MAGENSA™
A MAGTEK COMPANY

Magensa Payment Protection Gateway

MPPGv4.0
Programmer's Reference Manual

October 2020

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Table 0-1 - Revisions

Rev Number	Date	Notes
10		Initial Release
20	Oct 2020	Updated

Table of Contents

1   Introduction

The purpose of this document is to describe the various operations available in MPPG v4 and their required or optional input & output parameters. It also provides sample SOAP request & response as reference for client developers.

MPPGv4 enables clients to easily integrate encrypted & secure payment data from MagTek devices into their payment applications. This helps mitigate the risks associated with transmission of PCI-sensitive payment data to third-party (or 'target') service providers.

Clients call specific MPPGv4 operations (based on payment mode e.g. card-swipe, EMV, manual entry, reference-id, token etc.) with corresponding encrypted & secure payment data and transaction information. The service, upon successful authentication of the client credentials, decrypts the payment data, builds the transaction request, sends it to the third-party service provider, parses the response and returns the results of the operation to the client. Please check if your payment processor is supported by MPPGv4 as a third-party service provider.

For SALE and AUTHORIZE transactions, Partial Authorization is set to TRUE. This will cause the card issuing bank to authorize up to the amount remaining in the cardholder's account, even if this is less than the amount requested. The remainder must be collected by another means. Therefore, it is important to always check "Authorized Amount" in the output. It may be less than "Amount" requested in the input. For more information regarding the behavior of Partial Authorization or to disable it, please contact support@magensa.net.

All transaction-related information should be provided in the TransactionInput element. And any information other than processor name, transaction type and amount should be provided as key-value pair elements in TransactionInputDetails. The building of transaction requests is template-driven through use of tags and therefore if the payment processor requires this data, the client will have to provide key-value pairs such as key = "LocalDateTime", value = "2017-05-11 12:00:00Z". MPPGv4 will replace the key-tag of "LocalDateTime" in the template with the value provided as part of building the request. Please consult your payment processor API for the correct key string-literals.

A unique, new feature introduced in MPPGv4 is the ability to send a "batch" of requests in a single call to the service. As a result, all MPPGv4 service operations take in an array of requests and return an array of responses. The service processes these input requests serially and a specific index/element of response corresponds to the specific index/element of request. All responses have an MPPGv4WSFault element and in the case of an error or exception raised for that particular request, the details will be available in the corresponding MPPGv4Fault element. When successful, the value of this MPPGv4WSFault element will be null.

In order for Magensa to call the third-party service provider, consideration must be given to the following:

    a.   Whether Magensa's IP addresses and domain names must be whitelisted with the third-party

    b.   Whether client and/or server-side certificates are required.

2 MPPGv4 Operations

2.1 GetProcessorReport

2.1.1 INPUT PROPERTIES

Property(*)	Value	Description
AdditionalRequestData	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request.
Amount *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API
CustomerCode *	String	Customer code for credential assigned by Magensa
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference
Password *	String	Password for credential assigned by Magensa
ProcessorName *	String	Magensa assigned name for third-party service provider
TransactionInputDetails	Array of key / value	Contains transaction information required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionType *	String	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND
Username *	String	Username for credential assigned by Magensa

Note: * = Required

2.1.2 OUTPUT PROPERTIES

Property	Value	Description
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
AVSResult	String	Address Verification System result from target service provider.
CustomerTransactionID	String	Client-assigned transaction ID from input.
CVVResult	String	Card Verification Value result from target service provider.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 2 from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
MagTranID	String	Transaction ID (GUID) from Magensa.
MPPGv4WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	Token if target service provider is Magensa's Token web service.
TransactionID	String	Transaction ID from target service provider.
TransactionMessage	String	Transaction Message from target service provider.
TransactionOutputDetails	Array of key / value	Contains additional output data returned by the target service provider. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionStatus	String	Transaction status from target service provider.
TransactionUTCTimestamp	String	Transaction timestamp from Magensa.

GetProcessorReport Request:

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mpp="http://www.magensa.net/MPPGv4/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
    <soapenv:Header/>
    <soapenv:Body>
        <mpp:GetProcessorReport>
            <!--Optional:-->
            <mpp:GetProcessorReportRequests>
                <!--Zero or more repetitions:-->
                <mpp1:GetProcessorReportRequest>
                    <!--Optional:-->
                    <mpp1:AdditionalRequestData>
                        <!--Zero or more repetitions:-->
                        <sys:KeyValuePairOfstringstring>
                            <sys:key>?</sys:key>
                            <sys:value>?</sys:value>
                        </sys:KeyValuePairOfstringstring>
                    </mpp1:AdditionalRequestData>
                    <mpp1:Authentication>
                        <mpp1:CustomerCode>customercode</mpp1:CustomerCode>
                         <mpp1:Password>password</mpp1:Password>
                         <mpp1:Username>username</mpp1:Username>
                    </mpp1:Authentication>
                    <!--Optional:-->
                  <mpp1:CustomerTransactionID></mpp1:CustomerTransactionID>
                    <mpp1:TransactionInput>
                        <!--Optional:-->
                        <mpp1:Amount>4</mpp1:Amount>
                        <mpp1:ProcessorName>VantivExpress - Pilot
Reporting</mpp1:ProcessorName>
                        <!--Optional:-->
                        <mpp1:TransactionInputDetails>
                            <!--Zero or more repetitions:-->
                            <sys:KeyValuePairOfstringstring>
                                <sys:key>TransactionID</sys:key>
                                <sys:value>63158467</sys:value>
                            </sys:KeyValuePairOfstringstring>
                        </mpp1:TransactionInputDetails>
                        <mpp1:TransactionType>REPORT</mpp1:TransactionType>
                    </mpp1:TransactionInput>
                </mpp1:GetProcessorReportRequest>
            </mpp:GetProcessorReportRequests>
        </mpp:GetProcessorReport>
    </soapenv:Body>
</soapenv:Envelope>
```

GetProcessorReport Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
   <s:Body>
      <GetProcessorReportResponse
xmlns="http://www.magensa.net/MPPGv4/">
         <GetProcessorReportResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <a:GetProcessorReportResponse>
               <a:CustomerTransactionID/>
               <a:MPPGv4WSFault i:nil="true"/>
               <a:MagTranID>088d8138-6e31-455b-88af-
4a808601abf8</a:MagTranID>
               <a:TransactionOutput>
                  <a:AVSResult i:nil="true"/>
                  <a:AuthCode>099649</a:AuthCode>
                  <a:AuthorizedAmount>4.00</a:AuthorizedAmount>
                  <a:CVVResult i:nil="true"/>

<a:IsTransactionApproved>true</a:IsTransactionApproved>
                  <a:IssuerAuthenticationData i:nil="true"/>
                  <a:IssuerScriptTemplate1 i:nil="true"/>
                  <a:IssuerScriptTemplate2 i:nil="true"/>
                  <a:Token i:nil="true"/>
                  <a:TransactionID>63158467</a:TransactionID>

<a:TransactionMessage>Approved</a:TransactionMessage>
                  <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                     <b:KeyValuePairOfstringstring>
                        <b:key>ProcessorResponse</b:key>
                        <b:value><![CDATA[HTTP/1.1 200 OKConnection:
keep-alive
Strict-Transport-Security: max-age=15768000 ; includeSubDomains,max-
age=15768000 ; includeSubDomains
Content-Length: 2175
Cache-Control: private
Content-Type: text/xml; charset=utf-8
Date: Wed, 14 Oct 2020 10:22:54 GMT
Server: Microsoft-IIS/10.0
X-AspNet-Version: 4.0.30319
X-Powered-By: ASP.NET

&<TransactionQueryResponse
xmlns='https://reporting.elementexpress.com'><Response><ExpressRespons
eCode>0</ExpressResponseCode><ExpressResponseMessage>Success</ExpressR
esponseMessage><ExpressTransactionDate>20201014</ExpressTransactionDat
e><ExpressTransactionTime>052254</ExpressTransactionTime><ExpressTrans
actionTimezone>UTC-
05:00:00</ExpressTransactionTimezone><ReportingData><Items><Item><Tran
```

```
sactionID>63158467</TransactionID><AcceptorID>4445022937078</AcceptorI
D><AccountID>Accountid</AccountID><Name>VANTIV TEST EMV 160 -
Magensa</Name><TerminalID>0001</TerminalID><ApplicationID>8155</Applic
ationID><ApprovalNumber>099649</ApprovalNumber><ApprovedAmount>4.00</A
pprovedAmount><ExpirationMonth>04</ExpirationMonth><ExpirationYear>16<
/ExpirationYear><ExpressResponseCode>0</ExpressResponseCode><ExpressRe
sponseMessage>Approved</ExpressResponseMessage><HostBatchID>741</HostB
atchID><HostItemID>7</HostItemID><HostResponseCode>00</HostResponseCod
e><OriginalAuthorizedAmount>4.00</OriginalAuthorizedAmount><TicketNumb
er>000000</TicketNumber><TrackingID>E9F2B1C4112944F491D0CA5DD2C17974</
TrackingID><TerminalType>1
</TerminalType><TransactionAmount>4.00</TransactionAmount><Transaction
Status>Approved</TransactionStatus><TransactionStatusCode>1</Transacti
onStatusCode><TransactionType>CreditCardSale</TransactionType><CardNum
berMasked>xxxx-xxxx-xxxx-
6669</CardNumberMasked><CardLogo>Mastercard</CardLogo><CardType>Credit
</CardType><TrackDataPresent>TRUE</TrackDataPresent><HostTransactionID
>100000</HostTransactionID><ExpressTransactionDate>20201014</ExpressTr
ansactionDate><ExpressTransactionTime>052113</ExpressTransactionTime><
TimeStamp>2020-10-
14T05:21:14.053</TimeStamp><LaneNumber>418324</LaneNumber><Integration
TypeID>1</IntegrationTypeID><BatchStatusCode>1</BatchStatusCode><Syste
mTraceAuditNumber>158467</SystemTraceAuditNumber><RetrievalReferenceNu
mber>028805158467</RetrievalReferenceNumber><TerminalData>1|2|2|2|0|3|
2|1|||2|0|9|1|0|1|2|9|2|0|0|0|0|0|0|||
|||</TerminalData><MerchantCategoryCode>5999</MerchantCategoryCode><Ca
rdInputCode>2</CardInputCode></Item></Items></ReportingData><Reporting
ID>95647476</ReportingID></Response></TransactionQueryResponse>]]></b:
value>
                    </b:KeyValuePairOfstringstring>
                </a:TransactionOutputDetails>
                <a:TransactionStatus>1</a:TransactionStatus>
            </a:TransactionOutput>
            <a:TransactionUTCTimestamp>2020-10-14
10:22:53Z</a:TransactionUTCTimestamp>
        </a:GetProcessorReportResponse>
      </GetProcessorReportResult>
    </GetProcessorReportResponse>
  </s:Body>
</s:Envelope>
```

2.2   ProcessCardSwipe
This operation processes a batch of Process Card Swipe Request elements for card-swipe payment mode.

2.2.1   INPUT PROPERTIES

Property(*)	Value	Description
AdditionalRequestData	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request
Amount *	String	Amount for transaction in units (dollars or cents) as per target service provider's API
CustomerCode *	String	Customer code provided by Magensa at onboard time.
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference.
CVV	String	Card verification value
DeviceSN	String	MagTek device serial number
KSN *	String	Key Serial Number of the reader
MagnePrint *	String	Encrypted MagnePrint.
MagnePrintPStatus *	String	MagnePrint Status
Password *	String	Password for credential assigned by Magensa
ProcessorName *	String	Magensa assigned name for third-party service provider
Track1	String	Encrypted track 1 data
Track2 *	String	Encrypted track 2 data
Track3	String	Encrypted track 3 data
TransactionInputDetails	Array of key / value	Contains transaction information required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionType *	String	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT,TOKEN
Username *	String	Username for credential assigned by Magensa
ZIP	String	Zip code

Note: * = Required

2.2.2 OUTPUT PROPERTIES

Property	Value	Description
AdditionalOutputData	Array of key / value	Contains additional output data. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
AVSResult	String	Address Verification System result from target service provider.
CardID	String	Card ID from Magensa.
CustomerTransactionID	String	Client-assigned transaction ID from input.
CVVResult	String	Card Verification Value result from target service provider.
IsReplay	Boolean	Boolean value indicating prior use of KSN from Magensa.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 2 from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
MagnePrintScore	Decimal	MagnePrint score from Magensa.
MagTranID	String	Transaction ID (GUID) from Magensa.
MPPGv4WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	Token if target service provider is Magensa's Token web-service.
TransactionID	String	Transaction ID from target service provider.
TransactionMessage	String	Transaction Message from target service provider.
TransactionOutputDetails	Array of key / value	Contains additional output data returned by the target service provider. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionStatus	String	Transaction status from target service provider.
TransactionUTCTimestamp	String	Transaction timestamp from Magensa.

ProcessCardSwipe Request:

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mpp="http://www.magensa.net/MPPGv4/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
<soapenv:Header/>
<soapenv:Body>
<mpp:ProcessCardSwipe>
                <mpp:ProcessCardSwipeRequests>
                    <mpp1:ProcessCardSwipeRequest>
                        <mpp1:AdditionalRequestData>
                            <sys:KeyValuePairOfstringstring>
                                <sys:key/>
                                <sys:value/>
                            </sys:KeyValuePairOfstringstring>
                        </mpp1:AdditionalRequestData>
                        <mpp1:Authentication>
    <mpp1:CustomerCode>customercode</mpp1:CustomerCode>
                <mpp1:Password>password</mpp1:Password>
                <mpp1:Username>username</mpp1:Username>
                        </mpp1:Authentication>
                        <mpp1:CardSwipeInput>
                            <mpp1:CVV>123</mpp1:CVV>
                            <mpp1:EncryptedCardSwipe>
                <mpp1:DeviceSN>B487DBC022119AA</mpp1:DeviceSN>
     <mpp1:KSN>9011400B487DBC0000D0</mpp1:KSN>
     <mpp1:MagnePrint>BDB8B02E5569C4B6D1F5FFC39C1A9A1377568986A3D99FDF
A9B623A2C6DE340985B54C08EE80F6DDDB08BEE29E061E304AD404CFE91A721A</mpp1
:MagnePrint>
     <mpp1:MagnePrintStatus>61403000</mpp1:MagnePrintStatus>
     <mpp1:Track1>365219542E85374DA5988757ADFD31982A20CAB580615E214640
4293F6A55B838AA2F33BDCEC61FFDDFDFD4C36C5719712AA269EA3C598B9400A0F7EE1
DD283ADBF14BB4A74A8516460405C95060B123</mpp1:Track1>
     <mpp1:Track2>07CCAC9B925B2460CC81E463372157A1091338F355FD63FEAE85
3DFF2979176769F305601F292FA4</mpp1:Track2>
<mpp1:Track3/>
</mpp1:EncryptedCardSwipe>
<mpp1:ZIP>12345</mpp1:ZIP>
</mpp1:CardSwipeInput>
<mpp1:CustomerTransactionID>MPPGv4
ProcessCardSwipe</mpp1:CustomerTransactionID>
                            <mpp1:TransactionInput>
                                <mpp1:Amount>2</mpp1:Amount>
     <mpp1:ProcessorName>Rapid Connect v3 - Pilot</mpp1:ProcessorName>
                                <mpp1:TransactionInputDetails>
                                    <sys:KeyValuePairOfstringstring>
                                        <sys:key/>
                                        <sys:value/>
                                    </sys:KeyValuePairOfstringstring>
```

```
                                    </mpp1:TransactionInputDetails>
                    <mpp1:TransactionType>SALE</mpp1:TransactionType>
                           </mpp1:TransactionInput>
                    </mpp1:ProcessCardSwipeRequest>
                </mpp:ProcessCardSwipeRequests>
            </mpp:ProcessCardSwipe>
        </soapenv:Body>
</soap:envelop>
```

ProcessCardSwipe Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
   <s:Body>
      <ProcessCardSwipeResponse
xmlns="http://www.magensa.net/MPPGv4/">
         <ProcessCardSwipeResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <a:ProcessCardSwipeResponse>
               <a:AdditionalResponseData i:nil="true"
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric"/>
               <a:CardSwipeOutput>
                  <a:AdditionalOutputData
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                     <b:KeyValuePairOfstringstring>
                        <b:key>Token</b:key>

<b:value>FA820115DFE0012466303636373936382D396332392D346137392D3839353
72D65303961666237303338396964DFE00205312E302E30DFE004421323032322D30332D3
3305430333A34353A31352E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30345431303A34353A31372E323339373730315ADFE0070A4D4
9353732373734373430DFE008073130303030313132DFE009243530316634326562622D3964
6352D346666622D396437642D6165306331656663393039653539DFE01120F17557FD79CEE
AFDF3FD11E085F73F22F6160574B38AC8F56538DA1D9C81F33EDFE0120A90114000000
00003501DDFE003205540C3B1663A472532C082B9B2362601E56E1970B27CDF673BB85
09D9D648FE2</b:value>
                     </b:KeyValuePairOfstringstring>
                     <b:KeyValuePairOfstringstring>
                        <b:key>CardType</b:key>
                        <b:value>VISA</b:value>
                     </b:KeyValuePairOfstringstring>
</a:AdditionalOutputData>
                  <a:CardID/>
                  <a:IsReplay>true</a:IsReplay>
                  <a:MagnePrintScore>0.0130942</a:MagnePrintScore>
                  <a:PANLast4>0119</a:PANLast4>
               </a:CardSwipeOutput>
               <a:CustomerTransactionID>MPPGv4
ProcessCardSwipe</a:CustomerTransactionID>
               <a:MPPGv4WSFault i:nil="true"/>
               <a:MagTranID>6f8defef-b468-4c51-ae0c-
6bb4b4dcd80e</a:MagTranID>
               <a:TransactionOutput>
                  <a:AVSResult>Z</a:AVSResult>
                  <a:AuthCode>OK1805</a:AuthCode>
                  <a:AuthorizedAmount>2</a:AuthorizedAmount>
                  <a:CVVResult i:nil="true"/>
<a:IsTransactionApproved>true</a:IsTransactionApproved>
                  <a:IssuerAuthenticationData i:nil="true"/>
```

```
                    <a:IssuerScriptTemplate1 i:nil="true"/>
                    <a:IssuerScriptTemplate2 i:nil="true"/>
<a:Token>FA820115DFE0012466303636373936382D396332392D346137392D3839353
72D65303961666237303338396364DFE00205312E302E30DFE00421323032322D30332D3
3305430333A34353A31352E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30345431303A34353A31372E323339373730315ADFE0070A4D4
9353733237343730430DFE00807313030303031322DFE009243530316634326562D39643
6352D346666622D396437642D61653063331666393039653539DFE01120F17557FD79CEE
AFDF3FD11E085F73F22F6160574B38AC8F56538DA1D9C81F33EDFE0120A90114000000
00003501DDFE003205540C3B1663A472532C082B9B2362601E56E1970B27CDF673BB85
09D9D648FE2</a:Token>
<a:TransactionID>019185036512227G678</a:TransactionID>
<a:TransactionMessage>APPROVAL</a:TransactionMessage>
                    <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
<b:KeyValuePairOfstringstring>
                          <b:key>ProcessorResponse</b:key>
                          <b:value><![CDATA[HTTP/1.1 200 OKKeep-Alive:
timeout=60, max=100
Connection: Keep-Alive
Content-Length: 1269
Content-Type: text/xml
Date: Thu, 04 Jul 2019 10:45:17 GMT
Server: Apache
&<?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
 <RespClientID>
  <DID>00012443241234679102</DID>
  <ClientRef>0006571VRMA015</ClientRef>
 </RespClientID>
 <Status StatusCode="OK"></Status>
 <TransactionResponse>
  <ReturnCode>000</ReturnCode>
  <Payload Encoding="cdata"><![CDATA[<?xml version="1.0"
encoding="utf-8"?><GMF xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="com/firstdata/Merchant/gmfV6.10"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Sale</TxnType><LocalDateTime>20190704
034516</LocalDateTime><TrnmsnDateTime>20190704104519</TrnmsnDateTime><
STAN>088112</STAN><RefNum>000000088112</RefNum><OrderNum>00088112</Ord
erNum><TermID>00000001</TermID><MerchID>RCTST0000006128</MerchID><TxnA
mt>2</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><AcctNum>476
173******0119</AcctNum><AVSResultCode>Z</AVSResultCode></CardGrp><Visa
Grp><ACI>E</ACI><TransID>019185036512227G678</TransID></VisaGrp><RespG
rp><RespCode>000</RespCode><AuthID>OK1805</AuthID><AddtlRespData>APPRO
VAL</AddtlRespData><AthNtwkID>02</AthNtwkID><AthNtwkNm>VISA</AthNtwkNm
></RespGrp></CreditResponse></GMF>]]]>><![CDATA[</Payload>
 </TransactionResponse>
</Response>]]></b:value>
                    </b:KeyValuePairOfstringstring>
                </a:TransactionOutputDetails>
```

```
                    <a:TransactionStatus>000</a:TransactionStatus>
                </a:TransactionOutput>
                <a:TransactionUTCTimestamp>2019-07-04
10:45:15Z</a:TransactionUTCTimestamp>
            </a:ProcessCardSwipeResponse>
         </ProcessCardSwipeResult>
      </ProcessCardSwipeResponse>
   </s:Body>
</s:Envelope>
```

2.3 ProcessData

This operation processes a batch/single of ProcessDataEMVRequest elements for EMV payment mode.

2.3.1 INPUT PROPERTIES

Property(*)	Value	Description
AdditionalRequestData	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request.
Amount *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API.
CustomerCode *	String	Customer code for credential assigned by Magensa.
CustomerTransactionID	String	Client-assigned transaction ID from input.
EMVSREDData *	String	Encrypted EMV transaction data (ARQC) from device.
EncryptionType *	String	Encryption type used for EMVSREDData: 80 (DUKPT Key Data Variant), 81 (DUKPT Key PIN Variant)
KSN *	String	Key serial number
NumberOfPaddedBytes *	String	Number of bytes padded to the end of the decrypted EMVSREDData to make a multiple of 8 bytes.
Password *	String	Password for credential assigned by Magensa.
PaymentMode *	String	Mode of transaction payment: EMV, MagStripe (fallback option for EMV.
ProcessorName *	String	Magensa assigned name for third-party service provider.
MagTranID	String	Transaction ID (GUID) from Magensa.
TransactionOutputDetails	Array of key / value	Contains transaction information required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionType *	String	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT
Username *	String	Username for credential assigned by Magensa.

Note: * = Required

2.3.2   OUTPUT PROPERTIES

Property	Value	Description
AdditionalOutputData	Array of key / value	Contains additional output data. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
AVSResult	String	Address Verification System result from target service provider.
CardID	String	Card ID from Magensa.
CustomerTransactionID	String	Client-assigned transaction ID from input.
CVVResult	String	Card Verification Value result from target service provider.
IsReplay	Boolean	Boolean value indicating prior use of KSN from Magensa.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 2 from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
MagTranID	String	Transaction ID (GUID) from Magensa.
MPPGv4WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	Token if target service provider is Magensa's Token web service.
TransactionID	String	Transaction ID from target service provider.
TransactionMessage	String	Transaction Message from target service provider.
TransactionOutputDetails	Array of key / value	Contains additional output data returned by the target service provider. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionStatus	String	Transaction status from target service provider.
TransactionUTCTimestamp	String	Transaction timestamp from Magensa.

Process Data Request (EMV payment Mode Transaction):

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mpp="http://www.magensa.net/MPPGv4/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
<soapenv:Header/><soapenv:Body><mpp:ProcessData>
<mpp:ProcessDataRequests>
<mpp1:ProcessDataRequest>
<mpp1:AdditionalRequestData>
<sys:KeyValuePairOfstringstring>
<sys:key/>
<sys:value/></sys:KeyValuePairOfstringstring>
</mpp1:AdditionalRequestData><mpp1:Authentication>
<mpp1:CustomerCode>customercode</mpp1:CustomerCode>
<mpp1:Password>password</mpp1:Password>
<mpp1:Username>username</mpp1:Username></mpp1:Authentication>
<mpp1:CustomerTransactionID>12345</mpp1:CustomerTransactionID>
<mpp1:DataInput>
<mpp1:Data>020BF9820207DFDF540A00000000000000000000DFDF550182DFDF250F4
234383744424330323231313941A1FA8201DD708201D9DFDF5301005F201A554154205
553412F546573742043617264203133202020202020205F30020201DFDF4D273B3337343
2303030393030303130303333D3234313232303130303030303030303030303030303FD
FDF520105F882017EDFDF59820160B8CEF07895D6B8DC79AAADBD693079C568763A905
F369189EB14FAA904BA981937F3FB75A4B96B2729368415D59EC403293E87A8EA605D5
F66F4C3B6B89BB83AA369F732AA0961936DBC21F360706C781CDA06B374261FBA815F8
13B79663E33AD6FD40B6EE9F934D7D0EA216FC878C12670136158EEDDCEA861F3370B3
7372C16A16FFAA57257B214B678662CFF6332E03C1BE4AC579AF220743F12340865988
45CB458511C2D27E264B357AEB66C23F5195C832B0180EFA9750DA54CEF4021E2E9F56
0614CB061C0FD9F119FB182391F078C2E5DBD6F6693D6A998BBEBAC014960E4C9B44BC
202535CAEC6432A58AFC97C64706F75D0F603956C6BACB16C33A426439A075C6FAB783
D724C6A25869E8D438C1B28DD25ACEDA6F127F66361F9CC216D89DF03BF9F9C2C8CE2C
489EB16F3A8E919653CBD74D516CD3B2572F0A0FD52FEC6BB72C69B8D3D2B106355C3E
CC193F1B8F4E49A63E35679C797ADAC12DFDF560A9011400B487DBC000074DFDF57018
0DFDF58010700000000011223344</mpp1:Data>

<mpp1:DataFormatType>TLV</mpp1:DataFormatType>
<mpp1:EncryptionInfo>
<mpp1:EncryptionType>80</mpp1:EncryptionType>
<mpp1:KSN>9011400B487DBC000074</mpp1:KSN>
<mpp1:NumberOfPaddedBytes>0</mpp1:NumberOfPaddedBytes>
</mpp1:EncryptionInfo>
<mpp1:IsEncrypted>true</mpp1:IsEncrypted>
<mpp1:PaymentMode>EMV</mpp1:PaymentMode>
</mpp1:DataInput>
<mpp1:TransactionInput>
<mpp1:Amount>2</mpp1:Amount>
<mpp1:ProcessorName>Rapid Connect v3 -
Pilot</mpp1:ProcessorName><mpp1:TransactionInputDetails>
<sys:KeyValuePairOfstringstring>
```

```
<sys:key/>
<sys:value/>
</sys:KeyValuePairOfstringstring>
</mpp1:TransactionInputDetails>
<mpp1:TransactionType>AUTHORIZE</mpp1:TransactionType>
</mpp1:TransactionInput> </mpp1:ProcessDataRequest>
 </mpp:ProcessDataRequests></mpp:ProcessData>
 </soapenv:Body>
</soapenv:Envelope>
```

Process Data Response (EMV payment Mode Transaction):

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
   <s:Body>
      <ProcessDataResponse xmlns="http://www.magensa.net/MPPGv4/">
         <ProcessDataResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <a:ProcessDataResponse>
               <a:AdditionalResponseData i:nil="true"
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric"/>
<a:CustomerTransactionID>12345</a:CustomerTransactionID>
               <a:DataOutput>
                  <a:AdditionalOutputData
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                     <b:KeyValuePairOfstringstring>
                        <b:key>Token</b:key>
                        <b:value>
FA820115DFE0012432643136303666382D363234642D343339632D623230362D313039
326633</b:value>
</b:KeyValuePairOfstringstring>
<b:KeyValuePairOfstringstring>
<b:key>DataMasked</b:key>
<b:value>F9820207DFDF540A0000000000000000000DFDF550182DFDF250F4234383
744424330323231</b:value>
</b:KeyValuePairOfstringstring>
                     <b:KeyValuePairOfstringstring>
                        <b:key>CardType</b:key>
                        <b:value>AMEX</b:value>
                     </b:KeyValuePairOfstringstring>
                  </a:AdditionalOutputData>
<a:CardID>0iknQM5Oe2pGg9+OQfm/3AMQDEbAxH/ShvSF79w3Zg8=</a:CardID>
                  <a:IsReplay>true</a:IsReplay>
                  <a:PANLast4/>
               </a:DataOutput>
               <a:MPPGv4WSFault i:nil="true"/>
               <a:MagTranID>650c03eb-28af-4bd7-b733-
59f5448b7523</a:MagTranID>
               <a:TransactionOutput>
                  <a:AVSResult i:nil="true"/>
                  <a:AuthCode>722336</a:AuthCode>
                  <a:AuthorizedAmount>2</a:AuthorizedAmount>
                  <a:CVVResult i:nil="true"/>
<a:IsTransactionApproved>true</a:IsTransactionApproved>
<a:IssuerAuthenticationData>8A023030910A7368FFDBEA8525073030</a:Issuer
AuthenticationData>
                  <a:IssuerScriptTemplate1 i:nil="true"/>
                  <a:IssuerScriptTemplate2 i:nil="true"/>
<a:Token>FA820115DFE0012432643136303666382D363234642D343339632D6232303
62D31303932663365530323061330DFE00205312E302E30DFE00421323032322D30332D3
```

3305430353A31303A33332E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30345431323A31303A33332E353432323633305ADFE0070A4D4
9353732323734373430DFE0080731303030303132DFE0092435623461353830332D63313
2632D346461362D626234382D613438353965353838303138DFE011206BB6D58115297
87F80E2AFD29878FE82E7D8FBE3D30115CFB968CD0A92B574A2DFE0120A90114000000
000035073DFE003207308E8BDDFF8EB3429DC82D1A3BB52E2F00F630476B68187EE6E6
51FBA1F8206</a:Token>
                <a:TransactionID>704121036562909</a:TransactionID>
<a:TransactionMessage>APPROVAL</a:TransactionMessage>
                <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
<b:KeyValuePairOfstringstring>
<b:key>ProcessorResponse</b:key>
<b:value><![CDATA[HTTP/1.1 200 OKKeep-Alive: timeout=60, max=100
Connection: Keep-Alive
Content-Length: 1397
Content-Type: text/xml
Date: Thu, 04 Jul 2019 12:10:35 GMT
Server: Apache

&<?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
 <RespClientID>
  <DID>00012443241234679102</DID>
  <ClientRef>0006579VRMA015</ClientRef>
 </RespClientID>
 <Status StatusCode="OK"></Status>
 <TransactionResponse>
  <ReturnCode>000</ReturnCode>
  <Payload Encoding="cdata"><![CDATA[<?xml version="1.0"
encoding="utf-8"?><GMF xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="com/firstdata/Merchant/gmfV6.10"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Authorization</TxnType><LocalDateTime
>20190704051035</LocalDateTime><TrnmsnDateTime>20190704121036</TrnmsnD
ateTime><STAN>088120</STAN><RefNum>000000088120</RefNum><OrderNum>0008
8120</OrderNum><TermID>00000001</TermID><MerchID>RCTST0000006128</Merc
hID><TxnAmt>2</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><Ac
ctNum>374245*****1003</AcctNum></CardGrp><EMVGrp><EMVData>8A023030910A
7368FFDBEA8525073030</EMVData><ServCode>201</ServCode><AppExpDate>2412
31</AppExpDate></EMVGrp><AmexGrp><AmExPOSData>561101500301</AmExPOSDat
a><AmExTranID>704121036562909</AmExTranID></AmexGrp><RespGrp><RespCode
>000</RespCode><AuthID>722336</AuthID><AddtlRespData>APPROVAL</AddtlRe
spData><AthNtwkID>01</AthNtwkID><AthNtwkNm>AMEX</AthNtwkNm></RespGrp><
/CreditResponse></GMF>]]]]>><![CDATA[</Payload>
 </TransactionResponse>
</Response>]]></b:value>
                </b:KeyValuePairOfstringstring>
              </a:TransactionOutputDetails>
              <a:TransactionStatus>000</a:TransactionStatus>
            </a:TransactionOutput>

```
               <a:TransactionUTCTimestamp>2019-07-04
12:10:33Z</a:TransactionUTCTimestamp>
            </a:ProcessDataResponse>
          </ProcessDataResult>
       </ProcessDataResponse>
   </s:Body>
</s:Envelope>
```

2.4   ProcessManualEntry

This operation processes a batch of ProcessManualEntry Request elements for manual entry payment mode.

2.4.1   INPUT PROPERTIES

Property(*)	Value	Description
AdditionalRequestData	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request.
AddressLine1	String	Line 1 of address
AddressLine2	String	Line 2 of address
Amount *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API.
City	String	City
Country	String	Country
CustomerCode *	String	Customer code for credential assigned by Magensa.
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference.
CVV	String	Card verification value.
ExpirationDate *	String	Expiration date in the format required by target service provider.
NameOnCard	String	Name on the card.
PAN *	String	Primary Account Number
Password *	String	Password for credential assigned by Magensa.
ProcessorName *	String	Magensa assigned name for third-party service provider.
State	String	State
TransactionInputDetails	Array of key / value	Contains transaction information required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See examples.
TransactionType *	String	Transaction type: SALE, AUTHORIZE
Username *	String	Username for credential assigned by Magensa.
ZIP	Integer	Zip code

Note: * = Required

2.4.2 OUTPUT PROPERTIES

Property	Value	Description
AdditionalResponseData	Array of key / value	A group that contains additional response data returned by the target web service. Elements are expressed as Key/Value pairsgrouped under <KeyValuePairOfstringstring>. See examples.
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
AVSResult	String	Address Verification System result from target service provider.
CustomerTransactionID	String	Client-assigned transaction ID from input.
CVVResult	String	Card Verification Value result from target service provider.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 2 from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
MagTranID	String	Transaction ID (GUID) from Magensa.
MPPGv4WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null.
Token	String	Token if target service provider is Magensa's Token web service.
TransactionID	String	Transaction ID from target service provider.
TransactionMessage	String	Transaction Message from target service provider.
TransactionOutputDetails	Array of key / value	Contains additional output data returned by the target service provider. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples.
TransactionStatus	String	Transaction status from target service provider.
TransactionUTCTimestamp	String	Transaction timestamp from Magensa.

Process Manual Entry Request:

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mpp="http://www.magensa.net/MPPGv4/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
     <soapenv:Header/>
     <soapenv:Body>
          <mpp:ProcessManualEntry>
               <mpp:ProcessManualEntryRequests>
                    <mpp1:ProcessManualEntryRequest>
                         <mpp1:AdditionalRequestData>
                              <sys:KeyValuePairOfstringstring>
                                   <sys:key/>
                                   <sys:value/>
                              </sys:KeyValuePairOfstringstring>
                         </mpp1:AdditionalRequestData>
                         <mpp1:Authentication>

     <mpp1:CustomerCode>customercode</mpp1:CustomerCode>

     <mpp1:Password>password</mpp1:Password>

     <mpp1:Username>username</mpp1:Username>
                         </mpp1:Authentication>

     <mpp1:CustomerTransactionID>ProcessManualEntry</mpp1:CustomerTran
sactionID>
                         <mpp1:ManualEntryInput>

                              <mpp1:AddressLine1>1710 Apollo
Court</mpp1:AddressLine1>
                              <mpp1:AddressLine2>Suite
210</mpp1:AddressLine2>

                              <mpp1:CVV>002</mpp1:CVV>

                              <mpp1:City>Seal Beach</mpp1:City>

                              <mpp1:Country>United
States</mpp1:Country>

     <mpp1:ExpirationDate>2503</mpp1:ExpirationDate>

                              <mpp1:NameOnCard>SETH
PATRICK</mpp1:NameOnCard>
                              <mpp1:PAN>4111111111111111</mpp1:PAN>

                              <mpp1:State>CA</mpp1:State>

                         </mpp1:ManualEntryInput>
```

```
                              <mpp1:TransactionInput>
                                     <mpp1:Amount>100</mpp1:Amount>
                                     <mpp1:ProcessorName>Rapid Connect v3 -
Pilot</mpp1:ProcessorName>
                                     <mpp1:TransactionInputDetails>
                                            <sys:KeyValuePairOfstringstring>
                                                   <sys:key/>
                                                   <sys:value/>
                       </sys:KeyValuePairOfstringstring>
                                     </mpp1:TransactionInputDetails>

    <mpp1:TransactionType>SALE</mpp1:TransactionType>
                              </mpp1:TransactionInput>
                       </mpp1:ProcessManualEntryRequest>
               </mpp:ProcessManualEntryRequests>
          </mpp:ProcessManualEntry>
      </soapenv:Body>
</soapenv:Envelope>
```

Process Manual Entry Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
   <s:Body>
      <ProcessManualEntryResponse
xmlns="http://www.magensa.net/MPPGv4/">
         <ProcessManualEntryResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <a:ProcessManualEntryResponse>
               <a:AdditionalResponseData i:nil="true"
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric"/>

<a:CustomerTransactionID>ProcessManualEntry</a:CustomerTransactionID>
               <a:MPPGv4WSFault i:nil="true"/>
               <a:MagTranID>921e2c31-2b18-47a5-905b-
9e4595f8cb6d</a:MagTranID>
               <a:TransactionOutput>
                  <a:AVSResult i:nil="true"/>
                  <a:AuthCode i:nil="true"/>
                  <a:AuthorizedAmount>100</a:AuthorizedAmount>
                  <a:CVVResult i:nil="true"/>

<a:IsTransactionApproved>false</a:IsTransactionApproved>
                  <a:IssuerAuthenticationData i:nil="true"/>
                  <a:IssuerScriptTemplate1 i:nil="true"/>
                  <a:IssuerScriptTemplate2 i:nil="true"/>

<a:Token>FA820176DFE00124393962356663366612D363030622D343966372D6135656
22D3662356137383634616665366DFE00205312E302E30DFE00421323032322D30332D3
3305432333A31393A32362E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30355430363A31393A32372E333232333335385ADFE0070A4D4
935373237343734730DFE008073130303030313 2DFE0092432303061333830612D37333
1322D343962342D626563622D363962333030363534346337DFE0118180A7443B2BF88
114C66C757763F7343D49D11FCAFAC69A9B1C47591198A7566A63CB6E0E3179DC87BFF
C4E222A1F5B41D1E3D04DADCB417AA8836141756D8BF75F6FA7971FE94F6CCF0E746AA
36E6BBEC38AE230A5E2142988445844B055123655538F41A9780A2E445CA9BF282117D
87671B3B527FF548303FF0DB82D49EF1DB5DFE0120A9011400000000003547ADFE0032
01AABBD53855364DF00ED7907BBB08532912592ABEE96F76F77AF91936C988C0A</a:T
oken>
               <a:TransactionID>088122</a:TransactionID>
               <a:TransactionMessage>000</a:TransactionMessage>
               <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                  <b:KeyValuePairOfstringstring>
                     <b:key>ProcessorResponse</b:key>
                     <b:value><![CDATA[HTTP/1.1 200 OKKeep-Alive:
timeout=60, max=100
Connection: Keep-Alive
Content-Length: 1139
```

```
Content-Type: text/xml
Date: Fri, 05 Jul 2019 06:19:27 GMT
Server: Apache
&<?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
 <RespClientID>
  <DID>00012443241234679102</DID>
  <ClientRef>0006581VRMA015</ClientRef>
 </RespClientID>
 <Status StatusCode="OK"></Status>
 <TransactionResponse>
  <ReturnCode>000</ReturnCode>
  <Payload Encoding="cdata"><![CDATA[<?xml version="1.0"
encoding="utf-8"?><GMF xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="com/firstdata/Merchant/gmfV6.10"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Sale</TxnType><LocalDateTime>20190704
231927</LocalDateTime><TrnmsnDateTime>20190705061927</TrnmsnDateTime><
STAN>088122</STAN><RefNum>000000088122</RefNum><OrderNum>00088122</Ord
erNum><TermID>00000001</TermID><MerchID>RCTST0000006128</MerchID><TxnA
mt>100</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><AcctNum>4
11111******1111</AcctNum></CardGrp><RespGrp><RespCode>902</RespCode><A
thNtwkID>02</AthNtwkID><ErrorData>RE2037 - CCVInd is
missing/invalid|</ErrorData></RespGrp></CreditResponse></GMF>]]]]>><![
CDATA[</Payload>
 </TransactionResponse>
</Response>]]></b:value>
                    </b:KeyValuePairOfstringstring>
                </a:TransactionOutputDetails>
                <a:TransactionStatus>902</a:TransactionStatus>
            </a:TransactionOutput>
            <a:TransactionUTCTimestamp>2019-07-05
06:19:24Z</a:TransactionUTCTimestamp>
        </a:ProcessManualEntryResponse>
      </ProcessManualEntryResult>
    </ProcessManualEntryResponse>
  </s:Body>
</s:Envelope>
```

2.5   ProcessToken

This operation processes a batch of ProcessTokenRequest elements for token payment mode. To generate a Token, call ProcessCardSwipe or Process Data with the Data value passing along with Device Details.

2.5.1   INPUT PROPERTIES

Property(*)	Value	Description
AdditionalRequestData	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request. Input value for "PayloadResponse" Key, as in sample request which is response output from from ProcessCardswipe or ProcessData operations
Amount *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API.
CustomerCode *	String	Customer code provided by Magensa at onboard time.
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference.
Password *	String	Password for credential assigned by Magensa.
ProcessorName *	String	Magensa assigned name for third-party service provider.
Token *	String	Token issued by Magensa's Token service.
TransactionInputDetails	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request.
TransactionType *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API.
Username *	String	Customer code provided by Magensa at onboard time.

Note: * = Required

2.5.2 OUTPUT PROPERTIES

Property	Value	Description
AdditionalResponseData	Array of key / value	A group that contains Additional Response Data returned by the target web service. Elements are expressed as Key/Value pairs grouped under <KeyValuePairOfstringstring>. See examples
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
AVSResult	String	Address Verification System result from target service provider.
CustomerTransactionID	String	Client-assigned transaction ID from input.
CVVResult	String	Card Verification Value result from target service provider.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 2 from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
MagTranID	String	Transaction ID (GUID) from Magensa.
MPPGv4WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	Token if target service provider is Magensa's Token web service.
TransactionID	String	Transaction ID from target service provider.
TransactionMessage	String	Transaction Message from target service provider.
TransactionOutputDetails	Array of key / value	Contains additional output data returned by the target service provider. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples.
TransactionStatus	String	Transaction status from target service provider.
TransactionUTCTimestamp	String	Transaction timestamp from Magensa.

ProcessToken Request:

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mpp="http://www.magensa.net/MPPGv4/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
      <soapenv:Header/>
      <soapenv:Body>
            <mpp:ProcessToken>
                  <mpp:ProcessTokenRequests>
                        <mpp1:ProcessTokenRequest>
                              <mpp1:AdditionalRequestData>
                                    <sys:KeyValuePairOfstringstring>

      <sys:key>PayloadResponse</sys:key>
                                          <sys:value Encoding="cdata">
                                                <![CDATA[HTTP/1.1 200
OKContent-Length: 1462
Content-Type: text/xml
Date: Tue, 18 Jun 2019 11:59:02 GMT
Server: Apache

&<?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
 <RespClientID>
  <DID>00012443241234679102</DID>
  <ClientRef>0006343VRMA015</ClientRef>
 </RespClientID>
 <Status StatusCode="OK"></Status>
 <TransactionResponse>
  <ReturnCode>000</ReturnCode>
  <Payload Encoding="cdata"><![CDATA[<?xml version="1.0"
encoding="utf-8"?><GMF xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="com/firstdata/Merchant/gmfV6.10"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Authorization</TxnType><LocalDateTime
>20190618045902</LocalDateTime><TrnmsnDateTime>20190618115904</TrnmsnD
ateTime><STAN>087884</STAN><RefNum>000000087884</RefNum><OrderNum>0008
7884</OrderNum><TermID>00000001</TermID><MerchID>RCTST0000006128</Merc
hID><TxnAmt>2</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><Ac
ctNum>476173******0119</AcctNum><AVSResultCode>N</AVSResultCode></Card
Grp><EMVGrp><EMVData>8A0230309F3602000A910A24EF84F1B64A71CC3030</EMVDa
ta><ServCode>201</ServCode><AppExpDate>221231</AppExpDate><CARC>2</CAR
C></EMVGrp><VisaGrp><ACI>A</ACI><CardLevelResult>VI</CardLevelResult><
TransID>7591694314300360213</TransID></VisaGrp><RespGrp><RespCode>000<
/RespCode><AuthID>979260</AuthID><AddtlRespData>APPROVAL</AddtlRespDat
a><AthNtwkID>02</AthNtwkID><AthNtwkNm>VISA</AthNtwkNm></RespGrp></Cred
itResponse></GMF>]]]]>><![CDATA[</Payload>
 </TransactionResponse>
</Response>]]>
```

```
                                          </sys:value>
                                </sys:KeyValuePairOfstringstring>
                          </mpp1:AdditionalRequestData>
                          <mpp1:Authentication>

    <mpp1:CustomerCode>customercode</mpp1:CustomerCode>

    <mpp1:Password>password</mpp1:Password>

    <mpp1:Username>username</mpp1:Username>
                          </mpp1:Authentication>

    <mpp1:CustomerTransactionID>12345</mpp1:CustomerTransactionID>

    <mpp1:Token>FA820115DFE001243239633561386364 2D306430362D343234622
D616339382D6433393638666435313665 61DFE00205312E302E30DFE00421323032322
D30332D31345430343A35393A30302E303 030303030302D30373A3030DFE0050450726
F64DFE0061C323031392D30362D31385431 313A35393A30312E333132313432395ADFE
0070A4D493537323734373430DFE0080731 303030303132DFE00924666237613665663
42D653738612D343538662D623231382D62 34666531613834383536333DFE011202DAF8
B8161868BC966D82C58F18B37B02F173CC8 FAAEAA1B7775F648F401B312DFE0120A901
14000000000002FB79DFE003205742DBD4B 914DABFEE588A2BB52C2D353C10CB5B3716E
2326661A4146EB138A2</mpp1:Token>
                          <mpp1:TransactionInput>
                                <mpp1:Amount>2</mpp1:Amount>
                                <mpp1:ProcessorName>Rapid Connect v3 -
Pilot</mpp1:ProcessorName>
                                <mpp1:TransactionInputDetails>
                                      <sys:KeyValuePairOfstringstring>
                                            <sys:key/>
                                            <sys:value/>

    </sys:KeyValuePairOfstringstring>
                                </mpp1:TransactionInputDetails>

    <mpp1:TransactionType>CAPTURE</mpp1:TransactionType>
                          </mpp1:TransactionInput>
                    </mpp1:ProcessTokenRequest>
              </mpp:ProcessTokenRequests>
        </mpp:ProcessToken>
    </soapenv:Body>
</soapenv:Envelope>
```

ProcessToken Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
   <s:Body>
      <ProcessTokenResponse xmlns="http://www.magensa.net/MPPGv4/">
         <ProcessTokenResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <a:ProcessTokenResponse>
               <a:AdditionalResponseData i:nil="true"
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric"/>

<a:CustomerTransactionID>12345</a:CustomerTransactionID>
               <a:MPPGv4WSFault i:nil="true"/>
               <a:MagTranID>68702698-2bdf-494b-a799-
408d06aa8b4d</a:MagTranID>
               <a:PANLast4>0119</a:PANLast4>
               <a:TransactionOutput>
                  <a:AVSResult i:nil="true"/>
                  <a:AuthCode>979260</a:AuthCode>
                  <a:AuthorizedAmount>2</a:AuthorizedAmount>
                  <a:CVVResult i:nil="true"/>

<a:IsTransactionApproved>true</a:IsTransactionApproved>
                  <a:IssuerAuthenticationData i:nil="true"/>
                  <a:IssuerScriptTemplate1 i:nil="true"/>
                  <a:IssuerScriptTemplate2 i:nil="true"/>
                  <a:Token i:nil="true"/>
                  <a:TransactionID>088124</a:TransactionID>

<a:TransactionMessage>APPROVAL</a:TransactionMessage>
                  <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                     <b:KeyValuePairOfstringstring>
                        <b:key>ProcessorResponse</b:key>
                        <b:value><![CDATA[HTTP/1.1 200 OKContent-
Length: 1180
Content-Type: text/xml
Date: Fri, 05 Jul 2019 07:04:02 GMT
Server: Apache

&<?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
 <RespClientID>
  <DID>0001244324123467910
  <ClientRef>0006583VRMA015</ClientRef>
 </RespClientID>
 <Status StatusCode="OK"></Status>
 <TransactionResponse>
  <ReturnCode>000</ReturnCode>
```

```
   <Payload Encoding="cdata"><![CDATA[<?xml version="1.0"
encoding="utf-8"?><GMF xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="com/firstdata/Merchant/gmfV6.10"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Completion</TxnType><LocalDateTime>20
190705000402</LocalDateTime><TrnmsnDateTime>20190705070405</TrnmsnDate
Time><STAN>088124</STAN><RefNum>000000087884</RefNum><OrderNum>0008788
4</OrderNum><TermID>00000001</TermID><MerchID>RCTST0000006128</MerchID
><TxnAmt>2</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><AcctN
um>476173******0119</AcctNum></CardGrp><RespGrp><RespCode>000</RespCod
e><AuthID>979260</AuthID><AddtlRespData>APPROVAL</AddtlRespData></Resp
Grp><OrigAuthGrp><OrigAuthID>979260</OrigAuthID></OrigAuthGrp></Credit
Response></GMF>]]]>><![CDATA[</Payload>
 </TransactionResponse>
</Response>]]></b:value>
                    </b:KeyValuePairOfstringstring>
                </a:TransactionOutputDetails>
                <a:TransactionStatus>000</a:TransactionStatus>
            </a:TransactionOutput>
            <a:TransactionUTCTimestamp>2019-07-05
07:03:59Z</a:TransactionUTCTimestamp>
          </a:ProcessTokenResponse>
        </ProcessTokenResult>
      </ProcessTokenResponse>
   </s:Body>
</s:Envelope>
```

2.6   ProcessKeyPadEntry

ProcessKeyPad Entry is an alternate to a Bad Magnetic stripe, Pin Pad Entry which uses the ProcessKeyPad Entry operation and process to generate the Token and other response.

2.6.1   INPUT PROPERTIES

Property(*)	Value	Description
AdditionalRequestData	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request.
Amount *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API
CustomerCode *	String	Customer code for credential assigned by Magensa
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference
CVV	String	Card verification value
DeviceSN	String	MagTek device serial number
KSN *	String	Key serial number
MagnePrint *	String	Encrypted MagnePrint
MagnePrintPStatus *	String	MagnePrint status
Password *	String	Password for credential assigned by Magensa
ProcessorName *	String	Magensa assigned name for third-party service provider
Track1	String	Encrypted track 1 data
Track2 *	String	Encrypted track 2 data
Track3	String	Encrypted track 3 data
TransactionInputDetails	Array of key / value	Contains transaction information required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionType *	String	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT, TOKEN.
Username *	String	Username for credential assigned by Magensa
ZIP	String	Zip code

Note: * = Required

2.6.2   OUTPUT PROPERTIES

Property	Value	Description
AdditionalOutputData	Array of key / value	Contains additional output data. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
AVSResult	String	Address Verification System result from target service provider.
CardID	String	Card ID from Magensa.
CustomerTransactionID	String	Client-assigned transaction ID from input.
CVVResult	String	Card Verification Value result from target service provider.
IsReplay	Boolean	Boolean value indicating prior use of KSN from Magensa.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 2 from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
MagnePrintScore	Decimal	MagnePrint score from Magensa.
MagTranID	String	Transaction ID (GUID) from Magensa.
MPPGv4WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	Token if target service provider is Magensa's Token web Service.
TransactionID	String	Transaction ID from target service provider.
TransactionMessage	String	Transaction Message from target service provider.
TransactionOutputDetails	Array of key / value	Contains additional output data returned by the target service provider. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionStatus	String	Transaction status from target service provider.
TransactionUTCTimestamp	String	Transaction timestamp from Magensa.

ProcessKeyPadEntry Request:

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mpp="http://www.magensa.net/MPPGv4/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
     <soapenv:Header/>
     <soapenv:Body>
          <mpp:ProcessKeyPadEntry>
               <mpp:ProcessKeyPadEntryRequests>
                    <mpp1:ProcessKeyPadEntryRequest>
                         <mpp1:AdditionalRequestData>
                              <sys:KeyValuePairOfstringstring>
                                   <sys:key></sys:key>
                                   <sys:value></sys:value>
                              </sys:KeyValuePairOfstringstring>
                         </mpp1:AdditionalRequestData>
                         <mpp1:Authentication>

<mpp1:CustomerCode>customercode</mpp1:CustomerCode>

     <mpp1:Password>password</mpp1:Password>

     <mpp1:Username>username</mpp1:Username>
                         </mpp1:Authentication>
                         <mpp1:CardSwipeInput>
                              <mpp1:CVV>123</mpp1:CVV>
                              <mpp1:EncryptedCardSwipe>

     <mpp1:DeviceSN>B487DBC022119AA</mpp1:DeviceSN>

     <mpp1:KSN>9011400B487DBC0000D0</mpp1:KSN>

     <mpp1:MagnePrint>BDB8B02E5569C4B6D1F5FFC39C1A9A1377568986A3D99FDF
A9B623A2C6DE340985B54C08EE80F6DDDB08BEE29E061E304AD404CFE91A721A</mpp1
:MagnePrint>

     <mpp1:MagnePrintStatus>61403000</mpp1:MagnePrintStatus>

     <mpp1:Track1>365219542E85374DA5988757ADFD31982A20CAB580615E214640
4293F6A55B838AA2F33BDCEC61FFDDFDFD4C36C5719712AA269EA3C598B9400A0F7EE1
DD283ADBF14BB4A74A8516460405C95060B123</mpp1:Track1>

     <mpp1:Track2>07CCAC9B925B2460CC81E463372157A1091338F355FD63FEAE85
3DFF2979176769F305601F292FA4</mpp1:Track2>
                              <mpp1:Track3/>
                              </mpp1:EncryptedCardSwipe>
                              <mpp1:ZIP>12345</mpp1:ZIP>
                         </mpp1:CardSwipeInput>
```

```
                                    <mpp1:CustomerTransactionID>MPPGv4
ProcessKeyPadEntry</mpp1:CustomerTransactionID>
                               <mpp1:TransactionInput>
                                    <mpp1:Amount>2</mpp1:Amount>

     <mpp1:ClientCertAsBase64String></mpp1:ClientCertAsBase64String>

     <mpp1:ClientCertPassword></mpp1:ClientCertPassword>
                                    <mpp1:ProcessorName>Rapid Connect v3 -
pilot</mpp1:ProcessorName>

                                    <mpp1:TransactionInputDetails>
                                         <sys:KeyValuePairOfstringstring>
                                             <sys:key></sys:key>
                                             <sys:value></sys:value>

     </sys:KeyValuePairOfstringstring>
                                    </mpp1:TransactionInputDetails>

     <mpp1:TransactionType>SALE</mpp1:TransactionType>
                               </mpp1:TransactionInput>
                         </mpp1:ProcessKeyPadEntryRequest>
                    </mpp:ProcessKeyPadEntryRequests>
              </mpp:ProcessKeyPadEntry>
     </soapenv:Body>
</soapenv:Envelope>
```

ProcessKeyPadEntry Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
    <s:Body>
       <ProcessKeyPadEntryResponse
xmlns="http://www.magensa.net/MPPGv4/">
          <ProcessKeyPadEntryResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
             <a:ProcessKeyPadEntryResponse>
                <a:AdditionalResponseData i:nil="true"
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric"/>
                <a:CardSwipeOutput>
                   <a:AdditionalOutputData
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                      <b:KeyValuePairOfstringstring>
                         <b:key>Token</b:key>

<b:value>FA820115DFE0012465386661306563642D363134662D343266342D6232653
12D636662623033363937336262DFE00205312E302E30DFE004421323032322D30332D3
3315430303A32353A31372E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30355430373A32353A31392E333739333737355ADFE0070A4D4
9353733237343730DFE008073130303030313132DFE0092463366661373633622D6133
34312D346335532D613130302D6138356135646463537323536DFE011202B42C5DEBD4CF
D1864B627B970663F2CF58BA594AEAA376583FE839CE632965EDFE0120A90114000000
0000354BBDFE00320DE04908C31D532FF39F6D5CBE8F5614401400FBD99F1E555EB902
B327F4D3920</b:value>
                      </b:KeyValuePairOfstringstring>
                      <b:KeyValuePairOfstringstring>
                         <b:key>CardType</b:key>
                         <b:value>VISA</b:value>
                      </b:KeyValuePairOfstringstring>
                   </a:AdditionalOutputData>
                   <a:CardID/>
                   <a:IsReplay>true</a:IsReplay>
                   <a:MagnePrintScore>0.0130942</a:MagnePrintScore>
                   <a:PANLast4>0119</a:PANLast4>
                </a:CardSwipeOutput>
                <a:CustomerTransactionID>MPPGv4
ProcessKeyPadEntry</a:CustomerTransactionID>
                <a:MPPGv4WSFault i:nil="true"/>
                <a:MagTranID>7208f25e-9ffd-4681-8c94-
173dc6845f0e</a:MagTranID>
                <a:TransactionOutput>
                   <a:AVSResult>N</a:AVSResult>
                   <a:AuthCode>173333</a:AuthCode>
                   <a:AuthorizedAmount>2</a:AuthorizedAmount>
                   <a:CVVResult i:nil="true"/>

<a:IsTransactionApproved>true</a:IsTransactionApproved>
```

```
                    <a:IssuerAuthenticationData i:nil="true"/>
                    <a:IssuerScriptTemplate1 i:nil="true"/>
                    <a:IssuerScriptTemplate2 i:nil="true"/>

<a:Token>FA820115DFE0012465386661306563642D363134662D343266342D6232653
12D63666262303336393937336262DFE00205312E302E30DFE00421323032322D30332D3
3315430303A32353A31372E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30355430373A32353A31392E333739333737355ADFE0070A4D4
93537323734373430DFE008073130303030313132DFE0092463366661373633622D6133
34312D346335332D613130302D61383561356464353732353536DFE011202B42C5DEBD4CF
D1864B627B970663F2CF58BA594AEAA376583FE839CE632965EDFE0120A90114000000
0000354BBDFE00320DE04908C31D532FF39F6D5CBE8F5614401400FBD99F1E555EB902
B327F4D3920</a:Token>


<a:TransactionID>7591862672145210213</a:TransactionID>


<a:TransactionMessage>APPROVAL</a:TransactionMessage>
                    <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                        <b:KeyValuePairOfstringstring>
                            <b:key>ProcessorResponse</b:key>
                            <b:value><![CDATA[HTTP/1.1 200 OKContent-
Length: 1306
Content-Type: text/xml
Date: Fri, 05 Jul 2019 07:25:19 GMT
Server: Apache
&<?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
 <RespClientID>
  <DID>0001244432412346 79102</DID>
  <ClientRef>0006584VRMA015</ClientRef>
 </RespClientID>
 <Status StatusCode="OK"></Status>
 <TransactionResponse>
  <ReturnCode>000</ReturnCode>
  <Payload Encoding="cdata"><![CDATA[<?xml version="1.0"
encoding="utf-8"?><GMF xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="com/firstdata/Merchant/gmfV6.10"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Sale</TxnType><LocalDateTime>20190705
002519</LocalDateTime><TrnmsnDateTime>20190705072521</TrnmsnDateTime><
STAN>088125</STAN><RefNum>000000088125</RefNum><OrderNum>00088125</Ord
erNum><TermID>00000001</TermID><MerchID>RCTST0000006128</MerchID><TxnA
mt>2</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><AcctNum>476
173******0119</AcctNum><AVSResultCode>N</AVSResultCode></CardGrp><Visa
Grp><ACI>A</ACI><CardLevelResult>VI</CardLevelResult><TransID>75918626
72145210213</TransID></VisaGrp><RespGrp><RespCode>000</RespCode><AuthI
D>173333</AuthID><AddtlRespData>APPROVAL</AddtlRespData><AthNtwkID>02<
/AthNtwkID><AthNtwkNm>VISA</AthNtwkNm></RespGrp></CreditResponse></GMF
>]]]]>><![CDATA[</Payload>
 </TransactionResponse>
```

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```
</Response>]]></b:value>
                    </b:KeyValuePairOfstringstring>
                </a:TransactionOutputDetails>
                <a:TransactionStatus>000</a:TransactionStatus>
            </a:TransactionOutput>
            <a:TransactionUTCTimestamp>2019-07-05
07:25:16Z</a:TransactionUTCTimestamp>
        </a:ProcessKeyPadEntryResponse>
      </ProcessKeyPadEntryResult>
    </ProcessKeyPadEntryResponse>
  </s:Body>
</s:Envelope>
```

2.7   ProcessReferenceId

This operation processes a batch of ProcessReferenceIDRequest elements for previously processed transactions.

2.7.1   INPUT PROPERTIES

Property(*)	Value	Description
AdditionalRequestData	Array of key / value	Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request.
Amount *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API.
ClientCertAsBase64String	String	Client certificate to accessing the targeted web service formatted in base64
ClientCertPassword	String	Client certificate password
CustomerCode *	String	Customer code for credential assigned by Magensa.
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference.
Password *	String	Password for credential assigned by Magensa.
ProcessorName *	String	Magensa assigned name for third-party service provider.
ReferenceAuthCode	String	Authorization code of a prior transaction.
ReferenceTransactionID *	String	Transaction ID of a prior transaction.
TransactionInputDetails	Array of key / value	Contains transaction information required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionType *	String	Transaction type: CAPTURE, VOID, REFUND, FORCE, REJECT
Username *	String	Username for credential assigned by Magensa.

Note: * = Required

2.7.2 OUTPUT PROPERTIES

Property	Value	Description
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
AVSResult	String	Address Verification System result from target service provider.
CustomerTransactionID	String	Client-assigned transaction ID from input.
CVVResult	String	Card Verification Value result from target service provider.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 2 from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
MagTranID	String	Transaction ID (GUID) from Magensa.
MPPGv4WSFault	String	Contains FaultCode, FaultReason and additional details when an error is encountered while processing particular request. Otherwise is null.
Token	String	Token if target service provider is Magensa's Token web service.
TransactionID	String	Transaction ID from target service provider.
TransactionMessage	String	Transaction Message from target service provider.
TransactionOutputDetails	String	Contains additional output data returned by the target service provider. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
TransactionStatus	Array of key / value	Transaction status from target service provider.
TransactionUTCTimestamp	String	Transaction timestamp from Magensa.

ProcessReferenceID Request:

```
POST https://mppg.magensa.net/v4/MPPGv4Service.svc HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: text/xml;charset=UTF-8
SOAPAction:
"http://www.magensa.net/MPPGv4/IMPPGv4Service/ProcessReferenceID"
Content-Length: 3542
Host: mppg.magensa.net
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)

<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mpp="http://www.magensa.net/MPPGv4/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
    <soapenv:Header/>
    <soapenv:Body>
        <mpp:ProcessReferenceID>
            <mpp:ProcessReferenceIDRequests>
                <mpp1:ProcessReferenceIDRequest>
                    <mpp1:AdditionalRequestData>
                        <sys:KeyValuePairOfstringstring>
                            <sys:key></sys:key>
                            <sys:value></sys:value>
                        </sys:KeyValuePairOfstringstring>
                    </mpp1:AdditionalRequestData>
                    <mpp1:Authentication>
                        <mpp1:CustomerCode>customercode</mpp1:CustomerCode>
                        <mpp1:Password>password</mpp1:Password>
                        <mpp1:Username>username</mpp1:Username>
                    </mpp1:Authentication>

<mpp1:CustomerTransactionID>123</mpp1:CustomerTransactionID>
                    <mpp1:TransactionInput>
                        <mpp1:Amount>100</mpp1:Amount>
                        <mpp1:ProcessorName>Jet Pay</mpp1:ProcessorName>
                        <mpp1:TransactionInputDetails>
                        <sys:KeyValuePairOfstringstring>
                            <sys:key>CCTrack1</sys:key>

<sys:value>B4555555555555584^JETPAY/MAGENSA^20121010000000000496000000
00000</sys:value>
                        </sys:KeyValuePairOfstringstring>
                        </mpp1:TransactionInputDetails>
                        <mpp1:TransactionType>VOID</mpp1:TransactionType>
                    <mpp1:ReferenceAuthCode>TEST34</mpp1:ReferenceAuthCode>

<mpp1:ReferenceTransactionID>000000000000002500</mpp1:ReferenceTransac
tionID>
```

```
                    </mpp1:TransactionInput>
                </mpp1:ProcessReferenceIDRequest>

                <mpp1:ProcessReferenceIDRequest>
                    <mpp1:AdditionalRequestData>
                        <sys:KeyValuePairOfstringstring>
                            <sys:key></sys:key>
                            <sys:value></sys:value>
                        </sys:KeyValuePairOfstringstring>
                    </mpp1:AdditionalRequestData>
                    <mpp1:Authentication>
                        <mpp1:CustomerCode>customercode</mpp1:CustomerCode>
                        <mpp1:Password>password</mpp1:Password>
                        <mpp1:Username>username</mpp1:Username>
                    </mpp1:Authentication>

<mpp1:CustomerTransactionID>456</mpp1:CustomerTransactionID>
                    <mpp1:TransactionInput>
                        <mpp1:Amount>200</mpp1:Amount>
                        <mpp1:ProcessorName>Jet Pay</mpp1:ProcessorName>
                        <mpp1:TransactionInputDetails>
                        <sys:KeyValuePairOfstringstring>
                            <sys:key>CCTrack1</sys:key>

<sys:value>B4555555555555584^JETPAY/MAGENSA^201210100000000000496000000
00000</sys:value>
                        </sys:KeyValuePairOfstringstring>
                        </mpp1:TransactionInputDetails>
                        <mpp1:TransactionType>VOID</mpp1:TransactionType>
                    <mpp1:ReferenceAuthCode>TEST51</mpp1:ReferenceAuthCode>

<mpp1:ReferenceTransactionID>000000000000002501</mpp1:ReferenceTransac
tionID>
                    </mpp1:TransactionInput>
                </mpp1:ProcessReferenceIDRequest>
            </mpp:ProcessReferenceIDRequests>
        </mpp:ProcessReferenceID>
    </soapenv:Body>
</soapenv:Envelope>
```

ProcessReferenceID Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
    <s:Body>
        <ProcessReferenceIDResponse
xmlns="http://www.magensa.net/MPPGv4/">
            <ProcessReferenceIDResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv4WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
                <a:ProcessReferenceIDResponse>
                    <a:CustomerTransactionID>123</a:CustomerTransactionID>
                    <a:MPPGv4WSFault i:nil="true"/>
                    <a:MagTranID>67b02ed0-d207-4d6f-b90d-
cea4142a16f4</a:MagTranID>
                    <a:TransactionOutput>
                        <a:AVSResult i:nil="true"/>
                        <a:AuthCode>TEST34</a:AuthCode>
                        <a:AuthorizedAmount i:nil="true"/>
                        <a:CVVResult i:nil="true"/>

<a:IsTransactionApproved>true</a:IsTransactionApproved>
                        <a:IssuerAuthenticationData i:nil="true"/>
                        <a:IssuerScriptTemplate1 i:nil="true"/>
                        <a:IssuerScriptTemplate2 i:nil="true"/>
                        <a:Token i:nil="true"/>

<a:TransactionID>000000000000002500</a:TransactionID>

<a:TransactionMessage>APPROVED</a:TransactionMessage>
                        <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                            <b:KeyValuePairOfstringstring>
                                <b:key>ProcessorResponse</b:key>
                                <b:value><![CDATA[HTTP/1.1 200 OKVary: Accept-
Encoding
Transfer-Encoding: chunked
Content-Type: text/plain; charset=UTF-8
Date: Thu, 11 May 2017 21:03:46 GMT
Server: Apache

&<JetPayResponse
Version="2.0"><TransactionID>000000000000002500</TransactionID>
<ActionCode>000</ActionCode>
<Approval>TEST34</Approval>
<ResponseText>APPROVED</ResponseText>
<UniqueID>QkVhWbUnQnQiRoPkPcPiQkUm</UniqueID>
<RRN>535700004530</RRN>
<RawResponseCode>00</RawResponseCode>
</JetPayResponse>]]></b:value>
                            </b:KeyValuePairOfstringstring>
                        </a:TransactionOutputDetails>
```

```
                <a:TransactionStatus>000</a:TransactionStatus>
            </a:TransactionOutput>
            <a:TransactionUTCTimestamp>2017-05-11
21:03:45Z</a:TransactionUTCTimestamp>
        </a:ProcessReferenceIDResponse>
        <a:ProcessReferenceIDResponse>
            <a:CustomerTransactionID>456</a:CustomerTransactionID>
            <a:MPPGv4WSFault i:nil="true"/>
            <a:MagTranID>54525019-518b-4dfb-9f81-
b8cbcb070ea0</a:MagTranID>
            <a:TransactionOutput>
                <a:AVSResult i:nil="true"/>
                <a:AuthCode>TEST51</a:AuthCode>
                <a:AuthorizedAmount i:nil="true"/>
                <a:CVVResult i:nil="true"/>

<a:IsTransactionApproved>true</a:IsTransactionApproved>
                <a:IssuerAuthenticationData i:nil="true"/>
                <a:IssuerScriptTemplate1 i:nil="true"/>
                <a:IssuerScriptTemplate2 i:nil="true"/>
                <a:Token i:nil="true"/>

<a:TransactionID>000000000000002501</a:TransactionID>

<a:TransactionMessage>APPROVED</a:TransactionMessage>
                <a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
                    <b:KeyValuePairOfstringstring>
                        <b:key>ProcessorResponse</b:key>
                        <b:value<![CDATA[HTTP/1.1 200 OKVary: Accept-
Encoding
Transfer-Encoding: chunked
Content-Type: text/plain; charset=UTF-8
Date: Thu, 11 May 2017 21:03:46 GMT
Server: Apache

&<JetPayResponse
Version="2.0"><TransactionID>000000000000002501</TransactionID>
<ActionCode>000</ActionCode>
<Approval>TEST51</Approval>
<ResponseText>APPROVED</ResponseText>
<UniqueID>QkVhWbUnQnQiRoPkPcPiQkUm</UniqueID>
<RRN>535700004530</RRN>
<RawResponseCode>00</RawResponseCode>
</JetPayResponse>]]></</b:value>
                    </b:KeyValuePairOfstringstring>
                </a:TransactionOutputDetails>
                <a:TransactionStatus>000</a:TransactionStatus>
            </a:TransactionOutput>
            <a:TransactionUTCTimestamp>2017-05-11
21:03:45Z</a:TransactionUTCTimestamp>
```

```
            </a:ProcessReferenceIDResponse>
          </ProcessReferenceIDResult>
        </ProcessReferenceIDResponse>
    </s:Body>
</s:Envelope>
```

3   Fault Codes and Reasons

Fault Code	Fault Reason
603	Customer code is required
604	Username is required
605	Password is required
606	Encrypted data is not valid
607	KSN is not valid
612	Track 2 is not valid
614	MagnePrint status is required
615	Customer transaction ID is not valid
617	CVV is not valid
618	ZIP is not valid
619	Amount is not valid
628	PAN is not valid
629	Expiration date is not valid
630	Name on card is not valid
631	AddressLine1 is not valid
632	AddressLine2 is not valid
633	City is not valid
634	State is not valid
635	Country is not valid
652	Token data is not valid
659	Processor name is not valid
701	Access Denied
702	Device not allowed
708	Encryption type is required
712	Decrypt web service failed
716	Invalid track data after decryption
745	Token parsing failed
5000	Unknown Error

Appendix A   Reserved