TouchNet Support Reference

Using the VALIDATION_KEY Option for uPay Sites

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This TouchNet Support Reference is for Marketplace 3.0 customers who would like to use the VALIDATION_KEY option when linking to a uPay site from an external web site. The VALIDATION _KEY option is described on page 138 of the *Marketplace 3.0 User's Guide*. The following instructions provide additional details.

For security purposes, it is highly recommended that you use the VALIDATION_KEY option when you are allowing a dollar amount to be passed to a uPay site from a web application outside of Marketplace. The VALIDATION_KEY is used to ensure that the amount being passed has not been altered prior to form submission.

Important! To use the VALIDATION_KEY option, you must have prior experience in MD5 (Message-Digest algorithm 5) and Base64 encoding. It is beyond the scope of this document to describe how to create an MD5 hash. Likewise, it is beyond the scope of the document to describe how to perform Base64 encoding. In addition, this document assumes the user has prior experience creating HTML forms.

To use the VALIDATION_KEY option, customers must take the following actions: 1) they must use the Marketplace Operations Center to turn on the VALIDATION _KEY option (and to adjust other related uPay site options), 2) they must create a VALIDATION_KEY, and 3) they must create an HTML form so that the VALIDATION_KEY parameter (and other required values) can be passed to a uPay site. The following sections of this document provide the details for using the VALIDATION_KEY option.

Turning On the VALIDATION_KEY Option

To turn on the VALIDATION_KEY option, you must use the Marketplace Operations Center:

1 Go to the following page in the Operations Center: Marketplace Suite > [merchant name] > uPay Sites > [upay site name] > Payment Settings

2 Select Yes for "Allow the amount to be passed in?"

3 Select Yes for "Require encoded validation key for amount?"

The Payment Settings page for a uPay site.

4   In addition, you should consider the following fields:

- Allow the user to edit the payment amount? — If you do not want the dollar amount to be changed when the customer arrives at the uPay site, you should select No. In this situation, the dollar amount passed in will be displayed, but it will not be editable. If you select Yes, the customer will be able to edit the amount, possibly even choosing a smaller amount (as dictated by the amount entered in the Minimum Payment Amount field).

- Minimum Payment Amount — You should ensure that the amount being passed in is equal to or greater than the amount entered in the Minimum Payment Amount field. If the minimum payment amount is greater than the amount being passed in, Marketplace will not be able to complete the transaction.

- Maximum Payment Amount — You should ensure that the amount being passed in is equal to or less than the amount entered in the Maximum Payment Amount field.

5   Click the Save button.

Creating a VALIDATION_KEY

To create a VALIDATION_KEY, use the following steps:

1   Create a text string in this format: [Posting_Key][EXT_TRANS_ID][AMT]. (You can create this text string anywhere: in a text editor, on a scrap piece of paper, in an online tool that you'll use for encoding the value, etc.)

   • **Posting_Key** — The Posting_Key is a unique identifying code used to enforce tighter security within Marketplace. You can determine if a Posting_Key has been established for the uPay site by navigating to the following page in the Operations Center (and if a Posting_Key has not already been established, you can create one on this same page):

   Marketplace Suite > [merchant name] > uPay Sites > [upay site name] > Miscellaneous Settings

   • **EXT_TRANS_ID** — This is the unique ID generated by the web site that is passing the dollar amount to the uPay site. The ID serves as a cross-reference between the external system and Marketplace. If you do not already have the EXT_TRANS_ID value, consult the administrator of the external web site.

   • **AMT** — The dollar amount of the transaction. This amount MUST include two decimal places. For example, $25 would become 25.00 in the text string.

   Note: Do not include brackets or plus signs in the text string. For example, for the following values—posting_key=EDR123, EXT_TRANS_ID=ENG4, AMT=$25.00—the text string would be EDR123ENG425.00.

2   Create an MD5 hash using the text string.

3   Base64 encode the MD5 hash.

   Note: MD5 hash values are typically in hex format, so you will need the ability to Base64 encode a value in hex format. If you cannot Base64 encode a value in hex format, you can decode the MD5 hash into ASCII text and then perform Base64 encoding. If you are using a Base64 encoding tool, be sure you are using values in the proper format. For example, if you place a hex format value into the ASCII text field of a Base64 encoding tool, you will NOT get a correct result.

4   Save the resulting value. You will use this value in the "Passing a VALIDATION_KEY to a uPay Site" section of this document.

An Example

Here is an example of creating a VALIDATION_KEY. We will use the following values: Posting_Key=EX123, EXT_TRANS_ID=123456, and AMT=100.00. Here is the resulting text string for these values:

```
EX123123456100.00
```

When you encode this text string, here is the resulting MD5 hash:

```
231cd7f8e0151f6e0c4a60b33752a1e7
```

When you encode this MD5 hash value (which is in hex format), here is the resulting Base64 value:

```
IxzX+OAVH24MSmCzNlKh5w==
```

This value is the VALIDATION_KEY. If any of the input values are changed (even if only slightly), the VALIDATION_KEY value will be very different.

Passing a VALIDATION_KEY to a uPay Site

After you create a VALIDATION _KEY (and turn on the VALIDATION KEY option), you utilize it by adding this parameter to an HTML form that references the uPay site. Along with the VALIDATION_KEY, the following parameters must be added to the HTML form: UPAY_SITE_ID, EXT_TRANS_ID, and AMT.

Here are the essential components of the HTML form that references the uPay site:

HTML ELEMENT	ATTRIBUTES
< form >	action = "http://[yourserver]/upay/web/index.jsp" **Note:** You must make the following edits to the URL displayed above: 1) determine whether your institution uses "http" or "https", 2) determine the name/domain of the server where uPay is installed and replace [yourserver] with this value, and 3) determine whether your institution is using the default context path for /upay or a customized context path. method = "post" **Note:** Use the "POST" method. The uPay site will not accept parameters from a "GET" method.
< input > (#1)	type = "hidden" name = "UPAY_SITE_ID" value = "x" **Note:** UPAY_SITE_ID is a numerical value unique to each uPay site. The value is displayed on the Form Parameters page of the uPay site (Marketplace Suite > [merchant name] > uPay Sites > [upay site name] > Form Parameters). You should find this ID number and enter it as the value attribute.

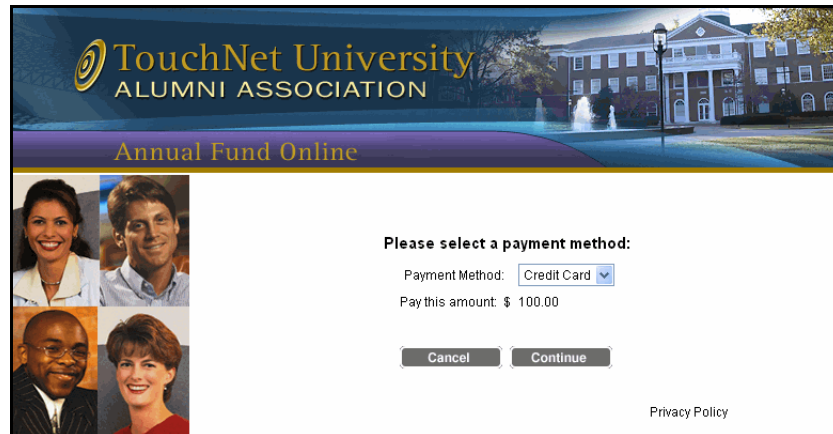| HTML ELEMENT	ATTRIBUTES
<input> (#2)	type = "hidden" name = "EXT_TRANS_ID" value = "x" **Note:** EXT_TRANS_ID is the unique ID generated by the web site that is passing the dollar amount to the uPay site. Be sure you use the same value that was used when the VALIDATION_KEY was created. Enter the ID as the value attribute.
<input> (#3)	type = "hidden" name = "AMT" value = "x" **Note:** AMT is the dollar amount of the transaction. Be sure you use the same value that was used when the VALIDATION_KEY was created. Enter the dollar amount as the value attribute.
<input> (#4)	type = "hidden" name = "VALIDATION_KEY" value = "x" **Note:** For the value attribute, enter the VALIDATION_KEY value that you determined in the "Creating a VALIDATION_KEY" section of this document.
<input> (#5)	type = "submit" value = "Click Here to Pay" **Note:** You can edit the value attribute as necessary and apply style sheet attributes to the <input> tag so that the submit button is customized. You can also use an image in lieu of the form-generated submit button.

An Example   Here is an example that shows what an HTML form might look like when a VALIDATION_KEY is being passed to a uPay site:

```
<form action="https://someserver/upay/web/index.jsp"
method="post">
  <input type="hidden" name="UPAY_SITE_ID" value="3">
  <input type="hidden" name="EXT_TRANS_ID" value="123456">
  <input type="hidden" name="AMT" value="100.00">
  <input type="hidden" name="VALIDATION_KEY"
value="IxzX+OAVH24MSmCzN1Kh5w==">
  <input type="submit" value="Click Here To Pay">
</form>
```

On a web page, this HTML creates a submit button that looks like this (in Windows XP with Internet Explorer 6.0):

When the Click Here to Pay button is clicked, the parameters are passed to the uPay site, and the site is loaded in the customer's browser:

Notice the dollar amount has been passed to the page. The uPay site is now ready for the customer to select a payment method and complete the transaction.

To Contact Client Services

For technical assistance, continuing customer support, or other questions, contact us at:

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TouchNet Client Services is available Monday through Friday between 7:00 a.m. and 7:00 p.m. Central Time. Extended support hours are available by agreement with TouchNet.