

# BrainTree

A **PayPal** Company

## App for osCommerce Online Merchant v2.3

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## Introduction

This document can be found online at:

<https://library.oscommerce.com/Package&en&braintree&oscom23&introduction>

The Braintree App is bundled with osCommerce Online Merchant v2.3.5 onwards and can be downloaded separately to install on existing or earlier installations.

## Braintree App

The Braintree App for osCommerce Online Merchant includes the following modules:

- Braintree card payments
- Checkout with PayPal
- Customer account cards management page

All osCommerce Online Merchant versions up to and including v2.3.4 require changes to be performed to the shop installation for advanced App features. Please review the Legacy Changes page for further information to decide if they should be applied. *(These changes are included in v2.3.5)*

## Features

The Braintree App supports the following features:

### Hosted Fields and Drop-In

Two forms of payment entry methods are available to choose from.

### Checkout with PayPal

It's possible to link your PayPal account to your Braintree account and show a "Checkout with PayPal" button on the shopping cart page.

### Stored Card Tokens

Payment cards can be stored securely at Braintree and are linked to customer accounts. Customers can then choose their stored payment card for their next purchase without having to re-enter the card information.

### 3D Secure

Payment cards can be additionally processed through 3D Secure for extra protection against fraudulent payments.

### **One-Click Online Updates**

New App versions are automatically checked every 24 hours and updates can be performed automatically.

### **Admin Order Transactions**

- Capture full or partial authorizations
- Refund full or partial payments
- Cancel authorizations

### **Configuration Migration**

The module parameter configuration values of earlier module installations are automatically migrated to the App configuration parameters.

## **Minimum Requirements**

### **osCommerce Online Merchant Version**

The Braintree App can be used from osCommerce Online Merchant v2.2RC2a (2008) onwards, and is optimized for and bundled with v2.3.5.

### **PHP Version**

The Braintree App requires a minimum PHP version of 5.4.0 with the following extensions: xmlwriter, openssl, dom, hash, curl.

### **One-Click Online Updates**

Automatic One-Click Online Updates requires the Zip extension in PHP.

### **Admin Order Transactions**

Admin Order Transactions requires a new Administration Tool Orders page that is included in the App download package. This updates the layout of the admin orders page to a tabbed layout introduced in osCommerce Online Merchant v2.3.5.

Compatible versions are available in the App download package from v2.2RC2a to v2.3.4.

### **Customer Account Cards Management Page**

The Customer Account Cards Management Page requires the Content Modules feature introduced in osCommerce Online Merchant v2.3.4.

### **jQuery and jQuery UI**

The App automatically and securely loads the jQuery (v1.11.1) and jQuery UI (v1.10.4) libraries from Google CDN if they are not already available in the Administration Tool template. A minimum version of jQuery v1.5.0 is required for the App to function properly.



## Manage Credentials Braintree -> Credentials

The Braintree merchant account credentials can be manually entered on this page. Both sets of live account credentials and sandbox account credentials can be saved.

The merchant account credentials consists of:

- Merchant ID
- Public Key
- Private Key
- Merchant Currency Accounts

The merchant account credentials are used to securely communicate with Braintree and perform transactions with.

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Administration | Online Catalog | Support Site Logged in as: haraldpdl (Logout)

**Braintree**  
A PayPal Company

Braintree App v2.000 [Info/Help](#) [Privacy](#)

**Live Credentials**

**Merchant ID**

**Public Key**

**Private Key**

**Merchant Currency Accounts**

**USD (default)**

**EUR**

**GBP**

**Sandbox Credentials**

**Merchant ID**

**Public Key**

**Private Key**

**Merchant Currency Accounts**

**USD (default)**

**EUR**

**GBP**

[Save](#)

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*Managing the Braintree account merchant credentials*

## Merchant ID, Public Key, and Private Key

The Merchant ID, Public Key, and Private Key credentials can be found on the **Braintree -> Account -> My User -> API Keys, Tokenization Keys, Encryption Keys** page. This can be accessed by using the **View Authorizations** button as shown below.

The screenshot shows the Braintree 'Edit User' interface. On the left is a dark sidebar with navigation links. The main content area is titled 'Edit User' and contains several sections: 'User Details' with fields for Name, Email, and Phone; 'Log in with Paypal' with an 'Enable' button; 'Change Password' with fields for Current and New Password; and 'Two-Factor Authentication' with a 'Disable' button. A red rectangular box highlights a section titled 'API Keys, Tokenization Keys, Encryption Keys', which contains a green 'View Authorizations' button. Below this is a 'Notifications' section with checkboxes for email alerts and a 'Save' button. The footer shows the copyright notice: '©2009-2016 Braintree, a division of PayPal, Inc. All rights reserved.'

*The API Keys, Tokenization Keys, Encryption Keys button can be found on the Braintree -> Account -> My User page*

The Merchant ID, Public Key, and Private Key credentials can be viewed by using the **View** link as shown below.

The screenshot shows the Braintree Authorizations page. The left sidebar contains navigation links for Dashboard, Advanced Search, Transactions, Verifications, Vault, Subscriptions, and various transaction-related actions. The main content area is titled 'Authorizations' and includes a sub-header 'API Keys' with a note 'Server use only, should not be shared.' Below this is a table with columns: Public Key, Private Key, Last Used On, and Actions. The Private Key column contains a 'View' link, which is highlighted with an orange box. Below the table is a 'Generate New API Key' button. The next section is 'Tokenization Keys' with a note 'For use in x-zero client SDKs' and a table with columns: Key, Label, Last Used On, Status, and Actions. Below this is a 'Generate New Tokenization Key' button. The final section is 'Client-Side Encryption Keys' with a note 'For use in client SDKs prior to x-zero' and a form with fields for Environment (production), Merchant ID, and CSE Key. Each field has a 'View' link next to it. The footer of the page states '©2009-2016 Braintree, a division of PayPal, Inc. All rights reserved.'

*The Merchant ID, Public Key, and Private Key credentials can be viewed by using the View link*

The Merchant ID, Public Key, and Private Key credentials are displayed as shown below. Please copy the corresponding values to the appropriate fields in the Braintree App Credentials page.

The screenshot shows the Braintree Client Library Key page. The left sidebar is identical to the previous screenshot. The main content area is titled 'Client Library Key' and contains a table with columns: Public Key, Private Key, Environment, and Merchant ID. The table has one row with values: [Public Key], [Private Key], production, and [Merchant ID]. This row is highlighted with an orange box. Below the table is a 'Delete API Key' button. The footer of the page states '©2009-2016 Braintree, a division of PayPal, Inc. All rights reserved.'

*The Merchant ID, Public Key, and Private Key credentials are displayed*

## Merchant Currency Accounts

Each currency in osCommerce Online Merchant needs its own Braintree merchant account assigned to process transactions in. The default currency is required to be

assigned a Braintree merchant account at the minimum. Transactions performed in currencies without a Braintree merchant account will fall back to using the Braintree merchant account of the default currency. In this scenario, a notice is displayed to the customer on the checkout confirmation page with the order total and currency the order will be processed with.

Merchant Currency Accounts can be found on the **Braintree -> Settings -> Processing** page as shown below. Please copy the corresponding values to the appropriate fields in the Braintree App Credentials page.

The screenshot shows the Braintree merchant dashboard with the 'Processing Options' page selected. The left sidebar contains a navigation menu with categories like Dashboard, Transactions, Verifications, Vault, Subscriptions, and more. The main content area is titled 'Processing Options' and includes a note that changes may take up to a minute to take effect. The settings are organized into several sections, each with an 'Enable' button and an 'Edit' button. The sections include: Duplicate Transaction Checking (enabled), Accept PayPal (enable as a payment method), Accept Venmo (One Touch™ for Venmo), Accept Apple Pay (enable users to pay with Touch ID), Accept Android Pay (allow users to pay with Android Pay), Basic Credit Card Fraud Tools (AVS and CVV rules), Risk Thresholds, Advanced Credit Card Fraud Tools (for API keys), Card Verification, Card Verification - Retry All Failed \$0, Display Additional Processor Response, and Dispute Notifications.

**Braintree**  
+ PayPal

Settings Documents Help Account Search

### Processing Options

Note that changes to these options may not take effect for up to a minute.

#### Duplicate Transaction Checking

Duplicate transaction checking is enabled  
Transactions will be rejected if another successful transaction has been created with the same payment method, order id and amount within the last 30 seconds.

Edit Disable

#### Accept PayPal

Enable PayPal as a payment method

Edit

#### Accept Venmo

One Touch™ for Venmo allows users to import payment methods from the Venmo app on iOS and Android.

Enable

#### Accept Apple Pay

Enable users to pay with Touch ID within iOS apps and Safari.

Enable

#### Accept Android Pay

Allow users to pay with Android Pay in Android apps.

Enable

#### Basic Credit Card Fraud Tools

##### AVS

No AVS Rules Configured

Edit

##### CVV

No CVV Rules Configured

Edit

#### Risk Thresholds

No Risk Thresholds Configured

Edit

#### Advanced Credit Card Fraud Tools

For merchants using API keys only. Identify transactions at higher risk for chargebacks. To use these tools on credit card transactions, 1) [implement device data](#) and 2) click **Enable** below.

Enable

Show Risk Data

#### Card Verification

If enabled, the gateway will verify that credit cards are valid and pass configured AVS/CVV rules before they are stored in the vault. Cards that are not valid will not be stored in the vault. The gateway verifies cards by running a \$0 or \$1 transaction and then automatically voids it. You can also choose to verify cards on an individual basis if you prefer.

Enable

#### Card Verification - Retry All Failed \$0

If enabled, a failed \$0 authorization will always be retried as a \$1 authorization regardless of the processor response. If disabled, a failed \$0 authorization will only be retried as a \$1 authorization for the following processor responses: 2015 (Transaction Not Allowed), 2019 (Invalid Transaction), 2023 (Processor Does Not Support This Feature), 2027 (Set Up Error - Amount), 2048 (Invalid Amount)

Enable

#### Display Additional Processor Response

If enabled and the processor declines the transaction, the processor's raw response will be displayed in the Control Panel. Regardless of whether you enable this feature in the Control Panel, the API will always return the Additional Processor Response on the transaction object.

Enable

#### Dispute Notifications

You may receive email notifications as soon as a new dispute is received, a batch of notifications once per day, or not at all.

Edit

#### Transaction Issue Notifications

View and change who receives notifications about transaction issues.

Edit

#### Custom Fields

Fields:

New

#### Email Receipts

In order for Braintree to send emails on your behalf we must verify that your DNS records are configured correctly. Please follow these [instructions](#) and contact Braintree support to verify. Phone: 877.434.2894  
Email: [support@braintreepayments.com](mailto:support@braintreepayments.com)

Edit

#### Recurring Billing

If the transaction for a prorated amount fails, **don't update the subscription or the balance.**






After a subscription is past due, retry the subscription after **10 days**

If above retry fails, try again after **10 days**

If above retries have failed, **Continue retrying the subscription**

Edit

#### Merchant Accounts

Merchant Account ID	Currency	Accepted Payment Methods
(default)	EUR	    

#### Time Zone

Bern

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*The Merchant Currency Accounts are displayed*





## Configuration Braintree -> Configuration

The Braintree App and payment methods can be configured on this page.

### Credit Cards

Parameter	Description	Default
Status	Set this to <i>Live</i> to process transactions using the Live Credentials, or to <i>Sandbox</i> for the Sandbox Credentials. <i>Disabled</i> disables this as a payment method.	<i>Live</i>
Entry Form	Select which method should be used to accept payment card information.	<i>Hosted Fields</i>
Payment Types	Select which additional payment types should be made available.	
PayPal Button Color	Select which color the Checkout with PayPal button should be displayed in.	<i>Gold</i>
PayPal Button Size	Select the size of the Checkout with PayPal button.	<i>Small</i>
PayPal Button Shape	Select the shape of the Checkout with PayPal button.	<i>Pill</i>
Create Tokens	Choose whether customers should be able to securely store their payment card details. Cards are always stored with <i>Always</i> and customers can decide themselves during the checkout procedure with <i>Optional</i> .	<i>Disabled</i>
Verify CVV	Choose whether all payment cards (including stored cards) or just new payment cards should be processed with the CVV Security Code.	<i>All Cards</i>
3D Secure		<i>Disabled</i>

Parameter	Description	Default
	Choose whether all payment cards (including stored cards) or just new payment cards should be processed with 3D Secure.	
Transaction Method	<p>The transaction method to use for payments.</p> <p>The <i>Authorize</i> method only authorizes the transaction which can be captured at a later time.</p> <p>The <i>Payment</i> method instantly captures the funds from the customers paying account.</p>	<i>Payment</i>
Order Status	Set the status of orders made with this payment method to this order status level.	<i>Default Order Status</i>
Payment Zone	If set, this payment method will only be available to orders made within the defined zone.	

## General

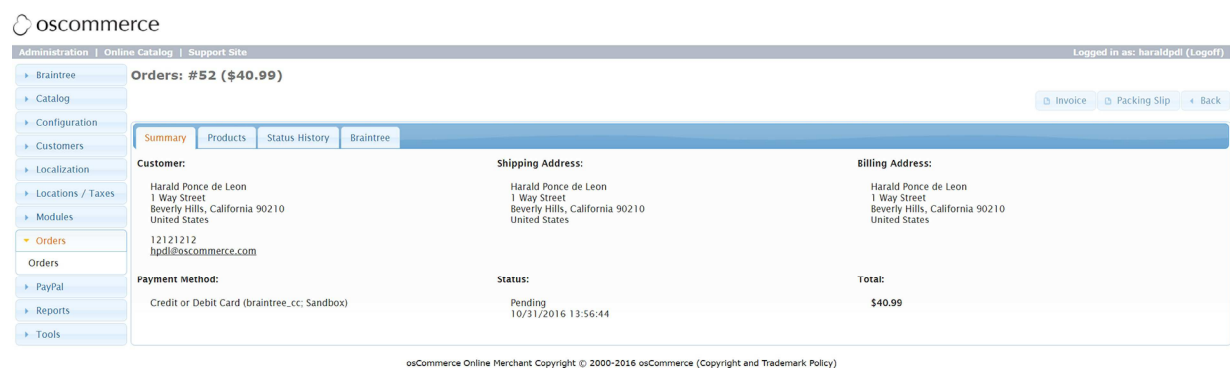
Parameter	Description	Default
Transactions Order Status	Transaction results will be stored at this order status level. Only private order status levels are shown to select from.	<i>Braintree [Transactions]</i>
Verify SSL	Set this to <i>True</i> to verify the SSL Certificate when communicating with HTTPS servers. This is always on for Braintree transactions and only affects communications with the osCommerce website (for App updates).	<i>True</i>
SSL Version	<p>Use the default cURL configured SSL version connection setting when making API calls to Braintree or force TLS v1.2 connections.</p> <p>A connection test can be performed using the <b>Test Connection</b> button to open a dialog window showing the results of the default configured SSL version and forced TLS v1.2 connections.</p>	<i>Default</i>

Parameter	Description	Default
Proxy	A proxy address and port can be entered to pass API transactions through.	

## Order Administration

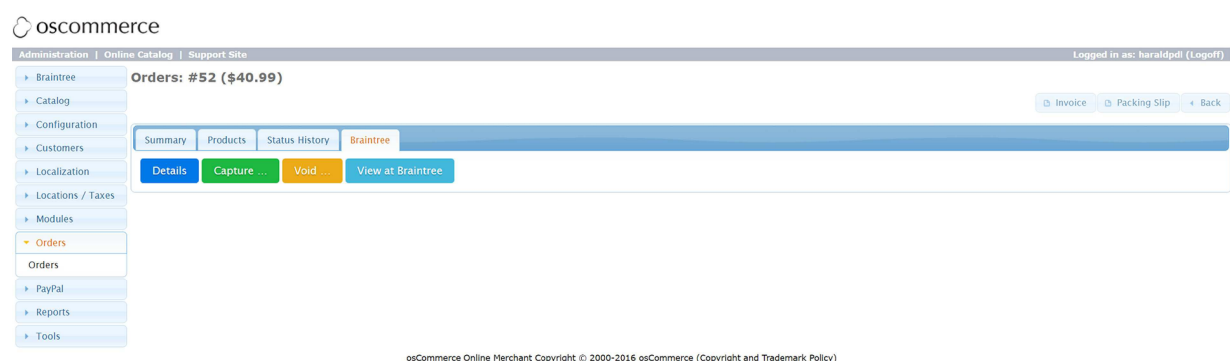
The redesigned order management page displays the order information in a tabbed interface. This allows the interface to be extended by the Braintree App with a new *Braintree* tab shown for orders that have been processed through Braintree. This adds the following functionality to the order management page:

- Full or partial capture of authorized transactions
- Full or partial refunds of captured transactions
- Cancelling authorized transactions
- Retrieving the current status of the transaction



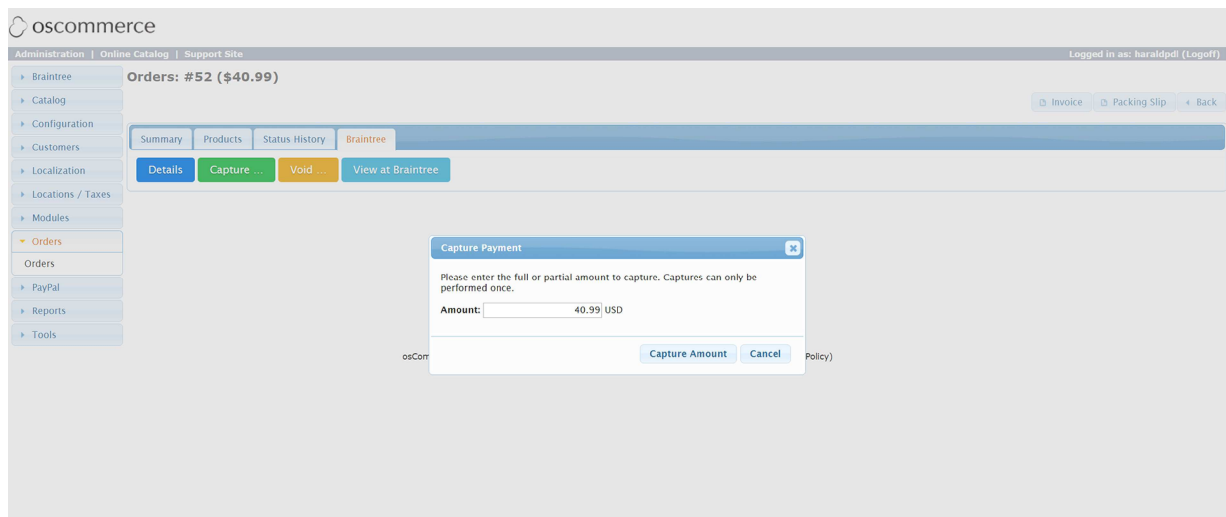
*The redesigned order administration page with a tabbed interface*

The Braintree tab displays additional action buttons depending on the current state of the order.



*Additional order action buttons in the Braintree tab*

Capturing authorized transactions can occur with a full or partial amount. Capturing an amount can only occur once per authorized transaction.



### *Capturing a transaction in full or partially*

As soon as an order administration action is performed, the order information page is reloaded with a status notification of the action being shown at the top of the page and for successful actions, additional transactional information is stored as an order status comment.

**The Braintree transaction has been successfully captured.**

Date Added	Status	Comments	Customer Notified
11/02/2016 06:08:57	Braintree [Transactions]	Braintree App: Settled (40.99) Transaction ID: [redacted] Payment Status: settled Status History: [2016-10-31 13:56:45 CET] authorized 40.99 USD [2016-11-02 06:08:56 CET] submitted_for_settlement 40.99 USD [2016-11-02 06:08:58 CET] settled 40.99 USD	✗
11/02/2016 06:08:55	Braintree [Transactions]	Braintree App: Capture (40.99) Transaction ID: [redacted] Payment Status: submitted_for_settlement Status History: [2016-10-31 13:56:45 CET] authorized 40.99 USD [2016-11-02 06:08:56 CET] submitted_for_settlement 40.99 USD	✗
10/31/2016 13:56:45	Braintree [Transactions]	Transaction ID: [redacted] Payment Status: authorized Payment Type: credit_card Server: sandbox	✗
10/31/2016 13:56:44	Pending		✓

### *Performing a full capture on an authorized transaction*

The Braintree App detects that the current status of the order has changed and now displays a refund button to be able to refund captured authorizations.

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Administration | Online Catalog | Support Site

Logged in as: haraldpdi (Logout)

» Braintree

» Catalog

» Configuration

» Customers

» Localization

» Locations / Taxes

» Modules

» Orders

» PayPal

» Reports

» Tools

Orders: #52 (\$40.99)

Invoice

Packing Slip

Back

Summary

Products

Status History

Braintree

Details

Refund ...

View at Braintree

Refund Payment

Please enter the full or partial amount to refund. Leaving the amount empty will perform a full refund.

Refund: 40.99 USD

Refund Payment

Cancel

osCommerce

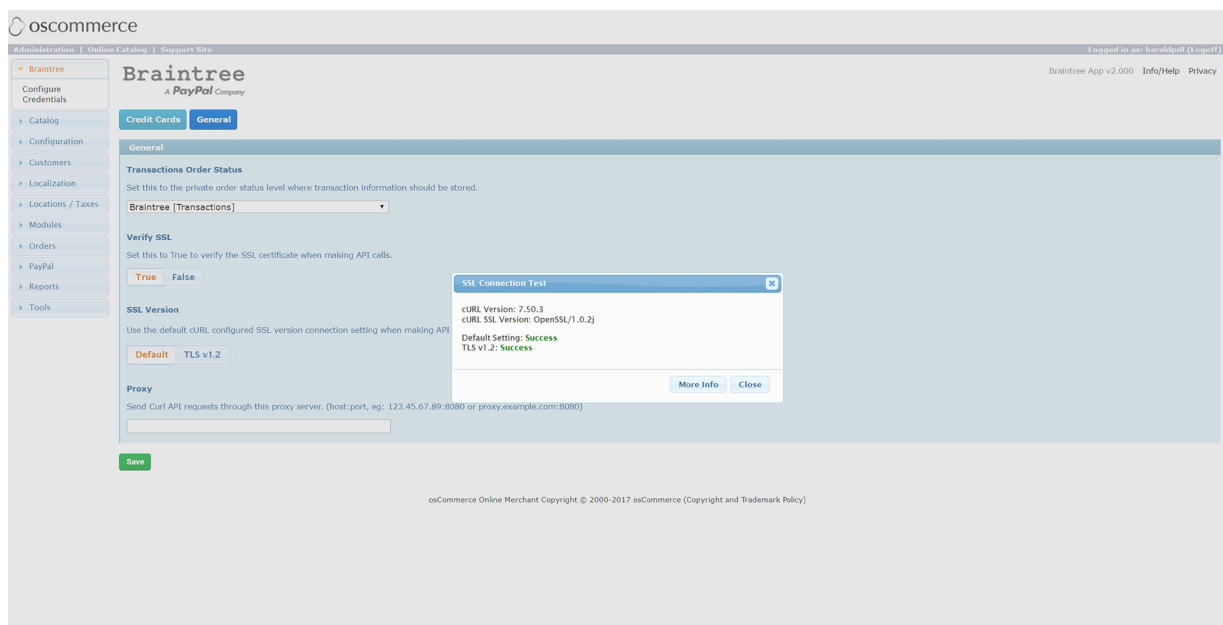
Policy)

*Refunding a previously captured transaction*

## TLS v1.2 Connections cURL SSL Version

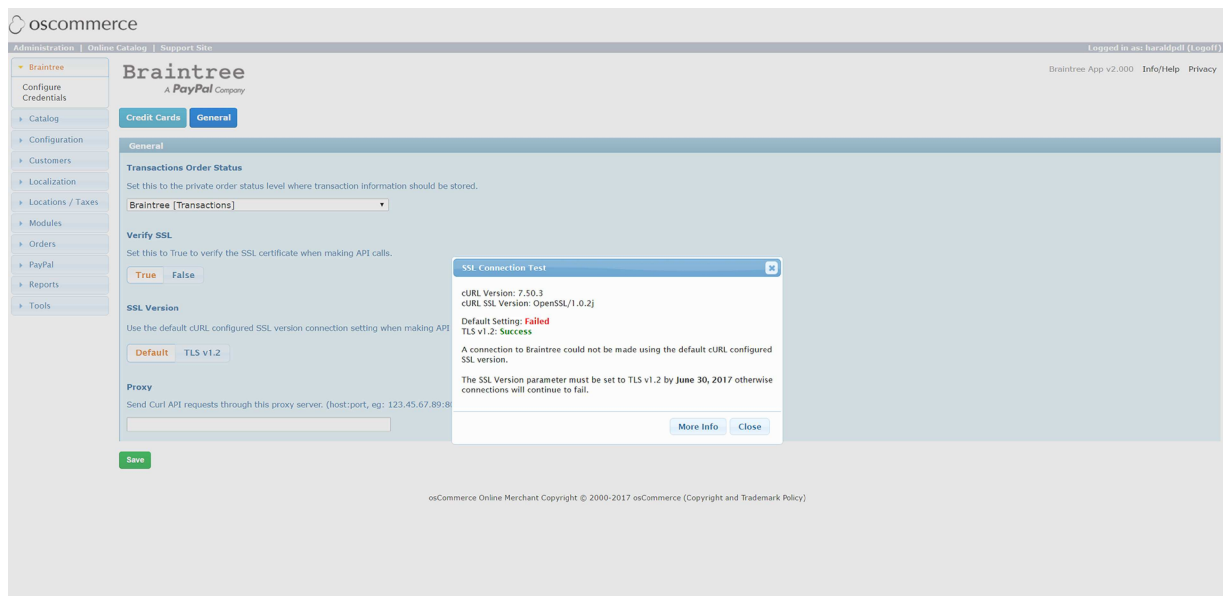
The Payment Card Industry Security Standards Council (PCI SSC) has mandated that from June 30, 2018 secure communication channels between two systems must be performed with a secure version of the Transport Layer Security (TLS) cryptographic protocol (currently v1.1 or higher). As a leader in Financial Technology, PayPal has elected to move forward with upgrading their systems prior to the PCI Council recommended date and are requiring all merchant API communications with Braintree to be performed with **TLS v1.2** from **June 30, 2017**, discontinuing support for TLS v1.0 and v1.1.

Checking to see if the PayPal App can perform TLS v1.2 connections on your web server can be performed on the **Configure** → **General** page using the **Test Connection** button shown in the SSL Version parameter configuration. This opens a dialog window showing the result of the connection test using the default SSL version configured with PHP/cURL and with a forced connection using TLS v1.2.



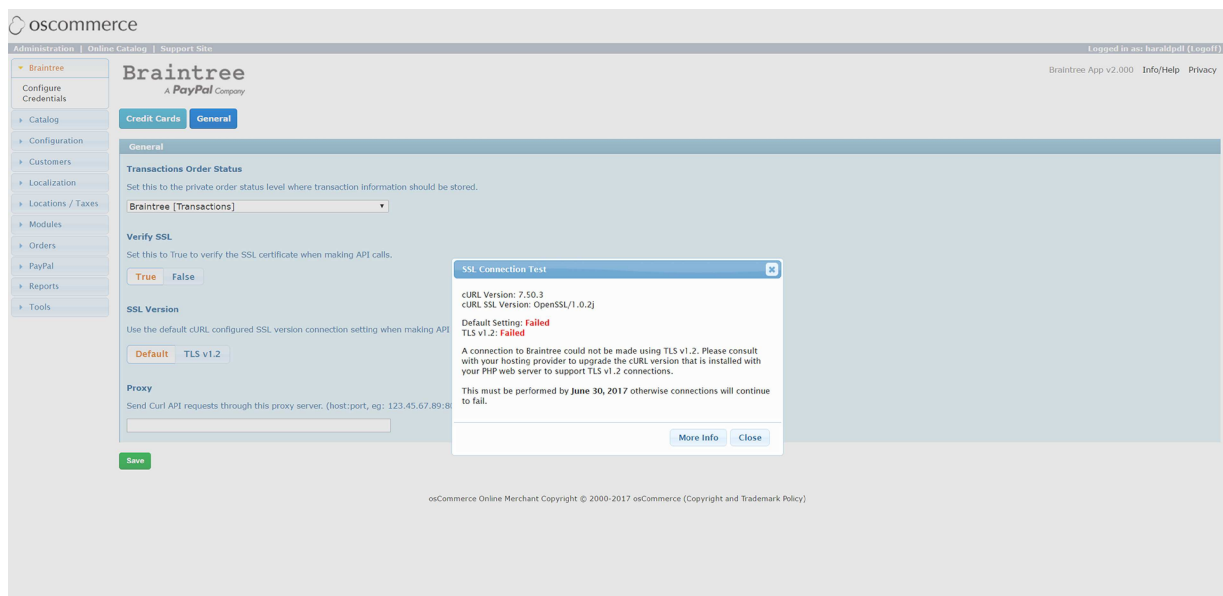
*The Test Connection dialog showing successful connections for the default PHP/cURL configuration and forced TLS v1.2 connections*

If the default setting is successful, it is generally safe to leave the SSL Version configuration parameter set to *Default*. This ensures that a connection to Braintree can be performed using at least TLS v1.2 or higher cryptographic protocol version.



*The Test Connection dialog showing a failed connection test using the default PHP/cURL configuration*

If a connection using the default PHP/cURL configuration fails, setting the SSL Version configuration parameter to *TLS v1.2* is required if the test connection using TLS v1.2 is successful. This overrides the default configuration of PHP/cURL on your web server and ensures that a connection to Braintree can be performed using the TLS v1.2 cryptographic protocol version.



*The Test Connection dialog showing a failed connection test using the default PHP/cURL configuration and a forced TLS v1.2 connection*

If both test connections fail, please consult with your hosting provider to upgrade the cURL version that is installed with your PHP web server to support TLS v1.2 connections. If this is not performed by June 30, 2017, connections to Braintree will fail and orders will no longer be able to be processed using Braintree as a payment method.





## Installation

The Braintree App is bundled with osCommerce Online Merchant v2.3.5 onwards and can be downloaded separately to install on existing or earlier installations. The App is compatible with and can be installed from osCommerce Online Merchant v2.2RC2a onwards.

Usage of advanced features of the App require additional changes to be applied to existing installations. Please review the Legacy Changes section below.

## Download

The full Braintree App download package is available at:

<http://addons.oscommerce.com/info/9524>

After extracting the App package, copy the files located in the *catalog* directory to your osCommerce Online Merchant installation directory on the server. The files must be copied in the correct directory structure as extracted from the App package.

Please do not copy the *docs* directory to your webserver as this directory contains PHP files that should not be publicly accessible.

## Legacy Changes

Existing osCommerce Online Merchant installations up to and including v2.3.4 require the following code changes to be performed:

1. Administration Tool App Setup
2. Hooks for the Administration Tool and Catalog
3. Administration Tool Order Administration Page
4. Public CA Certificate Bundle

Only the changes in (1) are required to add the Braintree App links to the Administration Tool. Changes (2), (3), and (4) are optional and are needed if transaction management is to be added to the Administration Tool Orders

management page (this requires a new order management page which may overwrite installed Add-Ons).

The versions described below are inclusive of the version stated (eg, v2.3.3.2 affects all versions up to and including v2.3.3.2).

## 1. Administration Tool App Setup

osCommerce Online Merchant up to v2.3.3.2 (5-Sept-2013)

In catalog/admin/includes/column\_left.php, add the following to the collection of existing boxes being included:

```
include(DIR_WS_BOXES . 'braintree.php');
```

osCommerce Online Merchant up to v2.2 RC2a (30-Jan-2008)

Copy (and overwrite) the following files from:

```
docs/legacy/v22rc2a/admin/includes/boxes/braintree.php  
docs/legacy/v22rc2a/admin/includes/modules/index/braintree_app.php  
docs/legacy/v22rc2a/admin/includes/template_top.php  
docs/legacy/v22rc2a/admin/includes/template_bottom.php
```

to:

```
catalog/admin/includes/boxes/braintree.php  
catalog/admin/includes/modules/index/braintree_app.php  
catalog/admin/includes/template_top.php  
catalog/admin/includes/template_bottom.php
```

## 2. Hooks for the Administration Tool and Catalog

osCommerce Online Merchant up to v2.3.4 (5-June-2014)

Copy the following file from:

```
docs/legacy/v234/includes/classes/hooks.php
```

to:

```
catalog/includes/classes/hooks.php
```

In the following file:

```
catalog/includes/application_top.php
```

add to the bottom (before ?>):

```
require(DIR_FS_CATALOG . 'includes/classes/hooks.php');  
$OSCOM_Hooks = new hooks('shop');
```

In the following file:

```
catalog/admin/includes/application_top.php
```

add to the bottom (before ?>):

```
require(DIR_FS_CATALOG . 'includes/classes/hooks.php');  
$OSCOM_Hooks = new hooks('admin');
```

### 3. Administration Tool Order Administration Page

osCommerce Online Merchant up to v2.3.4 (5-June-2014)

Copy (and overwrite) the following file from:

```
docs/legacy/v234/admin/includes/classes/order.php
```

to:

```
catalog/admin/includes/classes/order.php
```

Copy (and overwrite) the following file from:

```
docs/legacy/v234/admin/orders.php
```

to:

```
catalog/admin/orders.php
```

In all catalog/admin/includes/languages/LANGUAGE/orders.php language files, add the following language definition:

```
define('ENTRY_ADD_COMMENT', 'Add Comment:');
```

#### 4. Public CA Certificate Bundle

osCommerce Online Merchant up to v2.3.3 (15-August-2012)

Copy the following file from:

```
docs/legacy/v233/includes/cacert.pem
```

to:

```
catalog/includes/cacert.pem
```

### First Run

When the files have been copied to their appropriate locations and the *Legacy Changes* have been performed, a new Braintree navigation menu box will show in the Administration Tool. The first time the App is run, it automatically configures itself and migrates older module configuration parameters to the App parameters, and checks if an online update is available.

### Language Definitions

The core language definitions in English are provided in the App package. Additional languages can be created by basing the language files on the existing English files. Definitions that have not yet been translated will display in English. The language definitions are located in:

```
includes/apps/braintree/languages/
```



## Online Demonstration

A client side online demonstration of the Braintree App is available at:

<https://demo.oscommerce.com>

The Braintree App has been configured with the Sandbox environment and will not process transactions.



## Privacy Policy

### Braintree Modules

Braintree modules send store owner, online store, and customer related information to Braintree to process API transactions. These include the following modules:

- Braintree Credit Cards

The following information is included in API calls sent to Braintree:

- Braintree merchant account information of the seller / store owner.
- Customer shipping and billing addresses.
- The order total and currency.
- E-Commerce solution identification.

### App Updates

The Braintree App for osCommerce Online Merchant automatically checks the osCommerce website for updates that are available to the App. This check is performed once every 24 hours and if an update is available, a notification is shown to allow the App to download and apply the update.

A manual check for available updates is also performed on the Braintree App Info page.

### Google Hosted Libraries (jQuery and jQuery UI)

If jQuery or jQuery UI are not already loaded in the Shop Frontend or Administration Tool, the Braintree App automatically loads the libraries securely through Google Hosted Libraries.



## Changelog

### Braintree App

#### v2.011 05-Mar-2017

- Fix usage of empty() calls that checked on constant values.

#### v2.010 01-Mar-2017

- Add new general App parameter to test and use the default server configured SSL version when performing API requests to Braintrees servers or force TLS v1.2 connections. (TLS v1.2 connections are required from June 30, 2017)
- Update Braintree PHP Client to v3.22.0.

#### v2.000 02-Nov-2016

- Initial public release.

## Legacy Modules

### Braintree.js

#### v1.1 06-Jun-2014

- Added link to online documentation

#### v1.0 05-Jun-2014

- Initial Release