BlueFire Donations
Custom Checkout Integration

BlueFire's custom checkout integration allows a client to direct a visitor offsite to BlueFire for payment of a fixed amount. It also allows for a post-payment redirect back to their own site (e.g., to mark an order paid and show a "thank you" page). The process is secure and a perfect fit for most shopping cart solutions.

Endpoint

https://bluefire-secure.com/go/cf/checkout.php

GET Parameters

Name	Type	Required	Signature	Description
rid	String	Yes	Yes (1st)	Form ID (`rid` for most forms). Contact us for more information.
orderId	String	Yes	Yes (2nd)	An identifying order number; you may supply for order tracking. Often this is a unique ID generated by shopping cart software. Leave field blank if not needed.
total	Float	Yes	Yes (3rd)	Total, fixed amount for transaction. Must be $0.01 or more.
time	Int	Yes	Yes (4th)	The Unix time stamp indicating the time the checkout link was generated. Checkout links expire after 24 hours by default (can be modified with 'expires' parameter, below).
clientIp	String	Yes	Yes (5th)	The remote client's IP address for additional security. Leave field blank to disable this check.
redirect	String	No	Yes (6th)	If specified, the client will be redirected instead of viewing the receipt. An email receipt will still be sent.
descrip	String	No	Yes (7th)	A description to add to the order. Should be short, comprised of only a few words, describing what the payment/donation is for (e.g., "Online Purchase").
fundNumber	String	No	Yes (8th)	A fund number to associate with transaction for reporting purposes (not included on receipts).
comments	String	No	Yes (9th)	Additional textual comments to include on the order. These will be displayed during the checkout (just below the total amount) and added to the receipt. (Use for line breaks. No other HTML is valid.)
expires	Int	No	Yes (10th)	How many seconds after `time` the checkout expires. If not set, default of 86400 (= 1 day) is used. Set to 0 to disable.

title	String	No	No	The default billing contact's title. Only available on accounts with the title option enabled. Contact us for more information.
firstName	String	No	No	The default billing first name.
lastName	String	No	No	The default billing last name.
add1	String	No	No	The default billing address.
add2	String	No	No	The default billing address, line2.
city	String	No	No	The default billing city.
state	String	No	No	The default billing state, province or locality (two-letter postal abbreviations for US & CA billing addresses).
zip	String	No	No	The default billing zip or postal code.
country	String	No	No	The default billing country (ISO 3166-1 alpha-2 abbreviation).
phone	String	No	No	The default billing phone number (10 digits for US & CA phone numbers).
email	String	No	No	The default billing email address.
signature	String	Yes	No	*A security hash, SHA-256 encoded in lower-case hexadecimal, computed on the above fields and appended with the BlueFire account secret key (available upon request).

Response Data

If a redirect is specified, the redirect URL will be appended with the following fields URL-encoded and added to the HTTP 303 response:

Field	Signature	Description
transId	Yes (1st)	The unique transaction ID provided by your processor for this transaction. Use this ID to verify payment.
orderId	Yes (2nd)	The order ID passed back from the original request, if it was specified.
total	Yes (3rd)	The total payment or donation amount.
signature	No	*A security hash, SHA-256 encoded in lower-case hexadecimal, computed on the above fields and appended with the BlueFire account secret key (available upon request).

*Signature Creation & Checking

The signature is a security mechanism added to ensure important transaction data is not tampered with. A signature is required for the originating URL and is also added to the response data if a redirect is requested.

(1) The signature is computed by first creating an HTTP GET query from the indicated fields (see the signature column in the above tables) in the order specified, using the encoding defined by RFC1738. If

the field is required, it must be present, even if no value is assigned. PHP's built-in function "http_build_query," for example, performs this step of creating a GET query from an array automatically. The result should look something like this:

```
rid=83e606feac1d&orderId=532&total=12.50&time=1577836800&clientip= …
```

Or, for response data, if a redirect is specified:

```
transId=1002837169&orderId=532&total=12.50
```

(2) Next, the API key is appended to this string. Please contact BlueFire if you need help generating an API key for your account. Please note that this key should be closely guarded as it is used for authentication purposes.

(3) Lastly, the query string and appended API key are then hashed using the SHA-256 algorithm and represented using lower-case hexadecimal notation. This resulting value is the "signature" and is appended to the query string prior to redirect.

An example PHP implementation of the signature generator:

```php
<?PHP

$rid = '83e606feac1d';
$apiKey = 'd92lSA83k183';
$hostURL = 'https://bluefire-secure.com/go/cf/checkout.php';
$redUrl = 'https://www.example.com/thank-you/';

$orderId = 532; // An order ID or invoice number
$total = 12.50; // The total order amount

$getArray = array(
    'rid' => $rid,
    'orderId' => $orderId,
    'total' => $total,
    'time' => mktime(),
    'clientIp' => $_SERVER['REMOTE_ADDR'],
    'redirect' => $redUrl,
    'descrip' => 'Example Cart Checkout'
);

$hashSubj = http_build_query($getArray);
$sig = hash('sha256', $hashSubj . $apiKey);
$getArray['signature'] = $sig;

$payLink = $hostURL . '?' . http_build_query($getArray);
```

The result of the above example code is the following URL:

```
https://bluefire-
secure.com/go/cf/checkout.php?rid=83e606feac1d&orderId=532&total=12.5&time=1352
231290&clientIp=98.243.10.191&redirect=https%3A%2F%2Fwww.example.com%2Fthank-
you%2F&descrip=Example+Cart+Checkout&signature=d59d1d1e9b629bf78df5bcebf222dab0
e526ee9fc4935249e5fe81822082488c
```

Please note that this URL is non-functional and is provided as an example only.

Shopping Cart Plug-in

A WordPress plug-in has been created to add the BlueFire checkout as an option with WooCommerce's shopping cart. You can find the plug-in at: https://github.com/firelit/woocommerce-bluefire-gateway