



GPS Account Tokenization POX/XML Web Service

Version 2.0

Guardian Payment Systems

Guardian Payment Systems SOAP Web Service for tokenizing Credit Card and Bank Account information. Guardian is the industry leader in helping secure your payment data, and among the first to offer tokenization of Bank Account information.

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Guardian Payment Systems Virtual Account Vault

Introduction

The Guardian Payment Systems Gateway provides a Plain Old XML (POX) Web Service allowing client applications to store Bank account (routing number and account) and Credit Card account information securely in Guardian Payment Systems' Data Warehouse and subsequently use that securely stored account information in Guardian Payment Systems' payment transaction services. With this service, client applications avoid storing customer account information locally, yet still issue transactions to these accounts at will. Not having customer account information stored locally may help with security and PCI compliance.

Overview

The Virtual Account Vault feature stores Bank and Credit Card account information securely in the Guardian Payment Systems Data Warehouse. Account information is added to the Vault via the Virtual Account Vault XML web service, which accepts the account information and returns a unique key string (the VirtualAccountToken) for future use. From that point on, the VirtualAccountToken can be sent to Guardian Payment Systems Check and Credit Card transaction services instead of the account information, and the Guardian Payment Systems Check and Credit Card transaction services will securely extract the account information from the Vault for use in the transaction.

Thus, the client only needs to store the VirtualAccountToken locally on their system instead of the full account information, increasing their security and avoiding PCI compliance issues dealing with secure account information storage.

For security, once account information has been added to the secure Virtual Account Vault, that information cannot be retrieved, altered, or deleted by the client. When account information changes, the client submits the new information as a new Vault entry and uses the new VirtualAccountToken for future transactions.

For security, only the Guardian Payment Systems Check and Credit Card transaction services retrieve information from the Virtual Account Vault.

For security, the Guardian Payment Systems Check and Credit Card transaction services will only use account information for transactions by the client (or client group) who submitted the account information. It is not possible to use account information that was not submitted by the client sending the transaction.

Signing Up

To use the Virtual Account Vault XML service, a client must be signed up and set up as a merchant by the Guardian Payment Systems Processing Support team. The Virtual Account Vault is used in conjunction with the Guardian Payment Systems Check and Credit Card transaction services, and may be setup with or added to an existing transaction service client account.

Technical Details

This service is coded in .Net 3.5 and is exposed as an XML Web Service. The test URLs are:

<https://testsvcs.guardianpayments.com/Processing/VirtualAccountXml/CreateVirtualCheckAccount>

<https://testsvcs.guardianpayments.com/Processing/VirtualAccountXml/CreateVirtualCreditCardAccount>

<https://testsvcs.guardianpayments.com/Processing/VirtualAccountXml.svc?wsdl>

Production URLs will be issued when merchant underwriting is completed by Guardian.

Overview

The VirtualAccountVaultService is an XML Web service with two function entry points, one for storing Check account information and one for storing Credit Card account information.

Virtual Credit Card Account - Tokenization

The Virtual Credit Card Account interface allows client applications to exchange a credit card number for a Guardian Credit Card Token that can be used in future transactions.

Create Virtual Credit Card Account: CreateVirtualCreditCardAccount(...)

Creating a credit card token through the XML Web service follows this pseudo-syntax:

```
virtualCreditCardAccountResponse = httpsPost
(
  https://<guardianHost/VirtualAccountXML/CreateVirtualCreditCardAccount,
  virtualCreditCardAccountRequestMessage
)
```

Virtual Credit Card Account Request XML

The <virtualCreditCardAccountRequestMessage> element has the following format:

Field Name	Type	Description
Header		Information identifying you as a merchant within Guardian's Payment Director payment gateway.
virtualCreditCardAccountRequest		The credit card account data.

Virtual Account Header XML

The header object contains information to identify you as a merchant within Guardian's Payment Director Payment gateway. These merchant specific values are provided by Guardian when merchant underwriting is complete, and the <header> element is defined as:

Field Name	Type	Description
activationCode	String	Guardian assigned code identifying you as a merchant.
endpointToken	String	Guardian assigned unique identifier of you as a merchant.

Virtual Account Request XML

The <virtualCreditCardAccountRequest> element will contain the credit card number and is defined as:

Field Name	Type	Description
CardNumber	String(50)	The credit card number to be tokenized

Virtual Account Response XML

The Guardian <virtualCreditCardAccountResponseMessage> element is defined as:

Field Name	Type	Description
VirtualCreditCardAccountResponse	VirtualCreditCardAccountResponse	The results of the tokenization

Virtual Account Results XML

The <virtualCreditCardAccountResult> element contains the result the transaction and is defined as:

Field Name	Type	Description
VirtualAccountToken	String	The token to be used in place of the credit card number in future

Field Name	Type	Description
		transactions.

Create Virtual Credit Card Account Example XML

The following is example XML to create a virtual credit card account.

Virtual Credit Card Account Request XML

```
<virtualCreditCardAccountRequestMessage>  
  <header>  
    <EndpointToken></EndpointToken>  
    <ActivationCode> </ActivationCode>  
  </header>  
  <virtualCreditCardAccountRequest>  
    <CardNumber></CardNumber>  
  </virtualCreditCardAccountRequest>  
</virtualCreditCardAccountRequestMessage>
```

Virtual Credit Card Account Response XML

```
<virtualCreditCardAccountResponseMessage xmlns:xsi="http://www.w3.org/2001/XMLSchema-  
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">  
  <virtualCreditCardAccountReponse>  
    <VirtualAccountToken></VirtualAccountToken>  
  </virtualCreditCardAccountReponse>  
</virtualCreditCardAccountResponseMessage>
```

Bank Account Information Tokenization

The Check Tokenization interface allows client applications to exchange bank account and routing number combinations for a Guardian Virtual Check Account Token.

Create Virtual Check Account: CreateVirtualCheckAccount (...)

Creating a credit card token through the XML Web service follows this pseudo-syntax:

```
virtualCheckAccountResponseMessage = httpsPost
(
  https://<guardianHost>/VirtualAccountXML/CreateVirtualCheckAccount,
  virtualCheckAccountRequestMessage
)
```

Credit Card Token Request XML

The <virtualCheckAccountRequestMessage> element has the following format:

Field Name	Type	Description
Header		Information identifying you as a merchant within Guardian's Payment Director payment gateway.
virtualCheckAccountRequest		The account data.

Virtual Account Header XML

The header object contains information to identify you as a merchant within Guardian's Payment Director Payment gateway. These merchant specific values are provided by Guardian when merchant underwriting is complete, and the <header> element is defined as:

Field Name	Type	Description
activationCode	String	Guardian assigned code identifying you as a merchant.
endpointToken	String	Guardian assigned unique identifier of you as a merchant.

Virtual Account Request XML

The <virtualCheckAccountRequest> element will contain the bank account data and is defined as:

Field Name	Type	Description
AccountNumber	String(50)	The bank account number to be tokenized
RoutingNumber	String(9)	The routing number.

Virtual Account Response XML

The Guardian <virtualCheckAccountResponse> element is defined as:

Field Name	Type	Description
VirtualCheckAccountResponse	VirtualCheckCardAccountResponse	The results of the tokenization

Virtual Account Results XML

The <virtualCheckAccountResult> element contains the result the transaction and is defined as:

Field Name	Type	Description
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Field Name	Type	Description
VirtualAccountToken	String	The token to be used in place of the credit card number in future transactions.

Create Virtual Check Account Example XML

The following is example XML to create a virtual credit card account.

Virtual Check Account Request XML

```
<virtualCheckAccountRequestMessage>
  <header>
    <EndpointToken></EndpointToken>
    <ActivationCode> </ActivationCode>
  </header>
  <virtualCheckAccountRequest>
    <routingNumber></routingNumber>
    <accountNumber></accountNumber>
  </virtualCheckAccountRequest>
</virtualCheckAccountRequestMessage>
```

Virtual Check Account Response XML

```
<virtualCheckAccountResponseMessage xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <virtualCheckAccountReponse>
    <VirtualAccountToken></VirtualAccountToken>
  </virtualCheckAccountReponse>
</virtualCheckAccountResponseMessage>
```