



## **Merchant Warrior - API Documentation**

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# Introduction

**Merchant Warrior** (MW) is an Australian based payment provider that offers a range of online payment solutions to Merchants worldwide.

MW is a Tier 1 PCI DSS certified provider. This qualification is obtained annually, after an independent audit carried out by a certified QSA and QPSAC.

This information has been provided to assist with the integration and implementation of services to the MW platform.

Production API Endpoint

```
https://api.merchantwarrior.com/post/
```

Sandbox API Endpoint

```
https://base.merchantwarrior.com/post/
```

**i** Replace snippets below with your merchantUUID, apiKey and correct hash.

# Direct API

The following sub-sections will outline the various API methods present in the **Merchant Warrior Direct API**.

## Introduction

The Direct API provides you with a single integration point for processing to your Acquirer(s).

You will need to obtain a Merchant UUID, API Key and API passphrase in order to connect to the Direct API. These details will be issued to you when you create your MW account.

## Request Format

API requests are submitted to the Direct API service using **POST**, and must be performed over **HTTPS**.

**i** It is important to note that as of **PCI DSS v3.2** it is recommended to submit requests using a secure version of **TLS** (currently v1.1 or higher). As of the 30th of June 2018 the MW platform will no longer accept requests via **SSL** and/or **TLS v1.0**.

## Available Methods

The Direct API service consists of the following methods:

- **processCard**: Performs a purchase transaction on a customer's credit card
- **processAuth**: Performs a pre-authorization on a customer's credit card
- **processCapture**: Performs a capture request
- **processBatch**: Submits a batch file for processing
- **retrieveBatch**: Retrieves the batch status or processed batch file result
- **refundCard**: Performs a refund request
- **queryCard**: Queries previous credit card transactions
- **processDDdebit**: Performs a direct debit transaction on a customer's bank account
- **queryDD**: Queries previous direct debit transactions
- **queryBIN**: Queries a Bank Identification Number (BIN)
- **getSettlement**: Returns a list of settled transactions
- **checkEnrollment**: Check if a card is participating 3DS scheme and initiate a 3DS authentication.
- **checkPAREs**: Check the result of a 3DS authentication.

---

## processCard

The processCard method is the method used to perform a purchase request.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processCard</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 123456789abcd
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 1a3b5c

### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> A257240023321 <b>Valid length:</b> Up to 40 characters

### 3DS Parameters

Parameter	Required	Description
threeDSToken	Not Required	This parameter is used to indicate if a transaction has been authenticated. Its value is returned by <a href="#">checkPAREs</a> method.

### Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, apostrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accommodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Must be valid if present. Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

## Payment Parameters

Parameter	Required	Description
paymentCardNumber	<b>Required</b>	Only certain card numbers are deemed valid in the test environment. See <a href="#">Test Data</a> for more information. Do not send separators with the card number (e.g. 1234-5678... or 1234 5678). <b>Example:</b> 5123456789012346 or 4557012345678902 <b>Valid length:</b> Between 13 and 16 digits
paymentCardExpiry	<b>Required</b>	This must be MMY format. The month must be zero padded if it is less than 10. <b>Example:</b> 0513 <b>Valid length:</b> 4 digits
paymentCardName	<b>Required</b>	This must contain at the very least a space and no less than two characters. Only alphanumeric characters, hyphens, spaces and full stops are allowed. <b>Example:</b> Mr. Example Person or MR E PERSON or Example Person <b>Valid length:</b> Between 3 and 255 characters
paymentCardCSC	Not Required	This is also known as the CVN or CVV/2. This is required by some Acquirers if the transaction is initiated by the customer. Please contact Merchant Warrior for more information. <b>Example:</b> 123 <b>Valid length:</b> Between 3 and 4 characters

### Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

### Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> e9ddc296b76b3398934bfc06239073df <b>Valid length:</b> 32 characters

## processAuth

The processAuth method is used to perform a pre-authorization request.

### Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processAuth</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> <i>10.00</i>
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> <i>AUD</i>
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> <i>ABC4321</i> <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> <i>A257240023321</i> <b>Valid length:</b> Up to 40 characters

### 3DS Parameters

Parameter	Required	Description
threeDSToken	Not Required	This parameter is used to indicate if a transaction has been authenticated. Its value is returned by <a href="#">checkPAREs</a> method.

### Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, apostrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accommodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

## Payment Parameters

Parameter	Required	Description
paymentCardNumber	<b>Required</b>	Only certain card numbers are deemed valid in the test environment. See <a href="#">Test Data</a> for more information. Do not send separators with the card number (e.g. 1234-5678... or 1234 5678). <b>Example:</b> 5123456789012346 or 4557012345678902 <b>Valid length:</b> Between 13 and 16 digits
paymentCardExpiry	<b>Required</b>	This must be MMY format. The month must be zero padded if it is less than 10. <b>Example:</b> 0513 <b>Valid length:</b> 4 digits
paymentCardName	<b>Required</b>	This must contain at the very least a space and no less than two characters. Only alphanumeric characters, hyphens, spaces and full stops are allowed. <b>Example:</b> Mr. Example Person or MR E PERSON or Example Person <b>Valid length:</b> Between 3 and 255 characters
paymentCardCSC	Not Required	This is also known as the CVN or CVV/2. This is required by some Acquirers if the transaction is initiated by the customer. Please contact Merchant Warrior for more information. <b>Example:</b> 123 <b>Valid length:</b> Between 3 and 4 characters

### Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

### Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> e9ddc296b76b3398934bfc06239073df <b>Valid length:</b> 32 characters

## processCapture

The processCapture method is used to perform a capture request.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processCapture</i>

## Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

## General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	This amount must be the exact amount submitted with the initial transaction. This is used in the verification hash, and is not the amount that will be refunded. <b>Example:</b> <i>10.00</i>
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> <i>AUD</i>

## Capture Parameters

Parameter	Required	Description
transactionID	<b>Required</b>	The <code>&lt;transactionID&gt;</code> is provided to you by Merchant Warrior after an initial pre-authorization ( <code>processAuth</code> ) transaction. <b>Example:</b> <i>1-a1c340c8-7c30-11de-8888-000c29753ad4</i>
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <code>queryCard</code> method in the event a valid response is not received. <b>Example:</b> <i>A257240023321</i> <b>Valid length:</b> Up to 40 characters
captureAmount	<b>Required</b>	The amount is in the same format as <code>transactionAmount</code> . It cannot be less than 0.01 or more than the initial transaction amount. <b>Example:</b> <i>10.00</i>

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

The processBatch method enables merchants to securely automate the processing of batch files containing credit card, token transaction data or bank accounts. This method accepts and processes compressed .csv files directly via the Direct API and should be implemented when automating a large number of transactions is a requirement.

The processBatch method will process a batch file and automatically issue a notification via POST to the merchant's application when the batch file has completed processing. The batch response file (containing the results to all transactions processed via the original batch file) can be sent (and compressed) with the POST notification if requested by the merchant.

Sample process and response batch files can be found at the [Sample Files](#) section.

## Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processBatch</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### General Batch Parameters

Parameter	Required	Description
batchNotifyURL	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. <b>Example:</b> <i>https://www.example.com/notify.php</i>
batchResponseFileAttach	Not Required	The value is a <b>boolean</b> to denote whether a response file should be attached with the asynchronous POST notifications. <b>Example:</b> <i>1</i>
batchResponseFileCompress	Not Required	The value is a <b>boolean</b> to denote whether the response file should be compressed (.zip). <b>Example:</b> <i>1</i>

### Batch File Parameters

Parameter	Required	Description
batchFile	<b>Required</b>	The batch file <b>must</b> be in CSV format (.csv) and compressed (.zip). <b>Example:</b> <i>Batch.zip</i>
fileHash	<b>Required</b>	The hash of the batch file. See <a href="#">Batch File Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

## Verification Hash

Parameter	Required	Description
urlHash	<b>Required</b>	The hash of the batchNotifyURL. See <a href="#">Batch URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>511999e54b9ad51ce4c28d7f0550ac81</i> <b>Valid length:</b> 32 characters

## retrieveBatch

The retrieveBatch method is the method used to retrieve the results of a batch file that has been processed via the processBatch method (see above). This method returns a .csv or .zip (depending on whether the merchant requested a compressed response file) file containing the results of all transactions submitted in the original batch file.

Sample process and response batch files can be found at the [Sample Files](#) section

## Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>retrieveBatch</i>

## Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

## General Batch Parameters

Parameter	Required	Description
batchUUID	<b>Required</b>	The value of this parameter is assigned to you by Merchant Warrior for every processBatch request. <b>Example:</b> <i>14dc3311444adc</i>

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The hash of the batchUUID. See <a href="#">Batch Response Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

## refundCard

The refundCard method is used to perform a refund of an existing purchase or capture transaction.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>refundCard</i>

#### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

#### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	This amount must be the exact amount submitted with the initial transaction. This is used in the verification hash, and is not the amount that will be refunded. <b>Example:</b> <i>10.00</i>
transactionCurrency	<b>Required</b>	The currency must match the one submitted with the initial transaction. This is used in the verification hash. <b>Example:</b> <i>AUD</i>
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

#### Refund Parameters

Parameter	Required	Description
transactionID	<b>Required</b>	The <code>&lt;transactionID&gt;</code> returned for the initial transaction. <b>Example:</b> <i>1-a1c340c8-7c30-11de-8888-000c29753ad4</i>
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> <i>A257240023321</i> <b>Valid length:</b> Up to 40 characters
refundAmount	<b>Required</b>	The amount is in the same format as transactionAmount. It cannot be less than 0.01 or more than the initial transaction amount. <b>Example:</b> <i>10.00</i>

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

## queryCard

The queryCard method is used to perform a query of an existing transaction. If you lose the original response, never receive a response, or if you wish to verify a response, you can use this method.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>queryCard</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### Query Parameters

Parameter	Required	Description
transactionID*	Required/ Not Required	The <code>&lt;transactionID&gt;</code> returned for the initial transaction. <b>Example:</b> <i>1-a1c340c8-7c30-11de-8888-000c29753ad4</i>
transactionReferenceID*	Required/ Not Required	The <code>&lt;transactionReferenceID&gt;</code> sent for the initial transaction. This is a merchant's reference ID for a transaction request sent to Merchant Warrior. <b>Example:</b> <i>A257240023321</i>
extended	Not Required	Returns additional information stored with the transaction. This must be in <a href="#">boolean</a> format. <b>Example:</b> <i>1</i>

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Query Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

**i** Only one of the fields transactionID or transactionReferenceID are required for a queryCard API call. If transactionID is set then transactionReferenceID is not required. If transactionReferenceID is set then transactionID is not required.

## processDDebit

The processDDebit method is used to perform a [direct debit](#) request to debit funds from an Australian or New Zealand bank account.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processDDebit</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> A257240023321 <b>Valid length:</b> Up to 40 characters

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, aposrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accomodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

## Payment Parameters

Parameter	Required	Description
paymentAccountBSB	<b>Required</b>	This field must contain 6 digits. <b>Example:</b> <i>011123</i> <b>Valid length:</b> 6 digits
paymentAccountNumber	<b>Required</b>	This must be a valid account number. <b>Example:</b> <i>123456789</i> <b>Valid length:</b> 4-10 digits
paymentAccountName	<b>Required</b>	This must contain at the very least a space and no less than two characters. Only alphanumeric characters, hyphens, spaces and full stops are allowed. <b>Example:</b> <i>Mr. Example Person</i> or <i>MR E PERSON</i> or <i>Example Person</i> <b>Valid length:</b> Between 3 and 32 characters

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <custom1> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <custom2> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <custom3> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

## queryDD

The queryDD method is the method used to perform a query of an existing direct debit transaction. If you wish to verify the status of a transaction or lost the original response or never receive a response, you can use this method. This method will query the internal MW records and return the available stored data for the transaction.

## Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>queryDD</i>

## Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

## Query Parameters

Parameter	Required	Description
transactionID*	Required/ Not Required	The <transactionID> returned for the initial transaction. <b>Example:</b> 1-a1c340c8-7c30-11de-8888-000c29753ad4
transactionReferenceID*	Required/ Not Required	The <transactionReferenceID> sent for the initial transaction. This is a merchant's reference ID for a transaction request sent to Merchant Warrior. <b>Example:</b> A257240023321
extended	Not Required	Returns additional information stored with the transaction. This must be in <b>boolean</b> format. <b>Example:</b> 1

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Query Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> e9ddc296b76b3398934bfc06239073df <b>Valid length:</b> 32 characters

**i** Only one of the fields transactionID or transactionReferenceID are required for a queryCard API call. If transactionID is set then transactionReferenceID is not required. If transactionReferenceID is set then transactionID is not required.

## queryBIN

The queryBIN method is used to determine the banking information (Bank Name, Card Type, Card Country etc) related to a credit/debit card's Bank Identification Number (BIN).

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> queryBIN

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 123456789abcd
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 1a3b5c

### Query Parameters

Parameter	Required	Description
bin	<b>Required</b>	The six digit BIN of the credit/debit card. <b>Example:</b> 512346

## Verification Hash

Parameter	Required	Description
binHash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">BIN Hash</a> for information on how to construct the hash correctly. <b>Example:</b> e9ddc296b76b3398934bfc06239073df <b>Valid length:</b> 32 characters

**i** The sandbox environment will always return testing BIN information. Accurate BIN information is available in the production environment.

## getSettlement

The `getSettlement` method will return a compressed `Zip` archive that contains a `CSV` file with a list of transactions that have settled between the dates specified in the request.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <code>getSettlement</code>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 123456789abcd
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 1a3b5c

### Query Parameters

Parameter	Required	Description
settlementFrom	<b>Required</b>	The settlement start range date. This parameter cannot be greater than the <code>settlementTo</code> parameter. <b>Example:</b> 2017-05-01
settlementTo	<b>Required</b>	The settlement end range date. The parameter cannot be a future date. The maximum value for this parameter is today's date. <b>Example:</b> 2017-05-02

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Settlement Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>f7a04ace7b0c5bf8f24a49bfc73d3805</i> <b>Valid length:</b> 32 characters

**i** The dates specified in *settlementFrom* and *settlementTo* are inclusive and the maximum range that can be queried is 7 days. For example, from 2017-05-01 to 2017-05-07 will return all transactions settled for 7 days from the 1st until the 7th.

# MWPAY.Link

The following sub-sections will outline information in relation to the **Merchant Warrior PAY.Link service**.

## Introduction

The Merchant Warrior MWPAY.Link service enables you to generate a unique payment link that when accessed will allow your customer to complete a payment via a secure [Hosted Payment Page](#).

Each MWPAY.Link that is generated will have a unique code attached to it. You can also link your own internal Reference ID to a unique code in order to reconcile transactions that take place via a unique payment link. The MWPAY.Link service can also notify your systems in real-time after a customer has completed a payment.

MWPAY.Link URLs are useful for scenarios such as sending bills via email and/or SMS, e-invoices, donations etc.

You will need to obtain a Merchant UUID, API Key and API passphrase in order to use this feature. These details will be issued to you when you create your MW account.

## Request Format

API requests are submitted to this service using [POST](#), and must be performed over [HTTPS](#).

**i** It is important to note that as of [PCI DSS v3.2](#) it is recommended to submit requests using a secure version of [TLS](#) (currently v1.1 or higher). As of the 30th of June 2018 the MW platform will no longer accept requests via [SSL](#) and/or [TLS v1.0](#).

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## Generate PayLink

The request parameters below detail how to generate a unique payment link. Each payment link will have a uniqueCode associated with it.

### Request-Parameters

#### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

#### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
linkReferenceID	Not Required	This is a merchant's unique reference ID that can be used to match a uniqueCode with a merchant's internal reference ID. <b>Example:</b> A257240023321 <b>Valid length:</b> Up to 40 characters
expiry	Not Required	The expiration of the unique payment link. This paramater should be formatted as a DateTime (yyyy-mm-dd hh:mm:ss). By default the unique payment link will expire after 7 days. <b>Example:</b> 2017-05-01 17:45:12

## Customer Parameters

Parameter	Required	Description
customerName	Not Required	This field can only contain alphanumeric characters, as well as the full stop, comma, apostrophe, ampersand, space and hyphen characters. <b>Example:</b> Mr. Example Person <b>Valid length:</b> Between 2 and 255 characters
customerCountry	Not Required	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> AU <b>Valid length:</b> 2 characters
customerState	Not Required	Freeform field, keep consistent for your records and reporting. <b>Example:</b> Queensland <b>Valid length:</b> Up to 75 characters
customerCity	Not Required	Freeform field, keep consistent for your records and reporting. <b>Example:</b> Brisbane <b>Valid length:</b> Up to 75 characters
customerAddress	Not Required	Freeform field. <b>Example:</b> 123 Test Street <b>Valid length:</b> Up to 255 characters
customerPostCode	Not Required	This can also accomodate ZIP/Post codes for international transactions. <b>Example:</b> 4000 <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> 0401234567 or 61731234567 <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Must be valid if present. Sending this optional parameter is highly recommended. <b>Example:</b> person@example.com <b>Valid length:</b> Up to 255 characters

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL*	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. This parameter can also be hardcoded via the merchant administration interface. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
notifyURL*	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. This parameter can also be hardcoded via the merchant administration interface. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
urlHash*	<b>Required</b>	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. It must be specified if you specify either returnURL or notifyURL. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <code>511999e54b9ad51ce4c28d7f0550ac81</code> <b>Valid Length:</b> 32 characters

**i** The Redirect and Notification Parameters above, are only required in your API request if you have not specifically set the MWPAY.Link Return URL and Notify URL settings in the merchant administration interface. If you plan on having different returnURL's and notifyURL's for different links then we recommend leaving the MWPAY.Link Return URL and Notify URL empty in the merchant administration interface, and setting them here via your API request.

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <code>e9ddc296b76b3398934bfc06239073df</code> <b>Valid length:</b> 32 characters

Production API Endpoint

```
https://api.merchantwarrior.com/token/
```

Sandbox API Endpoint

```
https://base.merchantwarrior.com/token/
```

# Token Payments

The following sub-sections will outline the various API methods present in the **Merchant Warrior Token Payments** service.

## Introduction

Token Payments allows merchants to perform subsequent transactions for a customer without the customer sending their cardholder data to the MW platform more than once. Implementing this feature can reduce PCI DSS scope significantly as merchants are not required to store customer cardholder (PAN) data.

## Global Vault

The Merchant Warrior Global Vault stores tokens in a globally accessible Vault. This feature enables merchants to gain access to customer tokens without requiring the customer (if they have registered cards in the Global Vault) to enter their credit card details into the merchant's website. The Merchant Warrior Global Vault links a customer's email address and cell number to their credit card(s).

A merchant can request access to a customer's token(s) by providing their email address to the Merchant Warrior Global Vault service. The customer's token(s) are only provided to the merchant after the customer grants access to the merchant by completing a 2FA step via email or SMS technologies.

## Key Management

As the Token Payments solution enables merchants to store encryption keys the following key management principles must be taken into consideration:

- Strong encryption keys should be generated (pseudo-random data of high entropy)
- Encryption keys must only be transmitted via a Secure Socket Layer (SSL) encrypted tunnel
- Encryption keys must be stored securely, only accessible by necessary staff and applications
- Staff with access to encryption keys should acknowledge (in writing or electronically) that they understand and accept their key-custodian responsibilities

Further information regarding key management procedures is made available by NIST -

[http://csrc.nist.gov/groups/ST/key\\_mgmt/](http://csrc.nist.gov/groups/ST/key_mgmt/)

## Request Format

API requests are submitted to the Token Payments service using **POST**, and must be performed over **HTTPS**.

**!** It is important to note that as of **PCI DSS v3.2** it is recommended to submit requests using a secure version of **TLS** (currently v1.1 or higher). As of the 30th of June 2018 the MW platform will no longer accept requests via **SSL** and/or **TLS v1.0**.

## Available Methods

The Token Payments service consists of the following methods:

- **addCard**: Adds a card to the Local or Global Vault
- **removeCard**: Removes a card from the Local or Global Vault
- **cardInfo**: Returns information on the stored card (name, expiry, etc)
- **changeExpiry**: Changes the expiry date on an existing card stored in the Local or Global Vault
- **checkCardChange**: Checks the Global Vault for any changes that may have occurred for a registered email in the Global Vault (eg. addition of a new card or removal of an old card)
- **checkEmail**: Checks the email registered in the Global Vault and requests a verification code to be sent to the

customer either to retrieve or remove card(s)

- **checkContact**: Checks the mobile contact registered for an email in the Global Vault and requests a verification code to be sent to the customer for updateContact method
- **retrieveCard**: Retrieves card(s) registered to an email from the Global Vault
- **updateContact**: Updates customer's mobile contact in the Global Vault
- **processCard**: Performs a purchase request using a token added via the addCard method
- **processAuth**: Performs a pre-authorization request using a token added via the addCard method

---

## addCard

The addCard method is used to add a new card to the MW Vault.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>addCard</i>

#### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

#### Cardholder Data

Parameter	Required	Description
cardName	<b>Required</b>	This must contain at the very least a space and no less than two characters. Only alphanumeric characters, hyphens, spaces and full stops are allowed. <b>Example:</b> <i>Mr. Example Person</i> or <i>MR E PERSON</i> or <i>Example Person</i> <b>Valid length:</b> Between 3 and 255 characters
cardNumber	<b>Required</b>	<b>Example:</b> <i>5123456789012346</i> or <i>4557012345678902</i> <b>Valid length:</b> Between 13 and 16 digits
cardExpiryMonth	<b>Required</b>	This must be MM format. The month must be zero padded if it is less than 10. <b>Example:</b> <i>05</i> <b>Valid length:</b> 2 digits
cardExpiryYear	<b>Required</b>	This must be YY format. <b>Example:</b> <i>13</i> <b>Valid length:</b> 2 digits

#### Global Vault Parameters

Parameter	Required	Description
cardGlobal*	Required/ Not Required	This must be in a <a href="#">boolean</a> format. <b>Example:</b> <i>1</i>
cardEmail*	Required/ Not Required	This must be in a valid email format. <b>Example:</b> <i>john@merchantwarrior.com</i>
cardContact*	Required/ Not Required	This must be in a valid Australian or International mobile number format. <b>Example:</b> <i>0486292992</i> or <i>+614920202820</i>

**i** The Global Vault Parameters (cardGlobal, cardEmail, cardContact) are required when adding a customer card to the Global Vault. If the customer card is **not** being added to the Global Vault the Global Vault Parameters (cardGlobal, cardEmail, cardContact) are not required.

## removeCard

The removeCard method is the method used to remove a card from the MWV once it has been added.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>removeCard</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### Cardholder Data

Parameter	Required	Description
cardID	<b>Required</b>	A unique alphanumeric string returned by <a href="#">addCard</a> , used to identify a specific card. <b>Example:</b> <i>NUFM56937091</i>
cardKey	Not Required	A string used as an encryption/decryption key. This should only be used if you do NOT want Merchant Warrior handling your key storage. This should be unique on a per-card basis. It's used to encrypt the card when we store it. Every time we receive a process card request, the correct cardkey must also be provided - which is known only to you. <b>Example:</b> <i>a84jI2cA12ziZ3Fx</i> <b>Valid length:</b> 16 characters

### Global Vault Parameters

Parameter	Required	Description
cardGlobal*	Required/ Not Required	This must be in a <a href="#">boolean</a> format. <b>Example:</b> 1
cardEmail*	Required/ Not Required	This must be in a valid email format. <b>Example:</b> john@merchantwarrior.com
code*	Required/ Not Required	The value of this parameter is sent by Merchant Warrior directly to the customer either via Email or SMS. <b>Example:</b> 1a3b5c <b>Valid Length:</b> 6 characters

**i** The Global Vault Parameters (cardGlobal, cardEmail, code) are required when removing a customer card from the Global Vault. If the customer card is **not** being removed from the Global Vault the Global Vault Parameters (cardGlobal, cardEmail, code) are not required.

## cardInfo

The cardInfo method is used to perform a query of an existing card. This method will return the information added via addCard with the credit card number (PAN) truncated.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> cardInfo

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 123456789abcd
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 1a3b5c

### Cardholder Data

Parameter	Required	Description
cardID	<b>Required</b>	A unique alphanumeric string returned by addCard, used to identify a specific card. <b>Example:</b> NUFM56937091
cardKey	Not Required	A string used as an encryption/decryption key. This should only be used if you do NOT want Merchant Warrior handling your key storage. This should be unique on a per-card basis. It's used to encrypt the card when we store it. Every time we receive a process card request, the correct cardkey must also be provided – which is known only by you. <b>Example:</b> a84Jl2cA12ziZ3Fx <b>Valid length:</b> 16 characters

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## changeExpiry

The changeExpiry method is used to modify a card's expiry after it has been added to the MW Vault.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>changeExpiry</i>

#### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

#### Cardholder Data

Parameter	Required	Description
cardID	<b>Required</b>	A unique alphanumeric string returned by addCard, used to identify a specific card. <b>Example:</b> <i>NUFM56937091</i>
cardKey	Not Required	A string used as an encryption/decryption key. This should only be used if you do NOT want Merchant Warrior handling your key storage. This should be unique on a per-card basis. It's used to encrypt the card when we store it. Every time we receive a process card request, the correct cardkey must also be provided - which is known only by you. <b>Example:</b> <i>a84Jl2cA12ziZ3Fx</i> <b>Valid length:</b> 16 characters
cardExpiryMonth	<b>Required</b>	This must be MM format. The month must be zero padded if it is less than 10. <b>Example:</b> <i>05</i> <b>Valid length:</b> 2 digits
cardExpiryYear	<b>Required</b>	This must be YY format. <b>Example:</b> <i>13</i> <b>Valid length:</b> 2 digits

---

## checkCardChange

The checkCardChange method is used to detect if there have been any changes to a customer's details in the Global Vault and can act as an indicator as to whether the [checkEmail method](#) should be called.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>checkCardChange</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### Global Vault Parameters

Parameter	Required	Description
cardEmail	<b>Required</b>	This must be in a valid email format. <b>Example:</b> <i>john@merchantwarrior.com</i>
cardID	<b>Required</b>	This must be in alphanumeric format and should list all the cardID(s) that you have on file for the customer's email address. If multiple cardIDs are present they must be comma separated. All spaces should be removed from this field prior to submission. <b>Example:</b> <i>NUFM56937091, ABCD65321983</i>

## checkEmail

The checkEmail method is used for requesting a one-time verification code for the retrieval or removal of card(s) in the MW Global Vault.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>checkEmail</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### Global Vault Parameters

Parameter	Required	Description
cardEmail	<b>Required</b>	This must be in a valid email format. <b>Example:</b> <i>john@merchantwarrior.com</i>
authMode	<b>Required</b>	This must be in integer format. Use 1 - Email Verification and 2 - SMS Verification. <b>Example:</b> <i>1</i>
checkMode	<b>Required</b>	This must be in integer format. Use 1 - retrieveCard method and 2 - removeCardmethod. <b>Example:</b> <i>1</i>
cardID	Required/ Not Required	This must be in alphanumeric format. This field is only supplied when checkMode is set to 2 - removeCard. <b>Example:</b> <i>NUFM56937091</i>

## checkContact

The checkContact method is used for requesting a one-time verification code to update a customer's mobile contact in the MW Global Vault via the [updateContact](#) method.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>checkContact</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### Global Vault Parameters

Parameter	Required	Description
cardEmail	<b>Required</b>	This must be in a valid email format. <b>Example:</b> <i>john@merchantwarrior.com</i>
cardContact	<b>Required</b>	This must be in a valid Australian or International mobile number format. The contact supplied must match the contact in the Global Vault. <b>Example:</b> <i>0486292992</i> or <i>+614920202820</i>

## retrieveCard

The retrieveCard method is used to retrieve card(s) registered to an email address in the MW Global Vault.

## Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>retrieveCard</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### Global Vault Parameters

Parameter	Required	Description
cardEmail	<b>Required</b>	This must be in a valid email format. <b>Example:</b> <i>john@merchantwarrior.com</i>
code	<b>Required</b>	The value of this parameter is sent by Merchant Warrior directly to the customer either via email or SMS. <b>Example:</b> <i>1a3b5c</i> <b>Valid Length:</b> 6 characters

---

## updateContact

The updateContact method is used to update customer's mobile contact in the MW Global Vault.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>updateContact</i>

#### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

#### Global Vault Parameters

Parameter	Required	Description
cardEmail	<b>Required</b>	This must be in a valid email format. <b>Example:</b> <i>john@merchantwarrior.com</i>
cardContact	<b>Required</b>	This must be in a valid Australian or International mobile number format. The contact supplied must match the contact in the Global Vault. <b>Example:</b> <i>0486292992</i> or <i>+614920202820</i>
code	<b>Required</b>	The value of this parameter is sent by Merchant Warrior directly to the customer either via email or SMS. <b>Example:</b> <i>1a3b5c</i> <b>Valid Length:</b> 6 characters

## processCard

The processCard method is used to perform a purchase transaction using a Token ID that exists in the MW Vault.

### Request-Parameters

These parameters are practically identical to the [Direct API processCard](#) method. The major point of difference is that the card data fields are removed, and in their place the cardID, cardKey & cardKeyReplace parameters have been added.

When this method is run, the value of cardKeyReplace will overwrite cardKey **unless** a validation error occurs. In short, if the responseCode  $\geq 0$ , overwrite cardKey in your database with the value you send for cardKeyReplace. Transactions that do not pass pre-validation (responseCode  $< 0$ ) will **not** have their cardKey updated.

**i** It is important to note that supplying a cardID and cardKey are only required if you plan on handling key storage for your credit card information. If no cardID or cardKey are supplied Merchant Warrior will handle the key storage for you.

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processCard</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> A257240023321 <b>Valid length:</b> Up to 40 characters

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, aposrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accomodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

## Payment Parameters

Parameter	Required	Description
cardID	<b>Required</b>	A unique alphanumeric string returned by <a href="#">addCard</a> , used to identify a specific card. <b>Example:</b> <i>NUFM56937091</i>
cardKey	Not Required	A string used as an encryption/decryption key. This should only be used if you do NOT want Merchant Warrior handling your key storage. This should be unique on a per-card basis. It's used to encrypt the card when we store it. Every time we receive a process card request, the correct cardkey must also be provided – which is known only by you. <b>Example:</b> <i>a84Jl2cA12ziZ3Fx</i> <b>Valid Length:</b> 16 characters
cardKeyReplace	Not Required	This will replace cardKey for subsequent requests for the cardID if the transaction is run successfully (meaning accepted by Merchant Warrior, not necessarily approved by the bank). This cannot be the same as the last 10 cardKey's used for the cardID, and it has to follow the same guidelines as cardkey (16 character alphanumeric string, etc). See the explanation under " <a href="#">Request Parameter</a> " for more information. <b>Example:</b> <i>mbnGHOq86sXTjQgd</i> <b>Valid Length:</b> 16 characters
paymentCardCSC	Not Required	This is also known as the CVN or CVV/2. This is required by some Acquirers if the transaction is initiated by the customer. Please contact Merchant Warrior for more information. <b>Example:</b> <i>123</i> <b>Valid length:</b> Between 3 and 4 characters

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

## processAuth

The processAuth method is the method used to perform [pre-authorization](#) transaction using an existing card (for capture request, refer to the standard [processCapture API method](#)). This method proxies the request through to the standard MWE API, and returns the response directly – including any validation or provider errors. That means that all the validation logic is the same with both functions, although this of course also validates cardID, cardKey & cardKeyReplace.

## Method Endpoint

This method's endpoint is: <https://<environment>.merchantwarrior.com/token/processAuth>

## Request-Parameters

These parameters are practically identical to the [Direct API processAuth](#) method. The major point of difference is that the card data fields are removed, and in their place the cardID, cardKey & cardKeyReplace parameters have been added.

When this method is run, the value of cardKeyReplace will overwrite cardKey **unless** a validation error occurs. In short, if the responseCode  $\geq 0$ , overwrite cardKey in your database with the value you send for cardKeyReplace. Transactions that do not pass pre-validation (responseCode  $< 0$ ) will **not** have their cardKey updated.

**i** It is important to note that supplying a cardID and cardKey are only required if you plan on handling key storage for your credit card information. If no cardID or cardKey are supplied Merchant Warrior will handle the key storage for you.

## API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processAuth</i>

## Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

## General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> <i>10.00</i>
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> <i>AUD</i>
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> <i>ABC4321</i> <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> <i>A257240023321</i> <b>Valid length:</b> Up to 40 characters

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, aposrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accomodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

## Payment Parameters

Parameter	Required	Description
cardID	<b>Required</b>	A unique alphanumeric string returned by <a href="#">addCard</a> , used to identify a specific card. <b>Example:</b> <i>NUFM56937091</i>
cardKey	Not Required	A string used as an encryption/decryption key. This should only be used if you do NOT want Merchant Warrior handling your key storage. This should be unique on a per-card basis. It's used to encrypt the card when we store it. Every time we receive a process card request, the correct cardkey must also be provided – which is known only by you. <b>Example:</b> <i>a84Jl2cA12ziZ3Fx</i> <b>Valid Length:</b> 16 characters
cardKeyReplace	Not Required	This will replace cardKey for subsequent requests for the cardID if the transaction is run successfully (meaning accepted by Merchant Warrior, not necessarily approved by the bank). This cannot be the same as the last 10 cardKey's used for the cardID, and it has to follow the same guidelines as cardkey (16 character alphanumeric string, etc). See the explanation under " <a href="#">Request Parameter</a> " for more information. <b>Example:</b> <i>mbnGHOq86sXTjQgd</i> <b>Valid Length:</b> 16 characters
paymentCardCSC	Not Required	This is also known as the CVN or CVV/2. This is required by some Acquirers if the transaction is initiated by the customer. Please contact Merchant Warrior for more information. <b>Example:</b> <i>123</i> <b>Valid length:</b> Between 3 and 4 characters

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

### Production API Endpoint

```
https://secure.merchantwarrior.com/
```

### Sandbox API Endpoint

```
https://securetest.merchantwarrior.com/
```

# Hosted Payments

The following sub-sections will outline the various API methods present in the **Merchant Warrior Hosted Payments** service.

## Introduction

The MW Hosted Payments solution allows merchants to process credit card transactions online via a secure hosted payment page.

Merchants who do not wish to store, process or transmit credit card **PAN** in order to reduce their **PCI DSS** scope will be able to achieve this with this service.

## Request Format

API requests are submitted to the Hosted Payments service using **POST**, and must be performed over **HTTPS**.

**i** It is important to note that as of **PCI DSS v3.2** it is recommended to submit requests using a secure version of **TLS** (currently v1.1 or higher). As of the 30th of June 2018 the MW platform will no longer accept requests via SSL and/or TLS v1.0.

## Response Format

The Hosted Payments service will return responses in **XML** format to a specified notifyURL via an Asynchronous **HTTP POST**. Response parameters are also returned in the GET string of the specified returnURL via a **302 redirect**.

## Available Methods

The Hosted Payments service consists of the following methods:

- **processCard**: Performs a purchase transaction on a customer's credit card
- **processDDdebitAuth**: Initiates an electronic (paperless) direct debit authorization

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## processCard

The processCard method is the method used to perform a purchase request.

## Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. Currently, the only valid value for this parameter is 'processCard'. <b>Example:</b> <i>processCard</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>

## General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.

## Customer Parameters

Parameter	Required	Description
customerName	Not Required	This field can only contain alphanumeric characters, as well as the full stop and hyphen character. <b>Example:</b> Mr. Example Person <b>Valid length:</b> Between 2 and 255 characters
customerCountry	Not Required	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> AU <b>Valid length:</b> 2 characters
customerState	Not Required	Freeform field, keep consistent for your records and reporting. <b>Example:</b> Queensland <b>Valid length:</b> Up to 75 characters
customerCity	Not Required	Freeform field, keep consistent for your records and reporting. <b>Example:</b> Brisbane <b>Valid length:</b> Up to 75 characters
customerAddress	Not Required	Freeform field. <b>Example:</b> 123 Test Street <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accomodate ZIP/Post codes for international transactions. <b>Example:</b> 4000 <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> 0401234567 or 61731234567 <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Must be valid if present. Sending this optional parameter is highly recommended. <b>Example:</b> person@example.com <b>Valid length:</b> Up to 255 characters

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
notifyURL	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <code>511999e54b9ad51ce4c28d7f0550ac81</code> <b>Valid Length:</b> 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> <code>3x4mpl3s4lt!</code>
logoURL	Not Required	The URL to an image that will appear in the header of the hosted payment page. Image must be of PNG format and max dimensions of 90x90 pixels and a file size limit of 1500 kilobytes. If no logoURL is supplied a default basket image is used. <b>Example:</b> <a href="https://www.example.com/logo.png">https://www.example.com/logo.png</a>
hostedID	Not Required	The ID of the customized hosted payment page. This can be implemented if multiple hosted payment pages with different logos and banners is a requirement. <b>Example:</b> <code>1</code>

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <code>e9ddc296b76b3398934bfc06239073df</code> <b>Valid length:</b> 32 characters

## processDDebitAuth

The processDDebitAuth method is used to initiate an electronic (paperless) direct debit authorization form

### Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processDDebitAuth</i>

## Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, apostrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accommodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	<b>Required</b>	Anything other than +, -, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	<b>Required</b>	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters

## Payment Account Details

Parameter	Required	Description
paymentAccountBSB	<b>Required</b>	BSB of the account to be debited. <b>Example:</b> 123123
paymentAccountName	<b>Required</b>	The name on the account to be debited. <b>Example:</b> Bob Jones
paymentAccountNumber	<b>Required</b>	Account number of the account to be debited. <b>Example:</b> 234523451
transactionAmount	Not Required	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>This field is not required if you are submitting a direct debit authorization that has a variable amount.</b> <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD or NZD. <b>Example:</b> AUD

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>(Field is only required if transactionAmount and transactionCurrency have been set for a DDA)</b> <b>Example:</b> e9ddc296b76b3398934bfc06239073df <b>Valid length:</b> 32 characters

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
notifyURL	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> Queensland <b>Valid Length:</b> Up to 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> 3x4mpl3s4It!

## Customization Parameters

Parameter	Required	Description
logoURL	Not Required	The URL to an image that will appear in the header of the hosted payment page. Image must be of PNG format and max dimensions of 90x90 pixels and a file size limit of 1500 kilobytes. If no logoURL is supplied a default Direct Debit icon is displayed. <b>Example:</b> <i>https://www.example.com/logo.png</i>
hostedID	Not Required	Digits only. The ID of the customized hosted payment page. This can be implemented if multiple hosted DDA pages with different logos and banners are a requirement. <b>Example:</b> <i>1</i>
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

#### Production API Endpoint

```
https://api.merchantwarrior.com/transfer/
```

#### Sandbox API Endpoint

```
https://base.merchantwarrior.com/transfer/
```

# Transparent Redirect

The following sub-sections will outline the various API methods present in the **Merchant Warrior Transparent Redirect**.

## Introduction

The Transparent Redirect (also referred to as a Direct POST) service allows merchants to host and customize a secure hosted payment page themselves, whilst assisting in reducing the scope of PCI DSS compliance.

Merchants who do not wish to store, process or transmit credit card (PAN) will be able to achieve this with this service.

## Request Format

API requests are submitted to the Transparent Redirect service using **POST**, and must be performed over **HTTPS**.

**i** It is important to note that as of PCI DSS v3.2 it is recommended to submit requests using a secure version of TLS (currently v1.1 or higher). As of the 30th of June 2018 the MW platform will no longer accept requests via SSL and/or TLS v1.0.

## Response Format

The Transparent Redirect service will return responses in XML format to a specified notifyURL via an Asynchronous HTTP POST. Response parameters are also returned in the GET string of the specified returnURL via a 302 redirect.

## Available Methods

The Transparent Redirect service consists of the following methods:

- **getAccessToken**: Generates a one time access token for submission with transactions
- **processCard**: Performs a purchase transaction on a customer's credit card
- **processAuth**: Performs a **pre-authorization** on a customer's credit card
- **addCard**: Adds a card to the Local or Global Vault

---

## getAccessToken

The getAccessToken method generates a one time access token that acts as an additional security measure to identify that the request originates from a valid merchant and that the request has not been tampered with during transmission.

## Request-Parameters

### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>getAccessToken</i>

## Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 123456789abcd
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 1a3b5c

## Verification Hash Parameters

Parameter	Required	Description
hash*	Required/ Not Required	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. This parameter is <b>not</b> required if you are generating an Access Token for use with the Transparent Redirect <a href="#">addCard</a> method. <b>Example:</b> e9ddc296b76b3398934bfc06239073df <b>Valid Length:</b> 32 characters
urlHash	<b>Required</b>	The urlHash field is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> Queensland <b>Valid Length:</b> Up to 32 characters

**i** The hash parameter is currently only required for the following methods: [processCard](#) and [processAuth](#). The [addCard](#) method does NOT require the hash parameter to be set.

## processCard

The processCard method is the method used to perform a purchase request.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> processCard

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 123456789abcd
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> 1a3b5c
accessToken	<b>Required</b>	The value returned by the <a href="#">getAccessToken</a> method. <b>Example:</b> 578de10d9a

### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> A257240023321 <b>Valid length:</b> Up to 40 characters

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
notifyURL	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. It is important that this URL does <b>not</b> contain any white space characters. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> Queensland <b>Valid Length:</b> Up to 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> 3x4mpI3s4It!

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accommodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

## Payment Parameters

Parameter	Required	Description
paymentCardNumber	<b>Required</b>	Only certain card numbers are deemed valid in the test environment. See <a href="#">Test Data</a> for more information. Do not send separators with the card number (e.g. 1234-5678... or 1234 5678). <b>Example:</b> 5123456789012346 or 4557012345678902 <b>Valid length:</b> Between 13 and 16 digits
paymentCardExpiry	<b>Required</b>	This must be MMY format. The month must be zero padded if it is less than 10. <b>Example:</b> 0513 <b>Valid length:</b> 4 digits
paymentCardName	<b>Required</b>	This must contain at the very least a space and no less than two characters. Only alphanumeric characters, hyphens, spaces and full stops are allowed. <b>Example:</b> Mr. Example Person or MR E PERSON or Example Person <b>Valid length:</b> Between 3 and 255 characters
paymentCardCSC	Not Required	This is also known as the CVN or CVV/2. This is required by some Acquirers if the transaction is initiated by the customer. Please contact Merchant Warrior for more information. <b>Example:</b> 123 <b>Valid length:</b> Between 3 and 4 characters
addCard	Not Required	This value is a <b>boolean</b> to denote whether the paymentCardNumber should automatically be added to the Merchant Warrior Vault after processing the transaction. <b>Example:</b> 1 <b>Valid Length:</b> 1 digit

## Global Vault Parameters

Parameter	Required	Description
cardGlobal	Not Required	This must be in a <b>boolean</b> format. <b>Example:</b> 1
cardEmail	Not Required	This must be in a valid email format. <b>Example:</b> john@merchantwarrior.com
cardContact	Not Required	This must be in a valid Australian or International mobile number format. <b>Example:</b> 0486292992 or +614920202820

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

## processAuth

The processAuth method is used to perform a [pre-authorization](#) request.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processAuth</i>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>
accessToken	<b>Required</b>	The value returned by the <a href="#">getAccessToken</a> method. <b>Example:</b> <i>578de10d9a</i>

### General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> A257240023321 <b>Valid length:</b> Up to 40 characters

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
notifyURL	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. It is important that this URL does <b>not</b> contain any white space characters. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> Queensland <b>Valid Length:</b> Up to 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> 3x4mpI3s4It!

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accommodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters
storeID	Not Required	The value of this field is the merchant's store name. Please note that you need to contact Merchant Warrior to enable the storeID feature before you can use this parameter. <b>Example:</b> <i>Test store name</i>

## Payment Parameters

Parameter	Required	Description
paymentCardNumber	<b>Required</b>	Only certain card numbers are deemed valid in the test environment. See <a href="#">Test Data</a> for more information. Do not send separators with the card number (e.g. 1234-5678... or 1234 5678). <b>Example:</b> 5123456789012346 or 4557012345678902 <b>Valid length:</b> Between 13 and 16 digits
paymentCardExpiry	<b>Required</b>	This must be MMY format. The month must be zero padded if it is less than 10. <b>Example:</b> 0513 <b>Valid length:</b> 4 digits
paymentCardName	<b>Required</b>	This must contain at the very least a space and no less than two characters. Only alphanumeric characters, hyphens, spaces and full stops are allowed. <b>Example:</b> Mr. Example Person or MR E PERSON or Example Person <b>Valid length:</b> Between 3 and 255 characters
paymentCardCSC	Not Required	This is also known as the CVN or CVV/2. This is required by some Acquirers if the transaction is initiated by the customer. Please contact Merchant Warrior for more information. <b>Example:</b> 123 <b>Valid length:</b> Between 3 and 4 characters
addCard	Not Required	This value is a <b>boolean</b> to denote whether the paymentCardNumber should automatically be added to the Merchant Warrior Vault after processing the transaction. <b>Example:</b> 1 <b>Valid Length:</b> 1 digit

## Global Vault Parameters

Parameter	Required	Description
cardGlobal	Not Required	This must be in a <b>boolean</b> format. <b>Example:</b> 1
cardEmail	Not Required	This must be in a valid email format. <b>Example:</b> john@merchantwarrior.com
cardContact	Not Required	This must be in a valid Australian or International mobile number format. <b>Example:</b> 0486292992 or +614920202820

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>e9ddc296b76b3398934bfc06239073df</i> <b>Valid length:</b> 32 characters

## addCard

The addCard method is used to add a new card to the MW Vault.

**i** After the initial addCard via the Transparent Redirect service, all future Token Payments operations such as removal of card data, update of expiry etc. should be handled via the [Direct API](#) service.

### Request-Parameters

#### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>
accessToken	<b>Required</b>	The value returned by the <a href="#">getAccessToken</a> method. <b>Example:</b> <i>578de10d9a</i>

#### Cardholder Data

Parameter	Required	Description
paymentCardName	<b>Required</b>	This must contain at the very least a space and no less than two characters. Only alphanumeric characters, hyphens, spaces and full stops are allowed. <b>Example:</b> <i>Mr. Example Person</i> or <i>MR E PERSON</i> or <i>Example Person</i> <b>Valid length:</b> Between 3 and 255 characters
paymentCardNumber	<b>Required</b>	Only certain card numbers are deemed valid in the test environment. See <a href="#">Test Data</a> for more information. Do not send separators with the card number (e.g. 1234-5678... or 1234 5678). <b>Example:</b> <i>5123456789012346</i> or <i>4557012345678902</i> <b>Valid length:</b> Between 13 and 16 digits
paymentCardExpiry	<b>Required</b>	This must be MMY format. The month must be zero padded if it is less than 10. <b>Example:</b> <i>0513</i> <b>Valid length:</b> 4 digits

#### Global Vault Parameters

Parameter	Required	Description
cardGlobal	Not Required	This must be in a <a href="#">boolean</a> format. <b>Example:</b> 1
cardEmail	Not Required	This must be in a valid email format. <b>Example:</b> john@merchantwarrior.com
cardContact	Not Required	This must be in a valid Australian or International mobile number format. <b>Example:</b> 0486292992 or +614920202820

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
notifyURL	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. It is important that this URL <b>does not</b> contain any white space characters. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>

## Custom Parameters

**i** We do not store these custom fields for addCard requests

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> Queensland <b>Valid Length:</b> Up to 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> 3x4mpl3s4It!

**i** getAccessToken requests must be sent to the following API endpoints:

Production API Endpoint

<https://api.merchantwarrior.com/iframe/>

#### Sandbox API Endpoint

```
https://base.merchantwarrior.com/iframe/
```

**i** iFrame generation requests must be sent to the following API endpoints:

#### Production API Endpoint

```
https://secure.merchantwarrior.com/iframe/
```

#### Sandbox API Endpoint

```
https://securetest.merchantwarrior.com/iframe/
```

# Transparent iFrame

The following sub-sections will outline the various API methods present in the **Merchant Warrior Transparent iFrame** service.

## Introduction

The MW Transparent iFrame service allows merchants to embed an MW iFrame in their website and/or application. The MW iFrame can process transactions and/or store credit card information in the MW Vault.

Merchants who do not wish to store, process or transmit credit card **PAN** in order to reduce their **PCI DSS** scope will be able to achieve this with this service.

## Custom iFrame(s)

The Transparent iFrame can be fully customized to maintain the look and feel of the website and/or application(s) that it is embedded in. In order to do this the relevant (addCard, processCard or processAuth) HTML skeleton form will need to be downloaded (from [here](#)) and themed accordingly.

The HTML skeleton form can be customized to handle frontend validation and styling. After the HTML skeleton form has been customized appropriately, all assets (css, images and javascript) should be compressed and emailed to our technical team (infoservices@merchantwarrior.com) for review.

If the customized Transparent iFrame is approved by our technical team it will be made accessible on the Merchant Warrior platform and will be available by submitting the 'style' and 'custom' parameters in the appropriate transaction request (addCard, processCard or processAuth).

## Request Format

API requests are submitted to the Transparent iFrame service using **POST**, and must be performed over **HTTPS**.

**!** It is important to note that as of **PCI DSS v3.2** it is recommended to submit requests using a secure version of **TLS** (currently v1.1 or higher). As of the 30th of June 2018 the MW platform will no longer accept requests via **SSL** and/or **TLS v1.0**.

In order for an iFrame to be generated successfully, a request must be sent from a website or application that has its form target set as the target of the iFrame.

A simple implementation of the Transparent iFrame is made possible by creating a standard HTML form and submitting the form via javascript, AJAX or any other technology in use by the website and/or application(s).

## Response Format

The Transparent iFrame service will return responses in **XML** format to a specified notifyURL via an **Asynchronous HTTP POST**. Response parameters are also returned in the GET string of the specified returnURL via **a302 redirect**.

## Available Methods

The Transparent iFrame service consists of the following methods:

- **getAccessToken**: Generates a one time access token for submission with transactions
- **processCard**: Performs a purchase transaction on a customer's credit card
- **processAuth**: Performs a **pre-authorization** on a customer's credit card
- **addCard**: Adds a card to the Local or Global Vault

## getAccessToken

The `getAccessToken` method generates a one time access token that acts as an additional security measure to identify that the request originates from a valid merchant and that the request has not been tampered with during transmission.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <code>getAccessToken</code>

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <code>123456789abcd</code>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <code>1a3b5c</code>

### Verification Hash Parameters

Parameter	Required	Description
hash*	Required/ Not Required	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. This parameter is <b>not</b> required if you are generating an Access Token for use with the Transparent Redirect <a href="#">addCard</a> method. <b>Example:</b> <code>e9ddc296b76b3398934bfc06239073df</code> <b>Valid Length:</b> 32 characters
urlHash	<b>Required</b>	The urlHash field is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <code>Queensland</code> <b>Valid Length:</b> Up to 32 characters

**i** The hash parameter is currently only required for the following methods: [processCard](#) and [processAuth](#). The [addCard](#) method does NOT require the hash parameter to be set.

## processCard

The `processCard` method is the method used to perform a purchase request.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <i>processCard</i>

## Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>123456789abcd</i>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <i>1a3b5c</i>
accessToken	<b>Required</b>	The value returned by the <a href="#">getAccessToken</a> method. <b>Example:</b> <i>578de10d9a</i>

## General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> <i>10.00</i>
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> <i>AUD</i>
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> <i>ABC4321</i> <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> <i>A257240023321</i> <b>Valid length:</b> Up to 40 characters

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
returnTarget	Not Required	One of the following: <code>_self</code> , <code>_top</code> , <code>_parent</code> . This defines the target of the returnURL. Defaults to <code>_top</code> if not set. If it is set to <code>_none</code> , no redirect will occur (although this is not advised) <b>Example:</b> <code>_top</code>
notifyURL	<b>Required</b>	The asynchronous POST notifications will be sent to this URL. It is important that this URL does <b>not</b> contain any white space characters. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
postmessageURL	Not Required	The domain of the parent for the purpose of sending a postmessage from the iFrame to the parent after completing the transaction. To respond or interpret this message you will need to add a listener to the parent, as shown in <a href="#">Handling a postmessage</a> . <b>Example:</b> <a href="https://www.example.com/">https://www.example.com/</a>
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>Queensland</i> <b>Valid Length:</b> Up to 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> <i>3x4mp!3s4lt!</i>

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, apostrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accommodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters

## Payment Parameters

Parameter	Required	Description
addCard	Not Required	This value is a <b>boolean</b> to denote whether the paymentCardNumber should automatically be added to the Merchant Warrior Vault after processing the transaction. <b>Example:</b> <i>1</i> <b>Valid Length:</b> 1 digit
cardTypes	Not required	This field is a comma delimited list of card types that will be accepted. If not set all card types will be accepted (visa,mastercard,amex,diners,discover,jcb). <b>Example:</b> <i>Visa, Mastercard</i>

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <code>e9ddc296b76b3398934bfc06239073df</code> <b>Valid length:</b> 32 characters

## Customization Parameters

Parameter	Required	Description
style	Not Required	Possible values are <i>default</i> or <i>custom</i> . If not set the default styling is used. <b>Example:</b> <i>custom</i>
iframeID	Not Required	This field is only applicable for customers with multiple custom iFrames. This field will not function correctly without the style parameter being set to <i>custom</i> . <b>Example:</b> <code>1</code>

## processAuth

The processAuth method is used to perform a pre-authorization request.

### Request-Parameters

#### API Method

Parameter	Required	Description
method	<b>Required</b>	This field is case sensitive. <b>Example:</b> <code>processAuth</code>

#### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <code>123456789abcd</code>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <code>1a3b5c</code>
accessToken	<b>Required</b>	The value returned by the <a href="#">getAccessToken</a> method. <b>Example:</b> <code>578de10d9a</code>

## General Transaction Parameters

Parameter	Required	Description
transactionAmount	<b>Required</b>	The amount must be formatted to have two decimal places. Any amounts without two decimal places or amounts less than one cent will be rejected. <b>Example:</b> 10.00
transactionCurrency	<b>Required</b>	One of the following: AUD, CAD, EUR, GBP, JPY, NZD, SGD, USD. This is provider dependant. Please check with MW before attempting to process transactions in any currency other than AUD. This field is case insensitive. <b>Example:</b> AUD
transactionProduct	<b>Required</b>	A product (or sale) id or description. We recommend using an order/product id. This field's primary purpose is to help the transaction be identifiable for reporting and accounting purposes. <b>Example:</b> ABC4321 <b>Valid length:</b> Up to 255 characters. Some Acquirers limit this field to 40 characters.
transactionReferenceID	Not Required	This is a merchant's unique reference ID for a transaction sent to Merchant Warrior. The main purpose of this ID is to verify the transaction via the <a href="#">queryCard</a> method in the event a valid response is not received. <b>Example:</b> A257240023321 <b>Valid length:</b> Up to 40 characters

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
returnTarget	Not Required	One of the following: <code>_self</code> , <code>_top</code> , <code>_parent</code> . This defines the target of the returnURL. Defaults to <code>_top</code> if not set. If it is set to <code>_none</code> , no redirect will occur (although this is not advised) <b>Example:</b> <code>_top</code>
notifyURL	<b>Required</b>	The asynchronous POST notifications will be sent to this URL. It is important that this URL does <b>not</b> contain any white space characters. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
postmessageURL	Not Required	The domain of the parent for the purpose of sending a postmessage from the iFrame to the parent after completing the transaction. To respond or interpret this message you will need to add a listener to the parent, as shown in <a href="#">Handling a postmessage</a> . <b>Example:</b> <a href="https://www.example.com/">https://www.example.com/</a>
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> Queensland <b>Valid Length:</b> Up to 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> 3x4mpl3s4lt!

## Customer Parameters

Parameter	Required	Description
customerName	<b>Required</b>	This field can only contain alphanumeric characters, as well as the full stop, comma, apostrophe, ampersand, space and hyphen characters. <b>Example:</b> <i>Mr. Example Person</i> <b>Valid length:</b> Between 2 and 255 characters
customerCountry	<b>Required</b>	Two letter ISO 3166-1 alpha-2 country code. <b>Example:</b> <i>AU</i> <b>Valid length:</b> 2 characters
customerState	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Queensland</i> <b>Valid length:</b> Up to 75 characters
customerCity	<b>Required</b>	Freeform field, keep consistent for your records and reporting. <b>Example:</b> <i>Brisbane</i> <b>Valid length:</b> Up to 75 characters
customerAddress	<b>Required</b>	Freeform field. <b>Example:</b> <i>123 Test Street</i> <b>Valid length:</b> Up to 255 characters
customerPostCode	<b>Required</b>	This can also accommodate ZIP/Post codes for international transactions. <b>Example:</b> <i>4000</i> <b>Valid length:</b> Between 4 and 10 characters
customerPhone	Not Required	Anything other than +,-, space and 0-9 will be stripped. <b>Example:</b> <i>0401234567</i> or <i>61731234567</i> <b>Valid length:</b> Up to 25 characters
customerEmail	Not Required	Sending this optional parameter is highly recommended. <b>Example:</b> <i>person@example.com</i> <b>Valid length:</b> Up to 255 characters
customerIP	Not Required	Any valid IPv4 or IPv6 address is accepted. Sending this optional parameter is highly recommended. <b>Example:</b> <i>123.456.789.012</i> or <i>2001:0db8:85a3:0000:0000:8a2e:0370:7334</i> <b>Valid length:</b> Up to 39 characters

## Payment Parameters

Parameter	Required	Description
addCard	Not Required	This value is a <b>boolean</b> to denote whether the paymentCardNumber should automatically be added to the Merchant Warrior Vault after processing the transaction. <b>Example:</b> <i>1</i> <b>Valid Length:</b> 1 digit
cardTypes	Not required	This field is a comma delimited list of card types that will be accepted. If not set all card types will be accepted (visa,mastercard,amex,diners,discover,jcb). <b>Example:</b> <i>Visa, Mastercard</i>

## Custom Parameters

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Verification Hash

Parameter	Required	Description
hash	<b>Required</b>	The verification hash is a combination of the MD5 of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Transaction Type Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <code>e9ddc296b76b3398934bfc06239073df</code> <b>Valid length:</b> 32 characters

## Customization Parameters

Parameter	Required	Description
style	Not Required	Possible values are <i>default</i> or <i>custom</i> . If not set the default styling is used. <b>Example:</b> <code>custom</code>
iframeID	Not Required	This field is only applicable for customers with multiple custom iFrames. This field will not function correctly without the style parameter being set to <i>custom</i> . <b>Example:</b> <code>1</code>

## addCard

The addCard method is used to add a new card to the MW Vault.

**i** After the initial addCard via the Transparent iFrame service, all future Token Payments operations such as removal of card data, update of expiry etc. should be handled via the [Direct API](#) service.

## Request-Parameters

### Authentication Parameters

Parameter	Required	Description
merchantUUID	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <code>123456789abcd</code>
apiKey	<b>Required</b>	The value of this parameter is provided to you by Merchant Warrior. <b>Example:</b> <code>1a3b5c</code>
accessToken	<b>Required</b>	The value returned by the <a href="#">getAccessToken</a> method. <b>Example:</b> <code>578de10d9a</code>

## Global Vault Parameters

Parameter	Required	Description
cardGlobal	Not Required	This must be in a <a href="#">boolean</a> format. <b>Example:</b> 1
cardEmail	Not Required	This must be in a valid email format. <b>Example:</b> john@merchantwarrior.com
cardContact	Not Required	This must be in a valid Australian or International mobile number format. <b>Example:</b> 0486292992 or +614920202820

## Payment Parameters

Parameter	Required	Description
cardTypes	<b>Required</b>	This field is a comma delimited list of card types that will be accepted. If not set all card types will be accepted (visa,mastercard,amex,diners,discover,jcb). <b>Example:</b> visa, mastercard

## Redirect and Notification Parameters

Parameter	Required	Description
returnURL	<b>Required</b>	The customer will be redirected to this URL upon completion of the transaction. <b>Example:</b> <a href="https://www.example.com/return.php">https://www.example.com/return.php</a>
returnTarget	Not Required	One of the following: <code>_self</code> , <code>_top</code> , <code>_parent</code> . This defines the target of the returnURL. Defaults to <code>_top</code> if not set. If it is set to <code>_none</code> , no redirect will occur (although this isn't advised) <b>Example:</b> <code>_top</code>
notifyURL	<b>Required</b>	Asynchronous POST notifications will be sent to this URL. <b>Example:</b> <a href="https://www.example.com/notify.php">https://www.example.com/notify.php</a>
postmessageURL	Not Required	The domain of the parent for the purpose of sending a postmessage from the iFrame to the parent after completing the transaction. To respond or interpret this message you will need to add a listener to the parent, as shown in <a href="#">Handling a postmessage</a> . <b>Example:</b> <a href="https://www.example.com/">https://www.example.com/</a>

## Custom Parameters

**!** We do not store these custom fields for addCard requests

Parameter	Required	Description
custom1	Not Required	Freeform field. Returned as <code>&lt;custom1&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom2	Not Required	Freeform field. Returned as <code>&lt;custom2&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters
custom3	Not Required	Freeform field. Returned as <code>&lt;custom3&gt;</code> in the XML response. <b>Valid length:</b> Up to 500 characters

## Customization Parameters

Parameter	Required	Description
style	Not Required	Possible values are <i>default</i> or <i>custom</i> . If not set the default styling is used. <b>Example:</b> <i>custom</i>
iframeID	Not Required	This field is only applicable for customers with multiple custom iFrames. This field will not function correctly without the style parameter being set to <i>custom</i> . <b>Example:</b> <i>1</i>

## Verification Hash

Parameter	Required	Description
urlHash	Required	The urlHash field is a combination of your API Passphrase, and specific parameters sent in the transaction. See <a href="#">Web URL Hash</a> for information on how to construct the hash correctly. <b>Example:</b> <i>Queensland</i> <b>Valid Length:</b> Up to 32 characters
hashSalt	<b>Required</b>	Used to salt the return hash used in the 302 Redirect to redirectURL upon the completion of a transaction. <b>Example:</b> <i>3x4mpl3s4lt!</i>

## Handling a Postmessage

If you prefer your application to not redirect after the Transparent iFrame completes a transaction, you have the option of making use of `postMessage` functionality. This functionality will enable the iframe to send the response it receives to its parent.

```
// Create IE + others compatible event handler
var eventMethod = window.addEventListener ? "addEventListener" : "attachEvent";
var eventer = window[eventMethod];
var messageEvent = eventMethod == "attachEvent" ? "onmessage" : "message";

// Listen to message from child window
eventer(messageEvent,function(e) {
    console.log('parent received message!: ',e.data);
},false);
```

**i** In the above example, replace `console.log` with code that is appropriate for your solution, and optionally make use of the `get` string which is returned as `e.data`.

# Hash Generation

## Overview

Verification hashes are used to prove to MW that the request(s) being sent have been generated by you, and not a malicious third party who may have discovered your merchantUUID and apiKey. Even if a malicious third party was to discover the request data you have sent, they would not be able to create requests without knowing your API Passphrase. Your API Passphrase can be modified in the MW administration interface.

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## Transaction Type Hash

To generate a transaction type hash, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + transactionAmount + transactionCurrency*

Once concatenated, convert everything to lowercase, and then md5 the string:

**Step 1** (concatenate):

*md5(passphrase)123456789abcd10.00 AUD*

**Step 2** (convert to lower):

*md5(passphrase)123456789abcd10.00 aud*

**Step 3** (md5):

*d941117d8774b12e218650542af6af56*

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## Query Type Hash

To generate a query type hash, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + transactionID OR transactionReferenceID*

Once concatenated, convert everything to lowercase, and then md5 the string, as above.

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## Custom Fields Verification Hash

To generate the custom fields hash, concatenate, convert to lowercase & md5 the following fields:

*md5(apiPassphrase) + custom1 + custom2 + custom3*

Be sure to decode the custom\* fields first - e.g. 'Custom+Field+1' becomes "Custom Field 1".

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## Batch File Hash

To generate a batch file hash, simply generate the md5 checksum of the batch file:

*md5(batchFile)*

As an example the md5 checksum of Batch.zip (containing your .csv) may be d41d8cd98f00b204e9800998ecf8427e

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## Batch URL Hash

To generate a batch URL hash, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + batchNotifyURL*

Once concatenated, convert everything to lowercase, and then md5 the string, as above.

---

## Batch Response Hash

To generate a batch Response hash, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + batchUUID*

Once concatenated, convert everything to lowercase, and then md5 the string, as above.

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## Web URL Hash

To generate a Web URL hash, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + returnUrl + notifyURL*

Once concatenated, convert everything to lowercase, and then md5 the string, as above.

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## 302 Redirect and Post Notification Verification Hash Transactions

To generate a verification hash used for the 302 Redirect and POST notification, concatenate the following fields:

*md5(apiPassphrase) + hashSalt + merchantUUID + status + transactionID OR cardID*

 cardID is used for verifying an addCard response

The status and transactionID (or cardID) fields are both contained in the Redirect URL. Once concatenated, convert everything to lowercase, and then md5 the string, as above.

### Direct Debit Authorizations

To generate a verification hash used for the 302 Redirect and POST notification, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + hashSalt + fingerprint*

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## BIN Hash

To generate a BIN hash, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + bin*

Once concatenated, convert everything to lowercase, and then md5 the string, as above.

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## Settlement Hash

To generate a Settlement hash, concatenate the following fields:

*md5(apiPassphrase) + merchantUUID + settlementFrom + settlementTo*

Once concatenated, convert everything to lowercase, and then md5 the string, as above.

# Test Credit Cards

**i** Prior to using the test credit card numbers below, ensure that you are aware of the test provider you have been setup with. If you submit incorrect test card numbers to your test provider, your transactions will be rejected.

The test cards below are the only valid card numbers that can be used for testing with **CBA, ANZ, NAB, Bendigo & BankWest**

Card Number	Expiry Date	CVN	Card Type
5123456789012346	05/21	123	MasterCard
4987654321098769	05/21	123	Visa
345678901234564	05/21	1234	Amex
30123456789019	05/21	123	Diners Club

Using the following amounts will return the appropriate response. This particular test provider will change the response you receive based on the cent value supplied with the request.

Amount	Description
XXX.00	Transaction approved
XXX.01	Transaction declined - contact issuing bank
XXX.05	Transaction declined - contact issuing bank
XXX.10	Transaction could not be processed
XXX.51	Insufficient credit
XXX.54	Card has expired
XXX.68	No reply from Processing Host
Anything Else	Transaction could not be processed

To test the new Mastercard 2 BIN series numbers, the following test card details can be used.

Card Type	PAN (Card Number)
MasterCard	2223000000000007

Use the following expiry dates will return the appropriate responses.

Response Code	Name	Expiry Date
0	Transaction approved	05/17
4	Transaction could not be processed	04/23
3	Time Out - contact issuing bank	08/24
2	Transaction declined - contact issuing bank	05/18

The test cards below are only valid card numbers that can be used for testing with **Westpac, St. George & Bank of**

**Melbourne .**

<b>Card Number</b>	<b>Expiry Date</b>	<b>CVN</b>	<b>Description</b>
4564710000000004	02/19	847	Visa Approved
5163200000000008	08/20	070	MC Approved
4564710000000012	02/05	963	Visa Expired
4564710000000020	05/20	234	Visa Low Funds (\$10 credit limit)
5163200000000016	12/19	728	MC Stolen
4564720000000037	09/19	030	Visa Invalid CVV2
3760000000000006	06/20	2349	Amex
3434000000000016	01/19	9023	Amex Restricted
3643000000000007	06/22	348	Diners
3643000000000015	08/21	988	Diners Stolen
All Others	N/A	N/A	All unknown cards are rejected

# 302 Redirect

As an Asynchronous HTTP POST is not always reliable, an immediate response is also sent via a 302 redirect of the customer's browser to the specified returnUrl.

## Transactions

Responses are sent in the GET string of the returnUrl specified

The table below details the possible fields returned to the returnUrl and their descriptions in regards to a transaction.

Field	Description
status	A textual representation of the transaction result. This can be: approved, declined, error, preauth. <b>Example:</b> declined
reference	If status is 'error', this will not be present. Otherwise, this contains a transactionID that can be used to query the transaction via an API call with the queryCard method <b>Example:</b> 1336-20be3569-b600-11e6-b9c3-005056b209e0
hash	A hash used to verify the status & transactionID, using the hashSalt <b>Example:</b> b55552ff426d7e3d4885465d27ea0062
code	If status is 'error', this will contain an MW error code. This can be: -1, -2, -3, -4. See <a href="#">Transaction responseCode</a> <b>Example:</b> -1
message	If status is 'error', this will contain a textual representation of the error code. <b>Example:</b> 008%3AInvalid+merchantUUID+%2F+apiKey+combination
custom1	The value of the parameter, URL Encoded. Will be blank if not provided. <b>Example:</b> custom1
custom2	The value of the parameter, URL Encoded. Will be blank if not provided. <b>Example:</b> custom2
custom3	The value of the parameter, URL Encoded. Will be blank if not provided. <b>Example:</b> custom3

## Tokenization

Responses are sent in the GET string of the returnUrl specified

The table below details the possible fields returned to the returnUrl and their description in regards to a tokenized transaction (addCard).

Field	Description
status	A textual representation of the transaction result. This can be: success, failed, error. <b>Example:</b> success
responseMessage	If status is 'error', this will not be present. Otherwise, this contains a message associated with the status (success or failed) of the response. <b>Example:</b> Operation%20successful
message	If status is 'error', this will contain a textual representation of the error code. See <a href="#">Transaction responseMessage</a> <b>Example:</b> 008%3AInvalid+merchantUUID+%2F+apiKey+combination
hash	A hash used to verify the status & cardID, using the hashSalt <b>Example:</b> 11b6a860e5bdf0bd91a503b42346ee1d
cardID	A unique alphanumeric string returned by addCard, used to identify a specific card <b>Example:</b> MJKT20850598
cardKey	A string used as an encryption/decryption key. This should only be used if you do NOT want Merchant Warrior handling your key storage. This should be unique on a per-card basis. It's used to encrypt the card when we store it. Every time we receive a process card request, the correct cardkey must also be provided - which is known only by you. <b>Example:</b> qUKDIbq8idy5qsSf
ivrCardID	A unique alphanumeric string returned by addCard, used to identify a specific card used for IVR integration <b>Example:</b> 10230271
custom1	The value of the parameter. Will be blank if not provided. <b>Example:</b> custom1
custom2	The value of the parameter. Will be blank if not provided. <b>Example:</b> custom2
custom3	The value of the parameter. Will be blank if not provided. <b>Example:</b> custom3
customHash	A hash used to verify the custom parameters <b>Example:</b> 65b172551b7d3a0706c0ce5330c98470

## Direct Debit Authorizations

 Responses are sent via [POST](#) to the returnURL specified

Upon the completion of a successful DDA submission the client is redirected to the merchant's website after 5 seconds or by clicking a link to return to the merchant's website. The client's browser is redirected to the returnURL specified by the merchant and the response data is sent via [POST](#) to the merchant's returnURL.

The table below details the possible fields returned to the returnURL and their descriptions in regards to a DDA submission.

<b>Field</b>	<b>Description</b>
responseCode	The response code associated with the DDA submission
responseMessage	A textual representation of the DDA submission
hash	A hash used to verify the status & transactionID (or cardID), using hashSalt. Refer to <a href="#">302 Redirect and POST Notification Verification Hash</a>
customerEmail	Email address associated with DDA submission
paymentAccountBSB	Account BSB associated with DDA submission
paymentAccountNumber	Account Number associated with DDA submission
custom1	The value of the parameter. Will be blank if not provided.
custom2	The value of the parameter. Will be blank if not provided.
custom3	The value of the parameter. Will be blank if not provided.
customHash	A hash used to verify the custom parameters
fingerprint	Unique fingerprint generated for each DDA submission

# Response Codes

There are three possible types of responseCode:

<responsecode>	Meaning
< 0	MW validation error
= 0	Transaction/Operation was successful
> 0	Transaction was declined by the provider

If the responseCode is  $\geq 0$ , the responseMessage field will either contain a preset error or, if applicable, the direct error response given by the provider or MW Vault.

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## Transaction responseCode

In the table below, the “Status” column shows that the only time money will have left the customer’s account is when a responseCode of 0 is returned. The “Fees” column shows which transaction types have fees applied to them. No fees are ever applied to declines that are caused by provider timeouts, provider errors (except valid declines), or MW declines (due to invalid data, etc).

Status	Code	Description	Fees
Failed	-4	Internal MW error (contact MW support)	No
Failed	-3	One of the required fields was not submitted	No
Failed	-2	One of the submitted fields was invalid	No
Failed	-1	Invalid authentication credentials supplied	No
Success	0	Transaction Approved	Yes
Failed	1	Transaction could not be processed (server error)	No
Failed	2	Transaction declined – contact issuing bank	Yes
Failed	3	No reply from processing host (timeout)	No
Failed	4	Card has expired	Yes
Failed	5	Insufficient Funds	Yes
Failed	6	Error communicating with bank	No
Failed	7	Bank rejected request	Yes
Failed	8	Bank declined transaction – type not supported	Yes
Failed	9	Bank declined transaction – do not contact bank	Yes
-	10	Transaction pending	No

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## Token responseCode

In the table below, the “Status” column shows that the only time that an operation can complete on a customer’s token id is when a responseCode of 0 is returned.

Status	Code	Description
Failed	-4	Internal MW error (contact MW support)
Failed	-3	One of the required fields was not submitted
Failed	-2	One of the submitted fields was invalid
Success	0	Operation Successful
Failed	1	Requested card has been removed
Failed	2	Requested card has expired

## Transaction responseMessage

All MW validation errors will contain a three-digit code prefix at the beginning of the responseMessage. This code will allow you to determine what specifically caused the MWE validation error to be returned, and allow you to deal with it accordingly.

responseCode	Code Prefix	Description
-3	001	Required field missing
-2	002	Invalid amount
-2	003	Invalid currency
-2	004	Invalid email
-2	005	Invalid name
-2	006	Invalid expiry
-2	007	Invalid card number
-1	008	Invalid auth details
-1	009	Invalid merchantUUID
-1	010	Invalid passphrase
-2	011	Invalid transactionID
-2	012	Invalid transaction
-2	013	Currency mismatch
-2	014	Invalid refund amount
-2	015	Refund exceeds transaction amount
-2	016	Transaction already reversed
-2	017	Invalid verification hash
-2	018	Invalid rebillID
-2	019	Invalid rebill (rebill inactive)

<b>responseCode</b>	<b>Code Prefix</b>	<b>Description</b>
-2	020	Invalid date
-2	021	Invalid date period
-2	022	Invalid interval
-2	023	Invalid capture amount
-2	024	Capture exceeds transaction amount
-2	025	Invalid batchUUID
-2	026	Field contains PAN
-2	027	Reference ID is not unique
-2	028	Invalid integratorUUID
-2	029	Permission error
-2	030	Token error
-2	031	Invalid BSB
-2	032	Invalid Account Number
-2	033	Invalid CSC
2	034	Transaction exceeds limit

# Developer FAQ

If you wish to download Merchant Warrior logos, the sample files for integration of various services provided by Merchant Warrior or the code for integration modules please visit <https://dox.merchantwarrior.com/>