

MPPGv3

Magensa Payment Protection Gateway version 3.0 Programmer's Reference Manual

November 2020

Document Number:
D998200191-40

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
40	10/29/2020	ProcessEncryptManualEntry Operation updated, Encrypted variant details added Updated GetProcessorReport
30	03/11/2019	Hannah Marks
20	07/30/18	Roger Applewhite
10	06/29/2017	Donnie James

Purpose of the document

The purpose of this document is to describe the various operations available in MPPG v3 and their required or optional input & output parameters. It also provides sample SOAP request & response as reference for client developers.

MPPGv3 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 MPPGv3 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 MPPGv3 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 “AuthorizedAmount” 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”. MPPGv3 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 MPPGv3 is the ability to send a “batch” of requests in a single call to the service. As a result, all MPPGv3 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 MPPGv3WSFault element and in the case of an error or exception raised for that particular request, the details will be available in the corresponding MPPGv3Fault element. When successful, the value of this MPPGv3WSFault 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

Table of Contents

Purpose of the document	4
Table of Contents	5
1 Introduction	6
2 MPPGv3 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 ProcessEMVSRED	19
2.3.1 INPUT PROPERTIES	19
2.3.2 OUTPUT PROPERTIES	21
2.4 ProcessReferenceID	29
2.4.1 INPUT PROPERTIES	29
2.4.2 OUTPUT PROPERTIES	30
2.5 ProcessManualEntry	36
2.5.1 INPUT PROPERTIES	36
2.5.2 OUTPUT PROPERTIES	37
2.6 ProcessToken	43
2.6.1 INPUT PROPERTIES	43
2.6.2 OUTPUT PROPERTIES	44
2.7 ProcessKeyPadEntry	50
2.7.1 INPUT PROPERTIES	50
2.7.2 OUTPUT PROPERTIES	51
2.8 ProcessEncryptedManualEntry	56
2.8.1 INPUT PROPERTIES	56
2.8.2 OUTPUT PROPERTIES	57
3 Encryption Variant Type	63
4 Fault Codes and Reasons	64
Appendix A Technical Specifications	65

1 Introduction

2 MPPGv3 Operations

2.1 GetProcessorReport

2.1.1 INPUT PROPERTIES

Property (* required)	Type	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	Type	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.
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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/MPPGv3/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.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>43954136</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/MPPGv3/">
      <GetProcessorReportResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:GetProcessorReportResponse>
          <a:CustomerTransactionID/>
          <a:MPPGv3WSFault i:nil="true"/>
          <a:MagTranID>178d3fe9-bad0-49a7-8d0a-
f5791204ca02</a:MagTranID>
          <a:TransactionOutput>
            <a:AVSResult i:nil="true"/>
            <a:AuthCode>025691</a:AuthCode>
            <a:AuthorizedAmount>4.00</a:AuthorizedAmount>
            <a:CVVResult i:nil="true"/>
          </a:TransactionOutput>
          <a:IsTransactionApproved>false</a:IsTransactionApproved>
          <a:IssuerAuthenticationData i:nil="true"/>
          <a:IssuerScriptTemplate1 i:nil="true"/>
          <a:IssuerScriptTemplate2 i:nil="true"/>
          <a:Token i:nil="true"/>
          <a:TransactionID>43954136</a:TransactionID>
          <a:TransactionMessage>Settled</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 OKTransfer-
Encoding: chunked
Cache-Control: private
Content-Type: text/xml; charset=utf-8
Date: Mon, 06 Apr 2020 09:40:25 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>20200406</ExpressTransactionDat
e><ExpressTransactionTime>044028</ExpressTransactionTime><ExpressTrans
actionTimezone>UTC-
05:00:00</ExpressTransactionTimezone><ReportingData><Items><Item><Tran
sactionID>43954136</TransactionID><AcceptorID>4445022937078</AcceptorI
D><AccountID>1044391</AccountID><Name>VANTIV TEST EMV 160 -
Magensa</Name><TerminalID>0001</TerminalID><ApplicationID>8155</Applic
ationID><ApprovalNumber>025691</ApprovalNumber><ApprovedAmount>4.00</A
```

```
pprovedAmount><ExpirationMonth>04</ExpirationMonth><ExpirationYear>16<
/ExpirationYear><ExpressResponseCode>0</ExpressResponseCode><ExpressRe
sponseMessage>Approved</ExpressResponseMessage><HostBatchID>590</HostB
atchID><HostItemID>2</HostItemID><HostResponseCode>00</HostResponseCod
e><OriginalAuthorizedAmount>4.00</OriginalAuthorizedAmount><TicketNumb
er>000000</TicketNumber><TrackingID>98B751B5354844FDB8C2CE2FA74D1D8B</
TrackingID><TerminalType>1
</TerminalType><TransactionAmount>4.00</TransactionAmount><Transaction
Status>Settled</TransactionStatus><TransactionStatusCode>15</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>20200330</ExpressTr
ansactionDate><ExpressTransactionTime>232055</ExpressTransactionTime><
TimeStamp>2020-03-
30T23:20:51.243</TimeStamp><LaneNumber>418324</LaneNumber><Integration
TypeID>1</IntegrationTypeID><BatchStatusCode>8</BatchStatusCode><Syste
mTraceAuditNumber>954136</SystemTraceAuditNumber><RetrievalReferenceNu
mber>009023954136</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><SettlementFinishTime>2020-03-
31T20:20:02.317</SettlementFinishTime></Item></Items></ReportingData><
ReportingID>85012792</ReportingID></Response></TransactionQueryRespons
e>]]></b:value>
</b:KeyValuePairOfStringstring>
</a:TransactionOutputDetails>
<a:TransactionStatus>15</a:TransactionStatus>
</a:TransactionOutput>
<a:TransactionUTCTimestamp>2020-04-06
09:40:30Z</a:TransactionUTCTimestamp>
</a:GetProcessorReportResponse>
</GetProcessorReportResult>
</GetProcessorReportResponse>
</s:Body>
</s:Envelope>
```

2.2 ProcessCardSwipe

This operation processes a batch of ProcessCardSwipeRequest elements for card-swipe payment mode.

2.2.1 INPUT PROPERTIES

Property (* required)	Type	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

2.2.2 OUTPUT PROPERTIES

Property	Type	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.
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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:

```
POST https://mppg.magensa.net/v3/MPPGv3Service.svc HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: text/xml;charset=UTF-8
SOAPAction:
"http://www.magensa.net/MPPGv3/IMPPGv3Service/ProcessCardSwipe"
Content-Length: 5021
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/MPPGv3/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.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: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>B28C0DC</mpp1:DeviceSN>
              <mpp1:KSN>9010010B28C0DC0000FB</mpp1:KSN>
            </mpp1:EncryptedCardSwipe>
          </mpp1:CardSwipeInput>
          <mpp1:MagnePrint>0144A62C8A18203BE697334D96B27BC5EE2B93F79FF157C338C2C
695825BF69C19197760D4B65ADD514A4B69C38075977A3576AF3E5A796E</mpp1:Magn
ePrint>
          <mpp1:MagnePrintStatus>61403000</mpp1:MagnePrintStatus>
          <mpp1:Track1>3C187B54C85E49294BAA284D8B5F4B8C4B3EE2AF7C409E0DF8AAF85C5
EE9D5D95438C4B580B72EC30BA1997945EB2B9B9843400C9ED2D53A5FE55E5C0FDF60E
42C62053230551CEF</mpp1:Track1>
          <mpp1:Track2>080E3EA5606A8FF01ADE6FF9DC5C820E1A6932A9EA36297921E2CC7E3
F9BD9CB6FF553D33E6FE45D</mpp1:Track2>
          <mpp1:Track3></mpp1:Track3>
        </mpp1:ProcessCardSwipeRequest>
      </mpp:ProcessCardSwipeRequests>
    </mpp:ProcessCardSwipe>
  </soapenv:Body>
</soapenv:Envelope>
```

```

        </mpp1:EncryptedCardSwipe>
        <mpp1:ZIP>99999</mpp1:ZIP>
    </mpp1:CardSwipeInput>

<mpp1:CustomerTransactionID>123</mpp1:CustomerTransactionID>
    <mpp1:TransactionInput>
        <mpp1:Amount>100</mpp1:Amount>
        <mpp1:ProcessorName>Jet Pay</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:ProcessCardSwipeRequest>

<mpp1:ProcessCardSwipeRequest>
    <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>B28C0DC</mpp1:DeviceSN>
            <mpp1:KSN>9010010B28C0DC0000FB</mpp1:KSN>

<mpp1:MagnePrint>0144A62C8A18203BE697334D96B27BC5EE2B93F79FF157C338C2C
695825BF69C19197760D4B65ADD514A4B69C38075977A3576AF3E5A796E</mpp1:MagnePrint>

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

<mpp1:Track1>3C187B54C85E49294BAA284D8B5F4B8C4B3EE2AF7C409E0DF8AAF85C5
EE9D5D95438C4B580B72EC30BA1997945EB2B9B9843400C9ED2D53A5FE55E5C0FDF60E
42C62053230551CEF</mpp1:Track1>

<mpp1:Track2>080E3EA5606A8FF01ADE6FF9DC5C820E1A6932A9EA36297921E2CC7E3
F9BD9CB6FF553D33E6FE45D</mpp1:Track2>
    <mpp1:Track3></mpp1:Track3>
</mpp1:EncryptedCardSwipe>
    <mpp1:ZIP>99999</mpp1:ZIP>
</mpp1:CardSwipeInput>

```

```
<mppl:CustomerTransactionID>123</mppl:CustomerTransactionID>
  <mppl:TransactionInput>
    <mppl:Amount>100</mppl:Amount>
    <mppl:ProcessorName>Jet Pay</mppl:ProcessorName>
    <mppl:TransactionInputDetails>
      <sys:KeyValuePairOfstringstring>
        <sys:key></sys:key>
        <sys:value></sys:value>
      </sys:KeyValuePairOfstringstring>
    </mppl:TransactionInputDetails>
    <mppl:TransactionType>SALE</mppl:TransactionType>
  </mppl:TransactionInput>
</mppl:ProcessCardSwipeRequest>
</mpp:ProcessCardSwipeRequests>
</mpp:ProcessCardSwipe>
</soapenv:Body>
</soapenv:Envelope>
```

ProcessCardSwipe Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <ProcessCardSwipeResponse
xmlns="http://www.magensa.net/MPPGv3/">
      <ProcessCardSwipeResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:ProcessCardSwipeResponse>
          <a:CardSwipeOutput>
            <a:AdditionalOutputData i:nil="true"
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric"/>
          </a:CardSwipeOutput>
          <a:CardID>L2H6qxnEFRxus6b6DtxOMySXy0bYwxpPD8AHeqUoHgA=</a:CardID>
            <a:IsReplay>true</a:IsReplay>
            <a:MagnePrintScore>0.865793</a:MagnePrintScore>
          </a:CardSwipeOutput>
          <a:CustomerTransactionID>123</a:CustomerTransactionID>
          <a:MPPGv3WSFault i:nil="true"/>
          <a:MagTranID>9377f617-28c3-4f27-88be-
0f2f311dbdff</a:MagTranID>
          <a:TransactionOutput>
            <a:AVSResult>Y</a:AVSResult>
            <a:AuthCode>TEST94</a:AuthCode>
            <a:AuthorizedAmount i:nil="true"/>
            <a:CVVResult>P</a:CVVResult>
          </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>000000000000002475</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 16:17:05 GMT
Server: Apache
&
<JetPayResponse Version="2.0">
  <TransactionID>000000000000002475</TransactionID>
  <ActionCode>000</ActionCode>
  <Approval>TEST94</Approval>
```



```

    <CVV2>P</CVV2>
    <ResponseText>APPROVED</ResponseText>
    <UniqueID>QnThRhQoQlPnQjQmQlPnPoYl</UniqueID>
    <RRN>713116000253</RRN>
    <RawResponseCode>00</RawResponseCode>
    <AddressMatch>Y</AddressMatch>
    <ZipMatch>Y</ZipMatch>
    <AVS>Y</AVS>
</JetPayResponse>]]></b:value>
        </b:KeyValuePairOfstringstring>
        </a:TransactionOutputDetails>
        <a:TransactionStatus>000</a:TransactionStatus>
    </a:TransactionOutput>
    <a:TransactionUTCTimestamp>2017-05-11
16:17:05Z</a:TransactionUTCTimestamp>
    </a:ProcessCardSwipeResponse>
    <a:ProcessCardSwipeResponse>
    <a:CardSwipeOutput>
        <a:AdditionalOutputData i:nil="true"
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric"/>

<a:CardID>L2H6qxnEFRxus6b6DtxOMySXy0bYwxpPD8AHeqUoHgA=</a:CardID>
    <a:IsReplay>true</a:IsReplay>
    <a:MagnePrintScore>0.865793</a:MagnePrintScore>
    </a:CardSwipeOutput>
    <a:CustomerTransactionID>456</a:CustomerTransactionID>
    <a:MPPGv3WSFault i:nil="true"/>
    <a:MagTranID>7266d35f-d910-4d72-a810-
b6d3798a2fc2</a:MagTranID>
    <a:TransactionOutput>
        <a:AVSResult>Y</a:AVSResult>
        <a:AuthCode>TEST06</a:AuthCode>
        <a:AuthorizedAmount i:nil="true"/>
        <a:CVVResult>P</a:CVVResult>

<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>000000000000002476</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 16:17:05 GMT
Server: Apache
&
<JetPayResponse Version="2.0">
  <TransactionID>00000000000002476</TransactionID>
  <ActionCode>000</ActionCode>
  <Approval>TEST06</Approval>
  <CVV2>P</CVV2>
  <ResponseText>APPROVED</ResponseText>
  <UniqueID>QnThRhQoQlPnQjQmQlPnPnPh</UniqueID>
  <RRN>713116000255</RRN>
  <RawResponseCode>00</RawResponseCode>
  <AddressMatch>Y</AddressMatch>
  <ZipMatch>Y</ZipMatch>
  <AVS>Y</AVS>
</JetPayResponse>]]></b:value>
      </b:KeyValuePairOfStringstring>
    </a:TransactionOutputDetails>
    <a:TransactionStatus>000</a:TransactionStatus>
  </a:TransactionOutput>
  <a:TransactionUTCTimestamp>2017-05-11
16:17:05Z</a:TransactionUTCTimestamp>
  </a:ProcessCardSwipeResponse>
</ProcessCardSwipeResult>
</ProcessCardSwipeResponse>
</s:Body>
</s:Envelope>
```

2.3 ProcessEMVSRED

This operation processes a batch of ProcessEMVSREDRequest elements for EMV payment mode.

2.3.1 INPUT PROPERTIES

Property (* required)	Type	Description
AdditionalRequestData	Array of key / value	<p>Contains custom request data required by the target service provider. Elements are expressed as key/value pairs grouped under <KeyValuePairOfstringstring>. See sample request.</p> <p>For a fallback transaction, payload tags within the first call may be preserved and passed into the second call. This example shows how to preserve the tags CCTrack2, CCNum, YY, and MM by including a NonremovableTags key/value pair.</p> <pre>key = NonremovableTags value = <![CDATA[<NonremovableTags> <Tag>CCTrack2</Tag> <Tag>CCNum</Tag> <Tag>YY</Tag> <Tag>MM</Tag> </NonremovableTags>]]></pre> <p>To mask a field of the payload response, specify the start and end of a field. This example shows how to mask the contents within an AcctNum field by including a PayloadResponseFieldsToMask key/value pair.</p> <pre>key = PayloadResponseFieldsToMask value = <![CDATA[<FieldsToMask> <Field> <FieldStart>&lt;AcctNum&gt;</FieldStart> <FieldEnd>&lt;/AcctNum&gt;</FieldEnd> <FieldPattern>\$MaskString({MachedField},0,\$Add(\$Length({MachedField}):-4),*) </FieldPattern> </Field> </FieldsToMask>]]></pre>
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.
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.

Property (* required)	Type	Description
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.
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
Username *	String	Username for credential assigned by Magensa.

Note: * = Required

2.3.2 OUTPUT PROPERTIES

Property	Type	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.
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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.

ProcessEMVSRED Request:

```
POST https://mppg.magensa.net/v3/MPPGv3Service.svc HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: text/xml; charset=UTF-8
SOAPAction:
"http://www.magensa.net/MPPGv3/IMPPGv3Service/ProcessEMVSRED"
Content-Length: 5314
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/MPPGv3/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.
Generic">
  <soapenv:Header/>
  <soapenv:Body>
    <mpp:ProcessEMVSRED>
      <mpp:ProcessEMVSREDRequests>
        <mpp1:ProcessEMVSREDRequest>
          <mpp1:AdditionalRequestData>
            <sys:KeyValuePairOfstringstring>
              <sys:key>NonremovableTags</sys:key>
              <sys:value><![CDATA[<NonremovableTags><Tag>CCTrack2</Tag><Tag>CCNum</T
ag><Tag>YY</Tag><Tag>MM</Tag></NonremovableTags]]></sys:value>
            </sys:KeyValuePairOfstringstring>
            <sys:KeyValuePairOfstringstring>
              <sys:key>PayloadResponseFieldsToMask</sys:key>
              <sys:value><![CDATA[<FieldsToMask><Field><FieldStart>&lt;AcctNum&gt;</
FieldStart><FieldEnd>&lt;/AcctNum&gt;</FieldEnd></Field></FieldsToMask
>]]></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:EMVSREDInput>
            <mpp1:EMVSREDData>11D9254A8531D345FB0D64E0B765EF6A148914041AC95F73184D
5812BAB6580221FB86033B67E9CB2AD1126EDE619C9CE8697AE654AE1AD9BC9E0D6941
F6E4DE871709D06EEAFD7F1E8679F162B210AB47279D27C8E6508003AAC4E7D15E0694
DEAE7B30BC9263F3522BEE3187C525B22B8207CAA334DA3C856F2E5FB9B12BF4CC8113
4AF43E64269B52A3F0FA68DE1590FA13F70700D98067FF333050F3B5A5D0AAA875AF5A
```

```

94844A106B686E49944A7DB5D550D08F2DFAA267D63968E1A86D15E70FDD4688934F24
909121BABD40D882AD841CBAC4EDD8984E07EFF2BFF03835934794D739906CE46AB445
ABAE3361DC4E14AC229390D41DAE32FB97C83EF72AC5E93E66101AB339A4F66558F818
5F4A7C6A8B1CD824D6405C62AAE2D2E8DBD04CC2DA6139B42F2FFF19EB4C0E32A3CC28
5736BB94D17DE10BB2FCE6A156B5BE2FB622BE74EB9B41A88D34DA8159D634460E4F46
0DAF87F64DACD0ABF409CF9DA4733F290F86FAB6251E283393DD9D39ABB511D064F332
EFDB546B8F0279ABD26AD15608E371C5E418D23F7BE8ED58</mpp1:EMVSREDData>
    <mpp1:EncryptionType>80</mpp1:EncryptionType>
    <mpp1:KSN>95000300000E0C200009</mpp1:KSN>
<mpp1:NumberOfPaddedBytes>3</mpp1:NumberOfPaddedBytes>
    <mpp1:PaymentMode>EMV</mpp1:PaymentMode>
</mpp1:EMVSREDInput>
<mpp1:TransactionInput>
    <mpp1:Amount>100</mpp1:Amount>
    <mpp1:ProcessorName>Jet Pay</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:ProcessEMVSREDRequest>

<mpp1:ProcessEMVSREDRequest>
    <mpp1:AdditionalRequestData>
        <sys:KeyValuePairOfstringstring>
            <sys:key>PayloadResponseFieldsToMask</sys:key>
            <sys:value><![CDATA[<FieldsToMask><Field><FieldStart>&lt;AcctNum&gt;</FieldStart><FieldEnd>&lt;/AcctNum&gt;</FieldEnd></Field></FieldsToMask>]]></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:EMVSREDInput>
<mpp1:EMVSREDData>11D9254A8531D345FB0D64E0B765EF6A148914041AC95F73184D
5812BAB6580221FB86033B67E9CB2AD1126EDE619C9CE8697AE654AE1AD9BC9E0D6941
F6E4DE871709D06EEAFD7F1E8679F162B210AB47279D27C8E6508003AAC4E7D15E0694
DEAE7B30BC9263F3522BEE3187C525B22B8207CAA334DA3C856F2E5FB9B12BF4CC8113
4AF43E64269B52A3F0FA68DE1590FA13F70700D98067FF333050F3B5A5D0AAA875AF5A
94844A106B686E49944A7DB5D550D08F2DFAA267D63968E1A86D15E70FDD4688934F24
909121BABD40D882AD841CBAC4EDD8984E07EFF2BFF03835934794D739906CE46AB445
ABAE3361DC4E14AC229390D41DAE32FB97C83EF72AC5E93E66101AB339A4F66558F818

```

```
5F4A7C6A8B1CD824D6405C62AAE2D2E8DBD04CC2DA6139B42F2FFF19EB4C0E32A3CC28
5736BB94D17DE10BB2FCE6A156B5BE2FB622BE74EB9B41A88D34DA8159D634460E4F46
0DAF87F64DACD0ABF409CF9DA4733F290F86FAB6251E283393DD9D39ABB511D064F332
EFDB546B8F0279ABD26AD15608E371C5E418D23F7BE8ED58</mpp1:EMVSREDData>
    <mpp1:EncryptionType>80</mpp1:EncryptionType>
    <mpp1:KSN>95000300000E0C200009</mpp1:KSN>

<mpp1:NumberOfPaddedBytes>3</mpp1:NumberOfPaddedBytes>
    <mpp1:PaymentMode>EMV</mpp1:PaymentMode>
</mpp1:EMVSREDInput>
<mpp1:TransactionInput>
    <mpp1:Amount>200</mpp1:Amount>
    <mpp1:ProcessorName>Jet Pay</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:ProcessEMVSREDRequest>
</mpp:ProcessEMVSREDRequests>
</mpp:ProcessEMVSRED>
</soapenv:Body>
</soapenv:Envelope>
```


ProcessEMVSRED Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <ProcessEMVSREDResponse xmlns="http://www.magensa.net/MPPGv3/">
      <ProcessEMVSREDResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:ProcessEMVSREDResponse>
          <a:CustomerTransactionID>123</a:CustomerTransactionID>
          <a:EMVSREDOutput>
            <a:AdditionalOutputData
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Ge
neric">
              <b:KeyValuePairOfstringstring>
                <b:key>EMVSREDDataMasked</b:key>
                <b:value>FC820189DFDF024CDFDF02404F575A828A8E959A9B9C5F245F255F2A5F349
F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F279F339F349F359F369F3
79F40DFDF53F5F4DFDF4D575A9F249F6B9F1F571200000000000000000000000000000000
00000005A0800000000000000000000820218008E0E00000000000000000000000000000950
580800410009A031702149B0268009C01005F24030000005F25031606235F2A0208405
F3401019F02060000000001009F0607A00000000410109F0702FFC09F080200029F090
2008C9F0D05B0509C88009F0E050000000009F0F05B0709C98009F10120110A000012
204000000000000000000000FF9F1A0208409F2608EFC9178529F87389F2701809F330
3E0F8C89F34034203009F3501229F360200F09F370422ACA5419F40057000B0B001F51
D9908DD1547A9B91ADEAEDFDF410A9A006300000001200386DFDF42018157120000000
0000000000000000000000000000005A080000000000000000009F1F18313337323930303
030303030303030353939303030303030</b:value>
              </b:KeyValuePairOfstringstring>
            </a:AdditionalOutputData>
            <a:CardID i:nil="true"/>
            <a:IsReplay>true</a:IsReplay>
          </a:EMVSREDOutput>
          <a:MPPGv3WSFault i:nil="true"/>
          <a:MagTranID>d3c7e9cf-7c57-484b-a208-
4e193bb97bef</a:MagTranID>
          <a:TransactionOutput>
            <a:AVSResult i:nil="true"/>
            <a:AuthCode>TEST46</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:IssuerScriptTemplate1 i:nil="true"/>
          <a:IssuerScriptTemplate2 i:nil="true"/>
          <a:Token i:nil="true"/>
        </a:ProcessEMVSREDResponse>
      </ProcessEMVSREDResult>
    </ProcessEMVSREDResponse>
  </s:Body>
</s:Envelope>
<a:TransactionID>000000000000002487</a:TransactionID>
<a:TransactionMessage>APPROVED</a:TransactionMessage>
```

```
<a:TransactionOutputDetails
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Generic">
    <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 18:47:15 GMT
Server: Apache
&
<JetPayResponse Version="2.0">
    <TransactionID>000000000000002487</TransactionID>
    <ActionCode>000</ActionCode>
    <Approval>TEST46</Approval>
    <ResponseText>APPROVED</ResponseText>
    <UniqueID>QnThRhQoQlPnQjQcTlQmTkXm</UniqueID>
    <RRN>753118000108</RRN>
    <RawResponseCode>00</RawResponseCode>
    <ICC/>
</JetPayResponse>]]></b:value>
        </b:KeyValuePairOfstringstring>
    </a:TransactionOutputDetails>
    <a:TransactionStatus>000</a:TransactionStatus>
</a:TransactionOutput>
<a:TransactionUTCTimestamp>2017-05-11
18:47:14Z</a:TransactionUTCTimestamp>
</a:ProcessEMVSREDResponse>
<a:ProcessEMVSREDResponse>
    <a:CustomerTransactionID>456</a:CustomerTransactionID>
    <a:EMVSREDDOutput>
        <a:AdditionalOutputData
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Generic">
            <b:KeyValuePairOfstringstring>
                <b:key>EMVSREDDDataMasked</b:key>
                <b:value>FC820189DFDF024CDFDF02404F575A828A8E959A9B9C5F245F255F2A5F349
F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F279F339F349F359F369F3
79F40DFDF53F5F4DFDF4D575A9F249F6B9F1F571200000000000000000000000000000
00000005A08000000000000000000820218008E0E00000000000000000000000000000950
580800410009A031702149B0268009C01005F24030000005F25031606235F2A0208405
F3401019F02060000000001009F0607A00000000410109F0702FFC09F080200029F090
2008C9F0D05B0509C88009F0E0500000000009F0F05B0709C98009F10120110A000012
2040000000000000000000FF9F1A0208409F2608EFCC9178529F87389F2701809F330
3E0F8C89F34034203009F3501229F360200F09F370422ACA5419F40057000B0B001F51
D9908DD1547A9B91ADEAEDDFDF410A9A006300000001200386DFDF42018157120000000
00000000000000000000000005A08000000000000000009F1F18313337323930303
030303030303035393930303030303030</b:value>
            </b:KeyValuePairOfstringstring>
```

```
        </a:AdditionalOutputData>
        <a:CardID i:nil="true"/>
        <a:IsReplay>true</a:IsReplay>
    </a:EMVSREDOutput>
    <a:MPPGv3WSFault i:nil="true"/>
    <a:MagTranID>f92ef81d-c918-415c-af80-
b5d72298c598</a:MagTranID>
    <a:TransactionOutput>
        <a:AVSResult i:nil="true"/>
        <a:AuthCode>TEST20</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:IssuerScriptTemplate1 i:nil="true"/>
    <a:IssuerScriptTemplate2 i:nil="true"/>
    <a:Token i:nil="true"/>
</a:TransactionOutputDetails>
<a:TransactionID>000000000000002488</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 18:47:16 GMT
Server: Apache
&
<JetPayResponse Version="2.0">
    <TransactionID>000000000000002488</TransactionID>
    <ActionCode>000</ActionCode>
    <Approval>TEST20</Approval>
    <ResponseText>APPROVED</ResponseText>
    <UniqueID>QnThRhQoQlPnQjQcTlQmTkXl</UniqueID>
    <RRN>753118000109</RRN>
    <RawResponseCode>00</RawResponseCode>
    <ICC/>
</JetPayResponse>]]></b:value>
        </b:KeyValuePairOfstringstring>
    </a:TransactionOutputDetails>
    <a:TransactionStatus>000</a:TransactionStatus>
</a:TransactionOutput>
    <a:TransactionUTCTimestamp>2017-05-11
18:47:14Z</a:TransactionUTCTimestamp>
</a:ProcessEMVSREDResponse>
```

```
        </ProcessEMVSREDResult>  
    </ProcessEMVSREDResponse>  
</s:Body>  
</s:Envelope>
```

2.4 ProcessReferenceID

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

2.4.1 INPUT PROPERTIES

Property (* required)	Type	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.
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

2.4.2 OUTPUT PROPERTIES

Property	Type	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.
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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.

ProcessReferenceID Request:

```
POST https://mppg.magensa.net/v3/MPPGv3Service.svc HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: text/xml;charset=UTF-8
SOAPAction:
"http://www.magensa.net/MPPGv3/IMPPGv3Service/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/MPPGv3/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.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:TransactionInput>
        </mpp1:ProcessReferenceIDRequest>
      </mpp:ProcessReferenceIDRequests>
    </mpp:ProcessReferenceID>
  </soapenv:Body>
</soapenv:Envelope>
```

```
<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^20121010000000000496000000
00000</sys:value>
      </sys:KeyValuePairOfstringstring>
    </mpp1:TransactionInputDetails>
    <mpp1:TransactionType>VOID</mpp1:TransactionType>
  </mpp1:TransactionInput>
  <mpp1:ReferenceAuthCode>TEST51</mpp1:ReferenceAuthCode>

<mpp1:ReferenceTransactionID>00000000000002501</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/MPPGv3/">
      <ProcessReferenceIDResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:ProcessReferenceIDResponse>
          <a:CustomerTransactionID>123</a:CustomerTransactionID>
          <a:MPPGv3WSFault 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:MPPGv3WSFault 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>
```

2.5 ProcessManualEntry

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

2.5.1 INPUT PROPERTIES

Property (* required)	Type	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 *	Number	Valid Zip code

Note: * = Required

2.5.2 OUTPUT PROPERTIES

Property	Type	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.
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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.

ProcessManualEntry Request:

```
POST https://mppg.magensa.net/v3/MPPGv3Service.svc HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: text/xml;charset=UTF-8
SOAPAction:
"http://www.magensa.net/MPPGv3/IMPPGv3Service/ProcessManualEntry"
Content-Length: 4309
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/MPPGv3/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.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: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:ProcessManualEntryRequest>
      </mpp:ProcessManualEntryRequests>
      <mpp1:CustomerTransactionID>123</mpp1:CustomerTransactionID>
      <mpp1:ManualEntryInput>
        <mpp1:AddressLine1></mpp1:AddressLine1>
        <mpp1:AddressLine2></mpp1:AddressLine2>
        <mpp1:CVV></mpp1:CVV>
        <mpp1:City></mpp1:City>
        <mpp1:Country></mpp1:Country>
        <mpp1:ExpirationDate>2012</mpp1:ExpirationDate>
        <mpp1:NameOnCard>JETPAY/MAGENSA</mpp1:NameOnCard>
        <mpp1:PAN>4555555555555584</mpp1:PAN>
        <mpp1:State>CA</mpp1:State>
        <mpp1:ZIP>99999</mpp1:ZIP>
      </mpp1:ManualEntryInput>
      <mpp1:TransactionInput>
        <mpp1:Amount>100</mpp1:Amount>
        <mpp1:ProcessorName>Jet Pay</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:ProcessManualEntryRequest>

  <mpp1:ProcessManualEntryRequest>
    <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:ManualEntryInput>
    <mpp1:AddressLine1></mpp1:AddressLine1>
    <mpp1:AddressLine2></mpp1:AddressLine2>
    <mpp1:CVV></mpp1:CVV>
    <mpp1:City></mpp1:City>
    <mpp1:Country></mpp1:Country>
    <mpp1:ExpirationDate>2012</mpp1:ExpirationDate>
    <mpp1:NameOnCard>JETPAY/MAGENSA</mpp1:NameOnCard>
    <mpp1:PAN>4555555555555584</mpp1:PAN>
    <mpp1:State>CA</mpp1:State>
    <mpp1:ZIP>99999</mpp1:ZIP>
  </mpp1:ManualEntryInput>
  <mpp1:TransactionInput>
    <mpp1:Amount>200</mpp1:Amount>
    <mpp1:ProcessorName>Jet Pay</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:ProcessManualEntryRequest>
</mpp:ProcessManualEntryRequests>
</mpp:ProcessManualEntry>
</soapenv:Body>
</soapenv:Envelope>

```

ProcessManualEntry Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <ProcessManualEntryResponse
xmlns="http://www.magensa.net/MPPGv3/">
      <ProcessManualEntryResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:ProcessManualEntryResponse>
          <a:CustomerTransactionID>123</a:CustomerTransactionID>
          <a:MPPGv3WSFault i:nil="true"/>
          <a:MagTranID>73deb041-99e6-4622-ab14-
9b7913b50987</a:MagTranID>
          <a:TransactionOutput>
            <a:AVSResult>Y</a:AVSResult>
            <a:AuthCode>TEST04</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:ProcessManualEntryResult>
      </ProcessManualEntryResponse>
    </s:Body>
  </s:Envelope>
<a:TransactionID>000000000000002505</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
Keep-Alive: timeout=5, max=1000
Connection: Keep-Alive
Transfer-Encoding: chunked
Content-Type: text/plain; charset=UTF-8
Date: Thu, 11 May 2017 21:41:13 GMT
Server: Apache
&
<JetPayResponse Version="2.0">
  <TransactionID>000000000000002505</TransactionID>
  <ActionCode>000</ActionCode>
  <Approval>TEST04</Approval>
  <ResponseText>APPROVED</ResponseText>
  <UniqueID>QnThRhQoQlPnQjRjTjQhUjUn</UniqueID>
  <RRN>713121002610</RRN>
  <RawResponseCode>00</RawResponseCode>
  <AddressMatch>Y</AddressMatch>
```



```
<ZipMatch>Y</ZipMatch>
<AVS>Y</AVS>
</JetPayResponse>]]></b:value>
    </b:KeyValuePairOfStringstring>
    </a:TransactionOutputDetails>
    <a:TransactionStatus>000</a:TransactionStatus>
  </a:TransactionOutput>
  <a:TransactionUTCTimestamp>2017-05-11
21:41:11Z</a:TransactionUTCTimestamp>
  </a:ProcessManualEntryResponse>
  <a:ProcessManualEntryResponse>
    <a:CustomerTransactionID>456</a:CustomerTransactionID>
    <a:MPPGv3WSFault i:nil="true"/>
    <a:MagTranID>c39ef9bf-4952-4d2d-b2be-
407c1186fff1</a:MagTranID>
    <a:TransactionOutput>
      <a:AVSResult>Y</a:AVSResult>
      <a:AuthCode>TEST80</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:IssuerScriptTemplate1 i:nil="true"/>
    <a:IssuerScriptTemplate2 i:nil="true"/>
    <a:Token i:nil="true"/>
  </a:ProcessManualEntryResponse>
</a:TransactionOutputDetails>
<a:TransactionID>000000000000002506</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 21:41:13 GMT
Server: Apache

&
<JetPayResponse Version="2.0">
  <TransactionID>000000000000002506</TransactionID>
  <ActionCode>000</ActionCode>
  <Approval>TEST80</Approval>
  <ResponseText>APPROVED</ResponseText>
  <UniqueID>QnThRhQoQlPnQjRjTjQhUjUm</UniqueID>
  <RRN>713121002611</RRN>
  <RawResponseCode>00</RawResponseCode>
  <AddressMatch>Y</AddressMatch>
```

```
<ZipMatch>Y</ZipMatch>
<AVS>Y</AVS>
</JetPayResponse>]]></b:value>
      </b:KeyValuePairOfStringstring>
      </a:TransactionOutputDetails>
      <a:TransactionStatus>000</a:TransactionStatus>
    </a:TransactionOutput>
    <a:TransactionUTCTimestamp>2017-05-11
21:41:11Z</a:TransactionUTCTimestamp>
  </a:ProcessManualEntryResponse>
  </ProcessManualEntryResult>
</ProcessManualEntryResponse>
</s:Body>
</s:Envelope>
```

2.6 ProcessToken

This operation processes a batch of ProcessTokenRequest elements for token payment mode. To generate a Token, call ProcessCardSwipe or ProcessEMVSRED with the ProcessorName as Token.

2.6.1 INPUT PROPERTIES

Property (* required)	Type	Description
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.
Token *	String	Token issued by Magensa's Token service.
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, SALE, AUTH
Username *	String	Username for credential assigned by Magensa.

Note: * = Required

2.6.2 OUTPUT PROPERTIES

Property	Type	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.
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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:

```
POST https://mppg.magensa.net/v3/MPPGv3Service.svc HTTP/1.1
Accept-Encoding: gzip, deflate
Content-Type: text/xml; charset=UTF-8
SOAPAction:
"http://www.magensa.net/MPPGv3/IMPPGv3Service/ProcessToken"
Content-Length: 5729
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/MPPGv3/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.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>PosDecryptAction</sys:key>
              <sys:value>$Hex2ASCII({DecryptData})</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:ProcessTokenRequest>
      </mpp:ProcessTokenRequests>
      <mpp1:CustomerTransactionID>123</mpp1:CustomerTransactionID>
      <mpp1:Token>FA820119DFE0012462613935343831382D356632652D343166632D3935
36622D343565323862663665356631DFE00205312E302E30DFE0041B323032352D3132
2D32355430303A30303A30302E3030303030303030DFE0050454657374DFE0061C323031
372D30322D30385431393A31353A34332E383630353935365ADFE00710393930303030
3030303030303030303032DFE0080731303030323634DFE0092434303539666337632D62
6666352D346638612D613237652D633462613631393766656133DFE0111842DEE3519D
C99561C15CED8C2F8641B7F76B337FDF00746DDFE0120A90100100000000000136DFE0
2108454D56546F6B656EDFE003207F7470BA471EED87C58A556F458CEF1A033E41A03F
E3218E227FA3D93136CF7A</mpp1:Token>
      <mpp1:TransactionInput>
        <mpp1:Amount>100</mpp1:Amount>
        <mpp1:ProcessorName>Rapid
Connect</mpp1:ProcessorName>
        <mpp1:TransactionInputDetails>
          <sys:KeyValuePairOfstringstring>
```

```

        <sys:key></sys:key>
        <sys:value></sys:value>
    </sys:KeyValuePairOfstringstring>
</mpp1:TransactionInputDetails>
    <mpp1:TransactionType>REFUND</mpp1:TransactionType>
</mpp1:TransactionInput>
</mpp1:ProcessTokenRequest>

<mpp1:ProcessTokenRequest>
    <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:Token>FA820119DFE0012462613935343831382D356632652D343166632D3935
36622D343565323862663665356631DFE00205312E302E30DFE0041B323032352D3132
2D32355430303A30303A30302E3030303030303030DFE0050454657374DFE0061C323031
372D30322D30385431393A31353A34332E383630353935365ADFE00710393930303030
303030303030303030303032DFE0080731303030323634DFE0092434303539666337632D62
6666352D346638612D613237652D633462613631393766656133DFE0111842DEE3519D
C99561C15CED8C2F8641B7F76B337FDF00746DDFE0120A90100100000000000136DFE0
2108454D56546F6B656EDFE003207F7470BA471EED87C58A556F458CEF1A033E41A03F
E3218E227FA3D93136CF7A</mpp1:Token>
    <mpp1:TransactionInput>
        <mpp1:Amount>200</mpp1:Amount>
        <mpp1:ProcessorName>Rapid
Connect</mpp1:ProcessorName>
        <mpp1:TransactionInputDetails>
            <sys:KeyValuePairOfstringstring>
                <sys:key></sys:key>
                <sys:value></sys:value>
            </sys:KeyValuePairOfstringstring>
        </mpp1:TransactionInputDetails>
        <mpp1:TransactionType>REFUND</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/MPPGv3/">
      <ProcessTokenResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:ProcessTokenResponse>
          <a:CustomerTransactionID>123</a:CustomerTransactionID>
          <a:MPPGv3WSFault i:nil="true"/>
          <a:MagTranID>bba36e69-b81e-4894-b715-
3d7479a6cadd</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>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>000273</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: 1116
Content-Type: text/xml
Date: Thu, 11 May 2017 23:59:36 GMT
Server: Apache

&lt;?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
  <RespClientID>
    <DID>00013130461722837092</DID>
    <ClientRef>010001VRMA008</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/gmfV3.10"><CreditResponse><CommonGrp><Py
```

```

mtType>Credit</PymtType><TxnType>Refund</TxnType><LocalDateTime>201705
11165936</LocalDateTime><TrnmsnDateTime>20170511195926</TrnmsnDateTime
><STAN>000273</STAN><RefNum>00000000273</RefNum><OrderNum>00000273</O
rderNum><TermID>00000001</TermID><MerchID>RCTST0000006242</MerchID><Tx
nAmt>100</TxnAmt><TxnCrcncy>840</TxnCrcncy></CommonGrp><CardGrp><AcctNum
></AcctNum></CardGrp><RespGrp><RespCode>000</RespCode><AddtlRespData>A
PPROVAL</AddtlRespData></RespGrp></CreditResponse></GMF>]]]]><![CDATA
[</Payload>
  </TransactionResponse>
</Response>]]></b:value>
      </b:KeyValuePairOfstringstring>
      </a:TransactionOutputDetails>
      <a:TransactionStatus>000</a:TransactionStatus>
    </a:TransactionOutput>
    <a:TransactionUTCTimestamp>2017-05-11
23:59:35Z</a:TransactionUTCTimestamp>
  </a:ProcessTokenResponse>
  <a:ProcessTokenResponse>
    <a:CustomerTransactionID>456</a:CustomerTransactionID>
    <a:MPPGv3WSFault i:nil="true"/>
    <a:MagTranID>3ed3b24b-56c7-40d8-aceb-
e9d20df318c1</a:MagTranID>
    <a:TransactionOutput>
      <a:AVSResult i:nil="true"/>
      <a:AuthCode i:nil="true"/>
      <a:AuthorizedAmount>200</a:AuthorizedAmount>
      <a:CVVResult i:nil="true"/>
    </a:TransactionOutput>
  </a:ProcessTokenResponse>
<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>000274</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: 1116
Content-Type: text/xml
Date: Thu, 11 May 2017 23:59:37 GMT
Server: Apache

&?xml version="1.0" encoding="UTF-8"?>
<Response Version="3" xmlns="http://securetransport.dw/rcservice/xml">
  <RespClientID>
    <DID>00013130461722837092</DID>
    <ClientRef>010001VRMA008</ClientRef>
  </RespClientID>

```



```
</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/gmfV3.10"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Refund</TxnType><LocalDateTime>201705
11165937</LocalDateTime><TrnmsnDateTime>20170511195927</TrnmsnDateTime
><STAN>000274</STAN><RefNum>00000000274</RefNum><OrderNum>0000274</O
rderNum><TermID>00000001</TermID><MerchID>RCTST0000006242</MerchID><Tx
nAmt>200</TxnAmt><TxnCrncy>840</TxnCrncy></CommonGrp><CardGrp><AcctNum
></AcctNum></CardGrp><RespGrp><RespCode>000</RespCode><AddtlRespData>A
PPROVAL</AddtlRespData></RespGrp></CreditResponse></GMF>]]]]><![CDATA
[</Payload>
  </TransactionResponse>
</Response]]></b:value>
      </b:KeyValuePairOfStringstring>
    </a:TransactionOutputDetails>
    <a:TransactionStatus>000</a:TransactionStatus>
  </a:TransactionOutput>
  <a:TransactionUTCTimestamp>2017-05-11
23:59:35Z</a:TransactionUTCTimestamp>
  </a:ProcessTokenResponse>
</ProcessTokenResult>
</ProcessTokenResponse>
</s:Body>
</s:Envelope>
```

2.7 ProcessKeyPadEntry

This method is to be used for KeyPad entered card data. It may be used with either SALE or AUTHORIZE. The following data elements are used (* denotes a required field):

2.7.1 INPUT PROPERTIES

Property (* required)	Type	Description
CustomerCode *	String	Customer code for credential assigned by Magensa.
Password *	String	Password for credential assigned by Magensa.
Username *	String	Username for credential assigned by Magensa.
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
Amount *	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API
ZIP *	Number	Valid Zip Code
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference
TransactionType *	String	Transaction type: SALE, AUTHORIZE, CAPTURE, VOID, REFUND, FORCE, REJECT, TOKEN

2.7.2 OUTPUT PROPERTIES

Property	Type	Description
AdditionalOutputData	Array of key / value	Contains additional output data. Elements are expressed as key / value pairs grouped under <KeyValuePairOfstringstring>. See examples
CardID	String	Card ID from Magensa.
IsReplay	Boolean	Boolean value indicating prior use of KSN from Magensa.
MagnePrintScore	Decimal	MagnePrint score from Magensa.
CustomerTransactionID	String	Client-assigned transaction ID from input.
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
MagTranID	String	Transaction ID (GUID) from Magensa.
AVSResult	String	Address Verification System result from target service provider.
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
CVVResult	String	Card Verification Value result from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
IssuerAuthenticationData	String	Issuer authenticate data from target service provider.
IssuerScriptTemplate1	String	Issuer script template 1 from target service provider.
IssuerScriptTemplate2	String	Issuer script template 1 from target service provider.
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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/MPPGv3/"
xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.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
DD283ADBF14BB4A74A8516460405C95060B123</mpp1:Track1>

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

```

        <mpp1:CustomerTransactionID>MPPGv3
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/MPPGv3/">
      <ProcessKeyPadEntryResult
xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:ProcessKeyPadEntryResponse>
          <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>FA820112DFE0012466636631303966362D373830332D343862312D6233623
72D323263646262 </b:value>
              </b:KeyValuePairOfstringstring>
            </a:AdditionalOutputData>

          <a:CardID>EP3tJ0ac9HptalZckg7BGa2g3oMqx50QHH1BVX95Fbo=</a:CardID>
            <a:IsReplay>true</a:IsReplay>
            <a:MagnePrintScore>0.0130942</a:MagnePrintScore>
          </a:CardSwipeOutput>
          <a:CustomerTransactionID>MPPGv3
ProcessKeyPadEntry</a:CustomerTransactionID>
            <a:MPPGv3WSFault i:nil="true"/>
            <a:MagTranID>997fbbe2-338e-44fd-a064-
2b0874cd483d</a:MagTranID>
            <a:TransactionOutput>
              <a:AVSResult>Z</a:AVSResult>
              <a:AuthCode>OK2272</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>FA820112DFE0012466636631303966362D373830332D343862312D6233623
72D323263646262636663656337DFE00205312E302E30DFE00421323032332D30312D3
0315430313A31393A35382E3030303030302D30383A3030DFE0050450726F64DFE00
61C323032302D30342D30365430393A31393A35382E353335373138385ADFE0070A544
63133323536323738DFE0080431313736DFE0092439313338393832642D393163642D3
43234302D623166392D303838336336626535353836DFE01120E5DB845F2C868E7B834
5170D4237C05D6C647ED0A2AD7F4D5C6CD2187B1E1AABDFE0120A9014910000006272
8F7DFE00320BAF1B4CD222502AB81C7521B96893635E509E14185648BF1B35DE272EFD
F5DDB</a:Token>

          <a:TransactionID>010097236914841G029</a:TransactionID>
          <a:TransactionMessage>APPROVAL</a:TransactionMessage>
        </a:ProcessKeyPadEntryResponse>
      </a:ProcessKeyPadEntryResult>
    </s:Body>
  </s:Envelope>
```

```

        <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: Mon, 06 Apr 2020 09:19:59 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>0177150VRMA003</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/gmfV9.02"><CreditResponse><CommonGrp><Py
mtType>Credit</PymtType><TxnType>Sale</TxnType><LocalDateTime>20200406
021958</LocalDateTime><TrnmsnDateTime>20200406091959</TrnmsnDateTime><
STAN>258691</STAN><RefNum>000000258691</RefNum><OrderNum>00258691</Ord
erNum><TermID>00000001</TermID><MerchID>RCTST0000006128</MerchID><TxnA
mt>2</TxnAmt><TxnCrcncy>840</TxnCrcncy></CommonGrp><CardGrp><AcctNum>476
173*****0119</AcctNum><AVSResultCode>Z</AVSResultCode></CardGrp><Visa
Grp><ACI>K</ACI><TransID>010097236914841G029</TransID></VisaGrp><RespG
rp><RespCode>000</RespCode><AuthID>OK2272</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>2020-04-06
09:19:58Z</a:TransactionUTCTimestamp>
    </a:ProcessKeyPadEntryResponse>
</ProcessKeyPadEntryResult>
</ProcessKeyPadEntryResponse>
</s:Body>
</s:Envelope>

```

2.8 ProcessEncryptedManualEntry

2.8.1 INPUT PROPERTIES

Property (* required)	Type	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.
CustomerCode *	String	Customer code for credential assigned by Magensa.
Password *	String	Password for credential assigned by Magensa.
Username *	String	Username for credential assigned by Magensa.
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference
EncryptedData *	String	Encrypted Data element value from Card reader
KSN *	String	Key serial number
KeyVariant	String	Key variant
NumberOfPaddedBytes	String	Number of bytes padded to the end of the decrypted EMVSREDData to make a multiple of 8 bytes.
Amount*	Decimal	Amount for transaction in units (dollars or cents) as per target service provider's API.
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, FORCE, REJECT, TOKEN

Note: * = Required

2.8.2 OUTPUT PROPERTIES

Property	Type	Description
CustomerTransactionID	String	Client-assigned transaction ID for easy cross-reference
MPPGv3WSFault	String	Contains FaultCode, FaultReason and additional details when error encountered while processing particular request. Otherwise is null
MagTranID	String	Transaction ID (GUID) from Magensa.
AVSResult	String	Address Verification System result from target service provider.
AuthCode	String	Authorization code from target service provider.
AuthorizedAmount	Decimal	Authorized amount from target service provider.
CVVResult	String	Card Verification Value result from target service provider.
IsTransactionApproved	Boolean	Boolean value indicating approval status of the transaction.
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.
Token	String	The output Token field will have a Token value if Magensa is setup to return one for that target service provider or the target service provider is the Magensa Token service itself
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.

ProcessEncryptedManualEntry Request:

```
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:mpp="http://www.magensa.net/MPPGv3/"
  xmlns:mpp1="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core
"
  xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collect
ions.Generic">
  <soapenv:Header/>
  <soapenv:Body>
    <mpp:ProcessEncryptedManualEntry>
      <mpp:ProcessEncryptedManualEntryRequests>
        <mpp1:ProcessEncryptedManualEntryRequest>
          <mpp1:Authentication>
            <mpp1:CustomerCode>customercode
</mpp1:CustomerCode>

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

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

                <mpp1:EncryptedData>48A4EE516E9B130A675D825A9ECC8F71F4F164BF3EFE2
9A6</mpp1:EncryptedData>

                <mpp1:KSN>9011400B50989A000189</mpp1:KSN>

                <mpp1:KeyVariant>Data</mpp1:KeyVariant>

                <mpp1:NumberOfPaddedBytes>0</mpp1:NumberOfPaddedBytes>
                  </mpp1:EncryptedManualEntryInput>
                  <mpp1:TransactionInput>
                    <mpp1:Amount>100</mpp1:Amount>
                    <mpp1:ProcessorName>TSYS -
Pilot</mpp1:ProcessorName>

                    <mpp1:TransactionInputDetails>
                      <sys:KeyValuePairOfstringstring>

                        <sys:key>expirationDate</sys:key>

                        <sys:value>12/20</sys:value>

                      </sys:KeyValuePairOfstringstring>
                      <sys:KeyValuePairOfstringstring>

                        <sys:key>cardHolderName</sys:key>

                        <sys:value>TEST/USER</sys:value>
```

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

<mpp1:TransactionType>SALE</mpp1:TransactionType>
    </mpp1:TransactionInput>
        </mpp1:ProcessEncryptedManualEntryRequest>
            </mpp:ProcessEncryptedManualEntryRequests>
                </mpp:ProcessEncryptedManualEntry>
    </soapenv:Body>
</soapenv:Envelope>
```

ProcessEncryptedManualEntry Response:

```
<s:Envelope
  xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <ProcessEncryptedManualEntryResponse
      xmlns="http://www.magensa.net/MPPGv3/">
      <ProcessEncryptedManualEntryResult

        xmlns:a="http://schemas.datacontract.org/2004/07/MPPGv3WS.Core"
        xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">
          <a:ProcessEncryptedManualEntryResponse>
            <a:CustomerTransactionID/>
            <a:MPPGv3WSFault i:nil="true"/>
            <a:MagTranID>c9bea94b-e12d-47c2-b6b7-
cb0b9b3032a3</a:MagTranID>
            <a:TransactionOutput>
              <a:AVSResult>0</a:AVSResult>
              <a:AuthCode>TAS528</a:AuthCode>

            <a:AuthorizedAmount>100</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>24397088</a:TransactionID>

            <a:TransactionMessage>Success</a:TransactionMessage>
              <a:TransactionOutputDetails

        xmlns:b="http://schemas.datacontract.org/2004/07/System.Collectio
ns.Generic">
          <b:KeyValuePairOfstringstring>

            <b:key>ProcessorResponse</b:key>
              <b:value>
<![CDATA[HTTP/1.1 200 OKKeep-Alive: timeout=15, max=100
Connection: Keep-Alive
Transfer-Encoding: chunked
Content-Type: text/html;charset=ISO-8859-1
Date: Mon, 26 Oct 2020 22:04:32 GMT
Set-Cookie:
TS01bcb3a9=01e23550883b67eac68b859e7d6e448e2627151300376f565d4c888416c
```

```

006e8c8e0658ccc939c4ba02eba24b573be091cb314f02c; Path=/; Secure;
HTTPOnly
&
                                <?xml version="1.0"
encoding="UTF-
8"?"><SaleResponse><status>PASS</status><responseCode>A0000</responseCode><responseMessage>Success</responseMessage><authCode>TAS528</authCode><hostReferenceNumber>030022751391</hostReferenceNumber><hostResponseCode>00</hostResponseCode><taskID>24093084</taskID><transactionID>24397088</transactionID><transactionTimestamp>2020-10-26T15:04:34</transactionTimestamp><transactionAmount>100</transactionAmount><processedAmount>100</processedAmount><totalAmount>100</totalAmount><addressVerificationCode>0</addressVerificationCode><cardType>V</cardType><maskedCardNumber>1111</maskedCardNumber><commercialCard>0</commercialCard><aci>K</aci><cardTransactionIdentifier>00000000199574</cardTransactionIdentifier><customerReceipt>
                                MAGTEK INC
\n          8320 S HARDY DRIVE          \n          TEMPE AZ 85284
\n10/26/2020 15:04:34\n\n          CREDIT - SALE          \n\nCARD
# : **** * 1111\nCARD TYPE : VISA\nEntry Mode :
MANUAL\n\nTRANSACTION ID : 24397088          \nInvoice number :
24397088          \nAUTH CODE : TAS528\nSubtotal:
$01.00\n-----\nTotal:
$01.00\n-----\n\n\n
TEST/USER          \n\n CUSTOMER ACKNOWLEDGES RECEIPT OF \n GOODS
AND/OR SERVICES IN THE AMOUNT \n OF THE TOTAL SHOWN HEREON AND AGREES
\n TO PERFORM THE OBLIGATIONS SET FORTH \n BY THE CUSTOMER`S AGREEMENT
WITH THE \n ISSUER\n          APPROVED          \n\n
\n          \n\n          Customer Copy
</customerReceipt><merchantReceipt>
                                MAGTEK INC
\n          8320 S HARDY DRIVE          \n          TEMPE AZ 85284
\n10/26/2020 15:04:34\n\n          CREDIT - SALE          \n\nCARD
# : **** * 1111\nCARD TYPE : VISA\nEntry Mode :
MANUAL\n\nTRANSACTION ID : 24397088          \nInvoice number :
24397088          \nAUTH CODE : TAS528\nSubtotal:
$01.00\n-----\nTotal:
$01.00\n-----\n\n\n\nSignature : \n
                                \n\n          TEST/USER
\n\n CUSTOMER ACKNOWLEDGES RECEIPT OF \n GOODS AND/OR SERVICES IN THE
AMOUNT \n OF THE TOTAL SHOWN HEREON AND AGREES \n TO PERFORM THE
OBLIGATIONS SET FORTH \n BY THE CUSTOMER`S AGREEMENT WITH THE \n
ISSUER\n          APPROVED          \n\n
\n          \n\n          Merchant Copy
</merchantReceipt></SaleResponse>]]>
                                </b:value>
                                </b:KeyValuePairOfstringstring>
                                </a:TransactionOutputDetails>

<a:TransactionStatus>A0000</a:TransactionStatus>
                                </a:TransactionOutput>
                                <a:TransactionUTCTimestamp>2020-10-26
22:04:33Z</a:TransactionUTCTimestamp>
                                </a:ProcessEncryptedManualEntryResponse>

```

```
        </ProcessEncryptedManualEntryResult>
    </ProcessEncryptedManualEntryResponse>
</s:Body>
</s:Envelope>
```

3 Encryption Variant Type

PIN Encryption Variant Type

See Magensa EMV integration guide

<https://github.com/Magensa/MPPGv3/blob/master/Docs/MagensaMPPGv3Service-EMVIntegrationGuide-2020-03-31-D998200349-20.pdf>

Data Encryption Variant

The EncryptionType is required in the AdditionalRequestData payload.

If the EncryptionType is not passed in AdditionalRequestData then the default value will be used in the ProcessCardSwipe . The default Encryption Type is PIN.

To determine whether the data was encrypted using the PIN or Data variant use:

- ProcessEMVSRED method, the service can use the data in the encrypted data primitive.
See Magensa EMV integration guide
<https://github.com/Magensa/MPPGv3/blob/master/Docs/MagensaMPPGv3Service-EMVIntegrationGuide-2020-03-31-D998200349-20.pdf>
- ProcessCardSwipe method, the service must include additional key/value pair in order to know the encryption type for the MSR data.

The key/value pair need to be added to the ProcessCardSwipe method as follows:

[...]

```
<mpp1:ProcessCardSwipeRequest>
```

```
<mpp1:AdditionalRequestData>
```

```
<sys:KeyValuePairOfstringstring>
```

```
  <sys:key>EncryptionType</sys:key>
```

```
  <sys:value>[ENCRYPTION_VARIANT_VALUE]</sys:value>
```

```
    <!-- 80 for data encryption, 81 for PIN -->
```

```
</sys:KeyValuePairOfstringstring>
```

```
</mpp1:AdditionalRequestData>
```

```
<mpp1:Authentication>
```

```
[...]
```

For eDynamo reader:

When reading EMV data use ProcessEMVSRED

When reading MSR data use ProcessCardSwipe

To use Data Variant, reader must be set for data variant, example tDynamo, kDynamo

To retrieve information from the reader that indicates the encryption variant, send command 000154 to the reader during the application startup process:

- 00 for PIN Encryption variant
- 01 for Data Encryption variant.

For more information about retrieving the card data encryption variant property from the reader, reader's command reference for "Property 0x54".

For SWIPE V5 (MSR data), the only way to know the encryption variant is to ping the device and get the configuration first. It is NOT in the message payload with EMV, it is in the message payload.

4 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 Technical Specifications

Left intentionally blank.