Online Commerce Suite™
WebPay Integration Guide

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Overview

This document provides technical information to aid in the integration and customization of the WebPay Gateway module. It provides instructions for configuring the Online Commerce Suite Gateway to accept payments through WebPay and describes the WebPay Web Service API with example code.

What's In This Guide

The remainder of this guide is organized into the following sections:

1. WebPay Configuration
2. WebPay Form Field Descriptions
3. WebPay Flow
4. API Overview
5. Sample Code

How to Comment on This Guide

Every effort has been made to produce an accurate and easy to understand WebPay Integration Guide.

Contact Information

For more information about Online Commerce Suite, refer to the following:

Customer Service

If you have problems with this document, or find that the instructions are incorrect, incomplete, or inadequate, please let us know.

Send your comments to support@merchantpartners.com

Phone: (866) 242-9933

Documentation

Web Site URL: https://www.onlinemerchantcenter.com/mpartners/html/user_manuals.html

Certified Networks

Web Site URL: https://www.onlinemerchantcenter.com/mpartners/html/networks.html

Hardware Compatible List

Web Site URL: https://www.onlinemerchantcenter.com/mpartners/html/equipment.html

WebPay Forms & Descriptions

Note: The Header, Form, and Footer fields will accept HTML.

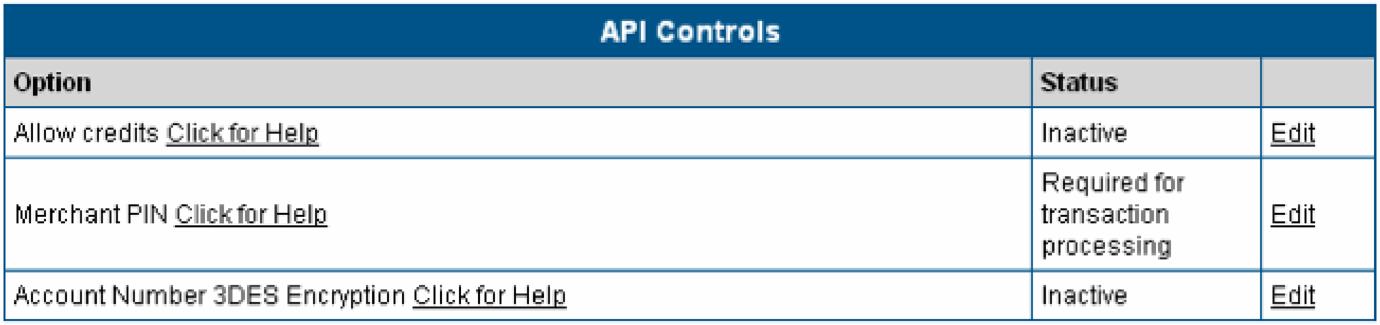
WebPay Forms	Description
Form Name	Your choice for the name of the form you will be using for the checkout process. Make sure that your form is named descriptively, so it is easy to identify later.
Form	The automatically generated form for your checkout process. Check or uncheck fields in order for them to be made editable by the customer. You may also change the descriptions for the fields here, i.e. Name On Card could be changed to Cardholder Name, etc...
Form Style	A selection of default layouts available to you for the checkout process.
Host Domain	The domain (http or https) that your images will be hosted on.
Logo Path	The path, on the Host Domain, where your logo image is hosted. If using additional images (stylesheets, etc..), you'll need to ensure that the image tag is formated as: <img src=>
Header Message	Any text you want to have displayed below your logo. This text will appear on all pages of the checkout process.
Footer Message	Any text you want to be displayed at the bottom of the page. This text will be displayed on all pages of the checkout process.
Accept Message	This text will be displayed to the customer once their transaction has been approved. You can also include links to return the customer back to your website, etc...
Decline Message	This text will be displayed to the customer if their transaction is declined, along with the details of why the transaction was declined.
Post Back URL	The full URL (http or https) of the page on your web server which will receive and process all transaction decline and accept messages. The request method will be in a form of a POST.
WebPay URL	This is the link that you will use to direct your customer from the site hosted on your web server to the WebPay gateway to complete the checkout process.
Advanced Mode	In the advanced tab, web developers have the ability to edit the HTML for the form fields.

WebPay Configuration

To get started with setting up WebPay to accept payments, first log into the Online Merchant Center using the login info sent when your Online Commerce Suite Gateway account was set up.
To configure WebPay, you'll first need to generate a 3DES key for your Online Commerce Suite Gateway account. If you've already got an account 3DES key, you can skip this section and continue to the **Creating / Editing WebPay Forms** section

FRISK Management Configure Option

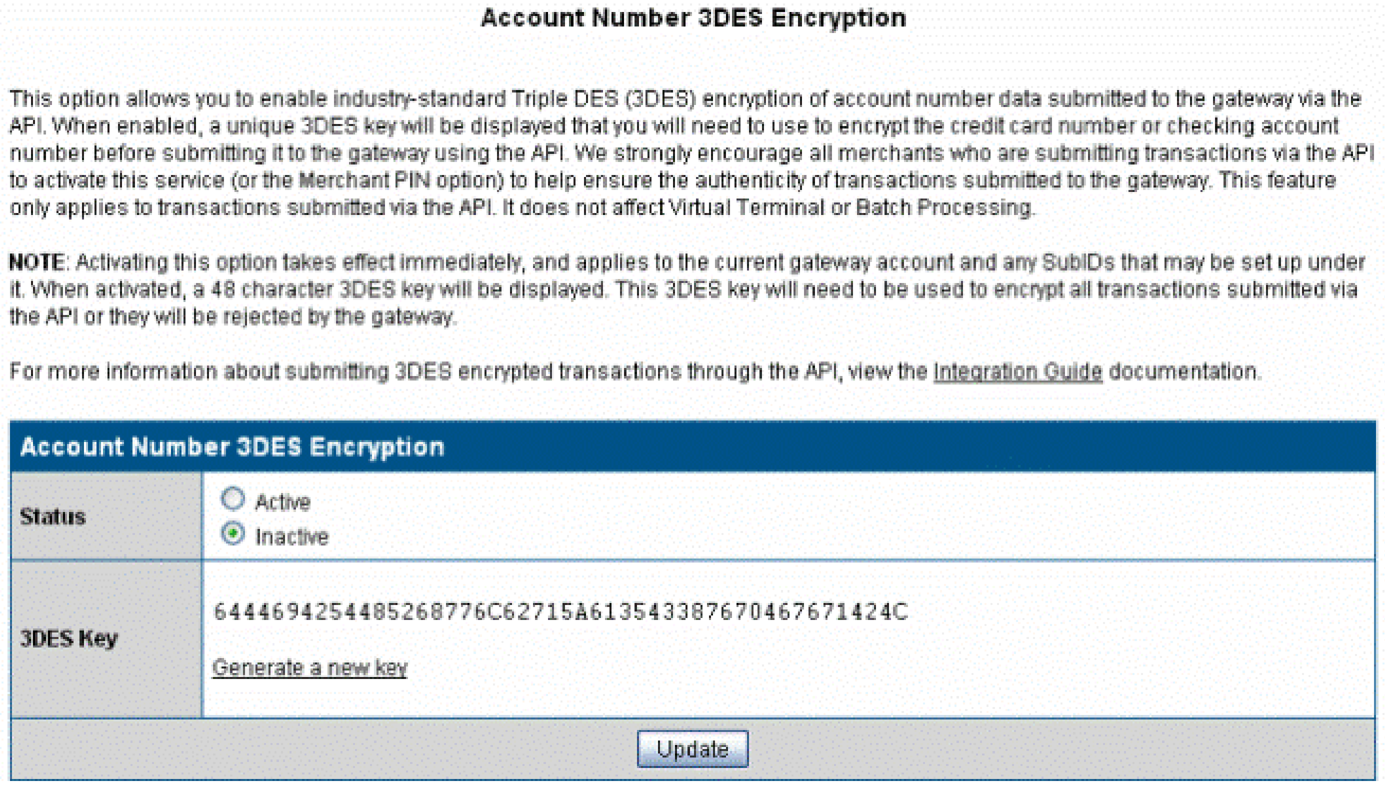
Once logged in, click on **Configure Options** under **FRISK(TM) Management** in the left navigation panel.
Find **Account Number 3DES Encryption** and click **Edit** to the right.



API Controls

Option	Status	
Allow credits Click for Help	Inactive	Edit
Merchant PIN Click for Help	Required for transaction processing	Edit
Account Number 3DES Encryption Click for Help	Inactive	Edit

Click **Generate a new key** then **Update** on the next page.



Account Number 3DES Encryption

This option allows you to enable industry-standard Triple DES (3DES) encryption of account number data submitted to the gateway via the API. When enabled, a unique 3DES key will be displayed that you will need to use to encrypt the credit card number or checking account number before submitting it to the gateway using the API. We strongly encourage all merchants who are submitting transactions via the API to activate this service (or the Merchant PIN option) to help ensure the authenticity of transactions submitted to the gateway. This feature only applies to transactions submitted via the API. It does not affect Virtual Terminal or Batch Processing.

NOTE: Activating this option takes effect immediately, and applies to the current gateway account and any SubIDs that may be set up under it. When activated, a 48 character 3DES key will be displayed. This 3DES key will need to be used to encrypt all transactions submitted via the API or they will be rejected by the gateway.

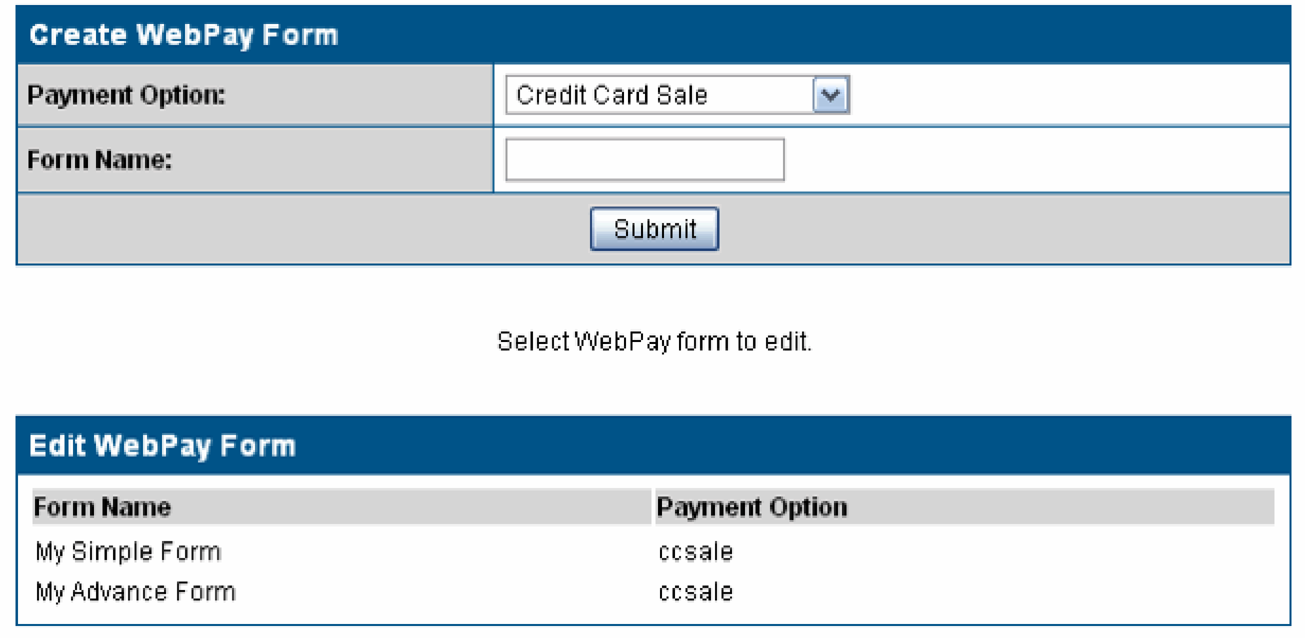
For more information about submitting 3DES encrypted transactions through the API, view the Integration Guide documentation.

Account Number 3DES Encryption	
Status	○ Active ● Inactive
3DES Key	6444694254485268776C62715A613543387670467671424C Generate a new key

Take note of this key, and keep it in a safe place. This key is used to generate secure WebPay URLs.
Note: Setting the Account Number 3DES Encryption Status to Active is not necessary for WebPay.

Creating / Editing WebPay Forms

Choose **Credit Card Sale** from the **Payment Option** drop-down, and enter a descriptive name for your form then click **Submit** to create a form. The new form will appear below in the **Edit WebPay Form** box. To edit an existing form, click the name of the form you'd like to edit.



Create WebPay Form

Payment Option:	Credit Card Sale
Form Name:	

Select WebPay form to edit.

Edit WebPay Form

Form Name	Payment Option
My Simple Form	ccsale
My Advance Form	ccsale

WebPay Forms

Form Name: Your choice for the name of the form you will be using for the checkout process. Make sure that your form is named descriptively, so it is easy to identify later.

Form: The automatically generated form for your checkout process. Check or uncheck fields in order for them to be made editable by the customer. You may also change the descriptions for the fields here, i.e. Name On Card could be changed to Cardholder Name, etc...

Form Style: A selection of default layouts available to you for the checkout process.

Host Domain: The domain (http or https) that your images will be hosted on.

Logo Path: The path, on the Host Domain, where your logo image is hosted. If using additional images (stylesheets, etc..), you'll need to ensure that the image tag is formated as: <img src=»»>

Header Message: Any text you want to have displayed below your logo. This text will appear on all pages of the checkout process.

Footer Message: Any text you want to be displayed at the bottom of the page. This text will be displayed on all pages of the checkout process.

Accept message: This text will be displayed to the customer once their transaction has been approved. You can also include links to return the customer back to your website, etc...

Decline Message: This text will be displayed to the customer if their transaction is declined, along with the details of why the transaction was declined.

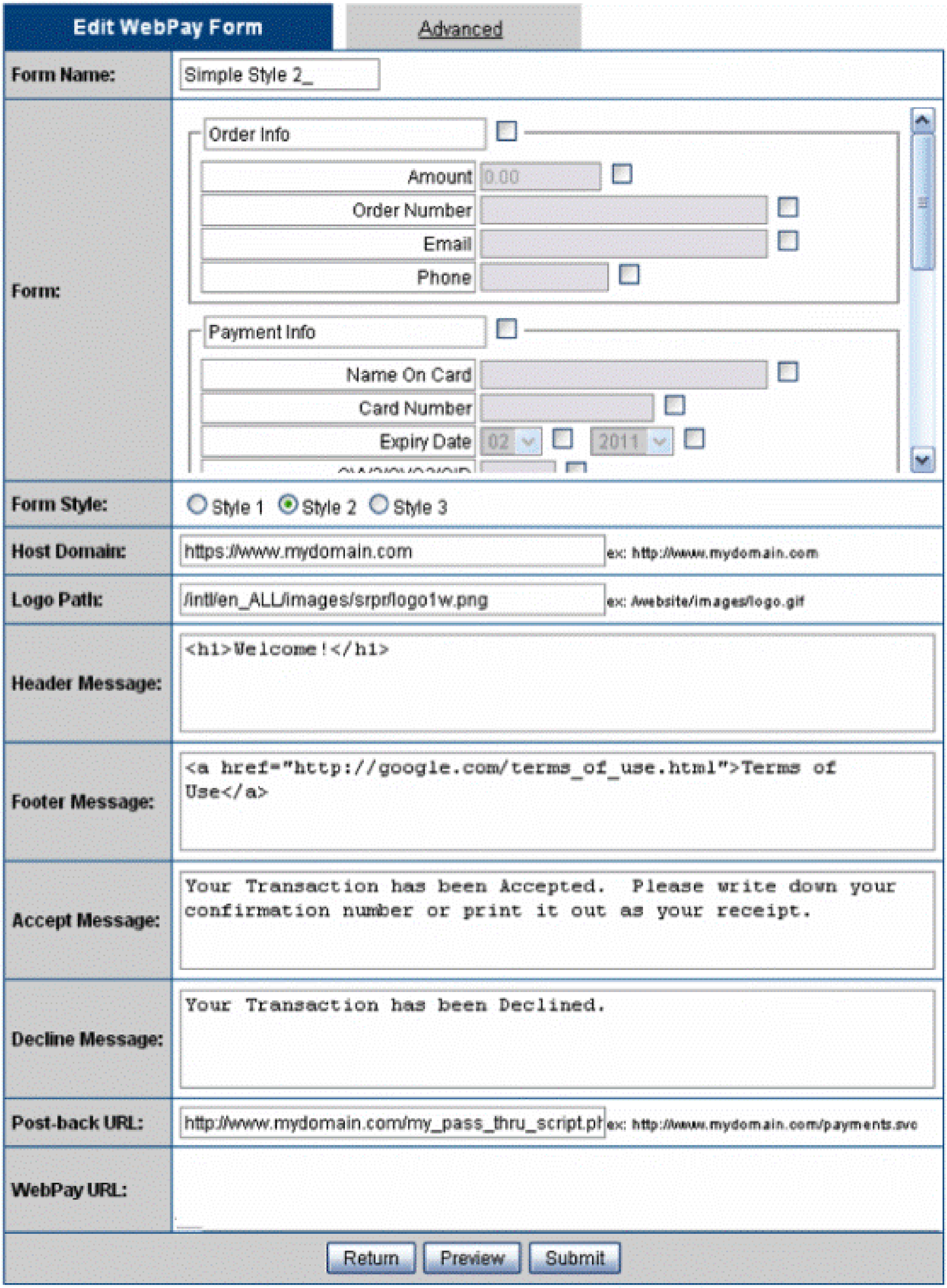
Post-back URL: The full URL (http or https) of the page on your web server which will receive and process all transaction decline and accept messages. The request method will be in a form of a POST.

WebPay URL: This is the link that you will use to direct your customer from the site hosted on your web server to the WebPay gateway to complete the checkout process.

Advanced Mode: In the advanced tab, web developers have the ability to edit the HTML for the form fields.

Note: The Header, Form, and Footer fields will accept HTML.

WebPay Form Field Descriptions

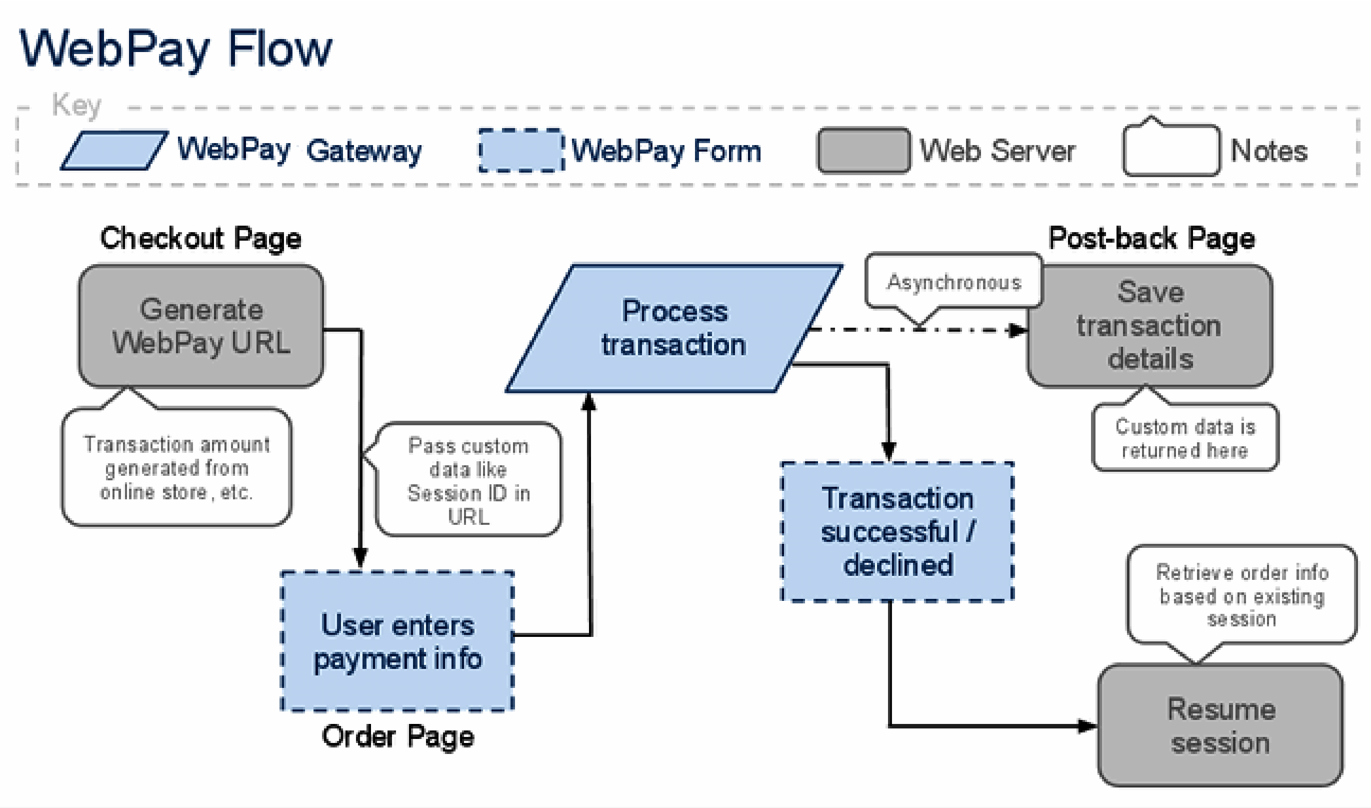


Form Name:	Simple Style 2_
Form:	Order Info □ Amount 0.00 □ Order Number □ Email □ Phone □ Payment Info □ Name On Card □ Card Number □ Expiry Date 02 □ 2011 □
Form Style:	○ Style 1 ● Style 2 ○ Style 3
Host Domain:	https://www.mydomain.com ex: http://www.mydomain.com
Logo Path:	/intl/en_ALL/images/srpr/logo1w.png ex: /website/images/logo.gif
Header Message:	`<h1>Welcome!</h1>`
Footer Message:	`<a href="http://google.com/terms_of_use.html">Terms of Use</a>`
Accept Message:	Your Transaction has been Accepted. Please write down your confirmation number or print it out as your receipt.
Decline Message:	Your Transaction has been Declined.
Post-back URL:	http://www.mydomain.com/my_pass_thru_script.pl ex: http://www.mydomain.com/payments.svc
WebPay URL:	

WebPay Work Flow

In the diagram below, the WebPay flow is outlined:

- The Merchant/Client must generate/display the WebPay URL. Default URL is provided in the Online Merchant Center. The WebPay URL can also be customized to include a transaction Amount and Custom Data:
  - ♦ WebPay Form ID (formid – required)
  - ♦ WebPay Session ID (sessionid – required)
  - ♦ Custom Data (customdata - optional)
- A user clicks the link and is taken to the WebPay Order Page where the user enters their payment information *(credit card or ach info, email address, etc.)*
- The user submits the WebPay form and the transaction is processed by the Online Commerce Suite Gateway.
- The Gateway makes a call to the Post-back URL (if enabled) providing transaction details *(accepted/declined, name, email address, any custom data)* and asynchronously displays the WebPay transaction confirmation page to the user.
- The user can then be directed back to a page on the original site to continue the existing session.



API Overview

Since WebPay is a hosted PA-DSS compliant solution, it requires the end user to go to a secondary secure URL for transmission of personal and financial data. It differs from the traditional Online Commerce Suite Gateway by having the user communicate with the Gateway via their browser and a customizable WebPay form instead of your server communicating directly with the Gateway. For your server to communicate with WebPay you form a URL with variables, that the end user goes to in their browser.

First you'll need to generate a 3DES key from the Online Merchant Center for your Gateway AcctID. If you've already got a 3DES key you can skip this step and continue to the **WebPay URL** section. Log onto the Online Merchant Center.

- Once logged in, click on **Configure Options** under **FRISK(TM) Management** in the left navigation panel.
- Scroll down to **Account Number 3DES Encryption** and click **Edit** to the right.
- Click **Generate a new key** then **Update**.
- Take note of this key, and keep it in a safe place. This key is in effect, used as your WebPay API key.
- *Note: Setting the Account Number 3DES Encryption Status to Active is not necessary for WebPay.*

WebPay URL

To create a WebPay form, click **WebPay** under **Shopping Cart** in the left navigation panel. Edit the fields as you wish. A URL is generated at the bottom of the page in this form:

https://trans.merchantpartners.com/cgi-bin/WebPay.cgi?formid=SomeString&sessionid=SomeString

It contains two important GET vars:

- **Sessionid** is used by WebPay for 3DES key look up.
- **Formid** is an 3DES encypted string. The below customization to the formid string is not required unless you want to specify an amount. The formid string contains Account ID, WebPay form ID, and transaction amount in the following format: **ACCOUNT_ID:SUB_ACCOUNT_ID:WEBPAY_FORM_ID:AMOUNT:** *Note: sub account id and amount are optional. For instance, if you have the customer specify the amount in the WebPay form, you wouldn't specify the amount. Specifying the Amount in the formid will override any amount specified in the WebPay form.*

If customizing the formid string (transaction Amount or Custom Data), the WebPay URL must be generated and displayed on your server at the time of checkout.
You'll need to write code (or use the sample php code below) to generate the encrypted **formid** string from your Gateway 3DES key.

To encrypt the plain-text formid string, use your programming language's Triple DES encryption method(s) along with your Gateway Account 3DES key. WebPay uses the ECB block cipher operation mode. For more info on Triple DES and ECB visit http://en.wikipedia.org/wiki/Block_cipher_modes_of_operation

Custom Data

The WebPay URL can also include a custom data GET var to pass-thru additional information about your order back to your server (via the **Post-back URL** described below) once the transaction is complete. This information should be encrypted similarly to the **formid** variable for security purposes, but can be used for any data you'd like to be relayed back to your server. This GET var is called: **customdata**

Typically, you'd write an incomplete order record into a database and pass the order ID through WebPay, then get it from WebPay's response, update the order record's details and mark its transaction status as complete.

In addition to passing information back to the **Post-back URL**, **customdata** can also be used to display custom information within the WebPay Form. By formating the unencrypted **customdata** string like a URL (valid querystring – name/value pairs with the values being URLEncoded), certain variables can be outputted directly on the WebPay form. An example unencrypted **customdata** string would look like:

```
  my_variable=Test&cdata1=0000234&another_variable=Is%20this%20a%20test%20phrase%3F
```

This example string, after encrypted and included in the WebPay URL, will be passed back to the **Post-back URL** (still encrypted) and the **cdata1** variable will be accessible in the WebPay from by typing **::CDATA1::** into the WebPay Configuration form fields (**Header Tex**t, **Footer Text**, etc.) In total, five variables are available for use in a form: **cdata1**, **cdata2**, **cdata3**, **cdata4**, and **cdata5** => **::CDATA1::**, **::CDATA2::**, etc.

For more info, see the code sample below.

URL generation Sample Code

PHP code: http://*mydomain.com*/checkout.php

```
<?php

//utility function to convert key for use by PHP's mycrypt library
function hexToStr($hex){
  $string = '';
  for ($i = 0; $i < strlen($hex) - 1; $i += 2) {
    $string .= chr(hexdec($hex[$i] . $hex[$i + 1]));
  }
  return $string;
}

//Set these values to the values for your account
$ip_account_id = 'TEST0'; // Your Gateway account ID
$ip_sub_account_id = '';  // Your Gateway account ID. If you are not using a sub account leave this blank
$ip_form_id = '';         // WebPay Encrypted Form ID string
$ip_session_id = '';      // WebPay Session ID
$ip_key = '';             // Account 3DES key from FRISK
$amount = '13.37';        // Transaction amount in US dollars, calculated by your cart, etc.

/* decrypt formid to get plain-text string */
// create initialization vector
$iv = mcrypt_create_iv(mcrypt_get_iv_size(MCRYPT_3DES, MCRYPT_MODE_ECB), MCRYPT_RAND);
$decoded = trim(mcrypt_decrypt(MCRYPT_3DES, hexToStr($ip_key), hexToStr($ip_form_id), MCRYPT_MODE_ECB, $iv));
$decoded_parts = explode(':', $decoded);
$ip_template_id = $decoded_parts[2]; // WebPay Form ID, i.e. '1000-123456789'

/* now rebuild URL */
// create initialization vector
$iv = mcrypt_create_iv(mcrypt_get_iv_size(MCRYPT_3DES, MCRYPT_MODE_ECB), MCRYPT_RAND);
// string to encrpyt, colon (:) deliminated
$string = $ip_account_id.':'.$ip_sub_account_id.':'.$ip_template_id.':'.$amount.':';
// encrypt string
$encoded = mcrypt_encrypt(MCRYPT_3DES, hexToStr($ip_key), $string, MCRYPT_MODE_ECB, $iv);
```

```
$webpay_url = 'https://trans.merchantpartners.com/cgi-bin/WebPay.cgi?formid=';
$webpay_url .= bin2Hex($encoded);
$webpay_url .= '&sessionid=';
$webpay_url .= $ip_session_id;

/**
 * Example of custom data pass-thru:
 * Sometimes it's useful to pass an order id or server session id to WebPay in
 * order to track the transaction.
 * For example, to save a transaction for a user on your server, so when the
 * user returns, the order can be presented to them again.
 * The post-back URL entered on the WebPay form page will receive this custom
 * data.
 */
$webpay_url .= '&customdata=';

// For this example we'd create an order record with a status set to incomplete in a database
// we'll assume we've gotten our insert_id for the order and assigned it.
//   $mysql_order_id = mysql_insert_id();                // e.g., '00134'
//   $custom = 'cdata1='.urlencode($mysql_order_id).','; // e.g., 'cdata1=000134,'
// now encrypt
//   $encoded_custom = mcrypt_encrypt(MCRYPT_3DES, hexToStr($ip_key), $custom, MCRYPT_MODE_ECB, $iv);
// then append it to the URL
//   $webpay_url .= bin2Hex($encoded_custom);

echo '<a href="'.$webpay_url.'">Checkout</a>';
?>
```

Displaying Amount and Custom Data in WebPay Form

HTML code using the Advanced Option:

"WebPay Form Header Text" section

When encrypting an amount, you will need to remove the amount <input> tag from your source as the encrypted amount will always be used. You can display the encrypted amount to the customer by adding the ::AMOUNT:: in the source of the html template.
Example: (*Note: variable tokens are always uppercase*)

```
  <h1>You will be billed:  <span>::AMOUNT::</span></h1>
```

To display the encrypted CDATA values
Example: (*Note: variable tokens are always uppercase*)

```
  <h1>Order number:  <span>::CDATA1::</span></h1>
```

Post-Back URL

If you'd like a script on your server to be notified when a transaction is completed (accept and decline), you can enter a **Post-back URL** within them WebPay templates once you're logged into the Online Merchant Center. When the end user submits the WebPay form, WebPay will make a request to that URL sending all of the fields in your WebPay form (minus financial information like credit card number, expiration date, etc.) as POST variables, just like a normal form would. For more information about response variables, please read the Response Format portion of the Online Commerce Suite Gateway Integration Guide found at https://www.onlinemerchantcenter.com/mpartners/html/user_manuals.html or view the Post-back URL Processing code sample below.

Post-back URL Processing

PHP code: http://*mydomain.com*/webpay_postback.php

```php
<?php

// utility function to convert key for use by PHP's  mycrypt library
function hexToStr($hex){
  $string = '';
  for ($i = 0; $i < strlen($hex) - 1; $i += 2) {
    $string .= chr(hexdec($hex[$i] . $hex[$i + 1]));
  }
  return $string;
}

/* Depending on your WebPay form's fields, the post-back URL will contain some of the following */

// typically required in a WebPay form:
  $_POST['ccname'];    // Name on card
  $_POST['billaddr1']; // Billing street
  $_POST['billaddr2']; // Billing address 2
  $_POST['billcity'];  // Billing city
  $_POST['billstate']; // Billing state
  $_POST['billzip'];   // Billing postal code

// Always returned to post-back URL:
  $_POST['action'];        // Online Commerce Suite Gateway action,  ex: ns_quicksale_cc
  $_POST['acctid'];        // Online Commerce Suite Gateway Account ID, ex: TEST0
  $_POST['ci_ipaddress'];  // Client IP address
  $_POST['orderid'];       // Online Commerce Suite Gateway Order ID
  $_POST['ACCOUNTNUMBER']; // Last four of card number/check number prepended by asterisks, ex: ************4444
  $_POST['Status'];        // Status string, ex: Declined or Accepted
  $_POST['transid'];       // Online Commerce Suite transaction ID

// Always returned for declined transaction:
  $_POST['Declined']; // Declined string, ex: DECLINED:0710940009:INVALID CARD NO  204:
  $_POST['Reason'];   // Declined reason string, ex: DECLINED:0710940009:INVALID  CARD NO 204:
  $_POST['rcode'];    // Response code, ex: 0710940009

// Always returned for accepted transactions:
  $_POST['Accepted']; // Accept string, ex: SALE:TEST:::46031495:::
  $_POST['authcode]'; // Authcode, ex: TEST

// Any other fields you've created in a WebPay form
  $_POST['my_field'];

/* retrieve custom data (as implemented in URL generation code above) */
if (isset($_POST['customdata'])) {
  $ip_key = '6B446942542852687760C82715A613543E87670467671424C'; // Account 3DES key from FRISK
  //create initialization vector
  $iv = mcrypt_create_iv(mcrypt_get_iv_size(MCRYPT_3DES,  MCRYPT_MODE_ECB), MCRYPT_RAND);

  $decoded = trim(mcrypt_decrypt(MCRYPT_3DES,  hexToStr($ip_key), $_POST['custom_data'], MCRYPT_MODE_ECB, $iv));
  $custom = explode('&', $decoded);
  $custom_data = array();
  if (is_array($custom)) {

    foreach ($custom as $pair) {
      $kv = explode('=', $pair);
      $custom_data[urldecode($kv[0])] = urldecode($kv[1]);
    }

    if (array_key_exists('cdata1', $custom_data)) {
      echo $custom_data['cdata1']; //outputs '000134' from above example - our order id
      /**
       * in our example from above, we could now update our order record with the transaction
       * details and set the order status to complete here.
       */
    }
  }
?>
```