Hosted Fields

Integration Guide – V1

Contents

1 Hosted Fields

1.1 Terminology

The following terms are used throughout this guide:

Gateway
    The Payment Gateway.

Transaction
    A financial transaction processed by the Gateway.

Merchant (Customer)
    The company using the Gateway's services

Merchant Account
    An account on the Gateway mapped to an Acquirer issued account.

Cardholder (Consumer)
    The person who owns the payment card, normally the Customer.

1.2 About Hosted Fields

Hosted Fields are a set of pre-made website components (such as a card number input) that can be used to integrate a checkout process onto a Merchant's website.

The information is tokenised within these components so that no sensitive data is ever stored on the Merchant's website similarly to our Hosted Form.

The main benefit of Hosted Fields is to be able to integrate the payment fields directly into the Merchant's checkout page without having to worry about handling sensitive payment information. The fields can be styled to match the design of the existing page, so they integrate seamlessly without the need for any redirect to a Gateway hosted payment page.

The author assumes the reader is familiar with the following documents:
- Direct Integration Guide
- Hosted Integration Guide

2 Hosted Fields Integration

2.1 Pre-requisites

Hosted Fields requires knowledge of server-side scripting and HTML/CSS/JavaScript.

Before you can integrate with Hosted Fields, you'll need the following information:

Merchant ID	Your Merchant ID enables you to access and communicate with the payment Gateway. Please note that these details will differ to the login supplied to access the administration panel. You should have received these details when your account was set up. You may also use test Merchant IDs (if you have been issued with a test ID) and swap these for your live account details when you receive them.
Gateway URL	https://gateway.breathepay.co.uk/
Signature	Provided with account setup details.

2.2 JQuery/JavaScript

Hosted Fields requires JQuery. The Gateway supports versions 1.8 to 3.4 and in this document's examples, we use 2.1.3 as shown below:

```
<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/2.1.3/jquery.js"></script>
```

To initialise a Hosted Fields instance, include the following JavaScript in your webpage:

```
<script src=" https://gateway.breathepay.co.uk/sdk/web/v1/js/hostedfields.min.js"></script>
```

This script should **ALWAYS** be loaded directly from the Gateway and not hosted on the Merchant's website as it may be updated.

In addition, include the following JavaScript to automatically setup the Hosted Form integration:

```
<script>
  $(document).ready(function () {
    var $form = $('#form1');
    var auto = {
      autoSetup: true,
      autoSubmit: true,
    };
    try {
      var hf = $form.hostedForm(auto);
    } catch(e) {
      //Add your exception handling code here
    }
  });
</script>
```

Please note that the $form variable in the above example is the ID of the HTML form example shown in section 2.3.

2.3 HTML

Similarly to the Gateway's other integrations, Hosted Fields uses HTML form input types to identify the payment/customer information sent to the Gateway. The biggest difference is in the payment fields and where the fields are POST to.

The payment fields are added to the HTML form as input types prefixed with "hostedfield:" followed by the name of the payment field. To successfully receive a payment token from the Gateway, the below input fields are accepted:

Input Type	Mandatory	Description
`merchantID`	Y	The Gateway Merchant ID.
`hostedfield:cardNumber`	Y	The Cardholder's card number. This field automatically formats the card number and provides an image of the card type being used.
`hostedfield:cardExpiryDate`	Y	The Cardholder's expiry date. This field is formatted in the following way: **mm/yy**
`hostedfield:cardCVV`	Y	The Cardholder's CVV2/Security number. This field allows up to 4 numeric characters.
`hostedfield:StartDate`	N	The Cardholder's Start Date if applicable. This field is formatted in the following way: **mm/yy**
`hostedfield:IssueNumber`	N	The Cardholder's Issue Number if applicable. This field allows up to 4 numeric characters.

In addition, you can pass transaction fields such as amount, countryCode, etc. which can then be used later in POST when processing the payment token as outlined in section 2.6.

Unlike the other integrations, Hosted Fields are not POST to a Gateway URL and instead the form should POST back to the Merchant's page. A payment token will be returned back to the Merchant website.

2.3.1 Example HTML Form

An example of a HTML form is shown below. As mentioned in section 2.2, ensure the form ID is the same as the variable used in the JavaScript:

```
<form method="POST" id="form1">
    <input type="hidden" name="merchantID" value=" 113811"/>
    <input type="hostedfield:cardNumber" placeholder="**** **** ****
****"/><br>
    <input type="hostedfield:cardExpiryDate" placeholder="dd/yy"/><br>
    <input type="hostedfield:cardCVV" placeholder="***"/><br>
    <input type="submit" value="submit"/>
</form>
```

2.4 CSS Styling

To make Hosted Fields fit in seamlessly to any website, they can be styled with CSS.

The following CSS methods are supported:

- `External Style Sheet`
- `Internal Style Sheet`

The following CSS properties are supported:

- `caret-color`
- `color`
- `cursor`
- `direction`
- `fill`
- `filter`
- `font`
- `font-feature-settings`
- `font-kerning`
- `font-language-override`
- `font-size`
- `font-size-adjust`
- `font-smooth`
- `font-stretch`
- `font-style`
- `font-synthesis`
- `font-variant`
- `font-variant-alternates`
- `font-variant-caps`
- `font-variant-east-asian`
- `font-variant-ligatures`
- `font-variant-numeric`
- `font-variant-position`
- `font-weight`
- `letter-spacing`
- `line-height`
- `stroke`
- `text-align`
- `text-decoration`
- `text-decoration-color`
- `text-decoration-line`
- `text-decoration-style`
- `text-emphasis`
- `text-emphasis-color`
- `text-emphasis-position`
- `text-emphasis-style`
- `text-indent`
- `text-rendering`
- `text-shadow`
- `text-transform`
- `text-underline-position`
- `-moz-osx-font-smoothing`
- `-webkit-font-smoothing`
- `-webkit-text-fill-color`

The following CSS pseudo-classes are supported:

- `:disabled`
- `:focus`
- `:hover`

The Hosted Fields can either be styled all at once or the individual fields can be styled separately.

2.4.1 Style All Hosted Fields

To style all the Hosted Fields at once, create a class named 'hostedfield' in your internal/external style sheet as per the following example:

```
<style>

    .hostedfield {
        color: red;
        text-align: left;
        border: solid;
        padding: 10px;
    }

</style>
```

2.4.2 Style A Hosted Field Individually

To style a Hosted Field individually, first give the HTML input an ID:

```
<input type="hostedfield:cardNumber" id="form1-card-number" />
```

Then, in your style sheet, target the ID name appended with -hostedfield. For example, if your ID is named 'form1-card-number' as it is above, the CSS would be:

```
<style>

    #form1-card-number-hostedfield {
        color: blue;
        text-align: right;
        padding: 10px;
    }

</style>
```

2.5 Gateway Response

After submitting the payment form, a payment token is generated and returned to the form in POST along with any other fields sent in the initial request. This token is used to submit the payment to the Gateway via our Direct Integration.

These payment tokens are time sensitive and only last 30 minutes before expiring. If they are submitted after they have expired or if an invalid token is used, a **response code of 66479** will be returned from the Gateway.

Field Name	Description
`paymentToken`	This is a base64 encoded string containing information for the payment token. This is passed to the Gateway omitting the need to store sensitive data on the Merchant website.

2.6 Processing A Payment

To process a payment, the payment token from the initial response is submitted to the Gateway via our Direct Integration.

A simple example of a request to the Gateway would include the following fields POST to https://gateway.breathepay.co.uk/direct/.

Field Name	Mandatory?	Description
`merchantID`	Yes	Your Gateway Merchant ID.
`signature`	Yes	A hash used to sign the request using the signature key set on the Merchant Account.
`action`	Yes	The action requested. Possible values are: **PREAUTH, SALE, REFUND, REFUND_SALE, VERIFY.**
`amount`	Yes	The amount of the transaction in minor currency. For the UK, this is pence, so £10.99 should be sent as 1099. **Numeric values only – no decimal points or currency symbols.**
`type`	Yes	The type of transaction. Refer to section **Error! Reference source not found.** for details. Possible values are: **1** – E-commerce (ECOM) **2** - Mail Order/Telephone Order (MOTO). **9** – Continuous Authority (CA).
`countryCode`	Yes	Merchant's location. **Valid ISO-3166 alpha or numeric code.**
`currencyCode`	Yes	Transaction currency. **Valid ISO-4217 alpha or numeric code.**
`paymentToken`	Yes	The paymentToken generated from the Gateway response outlined in section 2.5.

The Gateway will respond with a string containing the fields included in the request along with the result of the transaction. This is a simple request and more information regarding the Gateway request and response fields can be found in the Direct Integration Guide.

3 Sample Integration

Please contact support for example code for the Hosted Fields integration.