

Magensa Web Services

Remote Services v2 EMV Tag Operations

Programmer's Reference

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Table 0.1 - Revisions

Rev Number	Date	By	Notes
10	3/16/2015	Donnie James Rebecca Robinson	Initial release.
11	4/9/2015	Andy Deignan	Added Input Validation Errors
20	7/07/2016	Donnie James	Added REST interface.

NOTICE

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Purpose of the document

The purpose of this document is to provide a description of how to call operations of the Magensa Remote Services web service for getting and setting EMV Tags for the DynaPro family of products.

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1 EMVTags Operations

1.1 GetEMVCommands

A command used to parse TLV commands.

1.1.1 Input Properties

Property (*)	Value	Value Description
CustomerCode *	<string>	Customer code.
Username *	<string>	The User Identification credential created and assigned by MagTek.
Password *	<string>	The password for the credential.
BillingLabel	<string>	Billing label.
CustomerTransactionId	<string>	Customer transaction ID.
KSN *	<string>	Key Serial Number of the reader.
KeyName *	<string>	Key name.
SerialNumber *	<string>	Device serial number.
XMLString *	<string>	The EMV TLV commands in XML format. XML String must be inserted as CDATA when sending a SOAP request. Example SOAP: <![CDATA[XML STRING]]> Example REST: "XML STRING"
AdditionalRequestData	<string>	A group that contains additional key/value pairs of data to be forwarded in the transaction.

Note: * = Required

1.1.2 Output Properties

Property	Value	Value Description
CustomerTransactionId	<string>	Customer transaction ID.
MagTranId	<string>	Magensa assigned unique transaction ID in GUID form.
Description	<string>	Description for the command name.
ExecutionTypeEnum	<string>	The Execution Type can be one of the following values: ALL, KSN, MUT
ID	<string>	Command ID.
Name	<string>	EMV command name.
Value	<string>	EMV TLV value.
AdditionalOutputData	<string>	A group that contains additional output data returned by the target web service. Elements are expressed as Key/Value pairs. See examples.

GetEMVCommands SOAP Request:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v2="http://www.magensa.net/RemoteServices/v2/"
xmlns:rem="http://schemas.datacontract.org/2004/07/RemoteServicesv2.Core"
xmlns:sys="http://schemas.datacontract.org/2004/07/System.Collections.Generic">
  <soapenv:Header/>
  <soapenv:Body>
    <v2:GetEMVCommands>
      <v2:request>
```

EMVTags Operations

```
<rem:Authentication>
  <rem:CustomerCode>123</rem:CustomerCode>
  <rem>Password>password</rem>Password>
  <rem:Username>username</rem:Username>
</rem:Authentication>
<rem:BillingLabel>label</rem:BillingLabel>
<rem:CustomerTransactionID>456</rem:CustomerTransactionID>
<rem:AdditionalRequestData>
  <sys:KeyValuePairOfstringstring>
    <sys:key>?</sys:key>
    <sys:value>?</sys:value>
  </sys:KeyValuePairOfstringstring>
</rem:AdditionalRequestData>
<rem:KSN>9010010B28C0DC000001</rem:KSN>
<rem:KeyName>L1MK0000004</rem:KeyName>
<rem:SerialNumber>98D70CE31309160D</rem:SerialNumber>
<rem:XMLString><![CDATA[<?xml version="1.0" encoding="utf-8" ?> <TAGconfig> <Slots>
<SlotApplTag> <SlotNum>0</SlotNum> <ApplTags> <ApplTag> <Tag>84</Tag> <TagLen>7</TagLen>
<TagValue>A000000031010</TagValue> </ApplTag> <ApplTag> <Tag>97</Tag> <TagLen>03</TagLen>
<TagValue>5F2403</TagValue> </ApplTag> <ApplTag> <Tag>9F01</Tag> <TagLen>06</TagLen>
<TagValue>000000000001</TagValue> </ApplTag> <ApplTag> <Tag>9F06</Tag> <TagLen>07</TagLen>
<TagValue>A0000000031010</TagValue> </ApplTag> <ApplTag> <Tag>9F1B</Tag> <TagLen>04</TagLen>
<TagValue>000003E8</TagValue> </ApplTag> <ApplTag> <Tag>9F49</Tag> <TagLen>0A</TagLen>
<TagValue>9F37045A085F340A9A03</TagValue> </ApplTag> <ApplTag> <Tag>DFDF23</Tag>
<TagLen>01</TagLen> <TagValue>01</TagValue> </ApplTag> <ApplTag> <Tag>9F09</Tag>
<TagLen>02</TagLen> <TagValue>008C</TagValue> </ApplTag> <ApplTag> <Tag>DFDF70</Tag>
<TagLen>05</TagLen> <TagValue>000000000</TagValue> </ApplTag> <ApplTag> <Tag>DFDF71</Tag>
<TagLen>05</TagLen> <TagValue>000000000</TagValue> </ApplTag> <ApplTag> <Tag>DFDF72</Tag>
<TagLen>05</TagLen> <TagValue>004000000</TagValue> </ApplTag> </ApplTags> </SlotApplTag>
<SlotApplTag> <SlotNum>1</SlotNum> <ApplTags> <ApplTag> <Tag>84</Tag> <TagLen>7</TagLen>
<TagValue>A0000000041010</TagValue> </ApplTag> <ApplTag> <Tag>97</Tag> <TagLen>03</TagLen>
<TagValue>5F2403</TagValue> </ApplTag> <ApplTag> <Tag>9F01</Tag> <TagLen>06</TagLen>
<TagValue>000000000001</TagValue> </ApplTag> <ApplTag> <Tag>9F06</Tag> <TagLen>07</TagLen>
<TagValue>A0000000041010</TagValue> </ApplTag> <ApplTag> <Tag>9F1B</Tag> <TagLen>04</TagLen>
<TagValue>000003E8</TagValue> </ApplTag> <ApplTag> <Tag>9F49</Tag> <TagLen>0A</TagLen>
<TagValue>9F37045A085F340A9A03</TagValue> </ApplTag> <ApplTag> <Tag>DFDF23</Tag>
<TagLen>01</TagLen> <TagValue>01</TagValue> </ApplTag> <ApplTag> <Tag>9F09</Tag>
<TagLen>02</TagLen> <TagValue>008C</TagValue> </ApplTag> <ApplTag> <Tag>DFDF70</Tag>
<TagLen>05</TagLen> <TagValue>000000000</TagValue> </ApplTag> <ApplTag> <Tag>DFDF71</Tag>
<TagLen>05</TagLen> <TagValue>000000000</TagValue> </ApplTag> <ApplTag> <Tag>DFDF72</Tag>
<TagLen>05</TagLen> <TagValue>004000000</TagValue> </ApplTag> </ApplTags> </SlotApplTag>
</Slots> <ReaderTags> <ReaderTag> <Tag>DFDF02</Tag> <TagLen>3D</TagLen>
<TagValue>4F575A828A8E959A9B9C5F245F255F2A5F349F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F2
79F339F349F359F369F379F40DFDF53F5F4</TagValue> </ReaderTag> <ReaderTag> <Tag>DFDF14</Tag>
<TagLen>04</TagLen> <TagValue>00001770</TagValue> </ReaderTag> <ReaderTag> <Tag>DFDF17</Tag>
<TagLen>43</TagLen>
<TagValue>4F575A828A8E959A9B9C5F245F255F2A5F349F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F2
79F339F349F359F369F379F40DFDF70DFDF71DFDF729F5B</TagValue> </ReaderTag> <ReaderTag>
<Tag>5F2A</Tag> <TagLen>2</TagLen> <TagValue>0840</TagValue> </ReaderTag> <ReaderTag>
<Tag>5F36</Tag> <TagLen>1</TagLen> <TagValue>02</TagValue> </ReaderTag> <ReaderTag>
<Tag>9F1A</Tag> <TagLen>2</TagLen> <TagValue>0840</TagValue> </ReaderTag> </ReaderTags>
</TAGconfig> ]]></rem:XMLString>
</v2:request>
</v2:GetEMVCommands>
</soapenv:Body>
</soapenv:Envelope>
```

GetEMVCommands SOAP Response:

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <GetEMVCommandsResponse xmlns="http://www.magensa.net/RemoteServices/v2/">
      <GetEMVCommandsResult
xmlns:a="http://schemas.datacontract.org/2004/07/RemoteServicesv2.Core"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:CustomerTransactionId>456</a:CustomerTransactionId>
        <a:MagTranId>fd1e954f-e42e-4be5-b01d-22d77473bd53</a:MagTranId>
        <a:AdditionalOutputData i:nil="true">
xmlns:b="http://schemas.datacontract.org/2004/07/System.Collections.Generic"/>
          <a:Commands>
            <a:Command>
```

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```
<a:Description>Reader Tag Command</a:Description>
<a:ExecutionTypeEnum>EMV</a:ExecutionTypeEnum>
<a:ID>0</a:ID>
<a:Name>EMVTags</a:Name>

<a:Value>00B7F98200B3DFDF550102DFDF250898D70CE31309160DFA82009EDFDF023D4F575A828A8E959A9B9C5F245F
255F2A5F349F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F279F339F349F359F369F379F40DFDF53F5F4D
FDF140400001770DFDF17434F575A828A8E959A9B9C5F245F255F2A5F349F029F039F069F079F089F099F0D9F0E9F0F9F
109F1A9F269F279F339F349F359F369F379F40DFDF70DFDF71DFDF729F5B5F2A0208405F3601029F1A02084000000000
00000E77B5B64</a:Value>
</a:Command>
<a:Command>
  <a:Description>Application Tag Command for Slot 0</a:Description>
  <a:ExecutionTypeEnum>EMV</a:ExecutionTypeEnum>
  <a:ID>0</a:ID>
  <a:Name>EMVTags</a:Name>

<a:Value>0073F982006FDFDF550102DFDF250898D70CE31309160DFA82005A8407A000000003101097035F24039F0106
0000000000019F0607A00000000310109F1B04000003E89F490A9F37045A085F340A9A03DFDF2301019F0902008CDFDF7
005000000000DFDF710500000000DFDF7205004000000000000005C1C5422</a:Value>
</a:Command>
<a:Command>
  <a:Description>Application Tag Command for Slot 1</a:Description>
  <a:ExecutionTypeEnum>EMV</a:ExecutionTypeEnum>
  <a:ID>0</a:ID>
  <a:Name>EMVTags</a:Name>

<a:Value>0073F982006FDFDF550102DFDF250898D70CE31309160DFA82005A8407A000000004101097035F24039F0106
0000000000019F0607A00000000410109F1B04000003E89F490A9F37045A085F340A9A03DFDF2301019F0902008CDFDF7
005000000000DFDF710500000000DFDF720500400000000000003D6FBA26</a:Value>
</a:Command>
</a:Commands>
</GetEMVCommandsResult>
</GetEMVCommandsResponse>
</s:Body>
</s:Envelope>
```

GetEMVCommands REST Request:

Resource: /RemoteServicesGateway/EMVTags.svc/REST/GetEMVCommands

```
{
  "Authentication": {
    "CustomerCode": "123",
    "Password": "password",
    "Username": "username"
  },
  "BillingLabel": "label",
  "CustomerTransactionID": "456",
  "AdditionalRequestData": [ {
    "key": "",
    "value": ""
  } ],
  "KSN": "9010010B28C0DC000001",
  "KeyName": "L1MK0000004",
  "SerialNumber": "98D70CE31309160D",
  "XMLString": "<TAGconfig> <Slots> <SlotApplTag> <SlotNum>0</SlotNum> <ApplTags> <ApplTag>
<Tag>84</Tag> <TagLen>7</TagLen> <TagValue>A0000000031010</TagValue> </ApplTag> <ApplTag>
<Tag>97</Tag> <TagLen>03</TagLen> <TagValue>5F2403</TagValue> </ApplTag> <ApplTag>
<Tag>9F01</Tag> <TagLen>06</TagLen> <TagValue>000000000001</TagValue> </ApplTag> <ApplTag>
<Tag>9F06</Tag> <TagLen>07</TagLen> <TagValue>A0000000031010</TagValue> </ApplTag> <ApplTag>
<Tag>9F1B</Tag> <TagLen>04</TagLen> <TagValue>000003E8</TagValue> </ApplTag> <ApplTag>
<Tag>9F49</Tag> <TagLen>0A</TagLen> <TagValue>9F37045A085F340A9A03</TagValue> </ApplTag>
<ApplTag> <Tag>DFDF23</Tag> <TagLen>01</TagLen> <TagValue>01</TagValue> </ApplTag> <ApplTag>
<Tag>9F09</Tag> <TagLen>02</TagLen> <TagValue>008C</TagValue> </ApplTag> <ApplTag>
<Tag>DFDF70</Tag> <TagLen>05</TagLen> <TagValue>000000000</TagValue> </ApplTag> <ApplTag>
<Tag>DFDF71</Tag> <TagLen>05</TagLen> <TagValue>000000000</TagValue> </ApplTag> <ApplTag>
<Tag>DFDF72</Tag> <TagLen>05</TagLen> <TagValue>0040000000</TagValue> </ApplTag> </ApplTags>
</SlotApplTag> <SlotApplTag> <SlotNum>1</SlotNum> <ApplTags> <ApplTag> <Tag>84</Tag>
<TagLen>7</TagLen> <TagValue>A0000000041010</TagValue> </ApplTag> <ApplTag> <Tag>97</Tag>
<TagLen>03</TagLen> <TagValue>5F2403</TagValue> </ApplTag> <ApplTag> <Tag>9F01</Tag>
```

EMVTags Operations

```
<TagLen>06</TagLen> <TagValue>000000000001</TagValue> </ApplTag> <ApplTag> <Tag>9F06</Tag>
<TagLen>07</TagLen> <TagValue>A0000000041010</TagValue> </ApplTag> <ApplTag> <Tag>9F1B</Tag>
<TagLen>04</TagLen> <TagValue>000003E8</TagValue> </ApplTag> <ApplTag> <Tag>9F49</Tag>
<TagLen>0A</TagLen> <TagValue>9F37045A085F340A9A03</TagValue> </ApplTag> <ApplTag>
<Tag>DFDF23</Tag> <TagLen>01</TagLen> <TagValue>01</TagValue> </ApplTag> <ApplTag>
<Tag>9F09</Tag> <TagLen>02</TagLen> <TagValue>008C</TagValue> </ApplTag> <ApplTag>
<Tag>DFDF70</Tag> <TagLen>05</TagLen> <TagValue>0000000000</TagValue> </ApplTag> <ApplTag>
<Tag>DFDF71</Tag> <TagLen>05</TagLen> <TagValue>0000000000</TagValue> </ApplTag> <ApplTag>
<Tag>DFDF72</Tag> <TagLen>05</TagLen> <TagValue>0040000000</TagValue> </ApplTag> </ApplTags>
</SlotApplTag> </Slots> <ReaderTags> <ReaderTag> <Tag>DFDF02</Tag> <TagLen>3D</TagLen>
<TagValue>4F575A828A8E959A9B9C5F245F255F2A5F349F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F2
79F339F349F359F369F379F40DFDF53F5F4</TagValue> </ReaderTag> <ReaderTag> <Tag>DFDF14</Tag>
<TagLen>04</TagLen> <TagValue>00001770</TagValue> </ReaderTag> <ReaderTag> <Tag>DFDF17</Tag>
<TagLen>43</TagLen>
<TagValue>4F575A828A8E959A9B9C5F245F255F2A5F349F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F2
79F339F349F359F369F379F40DFDF70DFDF71DFDF729F5B</TagValue> </ReaderTag> <ReaderTag>
<Tag>5F2A</Tag> <TagLen>2</TagLen> <TagValue>0840</TagValue> </ReaderTag> <ReaderTag>
<Tag>5F36</Tag> <TagLen>1</TagLen> <TagValue>02</TagValue> </ReaderTag> <ReaderTag>
<Tag>9F1A</Tag> <TagLen>2</TagLen> <TagValue>0840</TagValue> </ReaderTag> </ReaderTags>
</TAGconfig>"
}
```

GetEMVCommands REST Response:

```
{
  "CustomerTransactionId": "456",
  "MagTranId": "97c7f074-2305-488f-8d96-e07a7dc25beb",
  "AdditionalOutputData": null,
  "Commands": [
    {
      "Description": "Reader Tag Command",
      "ExecutionTypeEnum": "EMV",
      "ID": 0,
      "Name": "EMVTags",
      "Value":
      "00B7F98200B3DFDF550102DFDF250898D70CE31309160DFA82009EDDF023D4F575A828A8E959A9B9C5F245F255F2A5F
349F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F269F279F339F349F359F369F379F40DFDF53F5F4DFDF14040
0001770DFDF17434F575A828A8E959A9B9C5F245F255F2A5F349F029F039F069F079F089F099F0D9F0E9F0F9F109F1A9F
269F279F339F349F359F369F379F40DFDF70DFDF71DFDF729F5B5F2A0208405F3601029F1A020840000000000000000E77
B5B64"
    },
    {
      "Description": "Application Tag Command for Slot 0",
      "ExecutionTypeEnum": "EMV",
      "ID": 0,
      "Name": "EMVTags",
      "Value":
      "0073F982006FDFDF550102DFDF250898D70CE31309160DFA82005A8407A000000003101097035F24039F01060000000
00019F0607A00000000310109F1B04000003E89F490A9F37045A085F340A9A03DFDF2301019F0902008CDFDF700500000
00000DFDF7105000000000DFDF720500400000000000005C1C5422"
    },
    {
      "Description": "Application Tag Command for Slot 1",
      "ExecutionTypeEnum": "EMV",
      "ID": 0,
      "Name": "EMVTags",
      "Value":
      "0073F982006FDFDF550102DFDF250898D70CE31309160DFA82005A8407A000000004101097035F24039F01060000000
00019F0607A00000000410109F1B04000003E89F490A9F37045A085F340A9A03DFDF2301019F0902008CDFDF700500000
00000DFDF7105000000000DFDF7205004000000000000003D6FBA26"
    }
  ]
}
```


Status Codes and Messages

2 Status Codes and Messages

Status Codes and Messages returned by Magensa for EMVTags Operations.

2.1 Internal errors

Code	StatusMsg	Notes
5000	Unknown Error	

2.2 Input Validation errors

Code	StatusMsg	Notes
602	KSN is required	
603	CustomerCode is required	
604	Username is required	
605	Password is required	
607	KSN is not valid	
609	KeyName is required	
615	CustomerTransactionID is not valid	
616	BillingLabel is not valid	
621	XMLString is required	
622	SerialNumber is required	
623	SerialNumber is not valid	Value was not HEX or too long.
701	Access Denied	Returned when user cannot be authenticated or authorized for any reason such as invalid username, invalid password, or account locked.
702	Device Not Allowed	
1010	User has been locked out	
1011	User is inactive	
1012	User is blocked	
1013	User credential failed authentication	