

# Magensa TokenExchange v2.0

**Tokenization v2.0**

**Programmer's Reference Manual**

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**Table 0-1 - Revisions**

<b>Rev Number</b>	<b>Date</b>	<b>Notes</b>
10	December 2020	Initial Release
20	January 2021	Updated product name to Magensa TokenExchange
30	February 2021	Added input validation rules for HexString
40	August 2021	Added new input field ContainerTypeID for container creation

## Table of Contents

Table of Contents .....	4
1 Introduction .....	5
2 TokenExchange v2.0 Operations.....	6
2.1 /TokenV2Create/api/Token/create.....	6
2.1.1 INPUT PROPERTIES .....	6
2.1.2 OUTPUT PROPERTIES .....	6
2.2 /TokenV2Redeem/api/Token/redeem.....	8
2.2.1 INPUT PROPERTIES .....	8
2.2.2 OUTPUT PROPERTIES .....	8
2.3 /TokenV2Create/api/StoredToken/create.....	10
2.3.1 INPUT PROPERTIES .....	10
2.3.2 OUTPUT PROPERTIES .....	10
2.4 /TokenV2Redeem/api/StoredToken/redeem .....	12
2.4.1 INPUT PROPERTIES .....	12
2.4.2 OUTPUT PROPERTIES .....	12
2.5 /TokenV2Create/api/PaymentToken/create.....	14
2.5.1 INPUT PROPERTIES .....	14
2.5.2 OUTPUT PROPERTIES .....	14
2.6 /TokenV2Create/api/InvoiceToken/create .....	16
2.6.1 INPUT PROPERTIES .....	16
2.6.2 OUTPUT PROPERTIES .....	16
2.7 /TokenV2Create/api/Container/create .....	18
2.7.1 INPUT PROPERTIES .....	18
2.7.2 OUTPUT PROPERTIES .....	18
2.8 /TokenV2Create/api/Container/get.....	20
2.8.1 INPUT PROPERTIES .....	20
2.8.2 OUTPUT PROPERTIES .....	20
2.9 /TokenV2Create/api/Container/list .....	22
2.9.1 INPUT PROPERTIES .....	22
2.9.2 OUTPUT PROPERTIES .....	22
3 Fault Codes and Reasons.....	24
Appendix A Reserved.....	25

# 1 Introduction

The purpose of this document is to describe the various operations available in Magensa TokenExchange v2.0 and their required & optional input/output parameters. It also provides sample REST requests & responses as reference for client developers.

TokenExchange v2.0 enables clients to easily create & redeem secure tokens for various sensitive data. This helps mitigate the risk of storing and use of sensitive data through industry-standard encryption algorithms and implementations.

This service comprises of two endpoints, one primarily for creation of tokens and the other for redemption of tokens. This endpoint information is provided for each of the operations listed. Also, both endpoints provide swagger documentation at `.../TokenV2Create/swagger/` and `.../TokenV2Redeem/swagger/` respectively.

TokenExchange v2.0 service provides the ability to create various types of tokens. For the generic “Token” type, the service creates the token that contains the secured data and returns it to the client. The client would have to store the token and later, provide it as input to redeem it. The other generic token type is “StoredToken” where the service creates and stores the token in user-defined containers and returns only the container name and the short token-key name to the client. Here, clients will need to set up containers to organize and store their tokens and can choose token-key names for a container to be auto-generated or user-generated. The various options available for auto-generated token-key names can be found in the section for “StoredToken” create operation. In case of user-generated token-key names, a regex expression can be provided for input validation. The client would have to provide the container name and token-key name as input to redeem it.

Besides the two generic types, TokenExchange v2.0 also creates a few other token types, namely “PaymentToken” and “InvoiceToken”. Once created, these tokens are typically used in other Magensa services. Please contact your customer representative or support to better understand their workflows.

The authentication for all TokenExchange v2.0 service calls require an “Authorization” HTTP header set as per HTTP BasicAuthentication scheme. The value should be the Base64 encoding of your Magensa credentials in the string format “CustomerCode/Username:Password”.

## 2 TokenExchange v2.0 Operations

### 2.1 /TokenV2Create/api/Token/create

#### 2.1.1 INPUT PROPERTIES

Property	Value	Description
tokenDataInput *	string	JSON string with token data type-id and corresponding token data.  Supported token data types: 1: PlainText 2: HexString (upper-case only & length multiple of 16 using '0' padding) 3: Encrypted Bulk Data (MagTek reader command 30 output)  E.g., for plain-text token data: {"TokenTypeID": "1","PlainText": "Token Data"}
validUntilUTC *	DateTime	Token valid until in UTC
tokenName	string	Token Name
miscData	string	Misc. data
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

#### 2.1.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
token	string	Token

### Sample /TokenV2Create/api/Token/create Request:

```
POST https://svc71.magensa.net/Tokenv2Create/api/token/create HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 195
Host: svc71.magensa.net
Connection: Keep-Alive

{
  "tokenDataInput": "{\\"TokenDataTypeID\\": \\"1\\",\\"PlainText\\":
\\"Token Data\\"}",
  "validUntilUTC": "2050-12-31",
  "tokenName": "Token Name",
  "miscData": "Misc Data",
  "customerTranRef": "X"
}
```

### Sample /TokenV2Create/api/Token/create Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 00:55:51 GMT
Content-Length: 730

{
  "magTranID": "666cd40c-2791-4bbd-9839-0ac3aa079752", "
  timestamp": "2020-12-29 00:55:51Z",
  "customerTranRef": "X",
  "token": "FA820120DFE0012434313631313765652D613963312D343033382D62
3434322D633533313666623530643065DFE00205312E322E30DFE0041B323035302D31
322D33315430303A30303A30302E30303030303030DFE0050454657374DFE0061C3230
32302D31322D32395430303A35353A35312E343530353834315ADFE007103939303030
3030303030303030303032DFE0080731303036313437DFE0092436363663643430632D
323739312D346262642D393833392D306163336161303739373532DFE0111034C2A33C
A35C0C98D33FD846217177DDDFE0120A9010010000000002517DFE0210A546F6B656E
204E616D65DFE022094D6973632044617461DFE00320E3992711AFE69492357B7DB6A5
56CE352A9F6863A80B86FA653702BF5AE45CED",
  "code": "0",
  "message": "OK"
}
```

## 2.2 /TokenV2Redeem/api/Token/redeem

### 2.2.1 INPUT PROPERTIES

Property	Value	Description
token	string	Token
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.2.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
tokenId	string	Token GUID
tokenName	string	Token Name
version	string	Token version
validUntilUTC	DateTime	Token valid until in UTC
tokenData	string	Token data
miscData	string	Misc. data
transactionSourceID	string	Transaction source ID
createdForMagTranID	string	Transaction ID of service call that created the token
createdAt	DateTime	Timestamp when token was created
redeemedAt	DateTime	Timestamp when token was redeemed



### Sample /TokenV2Redeem/api/Token/redeem Request:

```
POST https://svc72.magensa.net/TokenV2Redeem/api/token/redeem HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 626
Host: svc72.magensa.net
Connection: Keep-Alive

{
  "customerTranRef": "X",
  "token":
"FA820120DFE0012434313631313765652D613963312D343033382D623434322D63353
3313666623530643065DFE00205312E322E30DFE0041B323035302D31322D333154303
03A30303A30302E30303030303030DFE0050454657374DFE0061C323032302D31322D3
2395430303A35353A35312E343530353834315ADFE00710393930303030303030303
030303032DFE0080731303036313437DFE0092436363663643430632D323739312D346
262642D393833392D306163336161303739373532DFE0111034C2A33CA35C0C98D33FD
846217177DDDFE0120A9010010000000002517DFE0210A546F6B656E204E616D65DFE
022094D6973632044617461DFE00320E3992711AFE69492357B7DB6A556CE352A9F686
3A80B86FA653702BF5AE45CED"
}
```

### Sample /TokenV2Redeem/api/Token/redeem Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 01:00:57 GMT
Content-Length: 488

{
  "magTranID": "625afa54-4b7c-450e-92fe-6dfe5b0434b4",
  "timestamp": "2020-12-29 01:00:57Z",
  "customerTranRef": "X",
  "tokenId": "416117ee-a9c1-4038-b442-c5316fb50d0e",
  "tokenName": "Token Name",
  "version": "1.2.0",
  "validUntilUTC": "2050-12-31T00:00:00",
  "tokenData": "Token Data",
  "miscData": "Misc Data",
  "transactionSourceID": null,
  "createdForMagTranID": "666cd40c-2791-4bbd-9839-0ac3aa079752",
  "createdAt": "2020-12-29T00:55:51.4505841Z",
  "redeemedAt": "2020-12-29T01:00:57.1745722Z",
  "code": "0",
  "message": "OK"
}
```

## 2.3 /TokenV2Create/api/StoredToken/create

### 2.3.1 INPUT PROPERTIES

Property	Value	Description
tokenDataInput *	string	JSON string with token data type-id and corresponding token data.  Supported token data types: 1: PlainText 2: HexString (upper-case only & length multiple of 16 using '0' padding) 3: Encrypted Bulk Data (MagTek reader command 30 output)  E.g., for plain-text token data: <code>{"TokenDataTypeID": "1","PlainText": "Token Data"}</code>
validUntilUTC *	DateTime	Token valid until in UTC
tokenName	string	Token Name
miscData	string	Misc. data
containerName *	string	Container Name
tokenKey	string	Token key if user-generated token key
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.3.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
containerName	string	Container Name
tokenKey	string	Stored Token key

### Sample /TokenV2Create/api/StoredToken/create Request:

```
POST https://svc71.magensa.net/Tokenv2Create/api/storedtoken/create
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 242
Host: svc71.magensa.net
Connection: Keep-Alive

{
  "customerTranRef": "X",
  "containerName": "00001",
  "tokenDataInput": "{\"TokenDataTypeID\": \"1\", \"PlainText\": \"Token Data\"}",
  "validUntilUTC": "2050-12-31",
  "tokenName": "Stored Token Name",
  "miscData": "This is a stored token"
}
```

### Sample /TokenV2Create/api/StoredToken/create Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 01:05:34 GMT
Content-Length: 186

{
  "magTranID": "e4091992-e1ec-4b39-8a12-ca6671c3b4ce",
  "timestamp": "2020-12-29 01:05:13Z",
  "customerTranRef": "X",
  "containerName": "00001",
  "tokenKey": "0000000000107",
  "code": "0",
  "message": "OK"
}
```

## 2.4 /TokenV2Redeem/api/StoredToken/redeem

### 2.4.1 INPUT PROPERTIES

Property	Value	Description
containerName *	string	Container Name
tokenKey *	string	Token key
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.4.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
tokenID	string	Token GUID
tokenName	string	Token Name
version	string	Token version
validUntilUTC	DateTime	Token valid until in UTC
tokenData	string	Token data
miscData	string	Misc. data
transactionSourceID	string	Transaction source ID
createdForMagTranID	string	Transaction ID of service call that created the token
createdAt	DateTime	Timestamp when token was created
redeemedAt	DateTime	Timestamp when token was redeemed

### Sample /TokenV2Redeem/api/StoredToken/redeem Request:

```
POST https://svc72.magensa.net/TokenV2Redeem/api/storedtoken/redeem
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 85
Host: svc72.magensa.net
Connection: Keep-Alive

{
  "customerTranRef": "X",
  "containerName": "00001",
  "tokenKey": "0000000000107"
}
```

### Sample /TokenV2Redeem/api/StoredToken/redeem Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 01:08:43 GMT
Content-Length: 559

{
  "magTranID": "5a475665-91c5-42a1-b5ce-d2257bc9e6a6",
  "timestamp": "2020-12-29 01:08:23Z",
  "customerTranRef": "X",
  "containerName": "00001",
  "tokenKey": "0000000000107",
  "tokenId": "5c3c0c43-48b4-4c2d-af56-f5d58cdfc60a",
  "tokenName": "Stored Token Name",
  "version": "1.2.0",
  "validUntilUTC": "2050-12-31T00:00:00",
  "tokenData": "Token Data",
  "miscData": "This is a stored token",
  "transactionSourceID": null,
  "createdForMagTranID": "e4091992-e1ec-4b39-8a12-ca6671c3b4ce",
  "createdAt": "2020-12-29T01:05:13.4706242Z",
  "redeemedAt": "2020-12-29T01:08:23.4074188Z",
  "code": "0",
  "message": "OK"
}
```

## 2.5 /TokenV2Create/api/PaymentToken/create

### 2.5.1 INPUT PROPERTIES

Property	Value	Description
pan *	string	PAN (length: 15-19)
expirationDate *	string	Expiration Date as “YYMM”
billingZIP	string	Billing ZIP (length: 5)
cvv	string	CVV (length: 3-4)
validUntilUTC *	DateTime	Token valid until in UTC
tokenName	string	Token Name
miscData	string	Misc. data
transactionSourceID	integer	Transaction source ID (for Payment token, “5” or NULL)
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.5.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., ‘0’ for success
message	string	Result Message. For e.g., ‘OK’ for success
token	string	Payment Token

**Sample /TokenV2Create/api/PaymentToken/create Request:**

```
POST https://svc71.magensa.net/Tokenv2Create/api/paymenttoken/create
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 209
Host: svc71.magensa.net
Connection: Keep-Alive

{
  "customerTranRef": "X",
  "pan": "4444333322221111",
  "expirationDate": "2012",
  "billingZIP": "90740",
  "cvv": "1234",
  "validUntilUTC": "2050-12-31",
  "tokenName": "Token Name",
  "miscData": "Misc Data"
}
```

**Sample /TokenV2Create/api/PaymentToken/create Response:**

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 01:11:42 GMT
Content-Length: 836

{
  "magTranID": "28ald6c2-a8fa-4195-aeb5-d9951600b571",
  "timestamp": "2020-12-29 01:11:42Z",
  "customerTranRef": "X",
  "token": "FA820155DFE0012466373662636462662D346231652D346536632D38
6461362D643265643964386537643835DFE00205312E322E30DFE0041B323035302D31
322D33315430303A30303A30302E3030303030303030DFE0050454657374DFE0061C3230
32302D31322D32395430313A31313A34322E343439323335355ADFE007103939303030
3030303030303030303030303030303030303030303030303030303030303030303030
613866612D343139352D616562352D643939353136303062353731DFE011401FF5D7AB
2CF73A75C7A32D60454063C806C19552D729685E0E737BD419E50A74A6ECFEC250D6BF
F0480D791D9303A4CE499BE68DAD94AD5A7C564292F895FE32DFE0120A901001000000
00002519DFE0210A546F6B656E204E616D65DFE022094D6973632044617461DFE02501
35DFE003200C336BA416A35D993846DB44B40A2F51FFAFD483316D00069B8EFB584DA7
AFE0",
  "code": "0",
  "message": "OK"
}
```

## 2.6 /TokenV2Create/api/InvoiceToken/create

### 2.6.1 INPUT PROPERTIES

Property	Value	Description
companyName *	string	Company Name (length: 2-42)
Amount *	string	Amount (with 2 decimal places)
taxAmount	string	Tax Amount (with 2 decimal places)
taxPercent	string	Tax Percentage (with 3 decimal places)
transactionReferenceNumber	string	Client transaction reference number (length: 3-16)
termsAndTransactionInfo	string	Terms and transaction info (max length: 140)
additionalInfo	Array of key-value pair	Additional info, an array (max length: 24) of key (max length: 32) and value (max length: 42) pairs
processorName	string	Processor Name
logoURL	string	Logo URL (max length: 255)
primaryColor	string	Primary color in HEX (length: 4-7). For e.g., "FFFF"
secondaryColor	string	Secondary color in HEX (length: 4-7)
companyNameFontColor	string	Company Name font color in HEX (length: 4-7)
validUntilUTC *	DateTime	Token valid until in UTC
tokenName	string	Token Name
miscData	string	Misc. data
transactionSourceID	integer	Transaction source ID (for Invoice token, "1" or NULL)
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.6.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
tokenKey	string	Invoice Token key



### Sample /TokenV2Create/api/InvoiceToken/create Request:

```
POST https://svc71.magensa.net/Tokenv2Create/api/invoicetoken/create
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 626
Host: svc71.magensa.net
Connection: Keep-Alive

{
  "validUntilUTC": "2050-12-31",
  "companyName": "Inc.",
  "amount": "10.00",
  "taxAmount": "0.75",
  "taxPercent": "7.500",
  "transactionReferenceNumber": "12345",
  "processorName": "Processor Name",
  "additionalInfo": [
    {"Key": "Key-01", "Value": "Value-01"},
    {"Key": "Key-02", "Value": "Value-02"},
    {"Key": "Key-03", "Value": "Value-03"}
  ],
  "logoURL": "https://logourl.com",
  "primaryColor": "FFFF",
  "secondaryColor": "FFFF",
  "companyNameFontColor": "FFFF",
  "termsAndTransactionInfo": "asdf",
  "tokenName": "Invoice Token Name",
  "miscData": "This is an Invoice token",
  "customerTranRef": "X"
}
```

### Sample /TokenV2Create/api/InvoiceToken/create Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 01:14:12 GMT
Content-Length: 185

{
  "magTranID": "5baaa2b8-ad37-459a-ae44-5a632c55e904",
  "timestamp": "2020-12-29 01:13:57Z",
  "customerTranRef": "X",
  "tokenKey": "D49D0249-70F7-45FD-A92D-17390384FA36",
  "code": "0",
  "message": "OK"
}
```

## 2.7 /TokenV2Create/api/Container/create

### 2.7.1 INPUT PROPERTIES

Property	Value	Description
containerName *	string	Container Name (max length: 50)
containerTypeID	integer	0: Private (default) 1: Shared
tokenKeyTypeID *	integer	1: Auto-generated token key 2: User-provided token key
autoGenKeyMask	string	Auto-generated token key mask For e.g., '#####' for a 9-character token key
autoGenKeyPlaceholderTypeID	integer	1: Decimal / Numeric 2: HEX 3: Alphabetic 4: Alpha-Numeric 5: GUID
autoGenKeyPlaceholderChar	string	Auto-generated token key mask character
autoGenKeyPadChar	string	Auto-generated token key mask pad character
userGenKeyRegex	string	User-generated token key validation regex
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.7.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
containerName	string	Container Name

### Sample /TokenV2Create/api/Container/create Request:

```
POST https://svc71.magensa.net/Tokenv2Create/api/container/create
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 209
Host: svc71.magensa.net
Connection: Keep-Alive

{
  "containerName": "00001",
  "tokenKeyTypeID": 1,
  "autoGenKeyMask": "#####",
  "autoGenKeyPlaceholderTypeID": 1,
  "autoGenKeyPlaceholderChar": "#",
  "autoGenKeyPadChar": "0",
  "customerTranRef": "X"
}
```

### Sample /TokenV2Create/api/Container/create Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 22 Dec 2020 21:09:46 GMT
Content-Length: 159

{
  "magTranID": "7989101b-67a7-420b-b077-ad434520cb24",
  "timestamp": "2020-12-22 21:09:44Z",
  "customerTranRef": "X",
  "containerName": "00001",
  "code": "0",
  "message": "OK"
}
```

## 2.8 /TokenV2Create/api/Container/get

### 2.8.1 INPUT PROPERTIES

Property	Value	Description
containerName *	string	Container Name
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.8.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
containerName	string	Container Name
containerTypeID	integer	0: Private 1: Shared
containerTypeDescription	string	Private, Shared
tokenKeyTypeID	integer	1: Auto-generated token key 2: User-provided token key
tokenKeyTypeDescription	string	Auto-generated token key, User-provided token key
autoGenKeyMask	string	Auto-generated token key mask For e.g., '#####' for a 9-character token key
autoGenKeyPlaceholderTypeID	integer	1: Decimal / Numeric 2: HEX 3: Alphabetic 4: Alpha-Numeric 5: GUID
autoGenKeyPlaceholderTypeDescription	string	Decimal, HEX, Alphabetic, Alpha-Numeric, GUID
autoGenKeyPlaceholderChar	string	Auto-generated token key mask character
autoGenKeyPadChar	string	Auto-generated token key mask pad character
userGenKeyRegex	string	User-generated token key validation regex
tokenCount	integer	Number of tokens in container
nextAutoGenKey	string	Next token key in container if auto-generated
dateCreated	string	Date container was created
dateModified	string	Date container was modified

### Sample /TokenV2Create/api/Container/get Request:

```
POST https://svc71.magensa.net/Tokenv2Create/api/container/get
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 55
Host: svc71.magensa.net
Connection: Keep-Alive

{
  "customerTranRef": "X",
  "containerName": "00001"
}
```

### Sample /TokenV2Create/api/Container/get Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 01:20:50 GMT
Content-Length: 563

{
  "magTranID": "2a07ce41-c060-411e-8f8e-e20a58af3ec6",
  "timestamp": "2020-12-29 01:20:50Z",
  "customerTranRef": "X",
  "container": {
    "containerName": "00001",
    "tokenKeyTypeID": 1,
    "tokenKeyTypeDescription": "Auto-Generated Token Key",
    "autoGenKeyMask": "#####",
    "autoGenKeyPlaceholderTypeID": 1,
    "autoGenKeyPlaceholderTypeDescription": "Decimal",
    "autoGenKeyPlaceholderChar": "#",
    "autoGenKeyPadChar": "0",
    "userGenKeyRegEx": null,
    "tokenCount": 100,
    "nextAutoGenKey": "0000000000108",
    "dateCreated": "2020-05-29 17:38:56Z",
    "dateModified": "2020-12-29 01:05:13Z"
  },
  "code": "0",
  "message": "OK"
}
```

## 2.9 /TokenV2Create/api/Container/list

### 2.9.1 INPUT PROPERTIES

Property	Value	Description
customerTranRef	string	Client-assigned transaction reference ID

Note: \* = Required

### 2.9.2 OUTPUT PROPERTIES

Property	Value	Description
magTranID	string	Transaction ID from target service provider
timestamp	string	Transaction timestamp from Magensa
customerTranRef	string	Client-assigned transaction reference ID from input
code	string	Result code. For e.g., '0' for success
message	string	Result Message. For e.g., 'OK' for success
containerName	string	Container Name
containerTypeID	integer	0: Private 1: Shared
containerTypeDescription	string	Private, Shared
tokenKeyTypeID	integer	1: Auto-generated token key 2: User-provided token key
tokenKeyTypeDescription	string	Auto-generated token key, User-provided token key
autoGenKeyMask	string	Auto-generated token key mask For e.g., '#####' for a 9-character token key
autoGenKeyPlaceholderTypeID	integer	1: Decimal / Numeric 2: HEX 3: Alphabetic 4: Alpha-Numeric 5: GUID
autoGenKeyPlaceholderTypeDescription	string	Decimal, HEX, Alphabetic, Alpha-Numeric, GUID
autoGenKeyPlaceholderChar	string	Auto-generated token key mask character
autoGenKeyPadChar	string	Auto-generated token key mask pad character
userGenKeyRegex	string	User-generated token key validation regex
tokenCount	integer	Number of tokens in container
nextAutoGenKey	string	Next token key in container if auto-generated
dateCreated	string	Date container was created
dateModified	string	Date container was modified

### Sample /TokenV2Create/api/Container/list Request:

```
POST https://svc71.magensa.net/Tokenv2Create/api/container/list
HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: application/json
Authorization: Basic {AUTHORIZATION HEADER VALUE}
Content-Length: 28
Host: svc71.magensa.net
Connection: Keep-Alive

{
  "customerTranRef": "X"
}
```

### Sample /TokenV2Create/api/Container/list Response:

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Server: Microsoft-IIS/10.0
X-Powered-By: ASP.NET
Date: Tue, 29 Dec 2020 01:24:46 GMT
Content-Length: 566

{
  "magTranID": "033ddd6f-4d6c-4426-83f4-65fa048bec18",
  "timestamp": "2020-12-29 01:24:46Z",
  "customerTranRef": "X",
  "containers": [
    {
      "containerName": "00001",
      "tokenKeyTypeID": 1,
      "tokenKeyTypeDescription": "Auto-Generated Token Key",
      "autoGenKeyMask": "#####",
      "autoGenKeyPlaceholderTypeID": 1,
      "autoGenKeyPlaceholderTypeDescription": "Decimal",
      "autoGenKeyPlaceholderChar": "#",
      "autoGenKeyPadChar": "0",
      "userGenKeyRegEx": null,
      "tokenCount": 100,
      "nextAutoGenKey": "0000000000108",
      "dateCreated": "2020-05-29 17:38:56Z",
      "dateModified": "2020-12-29 01:05:13Z"
    }
  ],
  "code": "0",
  "message": "OK"
}
```

### 3 Fault Codes and Reasons

Fault Code	Fault Reason
2101	Container create failed
2102	Container get failed
2103	Container list failed
2104	Token storage failed
2105	Token get failed
2106	TokenInputData parsing failed
2107	Token parsing failed
2108	Token slot is not valid
2109	Token verification failed
2110	Token authorization failed
2111	Token has expired
2112	Token decryption failed
2113	ValidUntilUTC is not valid
2114	PAN is not valid
2115	Expiration date is not valid
2116	AdditionalInfo is not valid
2117	Amount is not valid
2118	CompanyName is not valid
2119	CompanyNameFontColor is not valid
2120	LogoURL is not valid
2121	Color is not valid
2122	TaxAmount is not valid
2123	TaxPercent is not valid
2124	TermsAndTransactionInfo is not valid
2125	TransactionReferenceNumber is not valid
2126	Billing ZIP is not valid
2127	CVV is not valid
2128	Transaction Source ID is not valid
5000	Unexpected Error



## **Appendix A      Reserved**

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