

You must configure your uPay site to expect this parameter by selecting Yes for "Allow the amount to be passed in" on the uPay Payment Settings page, as described in **"uPay Site Configuration for the VALIDATION_KEY Option" on page 532.**

The AMT parameter automatically completes the Payment Amount field when the customer arrives at the uPay site.

The value of the parameter is a maximum of 8 numeric characters, including two numeric characters to the right of the decimal point. Dollar values are NOT required to include cents. For example, \$25 could be represented as 25 or 25.00. However, you MUST use the same value for AMT when generating the VALIDATION_KEY value as when passing the AMT parameter to uPay.

Maximum value for AMT parameter: 99999.99.

About the EXT_TRANS_ ID Parameter

The EXT_TRANS_ID parameter must be passed in order to use the VALIDATION_KEY option. In addition, the EXT_TRANS_ID parameter must be used by the campus web application in determining the value of the VALIDATION_KEY parameter.

The EXT_TRANS_ID parameter serves as a cross-reference between the web application and Marketplace. The value of the parameter will be stored in the Marketplace database along with information about the transaction.

We recommend the campus web application uses unique External Transaction IDs with each transaction. By taking this action, the campus web application helps to further ensure the integrity of the VALIDATION_KEY parameter.

If you select Yes for "Validate External Transaction ID is unique to the uPay site?" on the uPay Payment Settings page, uPay will validate that the submitted EXT_TRANS_ID value has not previously been used. (However, this EXT_TRANS_ID value CAN be used by other uPay sites.) If this value is not passed, or if the value is not unique, the customer will not be able to complete the transaction.

The EXT_TRANS_ID is a maximum of 250 alphanumeric characters.

Passing a VALIDATION_ KEY to a uPay Site

When transactions are initiated by a campus web application that uses the VALIDATION_KEY option, the web application must be configured to dynamically generate a VALIDATION_KEY value (as described in **"Creating a VALIDATION_KEY" on page 534**) and then pass this value to the corresponding uPay site.

Important! The process of passing a VALIDATION_KEY to a uPay site is done by a campus web application. You should forward the following information to the administrator responsible for the campus web application that will communicate with uPay.

Here is the uPay site URL:

`http://[server]/[context]/web/index.jsp`

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 [server] with this value, and 3) determine the context path for uPay and replace [context] with this value. The default context path is **upay**. If you do not know the server name or the context path, you should contact your Marketplace administrator.

Important! When passing parameters, the campus web application must use the "POST" method. The uPay site will not accept parameters from a "GET" method.

The following table describes the key parameters that must be passed to launch the uPay site and utilize the VALIDATION_KEY:

Parameter	Description
UPAY_SITE_ID	UPAY_SITE_ID is a numerical value unique to each uPay site. Get this value from the uPay site manager. The uPay site manager can determine this value by viewing the Form Parameters page of the uPay site (Marketplace Home > [merchant name] > uPay Sites > [upay site name] > Form Parameters).
EXT_TRANS_ID	EXT_TRANS_ID is the ID generated by the campus web application web site that is passing the transaction amount to the uPay site. Be sure you use the same value that was used when the VALIDATION_KEY was created.
AMT	AMT is the amount of the transaction. Be sure you use the same value that was used when the VALIDATION_KEY was created.
VALIDATION_KEY	Use the ecnoded VALIDATION_KEY value that you determined as described in "Creating a VALIDATION_KEY" on page 534 .

When the parameters are passed to the uPay site, the site loads in the customer's browser with the Payment Amount field pre-populated. The uPay site is now ready for the customer to select a payment method and complete the transaction.

9.5 Using a Posting URL

After a transaction is processed (or recurring payments are scheduled), uPay can pass parameters describing the transaction back to a campus web application. This information can include parameters that were initially

passed to uPay from a web application, such as a payment amount or a transaction ID, as described in **"Passing Parameters to Your uPay Site" on page 518**. These parameters can include information about the status of the transaction (as determined by Payment Gateway). When this information is posted, the status of the transaction can be updated in the campus web application.

Note: Campus web applications do not necessarily need to pass a transaction ID to uPay; however, without a transaction ID the campus organization will likely have difficulty matching payment information with customer information. We recommend use of the EXT_TRANS_ID parameter, which allows for payment search on this parameter in the Marketplace Operations Center.

Adding a Posting URL to a uPay Site

If you choose to post payment data to a URL, you specify that URL on the uPay site's Miscellaneous Settings page:

- 1 Navigate to Marketplace Home > [merchant name] > uPay Sites > [uPay site name] > Miscellaneous.

Posting Settings	
To have payment results and other useful data posted to your application, use the Posting URL. This URL is not used to navigate the user's browser. It is used only to update your application.	
Post data when payment is cancelled:	<input type="radio"/> Yes <input checked="" type="radio"/> No
User must wait for post completion:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Mark post as failed after number of seconds:	<input type="text" value="60"/>
Posting URL:	<input type="text"/>
The following field values are only applied when the posting URL is changed.	
Apply posting URL change to existing scheduled recurring payments:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Apply posting URL change to existing posting exceptions:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Additional posting value can be passed as an identifier for post-back validation.	
Additional Posting Value:	<input type="text"/>

- 2 Enter the posting URL in the Posting URL field.

Note: To determine the posting URL, contact the administrator of the campus web application that will be targeted.

- 3 (Optional) Select Yes if you would like to post parameters to the posting URL when the customer clicks the uPay site's Cancel button.
- 4 Click the Save button.

Important! TouchNet strongly recommends the use of https with the posting URL. For TouchNet DataCenter installations, https *must* be used for the posting URL.

Important! For TouchNet Data Center installations, you must contact TouchNet Customer Care when considering the use of a posting URL because TouchNet will need to open the firewall so that the uPay site can communicate with the campus web application.

Important! For schools that use Oracle stored procedures with posting URLs, TouchNet strongly recommends the use of "Flexible Parameter Passing." For more information, see ["Using Flexible Parameter Passing" on page 539](#).

Using Flexible Parameter Passing

Some TouchNet clients have chosen to write uPay posting handling processes using Oracle stored procedures via the Oracle application server's MOD_PLSQL extension module. These stored procedures are written in PL/SQL language, and this language is very inflexible in how it accepts parameters. It normally expects a complete set of pre-defined parameters. If any of the parameters are missing, the transaction may fail. If any additional parameters are passed, the transaction will fail.

Oracle's "Flexible Parameter Passing" allows your campus web applications or TouchNet Ready Partner applications to accept any number of parameters, instead of being locked into a pre-defined set of request parameters. Therefore, we strongly recommend the use of "Flexible Parameter Passing" with uPay posting URLs. You can learn more about "Flexible Parameter Passing" by going to the Oracle web site:

http://download.oracle.com/docs/cd/B14099_19/web.1012/b14010/concept.htm#i1005764

Using "Flexible Parameter Passing" allows campus web applications and TouchNet Ready Partner applications to adapt to the changes that we make to uPay.

Posting URL Parameters

Once a uPay site has been configured to use a posting URL, transaction parameters will be passed by uPay to the posting URL. The customer's browser is not navigated to the posting URL, but the parameters are posted to it. The web application targeted by the posting URL must be able to process these parameters. It is your responsibility to contact the administrator of the campus web application and provide that person with information about the posting-URL parameters.

Important! Technical details on configuring a campus web application to accept the parameters passed to a posting URL are outside the scope of this document.

The following parameters are posted *along with any other parameters that the web application initially passed to uPay*, except for `VALIDATION_KEY`:

Parameters for both payment card transactions and ACH transactions:

Parameters	Description	Field Length	Data Type
posting_key	The Additional Posting Value specified on the uPay Miscellaneous Settings page. Some campus web applications use this value to ensure the identity of the uPay site that is communicating with the posting URL. (See " Miscellaneous Settings " on page 491.)	30	alphanumeric
tpg_trans_id	A reference number assigned by Payment Gateway.	unlimited	alphanumeric
pmt_status	Status of the transaction as reported by Payment Gateway. Either "success" or "cancelled".	unlimited	alphanumeric
pmt_amt	Amount of the transaction processed by Payment Gateway. (Maximum value: \$99,999.99.) <i>Forrecurring payments:</i> During setup, the total amount of all recurring payments is passed to the posting URL as the pmt_amt parameter. This is the same parameter used for each recurring payment. The campus web application must be able to use the value passed to the posting URL in the recurring_payment_type parameter (either "setup" or "payment") to determine if pmt_amt represents a total for all recurring payments or the amount for an individual recurring payment.	8 (including 2 characters after the decimal point)	numeric
pmt_date	Date the transaction was processed by Payment Gateway. (Format: mm/dd/yyyy.)	unlimited	alphanumeric
name_on_acct	Name on payment card account or bank account.	50	alphanumeric
acct_addr	The address entered by the customer in uPay. This parameter is passed only if the uPay site has been set up to require address verification data.	35	alphanumeric
acct_addr2	The second address line entered by the customer in uPay. This parameter is passed only if the uPay site has been set up to require address verification data.	35	alphanumeric
acct_city	The city entered by the customer in uPay. This parameter is passed only if the uPay site has been set up to require address verification data.	35	alphanumeric
acct_state	The state entered by the customer in uPay. This parameter is passed only if the uPay site has been set up to require address verification data.	2	alphanumeric

Parameters	Description	Field Length	Data Type
acct_zip	The zip code entered by the customer in uPay. This parameter is passed only if the uPay site has been set up to require address verification data.	30	alphanumeric
acct_country	The country selected by the customer. The two-letter code represents the English language country codes approved by the International Organization for Standardization. This list can be found at www.iso.org/iso/country_codes.htm . This parameter is passed only if the uPay site has been set up to require address verification data.	2	alphabetic
acct_email_address	The customer can be required to enter an e-mail address or this field can be optional.	50	alphanumeric
acct_phone_day	This phone field is an optional entry field.	20	alphanumeric
acct_phone_night	This phone field is an optional entry field.	20	alphanumeric
acct_phone_mobile	This phone field is an optional entry field.	20	alphanumeric
EXT_TRANS_ID	An ID generated/assigned by your campus web application. This value is posted only if it was initially passed to uPay from the campus web application.	250	alphanumeric
UPAY_SITE_ID	A unique ID that identifies the uPay site. Assigned by Marketplace when the uPay site was created.	unlimited	numeric
sys_tracking_id	An internal Marketplace identifier (also known as the order ID) that is displayed to the customer on the uPay receipt page.	unlimited	numeric

Parameters	Description	Field Length	Data Type
recurring_payment_type	<p>This value is only specified if the payment is a recurring payment. Two values are possible: "setup" (for the initial setup of recurring payments) and "payment" (for a single recurring payment).</p> <p>During setup, the total amount of all scheduled payments is passed to the posting URL as the pmt_amt parameter. This is the same parameter used for each recurring payment. The campus web application must be able to use the value passed to the posting URL in the recurring_payment_type parameter (either "setup" or "payment") to determine if pmt_amt represents a total for all recurring payments or the amount for an individual recurring payment.</p>	unlimited	alphanumeric
recurring_setup_number_of_payments	This value is specified for uPay-driven recurring payments and indicates the total number of payments.	unlimited	numeric
recurring_setup_start_date	This value is specified for uPay-driven recurring payments and indicates the date of the first scheduled payment. (Format: mm/dd/yyyy.)	10	alphanumeric
recurring_setup_end_date	This value is specified for uPay-driven recurring payments and indicates the date when the recurring payments will end. If this date does not coincide with a scheduled payment date (as determined by the selected frequency and start date), the final payment will be the last regularly scheduled payment date before the "recurring_setup_end_date". (Format: mm/dd/yyyy.)	10	alphanumeric
recurring_setup_frequency	This numerical value is specified for uPay-driven recurring payments and indicates the frequency of payments: 4=weekly, 1=monthly, 2=bi-monthly, 5=quarterly, 6=semi-annually, and 7=annually.	unlimited	numeric

Additional parameters for payment card transactions:

Parameters	Description	Field Length	Data Type
card_type	Type of payment card: MasterCard, Visa, AmEx, Discover, etc.	unlimited	alphanumeric

Additional parameters for ACH transactions:

Parameters	Description	Field Length	Data Type
bank_name	These values are obtained from Payment Gateway based on the routing number entered	unlimited	alphanumeric
bank_addr1	These values are obtained from Payment Gateway based on the routing number entered	unlimited	alphanumeric
bank_addr2	These values are obtained from Payment Gateway based on the routing number entered	unlimited	alphanumeric
bank_routing_num	These values are obtained from Payment Gateway based on the routing number entered	unlimited	alphanumeric

Parameters for cancellations:

Parameters	Description	Field Length	Data Type
posting_key	A security value specified when the uPay site was built. (See "Miscellaneous Settings" on page 491.)	unlimited	alphanumeric
pmt_status	This value is always "cancelled" for cancellations.	unlimited	alphanumeric
EXT_TRANS_ID	A unique ID generated/assigned by your campus web application. This value is posted only if it was initially passed to uPay from the campus web application.	250	alphanumeric
UPAY_SITE_ID	A unique ID that identifies the uPay site. Assigned when the uPay site was created.	unlimited	numeric

About Recurring Payment Parameters

For recurring payments, the following parameters are passed when recurring payments are established and for each subsequent recurring payment that is processed:

- sys_tracking_id
- posting_key
- name_on_acct
- acct_addr
- acct_addr2
- acct_city
- acct_state
- acct_zip