommissionAmt value="0.00" currency="978"/>
        <Classification MCC="7311"/>
        <Response approved="yes" actioncode="0" responsecode="00" additionaldesc="AUTOMATIC AUTHORISATION REMOVAL BillAmt - 0.85
Location - FACEBOOK.COM 650-543-7818 IE FACEBOOK.COM 650-543-7818 IE"/>
        <OrigTxnAmt value="1.00" currency="840"/>
        <ReversalReason>1</ReversalReason>
        <Sender firstname="FRST" middlename="M" lastname="LST NME" streetaddress="RM R STREET S STREETI " city="MAIN" province-
code
="MD"

country
="MDA" postcode="00000" idnbr="2014011000399" idctrycode="MDA" nationality="MDA" phonenumber="2811131" idexpdate="102020" acct-
nbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Sender>
        <Receiver firstname="FIRST" middlename="MN" lastname="LAST NAME" provincecode="MD" country="MDA" postcode="00000" dateof-
birth="08051999" accountnumber="4889300008363000" idtype="04" nationality="MDA" phonenumber="2822231" idexpdate="112020" acct-
nbrtype="08" birthctry="MDA" fundssource="04" claimcode="TST"></Receiver>
        <FXConv
bookingtype="R" bookingstatus="R" fxratebooked="1.2345670" providercode="CCI" fixedamountflag="S" settlementdate="20200902"/>
    </CardAuthorisation>
    <!-- Visa Accepted Auth on Multi-FX wallet card-->
    <CardAuthorisation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <RecType>ADV</RecType>
        <AuthId>6459161819</AuthId>
        <AuthTxnID>2289985143</AuthTxnID>
        <LocalDate>20210727091051</LocalDate>
        <SettlementDate>20210727</SettlementDate>
        <Card PAN="45678923456789012" product="VISA" programid="VMFX1" branchcode="" productid="10001"/>
        <Account no="7892345678" type="02"/>
        <TxnCode direction="debit" Type="pos" Group="pos" ProcCode="000000" Partial="NA" FeeWaivedOff="0"/>
        <TxnAmt value="22.0000" currency="978"/>
        <CashbackAmt value="0.00" currency="978"/>
        <BillAmt value="20.00" currency="826" rate="1.000000" clientfxrate="0.00000000"/>
        <ApprCode>678123</ApprCode>
        <Trace auditno="789234" origauditno="789234" Retrefno="025923146889"/>
        <MerchCode>498750002308287</MerchCode>
        <Term
code="99999999" location="GOOGLE ADS2157005349 Dublin IE" street="" city="" country="IE" inputcapability="1" auth-
capability="12"/>
        <Schema>VISA</Schema>
        <Txn cardholderpresent="5" cardpresent="0" cardinputmethod="V" cardauthmethod="0" cardauthentity="0"/>
        <MsgSource value="54" domesticMaestro="no"/>
        <PaddingAmt value="0.00" currency="826"/>
        <Rate_Fee value="0.00"/>
        <Fixed_Fee value="0.00"/>
        <CommissionAmt value="0.00" currency="826"/>
        <Classification MCC="7311"/>
        <Response approved="yes" actioncode="0" responsecode="00" additionaldesc=" Accepted by
EHI GOOGLE ADS2157005349 Dublin IE"/>
        <OrigTxnAmt value="22.00" currency="978"/>

```

```

    <ReversalReason/>
  </CardAuthorisation>
  <CardFinancial xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <RecordType>ADV</RecordType>
    <FinId>123456789</FinId>
    <AuthId xsi:nil="true"/>
    <PresentmentID>123456789</PresentmentID>
    <LocalDate>20200831000000</LocalDate>
    <SettlementDate>20200902</SettlementDate>
    <SchemeSettlementDate>20200902</SchemeSettlementDate>
    <SchemeReconciliationDate>20200901</SchemeReconciliationDate>
    <CycleNumber>06</CycleNumber>
    <Card PAN="1234567890123456" product="MCRD" programid="SAMPLE" branchcode="MAES" productid="1234"/>
    <Account no="456789012" type="01"/>
    <TxnCode direction="credit" Type="pos_re" Group="pos"/>
    <TxnAmt value="109.9400" currency="978"/>
    <CashbackAmt value="0.00" currency="978"/>
    <BillAmt value="109.9400" currency="978" rate="1.000000"/>
    <ApprCode>
    </ApprCode>
    <Trace auditno="" origauditno="" Retrefno="123456789012"/>
    <MerchCode>8042632</MerchCode>
    <Term code="" location="NORWEGIAN123456789012345" street="OKSENOYVEIEN 3" city="LYSAKER" country="NO" input-
capability="1" authcapability="0"/>
    <Schema>MCRD</Schema>
    <Txn cardholderpresent="0" cardpresent="1" cardinputmethod="1" cardauthmethod="0" cardauthentity="0"/>
    <MsgSource value="67" domesticMaestro="no"/>
    <Fee direction="debit" value="0.005300" currency="978" value2="0.0000"/>
    <FeeAmt direction="debit" value="0.00" currency="978"/>
    <FeeClass interchangeTransaction="no" type="1" code="1"/>
    <SettlementAmt value="109.9400" currency="978" rate="1.000000"/>
    <ARN>5518422024123456789012</ARN>
    <FIID>010495</FIID>
    <RIID>012181</RIID>
    <ReasonCode>1401</ReasonCode>
    <Classification MCC="3211"/>
    <Response approved="yes"/>
    <OrigTxnAmt value="109.9400" currency="978"/>
    <CCAAmount value="0.00" currency="978" included="no"/>
    <SettlementIndicator>0</SettlementIndicator>
    <Additional_Amt_DE54/>
    <BSA>3</BSA>
    <FXConv
bookingtype="P" bookingstatus="B" fxratebooked="1.2345000" providercode="CCI" fixedamountflag="B" settlementdate="20200902"/>
    <PaymentToken id="23480180" creator="VISA-T" expdate="2023-12-
31" type="CL" status="00" creatorstatus="A" wallet="GARMIN" devicetype="W" lang="en" activationexpiry="" activationmethod=""/>
  </CardFinancial>
  <CardFinancial xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <RecordType>ADV</RecordType>
    <FinId>6470438861</FinId>
    <AuthId>6458867997</AuthId>
    <PresentmentID>1829291639</PresentmentID>
    <LocalDate>20200901000000</LocalDate>
    <SettlementDate>20200902</SettlementDate>
    <SchemeSettlementDate>20200902</SchemeSettlementDate>
    <SchemeReconciliationDate>20200902</SchemeReconciliationDate>
    <CycleNumber>05</CycleNumber>
    <Card PAN="4567891234567890" product="VISA" programid="VTEST1" branchcode="MAES" productid="1234"/>
    <Account no="789123456" type="02"/>
    <TxnCode direction="debit" Type="pos" Group="pos"/>
    <TxnAmt value="1.8500" currency="978"/>
    <CashbackAmt value="0.00" currency="978"/>
    <BillAmt value="1.8500" currency="978" rate="1.000000"/>
    <ApprCode>156965</ApprCode>
    <Trace auditno="149116" origauditno="149116" Retrefno=""
    </Trace>
    <MerchCode>498750000011107</MerchCode>
    <Term code="" location="FACEBK M9TZVUJ592" street="" city="fb.me/ads" country="IE" inputcapability="1" auth-
capability="0"/>
    <Schema>VISA</Schema>
    <Txn cardholderpresent="5" cardpresent="0" cardinputmethod="V" cardauthmethod="0" cardauthentity="0"/>
    <MsgSource value="54" domesticMaestro="no"/>
    <Fee direction="credit" value="0.350000" currency="978"/>
    <FeeAmt direction="debit" value="0.00" currency="978"/>
    <FeeClass interchangeTransaction="no" type="1" code="1"/>
    <SettlementAmt value="1.8500" currency="978" rate="1.000000"/>
    <ARN>74987500259000648873528</ARN>
    <FIID/>
    <RIID/>
    <ReasonCode>1401</ReasonCode>
    <Classification MCC="7311"/>
    <Response approved="yes"/>
    <OrigTxnAmt value="1.8500" currency="978"/>
    <CCAAmount value="0.00" currency="978" included="no"/>
    <SettlementIndicator>0</SettlementIndicator>
    <Additional_Amt_DE54>0040978D00000000000000</Additional_Amt_DE54>
    <BSA/>
  </CardFinancial>
  <CardChrgBackRepRes xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <RecordType>CB</RecordType>
    <ChgbackRepresId>6468581823</ChgbackRepresId>
    <LocalDate>20200901011841</LocalDate>
    <SettlementDate>20200901</SettlementDate>
    <Card PAN="2345678901234567" product="MCRD" programid="SAMPLE1" productid="2345" branchcode=""/>
    <Account no="567890123" type="01"/>
    <TxnCode direction="debit" Type="atm" Group="atm"/>

```

```

    <TxnAmt value="0.0000" currency="826"/>
    <CashbackAmt value="0.00" currency="826"/>
    <BillAmt value="0.00" currency="826" rate="1.000000"/>
    <ApprCode>152827</ApprCode>
    <Trace auditno="007635" origauditno="007635" Retrefno="091200007635"/>
    <MerchCode>
    </MerchCode>
    <Term code="MID7Z61" location="ROYAL BK OF SCOTLAND" street="TESCO OAK VALE EXP" city="OAKLEY VALE" country="GB" input-
capability="5" authcapability="1"/>
    <Schema>MCRD</Schema>
    <Txn cardholderpresent="0" cardpresent="1" cardinputmethod="5" cardauthmethod="1" cardauthentity="3" TVR="0"/>
    <MsgSource value="67" domesticMaestro="no"/>
    <Repeat>1</Repeat>
    <SettlementAmt value="0.00" currency="826" rate="1.000000" date="20200915"/>
    <Fee direction="debit" value="0.0000" currency="826"/>
    <ARN>85433250256007635076354</ARN>
    <FIID>003325</FIID>
    <RIID>017962</RIID>
    <ReasonCode>4834</ReasonCode>
    <Classification MCC=""/>
    <OrigTxnAmt value="30.0000" currency="826"/>
    <PartialReversal>false</PartialReversal>
    <SettlementCycle>
    </SettlementCycle>
    <ReconciliationDate xsi:nil="true"/>
    <ReconciliationCycle>
    </ReconciliationCycle>
    <Usage>0</Usage>
    <Pending_Billing_Amount>5.00</Pending_Billing_Amount>
    <SettlementIndicator>0</SettlementIndicator>
    <Additional_Amt_DE54/>
    <ChargebackRefNum>9034102149</ChargebackRefNum>
  </CardChrgBackRepRes>
  <!-- Second Presentment -->
  <CardChrgBackRepRes xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <RecordType>REPRES</RecordType>
    <ChgbackRepresId>6475787598</ChgbackRepresId>
    <LocalDate>20200918005649</LocalDate>
    <SettlementDate>20200918</SettlementDate>
    <Card PAN="3456789012345678" product="MCRD" programid="SAMPLE2" productid="123" branchcode=""/>
    <Account no="678901234" type="01"/>
    <TxnCode direction="debit" Type="pos" Group="pos"/>
    <TxnAmt value="336.8600" currency="840"/>
    <CashbackAmt value="0.00" currency="826"/>
    <BillAmt value="260.48" currency="826" rate="0.773259"/>
    <ApprCode>172526</ApprCode>
    <Trace auditno="" origauditno="" Retrefno=""
    </MerchCode>002401002167
    <Term code="60019389" location="BANGKOK AIRWAYS" street="99 M.14 VIPHAWADEE-RANGSIT
RD." city="BANGKOK" country="TH" inputcapability="0" authcapability="12"/>
    <Schema>MCRD</Schema>
    <Txn cardholderpresent="5" cardpresent="0" cardinputmethod="V" cardauthmethod="8" cardauthentity="8" TVR="0"/>
    <MsgSource value="67" domesticMaestro="no"/>
    <Repeat>2</Repeat>
    <SettlementAmt value="260.48" currency="826" rate="0.773259" date="20200918"/>
    <Fee direction="credit" value="5.2100" currency="826" value2="0.0000"/>
    <ARN>05444829345002900600375</ARN>
    <FIID>005698</FIID>
    <RIID>012181</RIID>
    <ReasonCode>2700</ReasonCode>
    <Classification MCC=""/>
    <OrigTxnAmt value="336.8600" currency="840"/>
    <PartialReversal>false</PartialReversal>
    <SettlementCycle>01</SettlementCycle>
    <ReconciliationDate>20200918</ReconciliationDate>
    <ReconciliationCycle>01</ReconciliationCycle>
    <Usage>S</Usage>
    <Pending_Billing_Amount>0.00</Pending_Billing_Amount>
    <SettlementIndicator>0</SettlementIndicator>
    <Additional_Amt_DE54/>
    <ChargebackRefNum/>
  </CardChrgBackRepRes>
  <!-- CardFee matches CardFinancial -->
  <CardFee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <CardFeeId>1234567890</CardFeeId>
    <LocalDate>20200831000000</LocalDate>
    <SettlementDate>20200902</SettlementDate>
    <Card PAN="1234567890123456" product="MCRD" programid="SAMPLE" branchcode="00000000" productid="1234"/>
    <Account no="456789012" type="01"/>
    <TxId>123456789</TxId>
    <FeeClass interchangeTransaction="yes" type="5" code="0"/>
    <LoadUnloadId>0</LoadUnloadId>
    <Desc>Interchange Fee</Desc>
    <FeeAmt direction="debit" value="2.200000" currency="978"/>
    <Amt direction="debit" value="2.200000" currency="978"/>
    <ReasonCode>7802</ReasonCode>
  </CardFee>
  <!-- CardFee matches REPRES -->
  <CardFee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <CardFeeId>1880771152</CardFeeId>
    <LocalDate>20191210025400</LocalDate>
    <SettlementDate>20200918</SettlementDate>
    <Card PAN="3456789012345678" product="MCRD" programid="SAMPLE2" branchcode="00000000" productid="123"/>
    <Account no="678901234" type="01"/>
    <TxId>6475787598</TxId>
    <FeeClass interchangeTransaction="yes" type="4" code="0"/>
    <LoadUnloadId>0</LoadUnloadId>

```

```
<Desc>Interchange Fee</Desc>
<FeeAmt direction="credit" value="6.740000" currency="840"/>
<Amt direction="credit" value="5.210000" currency="826"/>
<ReasonCode>7802</ReasonCode>
</CardFee>
<MasterCardFee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <RecordType>FC</RecordType>
  <MastercardFeeId>1234567</MastercardFeeId>
  <MTID>1644</MTID>
  <Function_Code_024>685</Function_Code_024>
  <Conversion_Rate_Reconciliation_009>1.000000</Conversion_Rate_Reconciliation_009>
  <Additional_Data_048>
014800484020165001M0300025906200831000000190660177903720071442450037400200037800100390017D000000000000000000391017C000000000000139-
49039201800D000000000000279039301800C000000000000000000394017C00000000000139490395016D0000000000002790396017C000000000001367004000-
10000000000004010100000000020402010000000002</Additional_Data_048>
  <LocalDate>20200901004727</LocalDate>
  <SettlementDate/>
  <FeeClass interchangeTransaction="no" type="0" code="0" memberID="012345"/>
  <Desc/>
  <FeeAmt direction="debit" value="2.7900" currency="840"/>
  <Amt direction="debit" value="2.7900" currency="840"/>
  <ReasonCode>6861</ReasonCode>
  <Data_Record_072/>
  <DE93_Txn_Dest_ID>012345</DE93_Txn_Dest_ID>
  <DE94_Txn_Orig_ID/>
  <File_ID_PDS0105>T112.0012009010000001218101101 </File_ID_PDS0105>
  <FileProcessDate>20200901004727</FileProcessDate>
  <Recon date="" cycle=""/>
  <Settlement date="" cycle=""/>
</MasterCardFee>
<CardLoadUnload xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <RecordType>LOAD</RecordType>
  <LoadUnloadId>6474876238</LoadUnloadId>
  <LocalDate>20200901195810</LocalDate>
  <SettlementDate>20200901</SettlementDate>
  <Card PAN="2345678901234567" product="MCRD" programid="SAMPLE1" productid="2345" branchcode="00000000"/>
  <Account no="567890123" type="01"/>
  <MerchCode/>
  <Amount direction="credit" value="18.00" currency="826"/>
  <Desc>Transfer from Vladyslav Testes </Desc>
  <Load Source="48" Type="0" FixedFee="0.00" Rate_Fee="0.00"/>
</CardLoadUnload>
<ApprovedAgencyBanking xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CashType>RCP</CashType>
  <BankingId>6467146394</BankingId>
  <SettlementDate>20200901</SettlementDate>
  <Card PAN="2345678901234567" productid="2345" product="MCRD" programid="SAMPLE1" branchcode=""/>
  <AgencyAccount no="567890123" type="01" sortcode="040083" bankacc="01234567" name="FRANK TESTES"/>
  <External sortcode="110150" bankacc="12345678" name="M Sample"/>
  <CashCode direction="credit" CashType="fpy" CashGroup="rcp"/>
  <Desc> </Desc>
  <CashAmt value="315.00" currency="826"/>
  <Fee direction="credit" value="1.50" currency="826"/>
  <BillAmt value="315.00" currency="826" rate="0"/>
</ApprovedAgencyBanking>
<DeclinedAgencyBanking xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CashType>RCP</CashType>
  <BankingId>6468106650</BankingId>
  <SettlementDate>20200901</SettlementDate>
  <Card PAN="2345678901234567" productid="1234" product="MCRD" programid="SAMPLE1" branchcode=""/>
  <AgencyAccount no="77665544" type="01" sortcode="040083" bankacc="03344556" name="DUMITRU TESTER"/>
  <External sortcode="201147" bankacc="22334455" name="HMRC SA"/>
  <CashCode direction="credit" CashType="bac" CashGroup="rcp"/>
  <Desc> </Desc>
  <CashAmt value="4296.00" currency="826"/>
  <DeclineReason>03</DeclineReason>
</DeclinedAgencyBanking>
<AgencyBankingFee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <BankingFeeId>95010465</BankingFeeId>
  <SettlementDate>20200901</SettlementDate>
  <Card PAN="2345678901234567" productid="1234" product="MCRD" programid="SAMPLE1" branchcode=""/>
  <AgencyAccount no="11223344" type="01" sortcode="040083" bankacc="01234567" name="FRANK PERSON"/>
  <AbId>6467146394</AbId>
  <Desc>PT:FPIN : ;SC:110150;Acc:11884567;Name:M Sample;Ref:Payment from M Sample:
MONEY </Desc>
  <Amt direction="debit" value="1.50" currency="826"/>
</AgencyBankingFee>
<CardBalAdjust xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <LocalDate>20200901085036</LocalDate>
  <AdjustId>6470167587</AdjustId>
  <SettlementDate>20200901</SettlementDate>
  <Card PAN="2345678901234567" product="MCRD" programid="SAMPLE1" branchcode="00000000" productid="2345"/>
  <Account no="567890123" type="01"/>
  <Amount direction="credit" value="165.40" currency="826"/>
  <MerchCode/>
  <Desc>ADJ - Cheque</Desc>
  <AdjustType>Actual</AdjustType>
</CardBalAdjust>
<CardEvent xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Card PAN="2345678901234567" productid="2345"/>
  <Event Type="Lost" Source="0" ActivationDate="" ConvertedDate="" StatCode="41" OldStatCode="00" Date="20200901192324"/>
</CardEvent>
<CardEvent xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Card PAN="2345678901234567" productid="2345"/>
```

```

    <Event
Type="StatusChange" Source="0" ActivationDate="" ConvertedDate="" StatCode="00" OldStatCode="57" Date="20200901190835"/>
    </CardEvent>
    <!--FXConversion record for the above CardAuthorisation (AuthId=6459161819)-->
    <FXConversion xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <TransactionId>6459161819</TransactionId>
        <WalletTransactionId>278654</WalletTransactionId>
        <BookingType>A</BookingType>
        <BookingStatus>B</BookingStatus>
        <FXRateBooked>1.10</FXRateBooked>
        <ProviderCode>CCI</ProviderCode>
        <FixedAmountFlag>S</FixedAmountFlag>
        <SettlementDate>2020-09-02T13:00:00</SettlementDate>
        <SourceCurrency>826</SourceCurrency>
        <DestinationCurrency>978</DestinationCurrency>
    </FXConversion>
    <!-- Wallet Transaction records for the above CardAuthorisation (AuthId=6459161819), showing movement of funds and then
authorisation-->
    <WalletTransaction xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <WalletTransactionId>278654</WalletTransactionId>
        <TransactionId>6459161819</TransactionId>
        <SequenceNumber>1</SequenceNumber>
        <OperationType>6</OperationType>
        <Source walletId="836" basecurrency="826" balancechange="-10.00" blockchange="0.00" newbalance="90.00" newblock="0.00"/>
        <Destination walletid="1017" balancechange="11.00" blockchange="0.00" newbalance="22.00" newblock="0.00"/>
        <Other amount="" currency=""/>
        <FXRate>1.10</FXRate>
    </WalletTransaction>
    <WalletTransaction xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <WalletTransactionId>278655</WalletTransactionId>
        <TransactionId>6459161819</TransactionId>
        <SequenceNumber>2</SequenceNumber>
        <OperationType>1</OperationType>
        <Source
walletId="1017" basecurrency="978" balancechange="0.00" blockchange="22.00" newbalance="22.00" newblock="22.00"/>
        <Destination walletid="" balancechange="" blockchange="" newbalance="" newblock=""/>
        <Other amount="22.00" currency="978"/>
        <FXRate>1.00</FXRate>
    </WalletTransaction>
    <!--Stand-alone, unrelated WalletTransaction record representng the opening of a new wallet-->
    <WalletTransaction xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <WalletTransactionId>278658</WalletTransactionId>
        <TransactionId>8765432101</TransactionId>
        <SequenceNumber>1</SequenceNumber>
        <OperationType>10</OperationType>
        <Source walletId="17836" basecurrency="826" balancechange="0.00" blockchange="0.00" newbalance="0.00" newblock="0.00"/>
        <Destination walletid="" balancechange="" blockchange="" newbalance="" newblock=""/>
        <Other amount="0.00" currency="764"/>
        <FXRate>1.00</FXRate>
    </WalletTransaction>
</Transactions>

```

4.11 Transaction XML Schema

Below is a copy of the latest GPS transaction XML schema.

```
<?xml version="1.0" encoding="US-ASCII"?>
<xs:schema
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeFormDefault="unqualified" elementFormDefault="qualified" version="0.4">
  <xs:complexType name="BasicAmount">
    <xs:attribute name="value" type="xs:decimal" use="required"/>
    <xs:attribute name="value2" type="xs:decimal" use="optional"/>
    <xs:attribute name="currency" type="ISOCurrencyCode" use="required"/>
  </xs:complexType>
  <xs:complexType name="RateAmount">
    <xs:complexContent>
      <xs:extension base="BasicAmount">
        <xs:attribute name="rate" type="Rate" use="required"/>
        <xs:attribute name="clientfxrate" type="Rate" use="optional"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="ConversionRateAmount">
    <xs:complexContent>
      <xs:extension base="BasicAmount">
        <xs:attribute name="rate" type="ConversionRate" use="required"/>
        <xs:attribute name="clientfxrate" type="Rate" use="optional"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="DirectionAmount">
    <xs:complexContent>
      <xs:extension base="BasicAmount">
        <xs:attribute name="direction" type="Direction" use="required"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="PartialAmount">
    <xs:complexContent>
      <xs:extension base="BasicAmount">
        <xs:attribute name="partial" type="YesNoString" use="optional"/>
        <xs:attribute name="origItemId" type="xs:unsignedInt" use="optional"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="SettlementAmt">
    <xs:attribute name="value" type="xs:decimal" use="required"/>
    <xs:attribute name="currency" type="ISOCurrencyCode" use="required"/>
    <xs:attribute name="rate" type="Rate" use="required"/>
    <xs:attribute name="date" use="optional">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="8"/>
          <xs:pattern value="([2-9]\d{3}((0[1-9]|1[012])(0[1-9]|1\d|2[0-8])|(0[13456789]|1[012])(29|30)|(0[13578]|1[02])31)|((([2-9]\d)(0[48]|([2468][048]|([13579][26])|((([2468][048]|([3579][26])00))0229))0229)))/>
        </xs:restriction>
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    </xs:attribute>
  </xs:complexType>
  <xs:complexType name="ConversionSettlementAmt">
    <xs:attribute name="value" type="xs:decimal" use="required"/>
    <xs:attribute name="currency" type="ISOCurrencyCode" use="required"/>
    <xs:attribute name="rate" type="ConversionRate" use="required"/>
    <xs:attribute name="date" use="optional">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="8"/>
          <xs:pattern value="([2-9]\d{3}((0[1-9]|1[012])(0[1-9]|1\d|2[0-8])|(0[13456789]|1[012])(29|30)|(0[13578]|1[02])31)|((([2-9]\d)(0[48]|([2468][048]|([13579][26])|((([2468][048]|([3579][26])00))0229))0229)))/>
        </xs:restriction>
      </xs:simpleType>
    </xs:attribute>
  </xs:complexType>
  <xs:complexType name="CCAAmount">
    <xs:complexContent>
      <xs:extension base="BasicAmount">
        <xs:attribute name="included" type="YesNoString" use="required"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="FeeClass">
    <xs:attribute name="interchangeTransaction" type="YesNoString" use="required"/>
    <xs:attribute name="type" use="required">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="0"/>
          <xs:enumeration value="1"/>
          <xs:enumeration value="2"/>
          <xs:enumeration value="4"/>
          <xs:enumeration value="5"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:attribute>
  </xs:complexType>
```

```

<xs:attribute name="code" use="required">
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      <xs:enumeration value="1"/>
      <xs:enumeration value="1000"/>
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  </xs:attribute>
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  <xs:attribute name="responsecode" type="xs:string" use="optional"/>
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```

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        <xs:enumeration value="W"/>
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  </xs:attribute>

```

```

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```

```

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                <xs:enumeration value="atm"/>
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                <xs:enumeration value="fee"/>
                <xs:enumeration value="tfr"/>
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```

```

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```

```

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[illegible]

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    <xs:enumeration value="ET" />
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```

[illegible]

```

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    </xs:restriction>
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                <xs:maxLength value="8"/>
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```

```

        </xs:restriction>
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            (([2-9]\d)(0[48]|([2468][048]|([13579][26])|((([2468][048]|([3579][26])00))0229))0229)"/>
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  <xs:attribute name="type" type="xs:string" use="required"/>
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      <xs:element name="CashCode" type="ABCashCode" minOccurs="1" maxOccurs="1" nillable="true"/>
      <xs:element name="Desc" type="Desc" minOccurs="1" maxOccurs="1" nillable="true"/>
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      <xs:element name="Fee" type="DirectionAmount" minOccurs="1" maxOccurs="1" nillable="true"/>
      <xs:element name="BillAmt" type="RateAmount" minOccurs="1" maxOccurs="1" nillable="false"/>
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            </xs:restriction>
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                        </xs:simpleType>
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            </xs:element>
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        <xs:element name = "Other" type = "WalletTransactionOther" minOccurs="0" maxOccurs="1" nillable="true"/>
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</xs:schema>
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4.11.1 Schema Changes

Refer to the list of changes below.

Version	Description
V.1.44.1	In the <i>AgencyAccount</i> element, the <i>sortcode</i> and <i>bankacc</i> attributes have been updated to support alphanumeric characters.
V.1.44	Added new element : <i>WalletTransaction</i> Added new element : <i>FXConversion</i>
v1.43.1	Changed the type of <i>AuthTxnID</i> from <i>unsignedint</i> to <i>unsignedlong</i> . Added the two-digit country code SS (South Sudan) to the <i>ISOCountryCode</i> list. For some elements, the <i>Desc</i> element is set to <i>nillable="true"</i> .
V1.43	Added a new <i>transactionid</i> attribute to the <i>CardEvent</i> / <i>Event</i> element. Updated <i>MaxLength</i> of <i>DE94_Txn_Orig_ID</i> Element to 13 to match <i>MaxLength</i> in <i>VisaCollection</i> table.
V1.42	Added a new element: <i>LocalDateUTC</i> to <i>CardAuthorisation</i> and <i>CardFinancial</i> primary elements.
V1.41	Added new element : <i>PaymentToken</i> to <i>CardAuthorisation</i> and <i>CardFinancial</i> primary elements. Updated list of ISO currency codes.
V1.40	Changed <i>CardFinancial/BillAmt@Rate</i> and <i>CardFinancialSettlementAmt/@Rate</i> to support 9 decimal places.
V1.39	Added new element : <i>FXConv</i> to <i>CardAuthorisation</i> and <i>CardFinancial</i> primary elements.
V1.38	Added new elements : <i>Sender</i> and <i>Reciever</i> .
V1.37	Added new element - <i>RecordType</i> . Increased length of affected <i>MastercardFee</i> elements
V1.36	Added new element - <i>BSA</i> . Updated <i>cardauth</i> method and <i>cardauthentity</i>
V1.35	<i>ProductID</i> can be 5 digits long
V1.34	Removed <i>IssuerReferenceNumber</i> element. Added <i>ChargebackRefNum</i> element
V1.33.1	Banking File element not mandatory
V1.33	DEV_REPORTING-422. Added <i>IssuerReferenceNumber</i> element
V1.32	DEV_REPORTING-413. Added <i>value2</i> attribute
V1.31	DEV_REPORTING-396. Added one more <i>ISOCurrencyCode</i> - 929. Added two new <i>ABDeclineReason</i> - 00,9. <i>Abld</i> changed from <i>Int</i> to <i>Long</i> . Removing <i>ProductID</i> from <i>MastercardFee</i>
V1.30	DEV_REPORTING-327. Added <i>Additional_Amt_DE54</i> in <i>Financial</i> and <i>Chargebacks</i> . DEV_WEBSERVICES-302. Multiple patterns in a <i>Restriction</i> was found not to validate when checking online XML validators. Substituted with <i>\s*</i> in regular expression.
V1.29	DEV_REPORTING-350. Included <i>ProductID</i> in <i>MastercardFee</i> . Increased length of <i>Additional_Data_048</i> in <i>MastercardFee</i> . <i>Settlementdate</i> can be blank in <i>Mastercardfee</i> . <i>Recon Date</i> can be blank in <i>Mastercardfee</i> . <i>Settlement Date</i> can be blank in <i>Mastercardfee</i>
V1.28	DEV_REPORTING-350. Corrected <i>SettlementIndicator</i> in <i>Fin</i> and <i>Chargeback</i> . Corrected <i>MerchCode</i> in <i>Auth</i> and <i>Chargeback</i> . Added <i>recon</i> in <i>Cardfee</i> . Added <i>CardChrgBackRepRes Account</i> type 02. Added <i>Currency</i> 928. Added <i>Nullable AuthID</i> in <i>CardFinancial</i> . Made <i>CardChrgBackRepRes FIID</i> and <i>RIID</i> optional. Changed sequence location of <i>CardChrgBackRepRes SettlementIndicator</i> . Corrected <i>CardBalAdjust AdjustId</i> sequence and removed <i>Rectype</i> .
V1.27	DEV_REPORTING-343. Added <i>SettlementCycle</i> , <i>ReconciliationDate</i> , <i>ReconciliationCycle</i> , <i>Usage</i> and <i>Pending_Billing_Amount</i> .
V1.25	DEV_REPORTING-154. Added <i>SettlementIndicator</i> .
V1.24	DEV_REPORTING-318. Updated <i>CardFinancial AuthId</i>
V1.23	DEV_REPORTING-319. Updated <i>cardholderpresent</i> and <i>cardpresent</i>
V1.22	DEV_REPORTING-142. Updated <i>inputcapability</i> , <i>authcapability</i> , <i>cardholderpresent</i> , <i>cardpresent</i> , <i>cardinputmethod</i> , <i>cardauthmethod</i> and <i>cardauthentity</i> .
V1.18	DEV_MT_API-1520. Removed <i>Programid</i> attribute. Changed <i>MarchCode</i> to 30 length. Changed <i>Desc</i> to 500 length

Version	Description
V1.11	Removed reference to ResponseFinancial element (DEV_MT_API-537)

Document History

This section provides details of what has changed since the previous document release.

Version	Date	Reason	Who
2.09	01/09/2022	Updated CardEvent to reflect report handling for CardEvent records that exceed 2GB in size. See GPSPRN-120.	MW
	27/07/2022	In the AgencyAccount element, the <i>sortcode</i> and <i>bankacc</i> attributes have been updated to support alpha-numeric characters. See GPSPRN-118. In the CashCode element, the <i>CashType</i> attribute has been updated to include <i>CHAPS</i> . See GPSPRN-117.	WS
	05/07/2022	Updates made to Introduction (QMR section) and Transactional Data Files (Sending of Files section).	JB
2.08	09/05/2022	Added a link to the Downloads page on the Developer Portal, where you can view and download upcoming/future schema versions.	WS
	06/04/2022	New WalletTransaction element added to the transaction XML. See GPSPRN-100. In XSD schema file, changed the type of <i>AuthTxnID</i> from <i>unsignedint</i> to <i>unsignedlong</i> ; Added the two-digit country code SS (South Sudan) to the <i>ISOCountryCode</i> list. See Transaction XML Schema . See GPSPRN-111. For MasterCardFee, ApprovedAgencyBanking, DeclinedAgencyBanking and DeclinedAgencyBanking, the Desc element can be empty (nillable="true"). See GPSPRN-110. Correction: the FeeClass type of 0 is a legacy option which will never appear in a transaction XML record and reference to it has been removed from the guide. Updated the description of FeeAmt in the Card Fee element.	WS
2.07	16/03/2022	Processing Code (<i>ProcCode</i>) = 39 is now used to identify an Account Verification transaction. See the TxnCode field in the <i>CardAuthorisation</i> element. See GPSPRN-102. Clarified that the fee amount (FeeAmt) in the CardFinancial record is the sum total of any rate fee and fixed fee applied to the transaction.	WS
2.06	04/02/2022	Removed reference to the <i>ResponseFinancial</i> element in the XML Schema .	WS
	04/01/2022	The <i>ReportedToSAFE</i> event type has been added to the transaction XML Schema file.	WS
	13/12/2021	The RecordType element has been updated to include a new Visa Fee Collection (VFC) value, and the <DE94_Txn_Orig_ID> element maximum length has increased from 6 to 13. See GPSPRN-85.	AL
2.05	19/10/2021	The CardEvent primary element has been updated to include a new <i>ReportedToSAFE</i> event type; this provides a transactionid attribute to identify a SAFE reporting transaction, but will be blank for other event types. For examples, see the Event sub-element. See GPSPRN-75. FXConversion record updated with <FXRateBilled>	WS
2.0.4	04/11/2021	For a Visa purchase with Cashback, GPS now sends the value of <i>ProcCode</i> as 09 (instead of 00) and includes the cashback amount in the <i>Additional_Amt_DE54</i> field. GPS has standardised the format of the Additional_Amt_DE54 element to use the format provided by GCMS IPM / Visa Base 2, which contains only the data (a multiple of 20 characters). See GPSPRN-72.	WS
	15/10/2021	Added a new primary element FXConversion to indicate Foreign Exchange (FX) rate conversion. This contains the sub-elements BookingType and BookingStatus.	AL
2.0.3	20/08/2021 15/09/2021	Added a new field <LocalDateUTC> to CardAuthorisation and CardFinancial records. This field contains the <i>LocalDateUTC</i> data that GPS receives from Mastercard and Visa. See GPSPRN-59. Added new appendix Load Source , which provides updated details of possible values for the source of a Load or Unload request. Removed value 0 from the <i>type</i> attribute in the FeeClass element, as this value is no longer supported. Updates to Card Status Codes to include new values G1-G9. See GPSPRN-48.	WS
2.02	26/07/2021	Updates to include clarification on usage of actioncode and responsecode fields in the Response element. New <PaymentToken> field added to CardAuthorisation and CardFinancial records to help support Program Manager Apple-Pay Reporting requirements. See GPSPRN-49.	WS
2.01	16/06/2021	Updates to include clarification around transaction reporting times and cycle times. See Transactional Data Files . Information on XML reports available for issuers. See Introduction . New details of fields to use for matching transaction XML records to EHI records and matching financials to authorisations. See Transaction Matching . The BillAmt rate and the SettlementAmt rate has been updated to show 9 decimal places. See GPSPRN-	WS

Version	Date	Reason	Who
		44.	
2.0	25/04/2021	Major revamp to look and feel and organisation of the guide. Rewrite of content to simplify and make the guide easier to use. Updates to description of the <code><Amt></code> field. Added new element: FXConv in CardAuthorisation and CardFinancial primary elements. See GPSPRN-37. Change to the values of the <code>TxId</code> field in the CardFee record. See GPSPRN-41.	WS
1.41	29/12/2020	Added new elements Sender and Receiver in CardAuthorisation .	DM
1.40	24/12/2020	Added new RecordType element and other data changes in MastercardFee.	DM
1.39	08/12/2020	Added new BSA element in CardFinancial .	DM
1.38	23/10/2020 18/02/2021	Corrected value of 'Repeat' in example provided. Updated list of cardauthmethods and cardauthentity	DM IF
1.37	22/10/2020	Removed IssuerReferenceNumber, added ChargebackRefNum	DM
1.36.1	29/09/2020	Banking File data not mandatory.	DM
1.36	21/08/2020	Added new IssuerReferenceNumber element in Chargeback.	DM
1.35	19/08/2020	Added new value2 attribute in Financial and Chargeback.	DM
1.34	27/07/2020	Corrected PAN (Primary Account Number) length description.	VS
1.33	24/07/2020	DEV_REPORTING-396 changes added	DM
1.32	15/05/2020	SettlementIndicator available for MC too.	DM
1.31	06/05/2020	Added new element Additional_Amt_DE54	DM
1.30	04/05/2020	Corrected CardFianncial/AuthID description	DM
1.29	09/04/2020	Added new element SettlementIndicator	DM
1.28	09/04/2020	Added recon field in CardFee, productid in MasterCardFee.	DM
1.27	25/03/2020	New 5 fields added in Chargeback section: SettlementCycle, ReconciliationDate, ReconciliationCycle, Usage and Pending_Billing_Amount	DM
1.26	02/03/2020	Some fields in MasterCardFee that shows Chargeback data can be blank. Updated those details in this revision.	DM
1.25	17/12/2019	Updated inputcapability, authcapability, cardholderpresent, cardpresent, cardinputmethod, cardauthmethod and cardauthentity.	DM
1.24	5/11/2019	Updated Function_Code_024 of MastercardFee	DM
1.23	24/10/2019	Updated datatypes for AuthID, AdjustId, ChgbackRepresId, CardFeeld, TxId, FinID and LoadUnloadId, BankingId	HC
1.22	23/11/2018	Documented Agency Banking-related elements and attributes. Formatting.	IF
1.21	19/10/2018	Clarified Mastercard-only elements CCAAmount and SettlementAmount	IF
1.20	19/09/2018	Added 4.2.59 - AdjustType	DM
1.19	31/05/2018	Added 4.2.58 - SchemeSettlementDate	SN
1.18	16/04/2018	Updated 4.1.4 - CardFeeld description	IF
1.17	06/03/2018	Updated 3.1.2 - Reporting Content.	IF
1.16	27/02/2018	Removed RCC attribute from Classification. Altered proccode attribute in TxnCode	SM
1.15	26/09/2017	Updated the Account attribute "no" description Many different elements added to the MasterCard Fee section so that it matches the current file output. Added Recon, Settlement, PDS0105, and FunctionCode sub elements for the MasterCard Fee change above.	SM IF

Version	Date	Reason	Who
		Changed description of CardFee TxId element.	
1.14	16/08/2017	Added new Fee Class Code value 1. Updated permitted values of Fee Class element "type" and "code" attributes for Card Financials. Corrected the schedule to daily not Mon - Fri	SM SM
1.11	21/07/2016	Case of XML Element "Account", attributes "No" and "Type" changed to "no" and "type", in all recordtypes ("CardAuthorisation", "CardFinancial" etc..) Case of XML Element "Response", attributes "Approved", "ActionCode", "Responsecode" and "AdditionalDesc" are changed to: "approved", "actioncode", "responsecode" and "additionaldesc" respectively, in the "CardAuthorisation" record only. Removed ResponseFinancial element description Documented memberID attribute of FeeClass Added CCAAmount to CardFinancial	IF
1.10	26/05/2016	Changed Max Length of CardLoadUnload.MerchCode from 15 to 30.	IF
1.09	28/04/2016	Various minor corrections	IF
1.08	19/10/2015	Documented Mastercard.FeeClass element, including new membered sub-element	IF
1.07	01/06/2014	Updated description of CardFee TxId	IF
1.06	01/03/2014	Added new CardFee FeeClass Code value 6000	IF
1.05	05/04/2013	Clarified use of CardEvent Type element Added VisaCard to Account Element Clarified requirement of actioncode, responsecode and AdditionalDesc attributes of Response element. Clarified Load Type attribute	IF
1.04	22/03/2013	Amended data type of Load Type element	IF
1.03	15/03/2013	Updated SettlementDate definition in CardChrgBackRepRes	IF
1.02	14/03/2013	Moved LoadUnloadId in CardFee. Added CardEvent documentation. Changed ProgramID definition.	IF
1.01	13/03/2013	Added CycleNumber, FeeAmt, FeeClass to CardFinancial Element.	IF
1.00	12/10/2012	First draft	IF

General FAQs

This section provides answers to frequently asked questions.

XML Reports

What type of XML reports does GPS provide?

GPS provides the following reports to Program Managers:

- Transaction XML report
- Balance XML report

Note:

For Issuers and Self-Issuers, GPS provides two additional reports:

- Fee Collection Report
- Quarterly Management Report (QMR)

For details, please contact your implementation manager or account manager.

Can I configure the details provided in each report?

No, the GPS reports are standard. If you require bespoke reports, please speak to your account manager.

How often are reports provided? Can I change this?

The GPS reports are provided daily. If you require a bespoke report frequency, please speak to your account manager.

For more frequent transaction information, we recommend you use the External Host Interface (EHI) which provides transaction reporting in real-time.

How are reports provided to customers?

The daily XML reports are provided via sFTP. This is on a push only basis.

How often do you change the fields in the report?

GPS will add new fields to the report in line with updates from the card schemes (Visa and Mastercard) or to reflect other changes relevant to the payments industry or our service.

When we make changes to the XML reports, we will update the technical documentation and notify you of the change.

Are reports encrypted?

Yes. Reports are encrypted using the PGP standard.

How do I identify the version of the XML report?

The XML schema version is listed in the comments section of the schema, together with details of what has changed. See [Transaction XML Schema](#). We currently do not provide the XML version within the XML report.

How large is a typical report?

This is based on the number of your transactions and can be anything from 1Kb to 2GB. We will split up anything larger than 2GB into smaller files: eg., *filename.001*, *filename.002* and so on.

Do you store reports and if so, for how long?

Reports are stored for up to 2 calendar days on the sFTP server, after which they are deleted from the sFTP server. We keep an archive of historical files for a limited period. For access to historical files, please raise a JIRA request.

How can I use the XML reports?

You can use them to do the following:

- Update to your transactions database
- For transaction reconciliation purposes

Contact Us

Please contact us if you have queries relating to this document. Our contact details are provided below.

Global Processing Services Ltd.
Support Email: ops24@globalprocessing.com
Support Phone: +442037409682

GPS Offices

UK Central Office	Singapore	Australia	Dubai, UAE
6th Floor, Victoria House	Republic Plaza	Stone & Chalk	EO 10, Ground Floor,
Bloomsbury Square	9 Raffles Place	Level 4, 11 York Street	Building 1
London	Singapore	Wynyard Green	Dubai Internet City
WC1B 4DA	048619	Sydney, NSW, 2000	Dubai, United Arab Emirates

Technical Publications

If you want to contact our technical publications team directly, for queries or feedback related to this guide, you can email us at: docs@globalprocessing.com.

Glossary

This page provides a list of glossary terms used in this guide.

A

Account Verification

A type of authorisation transaction which is intended to confirm that the account is genuine and active. Account Verifications are always for a zero amount, so only appear in Authorisation messages and never in clearing messages.

Acquirer

The merchant acquirer or bank that offers the merchant a trading account, to enable the merchant to take payments in store or online from cardholders.

Authentication

This includes checks to confirm the cardholder identity, such as PIN, CVV2 and CAVV.

Authorisation

Stage where a merchant requests approval for a card payment by sending a request to the card issuer to check that the card is valid, and that the requested authorisation amount is available on the card. At this stage the funds are not deducted from the card.

C

Card Scheme

Card network, such as MasterCard or Visa, responsible for managing transactions over the network and for arbitration of any disputes.

Chargeback

Where a cardholder disputes a transaction on their account and is unable to resolve directly with the merchant, they can raise a chargeback with their card issuer. The chargeback must be for a legitimate reason, such as goods and services not received, faulty goods, or a fraudulent transaction.

Clearing File/Clearing Transaction

GPS receive batch clearing files from the card networks, containing clearing transactions, such as presentments and network fees. The card issuer transfers the requested settlement amount to the acquirer and 'clears' the amount on the card, reducing the available card balance accordingly.

CurrencyCloud

CurrencyCloud is a multicurrency Foreign exchange (FX) service used by GPS for currency conversions. The service is expected to go live in Q4 2021.

E

External Host Interface (EHI)

The External Host Interface provides a facility to enable exchange of data between GPS and external systems via our web services. All transaction data processed by GPS is transferred to the External Host side via EHI in real time. For certain types of transactions, such as Authorisations, the External Host can participate in payment transaction authorisation.

I

ICA

The Interbank Card Association Number (ICA) is a five-digit number assigned by MasterCard to a financial institution, third-party processor or other member to identify the member in the transaction.

Issuer

The card issuer, typically a financial organisation authorised to issue cards. The issuer has a direct relationship with the relevant card scheme.

M

Mastercard clearing cycle

Mastercard provides 6-8 clearing updates during each day, with details of financial transactions that are due for settlement.

Merchant

The shop or store providing a product or service that the cardholder is purchasing. A merchant must have a merchant account, provided by their acquirer, in order to trade. Physical stores use a terminal or card reader to request authorisation for transactions. Online sites provide an online shopping basket and use a payment service provider to process their payments.

Merchant Category Code (MCC)

A unique identifier of the merchant, to identify the type of account provided to them by their acquirer.

P**PGP**

Pretty Good Privacy (PGP) is an encryption system used for both sending encrypted emails and encrypting sensitive files.

Presentments

Stage in a transaction where the funds authorised on a card are captured (deducted from the cardholder's account). Also known as Clearing.

Program Manager

A GPS customer who manages a card program. The program manager can create branded cards, load funds and provide other card or banking services to their end customers.

R**reconciliation cycle**

GPS receive six cycles of settlement data from Mastercard.

reconciliation date

The system processing date associated with the settlement of funds, as provided by Mastercard.

S**SAFE Reporting**

You can report fraudulent transactions to Mastercard by creating a new fraud event in Mastercom, using their SAFE reporting facility (now referred to as the Mastercard Fraud and Loss Database).

sFTP

Secure File Transfer Protocol. File Transfer Protocol (FTP) is a popular unencrypted method of transferring files between two remote systems. SFTP (SSH File Transfer Protocol, or Secure File Transfer Protocol) is a separate protocol packaged with SSH that works in a similar way but over a secure connection.

Smart Client

Smart Client is GPS's user interface for managing your account on the GPS Apex system. It is also called Smart Processor GPS. Smart Client is installed as a desktop application and requires a VPN connection to GPS systems in order to be able to access your account.

SSL Certification

An SSL certificate displays important information for verifying the owner of a website and encrypting web traffic with SSL/TLS, including the public key, the issuer of the certificate, and the associated subdomains.

T**TLS**

Transport Layer Security (TLS) is a security protocol that provides privacy and data integrity for Internet communications. Implementing TLS is a standard practice for building secure web apps.

U**UTC**

Coordinated Universal Time or UTC is the primary time standard by which the world regulates clocks and time.