

Magensa Payment Protection Gateway

MPPGv4.0

Programmer's Reference Manual

April 2021

Document Number:
D998200263-30

REGISTERED TO ISO 9001:2015

INFORMATION IN THIS PUBLICATION IS SUBJECT TO CHANGE WITHOUT NOTICE AND MAY CONTAIN TECHNICAL INACCURACIES OR GRAPHICAL DISCREPANCIES. CHANGES OR IMPROVEMENTS MADE TO THIS PRODUCT WILL BE UPDATED IN THE NEXT PUBLICATION RELEASE. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, FOR ANY PURPOSE, WITHOUT THE EXPRESS WRITTEN PERMISSION OF MAGTEK, INC.

MagTek®, MagnePrint®, and MagneSafe® are registered trademarks of MagTek, Inc.

Magensa™ is a trademark of MagTek, Inc.

DynaPro™ and DynaPro Mini™, are trademarks of MagTek, Inc.

ExpressCard 2000™ is a trademark of MagTek, Inc.

IPAD® is a trademark of MagTek, Inc.

IntelliStripe® is a registered trademark of MagTek, Inc.

AAMVA™ is a trademark of AAMVA.

American Express® and EXPRESSPAY FROM AMERICAN EXPRESS® are registered trademarks of American Express Marketing & Development Corp.

D-PAYMENT APPLICATION SPECIFICATION® is a registered trademark to Discover Financial Services CORPORATION

MasterCard® is a registered trademark and PayPass™ and Tap & Go™ are trademarks of MasterCard International Incorporated.

Visa® and Visa payWave® are registered trademarks of Visa International Service Association.

MAS-CON® is a registered trademark of Pancon Corporation.

Molex® is a registered trademark and PicoBlade™ is a trademark of Molex, its affiliates, related companies, licensors, and/or joint venture partners

ANSI®, the ANSI logo, and numerous other identifiers containing "ANSI" are registered trademarks, service marks, and accreditation marks of the American National Standards Institute (ANSI).

ISO® is a registered trademark of the International Organization for Standardization.

UL™ and the UL logo are trademarks of UL LLC.

PCI Security Standards Council® is a registered trademark of the PCI Security Standards Council, LLC.

EMV® is a registered trademark in the U.S. and other countries and an unregistered trademark elsewhere.

The EMV trademark is owned by EMVCo, LLC. The Contactless Indicator mark, consisting of four graduating arcs, is a trademark owned by and used with permission of EMVCo, LLC.

The *Bluetooth*® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by MagTek is under license.

Google Play™ store, Google Wallet™ payment service, and Android™ platform are trademarks of Google Inc.

Apple Pay®, iPhone®, iPod®, Mac®, and OS X® are registered trademarks of Apple Inc., registered in the U.S. and other countries. iPad™ is a trademark of Apple, Inc. App StoreSM is a service mark of Apple Inc., registered in the U.S. and other countries. IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used by Apple Inc. under license.

Microsoft®, Windows®, and .NET® are registered trademarks of Microsoft Corporation.

All other system names and product names are the property of their respective owners.

Table 0-1 - Revisions

Rev Number	Date	Notes
10		Initial Release
20	Oct 2020	Updated
30	Apr 2021	Added notes for JSON payload support

Table of Contents

Table of Contents	4
1 Introduction	5
2 MPPGv4 Operations	6
2.1 GetProcessorReport	6
2.1.1 INPUT PROPERTIES	6
2.1.2 OUTPUT PROPERTIES	7
2.2 ProcessCardSwipe	11
2.2.1 INPUT PROPERTIES	11
2.2.2 OUTPUT PROPERTIES	12
2.3 ProcessData	18
2.3.1 INPUT PROPERTIES	18
2.3.2 OUTPUT PROPERTIES	19
2.4 ProcessManualEntry	25
2.4.1 INPUT PROPERTIES	25
2.4.2 OUTPUT PROPERTIES	26
2.5 ProcessToken	31
2.5.1 INPUT PROPERTIES	31
2.5.2 OUTPUT PROPERTIES	32
2.6 ProcessKeyPadEntry	37
2.6.1 INPUT PROPERTIES	37
2.6.2 OUTPUT PROPERTIES	38
2.7 ProcessReferenceld	44
2.7.1 INPUT PROPERTIES	44
2.7.2 OUTPUT PROPERTIES	45
3 Fault Codes and Reasons	51
Appendix A Reserved	52

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.

If you intend to use JSON payloads instead of SOAP, refer to the JSON help page (i.e., [.../MPPGv4Service.svc/JSON/help](#)) for templates to various operations (only difference with respect to sample SOAP requests is for enum values – while SOAP takes in enum-names, in JSON payloads you will have to provide the enum-values).

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 request, the details will be available in the corresponding MPPGv4Fault element. When successful, the value of this MPPGv4WSFault element will be null.

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 (Integer for JSON)	Transaction type: REPORT In case of JSON payload, provide enum-integer-value of 9
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:TransactionOutput>
          <a:IsTransactionApproved>true</a:IsTransactionApproved>
          <a:IssuerAuthenticationData i:nil="true"/>
          <a:IssuerScriptTemplatel i:nil="true"/>
          <a:IssuerScriptTemplate2 i:nil="true"/>
          <a:Token i:nil="true"/>
          <a:TransactionID>63158467</a:TransactionID>
        </a:GetProcessorReportResponse>
        <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</AcceptorID><AccountID>Accountid</AccountID><Name>VANTIV TEST EMV 160 - Magensa</Name><TerminalID>0001</TerminalID><ApplicationID>8155</ApplicationID><ApprovalNumber>099649</ApprovalNumber><ApprovedAmount>4.00</ApprovedAmount><ExpirationMonth>04</ExpirationMonth><ExpirationYear>16</ExpirationYear><ExpressResponseCode>0</ExpressResponseCode><ExpressResponseMessage>Approved</ExpressResponseMessage><HostBatchID>741</HostBatchID><HostItemID>7</HostItemID><HostResponseCode>00</HostResponseCode><OriginalAuthorizedAmount>4.00</OriginalAuthorizedAmount><TicketNumber>000000</TicketNumber><TrackingID>E9F2B1C4112944F491D0CA5DD2C17974</TrackingID><TerminalType>1</TerminalType><TransactionAmount>4.00</TransactionAmount><TransactionStatus>Approved</TransactionStatus><TransactionStatusCode>1</TransactionStatusCode><TransactionType>CreditCardSale</TransactionType><CardNumberMasked>xxxx-xxxx-xxxx-6669</CardNumberMasked><CardLogo>Mastercard</CardLogo><CardType>Credit</CardType><TrackDataPresent>TRUE</TrackDataPresent><HostTransactionID>100000</HostTransactionID><ExpressTransactionDate>20201014</ExpressTransactionDate><ExpressTransactionTime>052113</ExpressTransactionTime><TimeStamp>2020-10-14T05:21:14.053</TimeStamp><LaneNumber>418324</LaneNumber><IntegrationTypeID>1</IntegrationTypeID><BatchStatusCode>1</BatchStatusCode><SystemTraceAuditNumber>158467</SystemTraceAuditNumber><RetrievalReferenceNumber>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><CardInputCode>2</CardInputCode></Item></Items></ReportingData><ReportingID>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 (Integer for JSON)	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT, TOKEN. In case of JSON payload, provide enum-integer-value i.e., 1, 2, 3, 4, 5, 6, 7, 8 respectively
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>9011400B487DBC000D0</mpp1:KSN>
                    <mpp1:MagnePrint>BDB8B02E5569C4B6D1F5FFC39C1A9A1377568986A3D99FDF
A9B623A2C6DE340985B54C08EE80F6DDDB08BEE29E061E304AD404CFE91A721A</mpp1:
:MagnePrint>
                    <mpp1:MagnePrintStatus>61403000</mpp1:MagnePrintStatus>
                    <mpp1:Track1>365219542E85374DA5988757ADFD31982A20CAB580615E214640
4293F6A55B838AA2F33BDCEC61FFDDDFDFD4C36C5719712AA269EA3C598B9400A0F7EE1
DD283ADBFB14BB4A74A8516460405C95060B123</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:TransactionInput>
        </mpp1:ProcessCardSwipeRequest>
    </mpp:ProcessCardSwipeRequests>
</mpp:ProcessCardSwipe>
</soapenv:Body>
</soapenv:Envelope>
```

```
                </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
72D653039616662373033383964DFE00205312E302E30DFE00421323032322D30332D3
3305430333A34353A31352E3030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30345431303A34353A31372E323339373730315ADFE0070A4D4
93537323734373430DFE0080731303030303132DFE0092435303166343265622D39643
6352D346366622D396437642D616530633165663930396539DFE01120F17557FD79CEE
AFDF3FD11E085F73F22F6160574B38AC8F56538DA1D9C81F33EDFE0120A9011400000
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:ProcessCardSwipeResponse>
      </ProcessCardSwipeResult>
    </ProcessCardSwipeResponse>
  </s:Body>
</s:Envelope>
```

```

        <a:IssuerScriptTemplate1 i:nil="true"/>
        <a:IssuerScriptTemplate2 i:nil="true"/>
<a:Token>FA820115DFE0012466303636373936382D396332392D346137392D3839353
72D653039616662373033383964DFE00205312E302E30DFE00421323032322D30332D3
3305430333A34353A31352E3030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30345431303A34353A31372E323339373730315ADFE0070A4D4
93537323734373430DFE0080731303030303132DFE0092435303166343265622D39643
6352D346366622D396437642D616530633165663930396539DFE01120F17557FD79CEE
AFDF3FD11E085F73F22F6160574B38AC8F56538DA1D9C81F33EDFE0120A9011400000
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>00000088112</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.
Data *	String	Encrypted EMV transaction data (ARQC) from device.
DataFormatType *	String (Integer for JSON)	Format of Data: "TLV", "NONE" In case of JSON payload, provide enum-integer-value i.e., 0, 1 respectively
EncryptionType *	String	Encryption type used for Data: 80 (DUKPT Key Data Variant), 81 (DUKPT Key PIN Variant). If present in encrypted EMV transaction data from device, that value overrides this input value
KSN *	String	Key serial number
NumberOfPaddedBytes *	String	Number of bytes padded to the end of the decrypted Data to make a multiple of 8 bytes.
Password *	String	Password for credential assigned by Magensa.
PaymentMode *	String (Integer for JSON)	Mode of transaction payment: EMV, MagStripe (fallback option for EMV). In case of JSON payload, provide enum-integer-value i.e., 2, 1 respectively
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>.
TransactionType *	String (Integer for JSON)	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT. In case of JSON payload, provide enum-integer-value i.e., 1, 2, 3, 4, 5, 6, 7 respectively
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.


```
<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>F9820207DFDF540A00000000000000000000DFDF550182DFDF250F4234383
744424330323231</b:value>
                </b:KeyValuePairOfstringstring>
                <b:KeyValuePairOfstringstring>
                <b:key>CardType</b:key>
                <b:value>AMEX</b:value>
                </b:KeyValuePairOfstringstring>
              </a:AdditionalOutputData>
          <a:CardID>0iknQM50e2pGg9+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
62D313039326633653032306133DFE00205312E302E30DFE00421323032322D30332D3
```

```
3305430353A31303A33332E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30345431323A31303A33332E353432323633305ADFE0070A4D4
93537323734373430DFE0080731303030303132DFE0092435623461353830332D63313
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><PymtType>Credit</PymtType><TxnType>Authorization</TxnType><LocalDateTime>20190704051035</LocalDateTime><TrnmsnDateTime>20190704121036</TrnmsnDateTime><STAN>088120</STAN><RefNum>000000088120</RefNum><OrderNum>00088120</OrderNum><TermID>00000001</TermID><MerchID>RCTST0000006128</MerchID><TxnAmt>2</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><AcctNum>374245****1003</AcctNum></CardGrp><EMVGrp><EMVData>8A023030910A7368FFDBEA8525073030</EMVData><ServCode>201</ServCode><AppExpDate>241231</AppExpDate></EMVGrp><AmexGrp><AmExPOSData>561101500301</AmExPOSData><AmExTranID>704121036562909</AmExTranID></AmexGrp><RespGrp><RespCode>000</RespCode><AuthID>722336</AuthID><AddtlRespData>APPROVAL</AddtlRespData><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:TransactionUTCimestamp>2019-07-04
12:10:33Z</a:TransactionUTCimestamp>
                </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 (Integer for JSON)	Transaction type: SALE, AUTHORIZE. In case of JSON payload, provide enum-integer-value i.e., 1, 2 respectively
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 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.

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:Authentication>
          </mpp1:ProcessManualEntryRequest>
        </mpp1:ProcessManualEntryRequests>
      </mpp:ProcessManualEntry>
    </soapenv:Body>
  </soapenv:Envelope>
```

```

        <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>FA820176DFE0012439396235666336612D363030622D343966372D6135656
22D366235613738363461666536DFE00205312E302E30DFE00421323032322D30332D3
3305432333A31393A32362E3030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30355430363A31393A32372E333232333335385ADFE0070A4D4
93537323734373430DFE0080731303030303132DFE0092432303061333830612D37333
1322D343962342D626563622D363962333030363534346337DFE0118180A7443B2BF88
114C66C757763F7343D49D11FCAFAC69A9B1C47591198A7566A63CB6E0E3179DC87BFF
C4E222A1F5B41D1E3D04DADCB417AA8836141756D8BF75F6FA7971FE94F6CCF0E746AA
36E6BBEC38AE230A5E2142988445844B055123655538F41A9780A2E445CA9BF282117D
87671B3B527FF548303FF0DB82D49EF1DB5DFE0120A901140000000003547ADFE0032
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><PymtType>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 *	String (Integer for JSON)	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT. In case of JSON payload, provide enum-integer-value i.e., 1, 2, 3, 4, 5, 6, 7 respectively
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

&lt;?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><PymtType>Credit</PymtType><TxnType>Authorization</TxnType><LocalDateTime>20190618045902</LocalDateTime><TrnmsnDateTime>20190618115904</TrnmsnDateTime><STAN>087884</STAN><RefNum>000000087884</RefNum><OrderNum>00087884</OrderNum><TermID>00000001</TermID><MerchID>RCTST0000006128</MerchID><TxnAmt>2</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><AcctNum>476173*****0119</AcctNum><AVSResultCode>N</AVSResultCode></CardGrp><EMVGrp><EMVData>8A0230309F3602000A910A24EF84F1B64A71CC3030</EMVData><ServCode>201</ServCode><AppExpDate>221231</AppExpDate><CARC>2</CARC></EMVGrp><VisaGrp><ACI>A</ACI><CardLevelResult>VI</CardLevelResult><TransID>7591694314300360213</TransID></VisaGrp><RespGrp><RespCode>000</RespCode><AuthID>979260</AuthID><AddtlRespData>APPROVAL</AddtlRespData><AthNtwkID>02</AthNtwkID><AthNtwkNm>VISA</AthNtwkNm></RespGrp></CreditResponse></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>FA820115DFE0012432396335613863642D306430362D343234622
D616339382D643339363866643531366561DFE00205312E302E30DFE00421323032322
D30332D31345430343A35393A30302E303030303030302D30373A3030DFE0050450726
F64DFE0061C323031392D30362D31385431313A35393A30312E333132313432395ADFE
0070A4D493537323734373430DFE0080731303030303132DFE00924666237613665663
42D653738612D343538662D623231382D623466653161383438353633DFE011202DAF8
B8161868BC966D82C58F18B37B02F173CC8FAAEAA1B7775F648F401B312DFE0120A901
140000000002FB79DFE003205742DBD4B914DABFEE588A2BB52C2D353C10CB5B3716E
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>
        </mpp1:ProcessTokenRequests>
    </mpp1: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:TransactionOutput>
          <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:ProcessTokenResponse>
      </ProcessTokenResult>
      <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>00012443241234679102</DID>
    <ClientRef>0006583VRMA015</ClientRef>
  </RespClientID>
  <Status StatusCode="OK"></Status>
  <TransactionResponse>
    <ReturnCode>000</ReturnCode>
  </TransactionResponse>
</Response>
          </b:value>
        </b:KeyValuePairOfstringstring>
      </a:TransactionOutputDetails>
    </ProcessTokenResponse>
  </s:Body>
</s:Envelope>
```

```
<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><PymtType>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 (Integer for JSON)	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT, TOKEN. In case of JSON payload, provide enum-integer-value i.e., 1, 2, 3, 4, 5, 6, 7, 8 respectively
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
4293F6A55B838AA2F33BDCEC61FFDDDFDFD4C36C5719712AA269EA3C598B9400A0F7EE1
DD283ADB14BB4A74A8516460405C95060B123</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
12D636662623033363937336262DFE00205312E302E30DFE00421323032322D30332D3
3315430303A32353A31372E3030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30355430373A32353A31392E333739333737355ADFE0070A4D4
93537323734373430DFE0080731303030303132DFE0092463366661373633622D61333
4312D346335332D613130302D613835613564643537323536DFE011202B42C5DEBD4CF
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:ProcessKeyPadEntryResponse>
      </ProcessKeyPadEntryResult>
    </ProcessKeyPadEntryResponse>
  </s:Body>
</s:Envelope>
```

```
<a:IssuerAuthenticationData i:nil="true"/>
<a:IssuerScriptTemplate1 i:nil="true"/>
<a:IssuerScriptTemplate2 i:nil="true"/>
<a:Token>FA820115DFE0012465386661306563642D363134662D343266342D6232653
12D636662623033363937336262DFE00205312E302E30DFE00421323032322D30332D3
3315430303A32353A31372E303030303030302D30373A3030DFE0050450726F64DFE00
61C323031392D30372D30355430373A32353A31392E333739333737355ADFE0070A4D4
93537323734373430DFE0080731303030303132DFE0092463366661373633622D61333
4312D346335332D613130302D613835613564643537323536DFE011202B42C5DEBD4CF
D1864B627B970663F2CF58BA594AEAA376583FE839CE632965EDFE0120A9011400000
0000354BBDFFE00320DE04908C31D532FF39F6D5CBE8F5614401400FBD99F1E555EB902
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>00012443241234679102</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><PymtType>Credit</PymtType><TxnType>Sale</TxnType><LocalDateTime>20190705
002519</LocalDateTime><TrnmsnDateTime>20190705072521</TrnmsnDateTime><
STAN>088125</STAN><RefNum>00000088125</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>
```

```
</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 (Integer for JSON)	Transaction type: CAPTURE, VOID, REFUND, FORCE, REJECT. In case of JSON payload, provide enum-integer-value i.e., 3, 4, 5, 6, 7 respectively
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:ProcessReferenceIDRequest>
      </mpp:ProcessReferenceIDRequests>
    </mpp:ProcessReferenceID>
  </soapenv:Body>
</soapenv:Envelope>

<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:TransactionInput>
  <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>B45555555555555584^JETPAY/MAGENSA^20121010000000000496000000
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>
</mpp1:ProcessReferenceIDRequests>
</mpp1: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:TransactionOutput>
          <a:IsTransactionApproved>true</a:IsTransactionApproved>
          <a:IssuerAuthenticationData i:nil="true"/>
          <a:IssuerScriptTemplatel i:nil="true"/>
          <a:IssuerScriptTemplate2 i:nil="true"/>
          <a:Token i:nil="true"/>
        </a:ProcessReferenceIDResult>
      </s:Body>
    </ProcessReferenceIDResponse>
  </s:Envelope>

<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:TransactionOutput>
    </a:ProcessReferenceIDResponse>
  </a:IsTransactionApproved>true</a:IsTransactionApproved>
  <a:IssuerAuthenticationData i:nil="true"/>
  <a:IssuerScriptTemplatel 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