Digital Treasury Corporation

DTCO Payment Gateway

Version 1.0.3
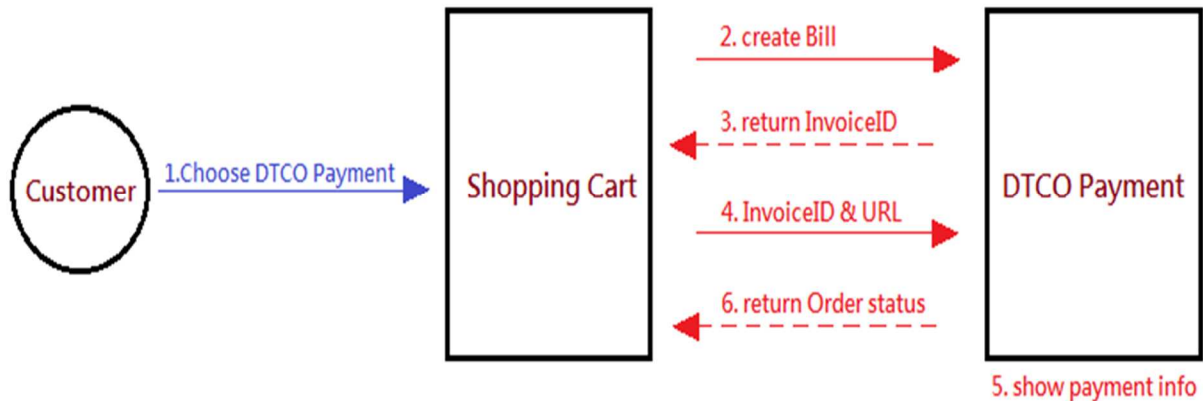
2015.04.13

I. Version History

Version	Date	Content	Editor
v 1.0.0	2015.03.18	Create first version.	DTCO
v 1.0.1	2015.04.08	**Part V-B**.Status Before : Finished**,** PayExpired After : Finished**+**PayExpired	DCTO
v 1.0.2	2015.04.10	**Part III-table2** Currency of Taiwan Before : NTD After : TWD	DCTO
v 1.0.3	2015.04.13	**Part IV** Emphasize the web URL	DCTO

II. Operating Procedure

Figure 1 - STEP

1. <u>Choose DTCO Payment</u> by customer
   Customers check out with DTCO-Payment.

2. <u>Create Bill</u> by shopping cart
   Shopping cart create a bill, which follow the rules in **part III**.

3. <u>Return Invoice ID</u> by DTCO-Payment
   It will return an invoice id to shopping cart.
   ➢ More about invoice id was defined in **part IV**.

4. <u>Send Invoice ID & Web URL</u> by shopping cart
   Shopping cart send the invoice id to DTCO-Payment to get the real payment info.
   ➢ More about invoice id and web URL was defined in **part IV**.

5. <u>Show Payment Info</u> by DTCO-Payment
   According to the invoice id, the payment info will show on the page.
   ➢ The payment will countdown 15 minutes and show just once.

6. <u>Return Order Status</u> by DTCO-Payment
   After pay, DTCO-Payment will send status of corresponding order to shopping cart.
   ➢ The status rules was defined in **part V**.

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III. The Bill

The bill parameters are defined in Table 1.
We suggest to coding with HttpRequest to getting invoice id.

> URL: https://merchant.dtco.co/payment_encode
> There is only **POST** can be used.

Parameter	Type	Description	Example
api_key	VARCHAR	Apply from DTCO	Wl3T7okeypVr1EhCTog4FBXWC28ZtHx1
fiat_money	VARCHAR	Price of bill	100
fiat_currency	VARCHAR	Look at Table 2	TWD
order_id	VARCHAR	non-repetitive	1
return_url	VARCHAR	Look at *part V-A*	http://blog.dtco.co/?wc-api=WC_DTCO

Table 1 - POST Parameters for Invoice Id

Currency		Currency		Currency	
TWD	*Taiwan*	PHP	*Philippine*	VND	*Vietnam*
CNY	*China*	SGD	*Singapore*	MMK	*Myanmar*
USD	*America*	MYR	*Malaysian*	BND	*Brunei*
IDR	*Indonesia*	THB	*Thailand*	KHR	*Cambodia*
EUR	*Europe*	KRW	*Korea*	LAK	*Laos*
JPY	*Japan*	HKD	*Hong Kong*	BTC	

Table 2 - Supports Currency

IV. Invoice ID & Web URL

Send the invoice id to get the real payment info.
The parameters are defined in Table 3.

> URL: https://merchant.dtco.co/payment
> Both **POST** and **GET** can be used, but we prefer to use POST.

Parameter	Type	Description	Example
invoiceID	VARCHAR	Return from DTCO	a2015031718165555
weburl	VARCHAR	**After pay success** can return to your website. ***Prefer to use "urlencode" (php).***	www.dtco.co

Table 3 – POST/GET Parameters for Real Payment Info

V. Return Status

Shopping cart system should developing a function to handle the return status and make it call by URL.

So that DTCO-payment can return order status by "return_url".

A. Return parameters

DTCO-Payment return parameters was defined in Table 4.

The handle function should parse those.

➢ Both **POST** and **GET** can be used.

It judge by the "return_url" already has parameters or not.

return_url	Server Type
http://blog.dtco.co/?wc-api=WC_DTCO	GET
http://blog.dtco.co/	POST

➢ The shopping cart should to double check the validity of bill.

If there is any confusion, the status should not be changed.

Parameter	Type	Description	Example
KeyNo	VARCHAR	order id of bill	1
Status	VARCHAR	Look at **Part V-B.**	Finished
FiatCurrency	VARCHAR	currency of bill, for check bill	TWD
FiatMoney	VARCHAR	the price of bill, for check bill	100

Table 4 – Status from DTCO Return

B. Status

Due to the Bitcoin attribute, the payment status may finished but not enough, overpay or even pay expired.

So, while the shopping cart handle the return status.

Only to determine the keyword "**Finished**".

➢ Example:

Status Value	Is Finished?
Finished	✓
Finished+PayExpired	✓
NotEnough	✗

VI.How to Test

Before testing DTCO-Payment, must have following items.
A. bitcoin wallet
B. BTC
C. API key – To applying from DTCO.
> ***Please make sure that the function in parameter "return_url" is completed.***

VII. Example Code by PHP

A. POST bill info and get the invoice id

```php
function post_bill_for_InvoicdID(){
    $toURL = 'https://merchant.dtco.co/payment_encode';

    $ch = curl_init();

    $params = array(
                'api_key'       => 'Wl3T7okeypVr1EhCTog4FBXWC28ZtHx1', //to apply from DTCO
                'fiat_money'    => '100',
                'fiat_currency' => 'TWD',
                'order_id'      => '1',
                'return_url'    => 'http://blog.dtco.co/?wc-api=WC_DTCO',
                //this return_url is for woo-commerce, DTCO-Payment will use GET to return
            );

    $options = array(
        CURLOPT_URL            => $toURL,
        CURLOPT_HEADER         => false,
        CURLOPT_RETURNTRANSFER => true,
        CURLOPT_POST           => true,
        CURLOPT_POSTFIELDS     => http_build_query($post),
    );

    curl_setopt_array($ch, $options);

    $invoicd_id = curl_exec($ch);
    curl_close($ch);

    return $invoicd_id;
}
```

B. POST/GET invoice id to get real payment info(using GET here)

```php
function process_order(){
    $invoiceID = post_bill_for_InvoicdID();

    $webURL = 'http://blog.dtco.co/';
    //webURL should be different by different merchant website

    return array(
        'result'   => 'success',
        'redirect' => "https://merchant.dtco.co/payment?invoiceID=$invoiceID&weburl=$webURL"
    );
}
```

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