Deposit Integration Specification

Version 1.1.29

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Contents

Executive Summary

E-Commerce businesses have evolved to an unprecedented height today. With internet services becoming more affordable, the exponentially growing of internet users have preferred to shop, pay bills, etc online. Millions of people spend billions of dollars on this borderless marketplace. The existence of online payment solutions can be seen. They act as a bridge or gateway to guarantee the payments from the consumers to merchants are made instantly, efficiently and securely. It truly enhances online shoppers' experience. Just few clicks away, shopping or paying bills online can be such a breeze.

We strongly believe that our existence will to make a difference in every shoppers' or payees 'lives, allowing secured and timely transactions. By running 24/7 daily, we make sure our payment system serves you, anytime, anywhere. By partnering with major banks, integrating into numerous payment providers' networks, we built a comprehensive range of solutions, catering to the needs of merchants in different markets.

Introduction

Help2Pay is an interesting design of web interface that incorporated in 2014.In order to provide an outstanding online payment solution to the consumers and clients, Help2Pay stands on one strong belief. The project exists in order to make a difference for every consumer by providing an effective and secured automated transaction on a real time basis.

Meanwhile, Help2Pay provide as a middle man to effective assist consumers by simplify the process of completing purchasing transaction with merchandizer and help clients to monitor their business transaction at real time basis.

We have a secure and responsive network of people handling your business. No compromise will ever be taken into consideration. YOU ARE OUR PRIORITY. We thrive to be the best in the market, providing our clients nothing less than our utmost efforts.

About this document

This document is to provide a guidance to our client in order to have a deeper understanding on Help2Pay's business transaction flows and web services functions that facilitate the system integration with the merchant's e-commerce application.

The manual is to provide a guidance for system developers, administrators and maintenance personnel whom may use the services of Help2Pay application. To be able to fully utilize the manual guide, one's is required to have basic knowledge as below:

- Knowledge of operation systems, such as Microsoft Windows Server and Linux.
- Knowledge of website configuration and web page development based on any of the operation systems listed above.
- Web development skills of standard CGI (Common Gateway Integration), ASP (Active Server Page), .NET Framework, ISAPI, PHP or JAVA.
- Basic understanding of web security.

Keywords definition and terms use in this document

Gateway – Help2Pay

Merchant – Help2Pay's merchants (could imply as the server or the website itself)

Customer – Merchant's customer or Internet user.

Deposit Submission – A valid submission to Gateway by the Merchant in the deposit process

Deposit Result – A returned result to Merchant by the Gateway after the fund transfer process is completed.

Security Code – A secret key provided to Merchant for encryption purpose.

Deposit Process Diagram
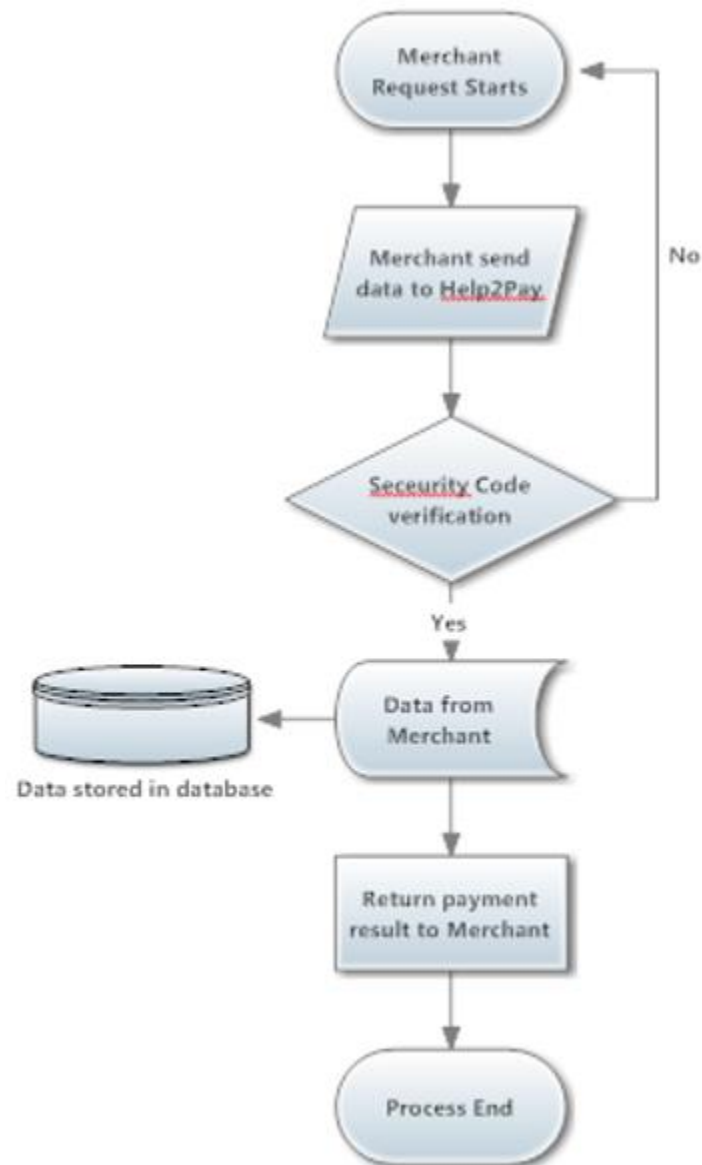
Deposit Submission Process

The Gateway uses standard html web form submission via HTTP Post to establish the Deposit transfer. The table listing below shows the parameters needed for doing that.

Parameters	Data Type	Length	Require	Description
Merchant	String	1~50	Yes	Registered merchant code with Gateway.
Currency	String	3	Yes	International currency code e.g. MYR, THB…
Customer	String	1~50	Yes	Merchant's customer ID that identify their customer Customer ID is frequent use as user identifier for gateway Customer ID must be unique per user **Important** ⬚Do not send blank customer ID ⬚Do not send same customer ID for different user
Reference	String	1~50	Yes	Transaction ID created by Merchant with reference to each payment transaction. Reference must be unique.
Key	String	1~500	Yes	A generated hash key for determining the validity of the payment submission by the merchant to gateway to prevent fraudulent activity. (Please refer to the topic of Security Hashing below)
Amount	String	1~20	Yes	Fiat and cryptocurrency may have different decimal places **Fiat** -Numerical figures with 2 decimal places. **Important** ⬚*VND, IDR currency and PPTP (THB currency)* ***Will Only Allow*** *.00 decimal submission*. *Example:* *VND 10000.00 > able to be submit* *VND 10000.15 > not able to be submit*

				Cryptocurrency **TET-ETHE (USDT - ERC20)** -Numerical figures with 6 decimal places **TEX-TRON (USDT - TRC20)** -Numerical figures with 2 decimal places **Important** ⚠*Cryptocurrency **Will Only Allow** .00 decimal submission.* ***Example:*** *ETHE 12.000000 > able to be submit* *ETHE 12.123456 > not able to be submit*
Note	String	0~500	No	Column provided to merchant for Note usage.
Datetime	String		Yes	Transaction time in the format of YYYY-MM-DD hh:mm:sstt e.g. 2012-05-01 08:04:00AM, 2012-08-15 08:00:00PM
FrontURI	String	1~500	Yes	The URL to receive transaction status from Gateway to Merchant that will display the transaction status to customer in Merchant's front-end site.
BackURI	String	1~500	Yes	The URL or HTTP handler to receive transaction status from Gateway to Merchant for Merchant to update their backend system.
Bank	String	1~50	Yes	Bank code provided by the Gateway. Please refer appendix for list of bank code.
Language	String	1~10	Yes	Language selection that displays to Customer during the submission process. Please refer to appendix for list of languages code.
ClientIP	String	1~20	Yes	Customer's IP
CompanyName	String	1~100	No	Company name will display in deposit page if merchant want customer to acknowledge the transaction is made to the merchant. **Precondition:** 1. Single company name: Do provide company name to CS to verify it matched with the record in system 2. Multiple companies name: Do provide a listing of company name to CS for matching purpose

HTML Sample

```html
<form method="post" action="https://api.racethewind.net/MerchantTransfer">
 <input type="hidden" name="Merchant" value="TA00001" />
 <input type="hidden" name="Currency" value="MYR" />
 <input type="hidden" name="Customer" value="220099" />
 <input type="hidden" name="Reference" value="1609032335" />
 <input type="hidden" name="Key" value="EF369CAF6A96ACEFE77" />
 <input type="hidden" name="Amount" value="1.00" />
 <input type="hidden" name="Note" value="" />
 <input type="hidden" name="Datetime" value="2012-05-09 04:09:41AM" />
 <input type="hidden" name="FrontURI" value="http://merchant.com/Front.aspx"/>
 <input type="hidden" name="BackURI" value="http://merchant.com/Back.aspx" />
 <input type="hidden" name="Language" value="en-us" />
 <input type="hidden" name="Bank" value="MBB" />
 <input type="hidden" name="ClientIP" value=" 128.199.171.73" />
 <input type="hidden" name="CompanyName" value=" Testing Company" />
```

Response handling for Deposit Result

After the Deposit Submission process, the gateway calls back the Merchant's backend URL (BackURI provided during merchant's Deposit Submission) with corresponding Deposit Result. At the same time, the gateway redirects the Customer back to the Merchant website (FrontURI provided on merchant Deposit Submission) and displays the status to the Customer.

Important

You are advised to whitelist our server IP and confirm the transaction status via Query API for security purpose. Please request from our support team.

The table listing below shows details of the variables returned in the result.

Response Variable	Description
Merchant	Merchant submitted during the transfer transaction.
Reference	Reference submitted during the transfer transaction.
Currency	Currency submitted during transfer transaction.
Amount	Amount submitted during the transfer transaction.
Language	Language indicated upon submission
Customer	Customer submitted during the transfer transaction
Datetime	Datetime submitted during the transfer transaction.
StatementDate	Datetime for the transaction processed. In UTC time.
Note	Note submitted during the transfer transaction.
Key	EncrytedSign generated by Gateway for verification to prevent fraud.
Status	The latest status of the Payment Submission. (Refer to Appendix – Deposit Result Status Code)
ID	Help2Pay Deposit ID
ErrorCode	Transaction Error Message

*Remark: Refer to Error Code Table below, ErrorCode that listed in the table will be sent. |

Create Key for Deposit Submission

To prevent unauthorized or fraudulent Deposit Submission, the Gateway requires the Merchant to generate a Key on the Payment Submission by using the SecurityCode. Once the Deposit Submission is received by the Gateway, Key will be verified. The Deposit process will stop immediately if the verification fails.

To generate the Key hash, Merchant is required to use cryptographic hash function, MD5 to hash the combination of details (Merchant, Reference, Customer, Amount, Currency, and Datetime) during Deposit Submission, by using the SecurityCode. Details as shown below:

MD5({Merchant}{Reference}{Customer}{Amount}{Currency}{Datetime}{SecurityCode}{ClientIP})

Below is the sample of generating Key.

- Merchant = "M00001"
- Reference = "T123456789"
- Customer = "CUST1001"
- Amount = "12.00"
- Currency = "MYR"
- Datetime = "2012-05-21 08:04:00PM"
- SecurityCode = "eQIkGnUeK"
- ClientIP = "128.199.171.73"

String to be hash will be
MD5 ("M00001T123456789CUST100112.00MYR20120521200400eQIkGnUeK128.199.171.73")

Notes:

1. Datetime must be in "yyyyMMddHHmmss" format, and the hour in 24 hours' time format. (UTC +8)
   - 2012-01-15 2:12:00PM will be 20120115141200
   - 2012-12-17 2:12:00AM will be 20121217021200
2. Fiat and cryptocurrency may have different decimal places.
   a) Fiat - Numerical figures with 2 decimal places.
      - 1200 will be 1200.00
      - 523.1 will be 523.10
   b) Cryptocurrency.
      - TET-ETHE (USDT- ERC20) - Numerical figures with 6 decimal places.
               e.g 12 will be 12.000000
      - TEX-TRON (USDT - TRC20) - Numerical figures with 2 decimal places.
               e.g 12 will be 12.00

Verification of Key from Deposit Result

During the Deposit process, every single Deposit result will be returned to Merchant upon completion. Similarly, the Key is also used for the Deposit Result for verifying the response from the Gateway to the Merchant.

The Deposit Result will only be considered as valid when the generated encryption hash matches with Key.

To generate the Key hash, Merchant is required to use cryptographic hash function, MD5 to hash the combination of details (Merchant, Reference, Customer, Amount and Currency) by using the SecurityCode.

Details as shown below:

{Key} = MD5({Merchant}{Reference}{Customer}{Amount}{Currency}{Status}{SecurityCode})

Below is the sample of generating the Encryption Key.

- Merchant = "M00001"
- Reference = "T123456789"
- Customer = "CUST1001"
- Amount = "12.00"
- Currency = "MYR"
- StatusCode = "000"
- SecurityCode = "eQIkGnUeK"

String to be hash will be
MD5("M00001T123456789CUST100112.00MYR000eQIkGnUeK")

Notes:

1. Fiat and cryptocurrency may have different decimal places.
   a) Fiat - Numerical figures with 2 decimal places.
      - 1200 will be 1200.00
      - 523.1 will be 523.10

   b) Cryptocurrency.
      - TET-ETHE (USDT - ERC20) - Numerical figures with 6 decimal places.
                    e.g 12 will be 12.000000

      - TEX-TRON (USDT - TRC20) - Numerical figures with 2 decimal places.
                    e.g 12 will be 12.00

2. Be reminded that the matching of the generated encryption hash and Key is not case sensitive.

Appendix

Deposit Result Status Code

Code	Status	Description
000	Success	Deposit process is successful.
001	Failed	Transfer process is incomplete. Possible reasons: The Bank or the user terminates the process before it is completed.
006	Approved	The transfer approved by Gateway after verified that the transfer was completed.
007	Rejected	The transfer reject by Gateway after verifying the transfer was not completed or failed.
008	Canceled	The transfer has been canceled.
009	Pending	The transfer still in pending status.

Deposit Bank Code

Please visit the following link for the bank codes for all supported deposit methods.

https://docs.google.com/spreadsheets/d/19ylX6-
2XNkeke3HdYyT9m5lCV0PLnBmXC2f5SAjIye4/edit?usp=sharing

Language Code

Language Code	Language
en-us	English
zh-cn	Chinese Simplified
th	Thai
ms-my	Malay (Malaysia)
vi-vn	Vietnamese (Vietnam)
id-id	Indonesian
bur	Burmese
fil-ph	Tagalog (Philippines)
hi-in	Hindi (India)
km-kh	Khmer (Cambodia)

Error Code

Error Code	Description
AccountPassword	User key in wrong account password
AccountSetting	User's bank account not able to login/bank account setup not complete
ATMApproveRequired	ATM approve is required
Blacklisted	User is blacklisted
Insufficient Fund	User's bank account is insufficient fund
InvalidTAC	User key in invalid TAC in any transfer step
Maintenance	User's bank is under maintenance
Session	Session time out
TimeOutTAC	TAC time out in any transfer step
TransactionDeclined	User's transaction is declined by bank
TransactionLimit	User's bank account hit transaction limit per transaction/daily