



# INTEGRATION GUIDE

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This document is created for companies that want to use MyGate's collections product. This document will provide you with all information required to tokenize credit card data before creating a collection batch.

Tokenization -  
Collections  
version 1.0.2

## **Document Information**

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## Revision History:

Issue Date	User	Revision Number	Description of Change
	Mark Raa	Original: 1.0.0	Application Programming Interface
29-07-2010	Mark Raa	Original: 1.0.2	Update Integration Fields
07-05-2012	Ryan Godfrey	Original: 1.0.2	Webservice URL Update

## **Introduction**

MyGate's Tokenization Collection Solution eliminates the need for merchants to store card data in their environment.

Merchants will require an SSL certificate should they want to utilize this solution. This is because without a SSL certificate, a third party could read the data being captured by the card holder (Credit Card Details).

## Overview

The MyGate Tokenization Collections Solution, relies on web services for the processing of transactions.

A web service is a software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTPS with an XML serialization in conjunction with other web-related standards.



## Payment Processors Role in the Transactional Process

- MyGate web server receives the Card/Account and PIN details from the website via web service.
- MyGate web server returns a result along with a TransactionIndex that uniquely identifies the storage token.
- MyGate receive the collection batch details from the Website via web service. (Collections – Batch API)
- MyGate server performs validation on the credit card details and other variables submitted.
- MyGate web server processes the transaction by submitting the transaction to the bank for processing.
- The bank returns to a transaction result.
- MyGate updates the results into the submitted file.

## Tokenization Transaction Process Flow

The MyGate Collections Tokenization Solution offers seven available webservice functions that can be invoked from your website/application. These are:

### **fLoadPinCC and fLoadPinBA**

This is the first function within the API that needs to be invoked before any further processing can occur. It takes the card or bank account details along with a unique Client Identifier and PIN chosen by the card holder or merchant and securely stores the data for later use. Without this process being completed, the Tokenization Collections solution cannot be utilized.

### **fUpdatePinCC and fUpdatePinBA**

This function allows the merchant or card holder to update the card or bank account details that were submitted in the fLoadPinCC and fLoadPinBA functions should the need arise. This can be in instances where the card holder requests the card or bank account details to be changed or in the event of the credit card expiring without having to invoke the loadPin function again. You will also need to submit the TransactionIndex returned from the original loadPin function for this to work.

### **fGetExpiredPinCC**

This function will return the TransactionIndex tokens stored in the database whose corresponding credit cards expire on a particular date. The date is submitted as an argument for this function.

### **fDeletePinCC and fDeletePinBA**

This function allows you to delete a record from the database in the event that you no longer wish for the card holder to purchase or in the event that you no longer want the card or bank account details stored on your system. This also requires the TransactionIndex from the loadPin to be supplied.

## Variables to be submitted to MyGate

The below list of variables relate to the MyGate Collections Tokenization solution.

Name	Description
ClientID	Each merchant is issued with a ClientID by MyGate. This will identify the merchant within our system.
ApplicationID	Each merchant will be issued one or more ApplicationID's by MyGate. This will identify each account combination.
TransactionIndex	This is required for certain functions within the Collections Tokenization solution and is used to reference a previous transaction. The TransactionIndex is returned initially as a response parameter to the fLoadPinCC and fLoadPinBA functions but will also be returned for future processing functions.
Account Number	The Account number is the number that uniquely identifies a Client's Bank account.
Account Holder	The Name in which the account is registered in
Branch Code	Typically a 6 digit number used for identifying the Clients bank
Account Type	This is a single digit number indicating what the account type is. 1 = Current (Cheque) 2 = Savings 3 = Transmission 4 = Bond 5 = Subscription Share
Card Number	This is the number on the card to be effected by the transaction.
Card Holder	This is the name of the credit card holder. A Card Holder will be an alphanumeric string.
ExpiryMonth	This is a positive integer between 01 and 12 inclusive.
ExpiryYear	This is a positive integer between the current year and fifteen years from now. I.e. 2015 The Expiry Month and Year work together.
CardType	This is a byte specifying the number corresponding to the credit card type and will be valid from the following list of Credit Card Types. 7 = Credit Card – Visa 8 = Credit Card - MasterCard
ClientUCI	A Unique identifier that identifies the card holder making the transaction. This is usually stored on the client side upon client registration.
ClientPin	This is the PIN that the card holder or merchant chooses in the fLoadPinCC and fLoadPinBA functions.

## Examples

All of the below examples are functions within a webservice that can be invoked. The webservice URL is:

**Web service Address:** <https://www.mygate.co.za/Collections/1x0x0/pinManagement.cfc?wsdl>

### LoadPin Example

```
function fLoadPinCC
    param ClientID: "79958a8d-0c7b-4038-8e2e-8948e1d678e1"
    param ApplicationID: "4b775479-a264-444c-b774-22d5521852d8"
    param CardNumber: "4111111111111111"
    param CardHolder: "John Doe"
    param ExpiryMonth: "12"
    param ExpiryYear: "2010"
    param CardType: "4"
    param ClientPin: "pin12345"
    param ClientUCI: "Client001"
```

#### Result:

array	
1	Result     0
2	TransactionIndex     87654321-ABCD-1234-4321-1234567890AB
3	AcquirerDateTime     2009/11/02 11:45:18 AM

```
function fLoadPinBA
    param ClientID: "79958a8d-0c7b-4038-8e2e-8948e1d678e1"
    param ApplicationID: "4b775479-a264-444c-b774-22d5521852d8"
    param AccountNumber: "4054567890"
    param AccountHolder: "John Doe"
    param BranchCode: "632005"
    param AccountType: "1"
    param ClientPin: "pin12345"
    param ClientUCI: "Client001"
```

#### Result:

array	
1	Result     0
2	TransactionIndex     87654321-ABCD-1234-4321-1234567890AB
3	AcquirerDateTime     2009/11/02 11:45:18 AM

## UpdatePin Example

```
function fUpdatePinCC
    param ClientID: "79958a8d-0c7b-4038-8e2e-8948e1d678e1"
    param ApplicationID: "4b775479-a264-444c-b774-22d5521852d8"
    param TransactionIndex: "87654321-ABCD-1234-4321-1234567890AB"
    param CardNumber: "4242424242424242"
    param CardHolder: "John Doe"
    param ExpiryMonth: "12"
    param ExpiryYear: "2012"
    param CardType: "4"
    param ClientPin: "pin12345"
    param ClientUCI: "Client001"
```

### Result:

array	
1	Result   0
2	TransactionIndex   87654321-ABCD-1234-4321-1234567890AB
3	AcquirerDateTime   2009/11/02 11:45:18 AM

```
function fUpdatePinBA
    param ClientID: "79958a8d-0c7b-4038-8e2e-8948e1d678e1"
    param ApplicationID: "4b775479-a264-444c-b774-22d5521852d8"
    param TransactionIndex: "87654321-ABCD-1234-4321-1234567890AB"
    param AccountNumber: "4054567890"
    param AccountHolder: "John Doe"
    param BranchCode: "632005"
    param AccountType: "1"
    param ClientPin: "pin12345"
    param ClientUCI: "Client001"
```

### Result:

array	
1	Result   0
2	TransactionIndex   87654321-ABCD-1234-4321-1234567890AB
3	AcquirerDateTime   2009/11/02 11:45:18 AM

## GetExpiredPin Example

```
function fGetExpiredPinCC
    param ClientID: "79958a8d-0c7b-4038-8e2e-8948e1d678e1"
    param ApplicationID: "4b775479-a264-444c-b774-22d5521852d8"
    param ExpiryMonth: "12"
    param ExpiryYear: "2010"
```

### Result:

array	
1	Result     0
2	TransactionIndex     87654321-ABCD-1234-4321-1234567890AB
3	ExpiredPin     <ExpiredPin><ClientIndex>87654321-ABCD-1234-4321-1234567890AB</ClientIndex><ClientIndex>97654321-ABCD-1234-4321-1234567890AB</ClientIndex><ClientIndex>A7654321-ABCD-1234-4321-1234567890AB</ClientIndex></ExpiredPin>
4	AcquirerDateTime     2009/11/02 11:45:18 AM

## deletePin Example

```
function fDeletePinCC or fDeletePinBA
    param ClientID: "79958a8d-0c7b-4038-8e2e-8948e1d678e1"
    param ApplicationID: "4b775479-a264-444c-b774-22d5521852d8"
    param TransactionIndex: "87654321-ABCD-1234-4321-1234567890AB"
    param ClientUCI: "Client001"
```

### Result:

array	
1	Result     0
2	TransactionIndex     87654321-ABCD-1234-4321-1234567890AB
3	AcquirerDateTime     2009/11/02 11:45:18 AM

## Return Parameters

The below table details the return parameters and their respective meanings:

Parameter Name	Description
Result	This variable is returned after each function invocation and indicates the result of the request: 0 = Successful -1 = Failed
TransactionIndex	The TransactionIndex is initially generated when the fLoadPinCC or fLoadPinBA functions are called and is used to later reference a record in the database referencing a Clients Credit Card or Bank Account details.
ErrorCode	In the event of something going wrong, the Result will be a -1. When this happens, an ErrorCode will be returned with a corresponding Error Message and Error Description explaining what went wrong.
ExpiredPin	This variable is only present for the fGetExpiredPin function and will contain a list of TransactionIndexes which correspond to the card details that expire on the expiry date sent to the function in XML format.
AcquirerDateTime	This is the time stamp of the request and is returned in every instance.

## Error Codes

Below is a list of error codes that can be returned by the MyGate Collections Tokenization Solution:

### Validation Errors:

Error Code	Error Description
1002	A Client ID was not specified. Please check that you have entered a Client ID.
1003	An invalid Client ID was specified. Please check that you have entered the correct Client ID.
1004	An application ID was not specified. Please check that you have entered an application id.
1005	An invalid application ID was specified. Please check that you have entered the correct application id.
1019	This transaction requires a TransactionIndex. Please specify a correct transaction index.
1008	An invalid TransactionIndex was specified. Please check that you have entered the correct TransactionIndex.
1022	A Card Number is required. Please specify a Card Number.
1024	An invalid Card Number was specified. Please specify a valid Card Number.
1034	A Card Holder was not specified. Please check that you have entered a card holder.
1035	An invalid Card Holder was specified. A valid alphanumeric string of max length 255 must be specified.
1027	An Expiry Month is required for this transaction.
1029	An invalid Expiry Month was specified
1028	An Expiry Year is required for this transaction.
1030	An invalid Expiry Year was specified.
1020	The Card Type is required. Please specify a Card Type.
1021	An invalid Card Type was specified.
1046	A PIN was not specified. Please check that you have entered a PIN.
1047	An invalid PIN was specified. A valid PIN was expected.
1057	A UCI was not specified. Please check that you have entered a UCI.
1058	An invalid UCI was specified.
1056	This service must be called using SSL (https).
4009	The caller's IP Address is not in the list of allowed IP Addresses for this Application.
1082	An Account Number is required for this transaction type.
1083	An invalid account number was specified. Please specify a valid account number.
1084	An Account Holder is required for this transaction type.
1085	An invalid account holder was specified. Please specify a valid account holder.

1086	A Branch Code is required for this transaction type.
1087	An invalid branch code was specified. Please specify a valid branch code.
1088	An Account Type is required for this transaction type.
1089	An invalid account type was specified. Please specify a valid account type.

### Initiate Errors:

Error Code	Error Description
2002	The specified Client ID does not exist. Please check that you have entered the correct Client id.
2003	The specified Application ID does not exist. Please check that you have entered the correct Application ID.
2020	An Incorrect Relationship with Gateway, Application and Client. The relationship between the given 3 values doesn't exist.

### Security Errors:

Error Code	Error Description
4003	This Client ID has not yet been enabled.
4004	This Client ID has been suspended.
4005	This Client ID has been removed.
4006	This Application ID has not yet been enabled.
4007	This application ID has been suspended.
4008	This application ID has been removed.
4009	The caller's IP Address is not in the list of allowed IP Addresses for this Application.

### Unknown Errors:

Error Code	Error Description
9001	An unexpected error has occurred.