Installation Manual for Opayo OpenCart

This manual describes the installation and usage of the Opayo extension for OpenCart.

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1 Introduction

This manual explains the installation, configuration and usage of the payment module for OpenCart and Opayo.

Before beginning with the installation, please make sure that you are in possession of all necessary data:

- You should have received a vendor name, a user name as well as a password from Opayo for the live and test platform
- OpenCart payment module by sellxed.com/shop
- Access data to your server and shop

In case you don't yet have a contract with Opayo, you can gladly acquire it directly through us.

Note that you must use at least PHP version 5.6 for our plugins. PHP 8 or higher is currently not supported.

1.1 Procedure of the Installation

In this document you will find all important information for the installation of the module. It is important that you strictly follow the checklist. Only by doing so, can a secure usage in correspondence with all security regulations be guaranteed.

1. Configuration of the test administration interface of Opayo. You will find the test platform under https://test.sagepay.com/mysagepay/loginpage.msp
2. Configuration of the basic settings of the payment module
3. Configuration of the payment methods
4. Carrying out of a test purchase by means of the attached test data at the end of this document
5. If the test was successful, you can request the going live of your account by Opayo. With the obtained access data you can log into the live environment. The live environment can be found under the following URL: https://live.sagepay.com/mysagepay/loginpage.msp

Installation Service

Our payment plugins should have per default the correct settings for most of our customers' preferences. That means once you have entered the required credentials in the plugin configuration to connect your account to your website, the plugin should be fully operational. Should you be willing to receive detailed information on a setting you do not know, you may contact our support team who will be able to assist you further.

Our support team is at your disposal during regular business hours at: http://www.sellxed.com/support. Furthermore, you have the option of ordering our installation service. We will make sure the plugin is installed correctly in your shop: http://www.sellxed.com/shop/de/integration-und-installation.html

.htaccess Directory Protection

In order to test the module, any kind of directory protection or IP blocking on your server must be deactivated. This is crucial as otherwise the payment feedback of Opayo might not get through to the shop.

1.2 System Requirements

In general, the plugin has the same system requirements as OpenCart. Below you can find the most important requirements of the plugin:

- PHP Version: 5.4.x or higher
- OpenSSL: Current version with support for TLS 1.2 or higher.
- fsockopen: The PHP function fsockopen must be enabled. The plugin must be able to connect to external systems over the Internet.
- PHP Functions: All common PHP functions must be enabled.

In case you are using OpenCart version 3.0.3.5 or 3.0.3.6, you must patch your store to fix the twig extension error in order for modified templates to be loaded. The following extension can be used to resolve the issue: https://www.opencart.com/index.php?route=marketplace/extension/info&extension_id=40469.

2 Configuration Opayo - Backend

For the configuration log into Opayo in the Administration Tool (MySagePay):

- Test Environment: https://test.sagepay.com/mysagepay/loginpage.msp
- Live Environment: https://live.sagepay.com/mysagepay/loginpage.msp

The settings carried out on the following pages are a precondition for the later configuration of the main module.

2.1 Valid IPs

In order for your shop to be able to access the payment page of SagePay, the IP of your server has to be saved as a valid IP with SagePay.

2.1.1 Identify the IP Address of your Shop

In a first step you must find out the IP address of your shop. We display the IP on the about page of the plugin directly in your store.

Alternatively, request your IP directly with the host of your website.

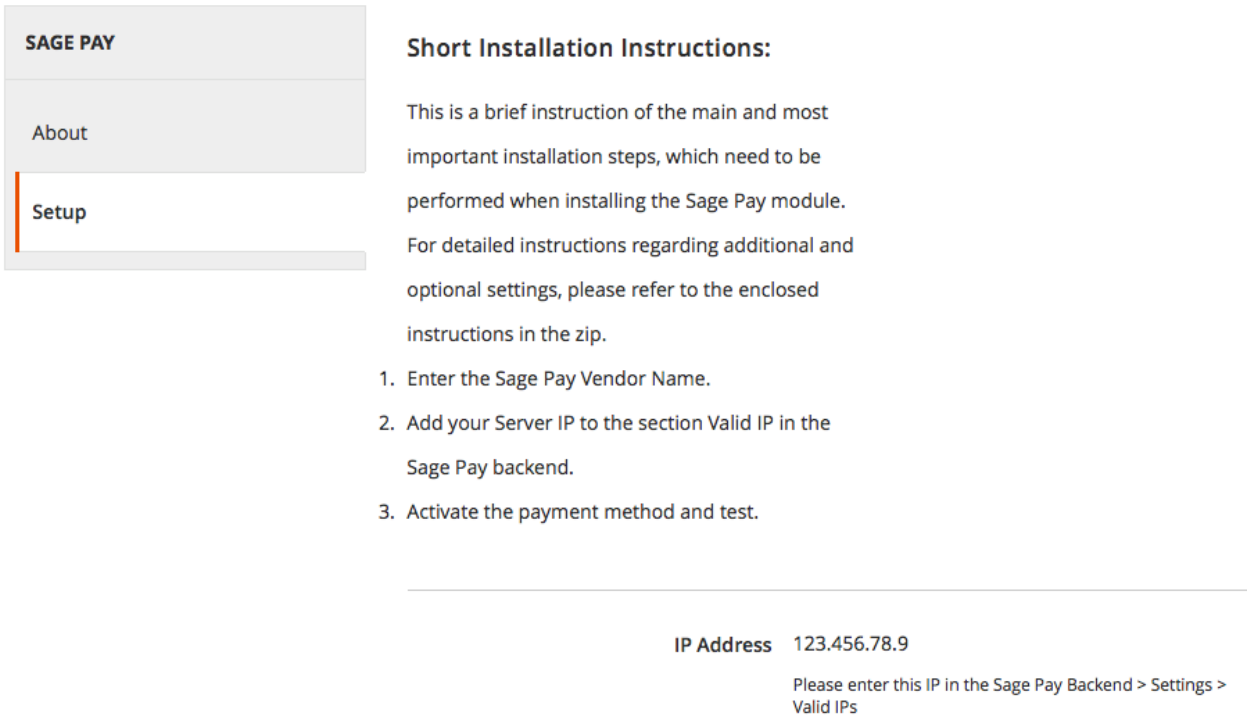

Figure 2.1: You find your IP in the about section of the plugin (here a screenshot inside Magento).

2.1.2 Entering the Valid IP

Click on add and enter the above identified IP address. Enter **255.255.255.000** for the subnet mask.

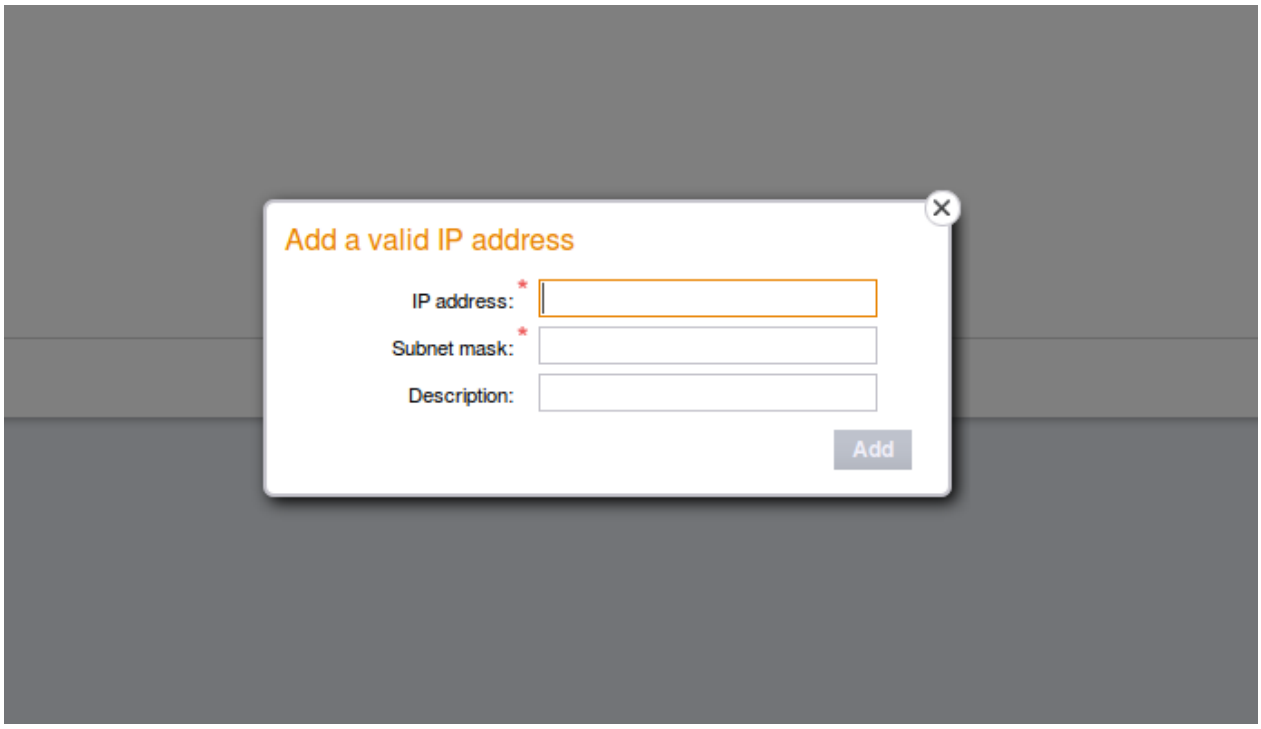

Figure 2.1: Adding an IP

3 Module Installation and Update in the OpenCart Shop

3.1 Installation

At this time you should already be in possession of the module. Should this not be the case, you can download the necessary files in your customer account in the sellxed shop (Menu "My Downloads Downloads"). In order to install the module in your shop, please carry out the following steps:

1. Download the plugin. The download can be found in your sellxed.com account under "My Downloads".
2. Unzip the archive you have just downloaded.
3. In the unzipped folder navigate to the folder "files"
4. For some shops there are different versions of the plugin provided. If this is the case open the folder which corresponds to your shop version.
5. Using your preferred FTP client upload **entire content** of this folder into the root directory of your shop. For some shops there is a specific folder containing the plugins. If that is the case upload the plugin into this folder. Make sure that the folders aren't replaced but merely merged.
6. If you haven't yet done so, log back into your shop.

3.2 Updates and Upgrades

You have direct and unlimited access to updates and upgrades during the duration of your support contract. In order to receive constant information about available updates we ask you to subscribe to our RSS feed that we publish for your module.

More information regarding the subscription of this RSS feed can be found under: http://www.sellxed.com/en/updates_upgrades.

We only recommend an update if something doesn't work in your shop, if you want to use new feature or if there is a necessary security update.

3.2.1 Update Checklist

We ask you to strictly comply with the checklist below when doing an update:

1. Always do a backup for your database and your files in your shop
2. Use always a test system to test the update process.
3. Wait until all the files are copied to the shop, clear the cache if there is one in your shop and then visit the configuration page of the main module so that the update process will be initialized.

> ### Do not do updates directly in the live environment
>
> Please test the update procedure first in your test shop. Our support team is able and willing to help you if you experience problems with the update process. However, if you decide to perform the update directly in your live shop there is the possibility of a downtime of the shop of more than two days depending on the availability of our support if you do not want to book our complementary support.

Depending on the version it could be that the database has to be migrated. We recommend you therefore, to perform the updates in times when the shop is not visited too frequently by your customers.

3.2.2 Update Instructions

Please always read the update instruction. Those instructions can be found in the changelog. If there are no special remarks, you can proceed by just overwriting the files in your system.

4 Module Configuration in the OpenCart Shop

The configuration consists of two steps. The first step is the configuration of the main module with all the basic settings (cf. Configuration of the Main Module). During the second step you can then carry out individual configurations for each payment method . This allows for full flexibility and perfect adaptation to your processes.

Create backups!

Please create a backup of the main directory of your shop. In case of problems you will then always be able to return your shop to its original state.

We furthermore recommend testing the integration on a test system. Complications may arise with third party modules installed by you. In case of questions, our support is gladly at your disposal.

5 OpenCart 3.0 Installation - Additions

In order to guarantee smooth operations and the usage of all features please make sure that you follow the instructions below.

5.1 Configuration of the Main Module

You will find the settings for the main module under **"Extension > Modules > Opayo Base Module"** . Install the module by clicking **Install**.

By clicking **Edit** you can configure the main module. Enter all data in the corresponding fields. Each option is, furthermore, explained in short info texts in the shop.

5.2 Configuration of the Payment Module

After having successfully configured the main module, you can find the settings for the individual payment methods in your shop under **Extensions > Payments** . Each payment method is listed individually. Install the payment methods you wish to offer to your customers. You can carry out individual settings for each payment method and thereby optimally adapt the payment methods to your existing processes. The most central options are described in more detail further below.

By clicking on **Install** the payment method is activated in your shop. Click **Edit** in order to modify the configuration of the payment method.

5.3 Direct Capturing of Transactions

The option "Capture" allows you to specify if you wish to debit payments directly or if you first wish to authorise them and then debit the payment at a later point.

Depending on your acquiring contract, a reservation is only guaranteed for a specific period of time. Should you fail to debit the payment within that period, the authorisation may therefore no longer be guaranteed. Further information on this process can be found below.

> ### Different settings between Opayo and the module
>
> It may be that settings saved in the payment modules overwrite settings saved in Opayo.

5.4 Uncertain Status

You can specifically label orders for which the money is not guaranteed to be received. This allows you to manually control the order before shipment.

5.4.1 Setting the order state

For each payment method you may select in which state the order should be set to depending on the booking state. This is the initial state of the order.

5.5 Optional: Validation

Note: It can be that this option is not visible in your module. In this case just ignore this section.

With the option 'Validation' you can define the moment when the payment method should be made visible to the customer during the checkout process. This setting is relevant for modules where the usage depends on the customer's compliance with specific preconditions. For example, if a solvency check has to be carried out or if the payment method is only available in certain countries. In order for the credit check or address validation to also work with European characters, the charset of the "Blowfish mode" must be set to "UTF-8" for certain PSP settings.

You have the choice between these options:

- **Validation before the selection of the payment method:** A validation verification is carried out before the customer selects the payment method. If the customer does not fulfill the requirements, the payment method is not displayed
- **Validation after selection of the payment method:** The verification of the compliance occurs after the selection of the payment method and before the confirmation of the order
- **During the authorisation:** The validation verification is carried out by Opayo during the authorisation process. The payment method is displayed in any case

6 Settings / Configuration of Payment Methods

6.1 General Information About the Payment Methods

The plugin contains the most common payment methods. In case a desired payment method is not included per default, please contact us directly.

In order to be able to use a payment method, it must be activated in your account with Opayo as well as in your shop. Information about the configuration of the payment methods can be found further above.

Below you can find important information for specific payment methods that deviate from the standard process.

6.2 Information on Payment Status

For each payment method you can define an initial payment status (status for authorized payments etc.). You hereby define the payment status for each state depending on the processing type of the order (captured, authorized, etc.). It's the initial status which the order assumes. Depending on the mutation carried out by you, the status can change.

> Important info regarding Order Status
>
> Never set the status to **Pending Opayo** or any similar pending status which is implemented by the module.

6.2.1 Order status "pending" / imminent payment (or similar)

Orders with the status 'pending Opayo' are pending orders. Orders are set to that status if a customer is redirected in order to pay but hasn't returned successfully or the feedback hasn't reached your shop yet (Customer closed window on the payment page and didn't complete payment). Depending on the payment method these orders will automatically be transformed into cancelled orders and the inventory will be cleared (so long as the Cronjob is activated). How long this takes depends on the characteristics of the payment method and cannot be configured.

If you have a lot of pending orders it usually means that the notifications from your webserver to Opayo are being blocked. In this case check the settings of your firewall and ask the Hoster to activate the IPs and User Agents of Opayo.

6.2.2 Order status "cancelled"

Orders with the status "cancelled" have either been set to that status automatically due to a timeout, as described above, or have been cancelled directly by the customer.

6.3 Opayo Authorization methods

Payment Page (Server) and iFrame (Server with iFrame) are the authorization methods which do not require for your shop a PCI-certificate. Please check our product description page for a real time overview of the payment methods that support the specific authorization method you are interested in. If you are PCI-certified you can feel free to activate and configure the authorization method Server Authorization (Direct). This is an integration which requires a PCI certification. It is therefore crucial that you do not integrate this authorization method if you aren't PCI-certified.

6.3.1 Selection of the Authorisation Method - National Payment Methods

You have the choice between integration via InFrame or via Payment Page. In the case of national payment methods such as ELV, Sofortüberweisung, etc., you must use Payment Page as Authorisation Method.

6.3.2 Fraud Recognition Rules

You have the possibility of filtering orders based on certain criteria and then have the order be labelled by the system. You can select a combination of rules which - if the criteria are fulfilled cumulatively - will lead to the order being moved into a pending status for manual verification.

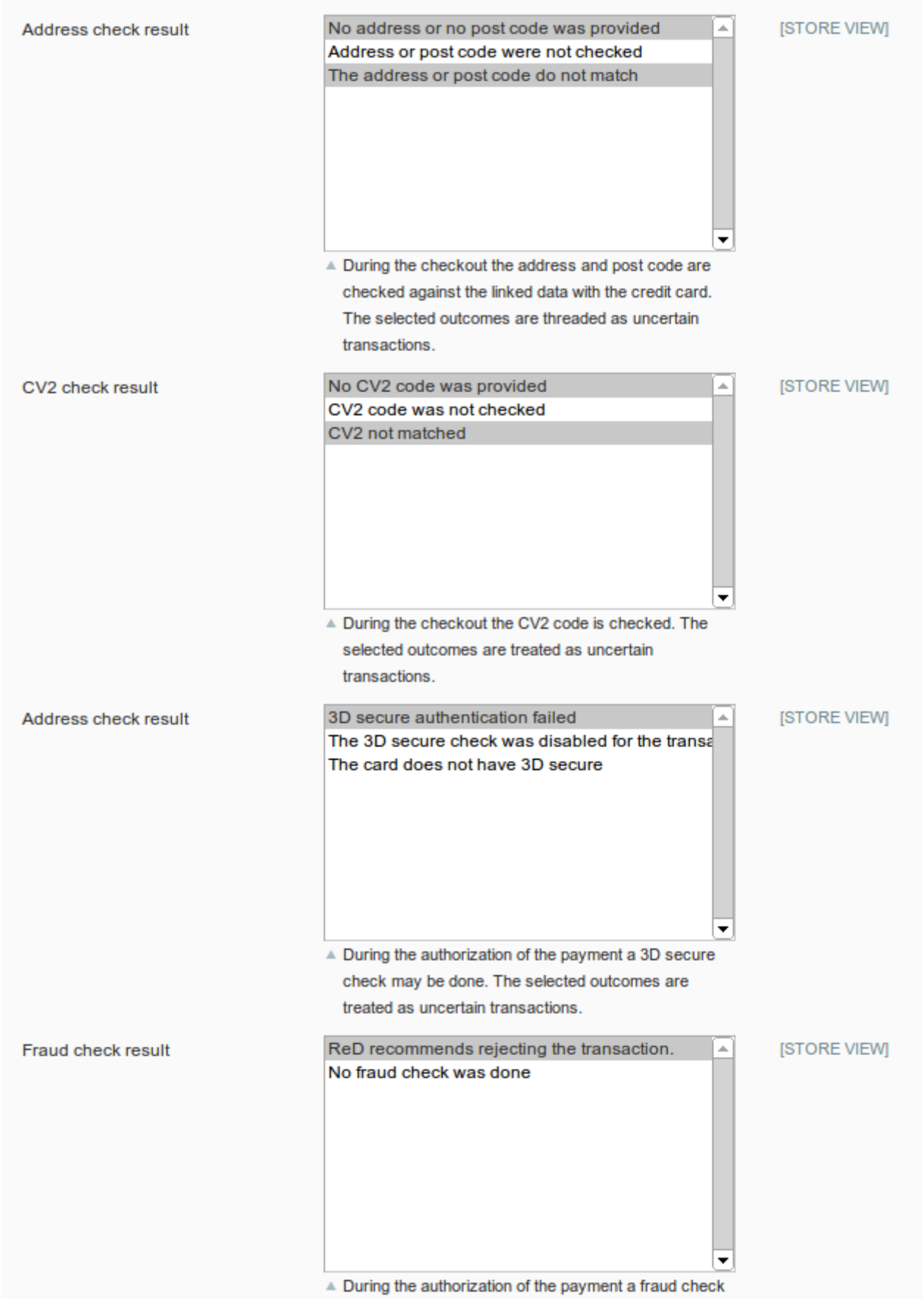

Figure 6.1: Fraud Rules Configuration.

6.4 Opayo PayPal

You have the possibility of processing PayPal via Opayo. In order to do so, the payment method must be activated in your account.

Please follow the instructions of the installation guides of Opayo in order to configure the module. You will find these in the administration interface (MySagePay) under the tab 'Payment Methods'.

7 The Module in Action

Below you will find an overview of the most important features in the daily usage of the Opayo module.

7.1 Useful Transaction Information on the Order

You can find an overview of the transaction information in within the order detail view. Among others, this information allows for the definite attribution of the orders to their corresponding transaction, seen in the backend of Opayo.

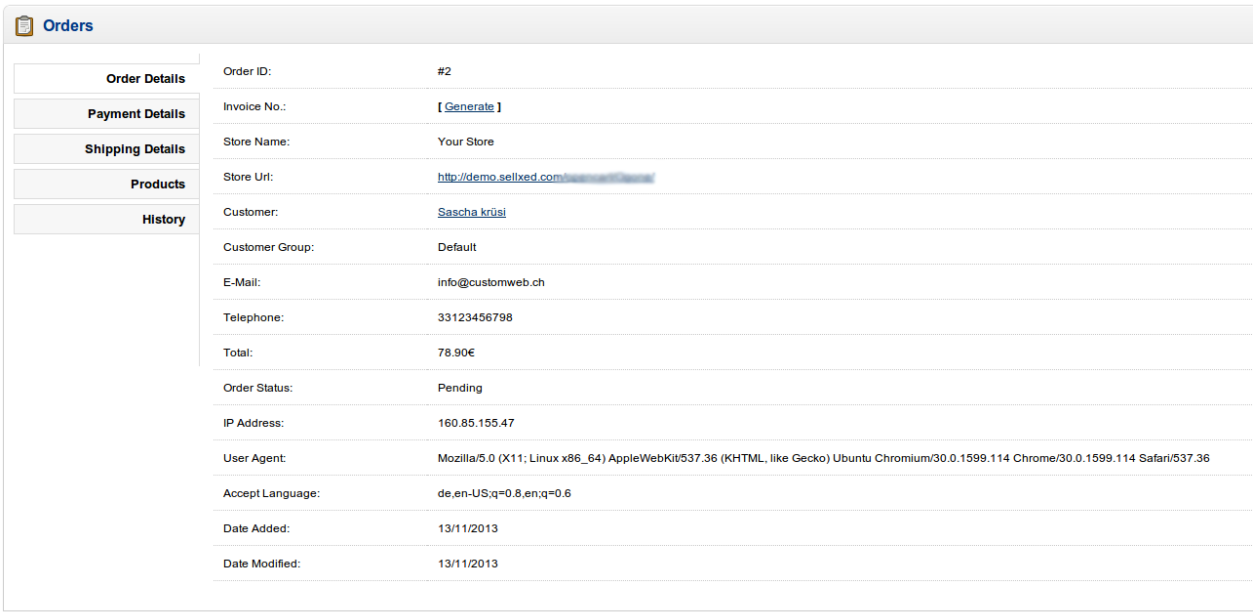

Figure 7.1: Transaction Information in OpenCart.

7.2 Usage of the Alias Managers / Token Solution

With the Alias Manager, your customers can securely save their credit cards with Opayo for later purchases. You can enable this by activating the option "Alias Manager" in the configuration of the Payment Method. The customer can then choose from his or her saved credit cards without having to re-enter all the details.

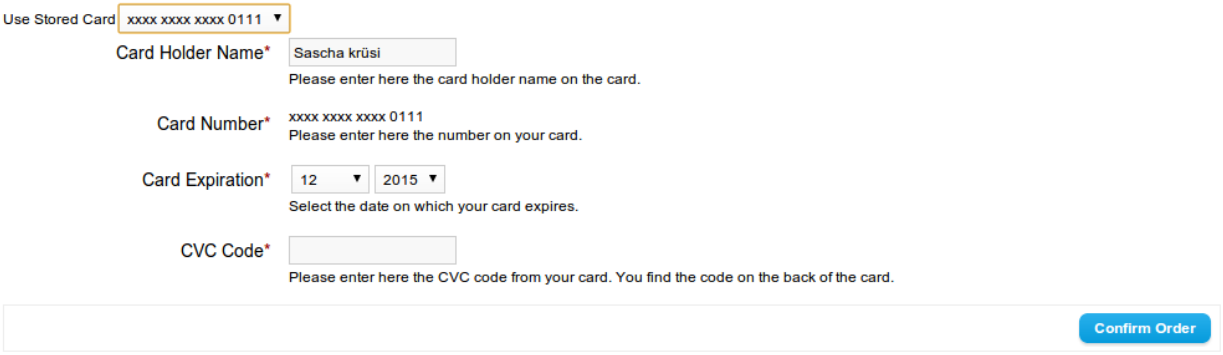

Figure 7.1: Alias Manager

> ### Alias Manager Options
>
> The usage of the Alias Managers requires the activation of the correct option with Opayo. To do so, please contact the support directly.

7.3 Capturing / Cancelling of Orders

7.3.1 Capturing Orders

In order to capture orders, open the transaction manager under Sales > Opayo Transactions. Here you will find an overview of all transactions. Search for the order in the field with the order numbers. By clicking "view" you will open the transaction of the order.

7.3.1.1 Capturing Complete Orders or Partial Capturing

By clicking the button "Capture Transaction" a new window opens up. You can now capture every item individually in case you do not wish to send all items at once. The amount of possible partial captures depends on your contract. Please contact Opayo directly in order to clarify questions.

> ### Capturing of Orders in the backend of Opayo
>
> The transaction management between your shop and Opayo is not synchronised. If you capture payments with Opayo, the status in the shop will not be updated and a second capturing in the shop is not possible.

In case you do not wish to capture all items of an order, you can close the transaction by clicking the box.

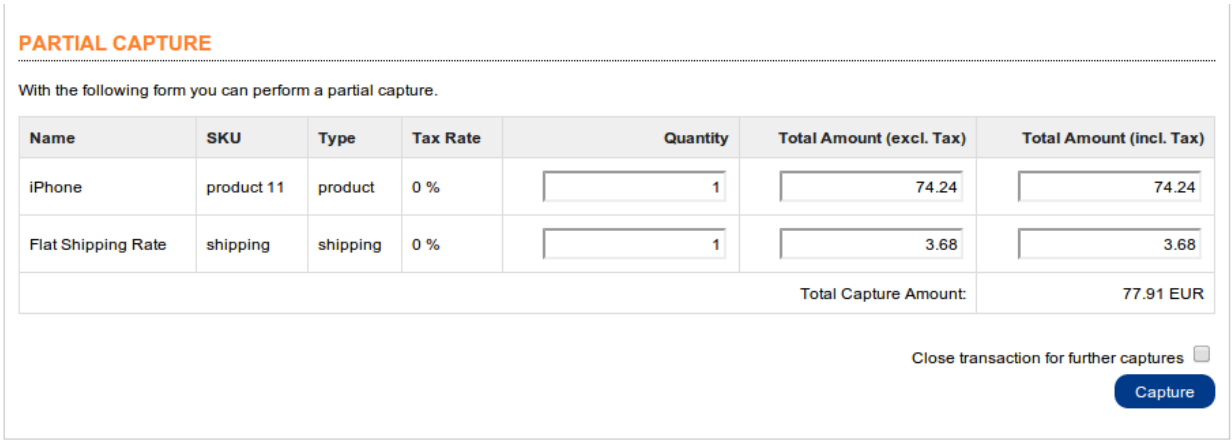

Figure 7.1: Capturing of Orders

> ### Partial Capturing
>
> Please find out if the capturing of partial amounts is supported by your Opayo contract. If this is not the case, it might happen that the transaction is closed for further transactions after a partial capture.

7.3.2 Cancel Orders

By clicking "Cancel Transaction", the transaction is **cancelled** and the reserved amount on your customer's card is released automatically.

Figure 7.1: Capture or Cancel in OpenCart.

7.4 Refunding Orders

In order to refund orders, open the transaction information (cf. above).

You can refund individual items or any amount of your choice by modifying the total amount or the item quantity.

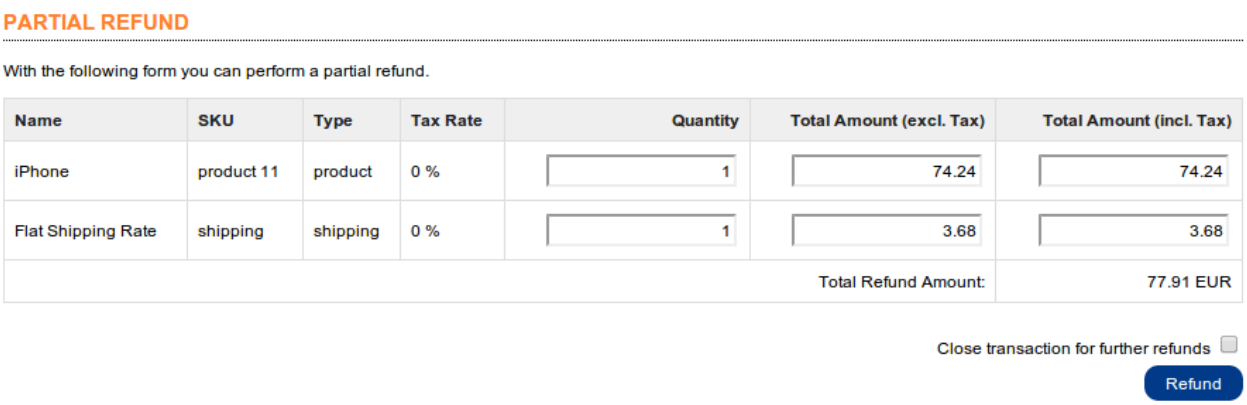

Figure 7.1: Refunds in OpenCart for Opayo.

> ### Maximal Refund
>
> With our module it is not possible to refund more than 100% of the originally authorised amount.

Executing a refund will not change the status of the order.

7.5 Setup a Cron Job to Activate the Timed Operations

To activate the timed operations of the plugin (e.g. update service, deleting pending orders, etc.) make sure that you set up the OpenCart Cron engine. Especially the update function allows you to automatically retrive additional information or changes of your order directly via the API of Opayo. Please note it could be that in order to use the update feature it may be necessary that Opayo activates additional options in your account.

In order to use the timed operations, please schedule a cron job in your server to the following controller:

https://www.your-shop.com/index.php?route=sagepaycw/cron/cron

Here we suggest you use a Cron Engine like for example EasyCron. That way you can This allows you to open the file (URL) with an external service.

8 Testing

Before switching from test to live mode it is important that you test the module extensively.

> **Testing**
>
> Do not forget to switch the operating mode from test to live after having successfully tested the module.

8.1 Test Data

In the following section you can find the test data for the various payment methods:

Credit / Debit Card

Card number	4929 0000 0000 6
Expiry Date	12/2030
CVC	123

Visa

Card number	4929 0000 0000 6
Expiry Date	12/2030
CVC	123

MasterCard

Card number	5404 0000 0000 0001
Expiry Date	12/2030
CVC	123

Debit Visa

Card number	5573 4700 0000 0001
Expiry Date	12/2020
CVC	123

Visa Electron

Card number	4917 3000 0000 0008
Expiry Date	12/2020
CVC	123

9 Errors and their Solutions

You can find detailed information under http://www.sellxed.com/en/faq. Should you not be able to solve your problem with the provided information, please contact us directly under: http://www.sellxed.com/en/support

9.1 The Referrer URL appears in my Analytics Tool

When a customer and the notification are redirected via Header Redirection, the Opayo Referrer URL might appear in your Analytics Tool thus hiding the original traffic source. However, most Analytic Tools are able to minimize this problem.

In case you are using Google Analytics as reporting tool, this step by step guide may help you to exclude the URLs: under bullet point 4.

10 Compatibility with Third-Party Plugins

The plugins listed below are compatible with our payment modules and allow you to handle certain tasks in an easier way.

10.1 Birthday and gender in OpenCart

For certain payment service providers it is necessary to check the birthday and the gender of a customer. OpenCart does not check this by default.

How to enable gender and birthday checks in your shops checkout

1. Add two new custom fields to your checkout via your shops backend under "Customers > Custom Fields"
2. Modify the order context getters to return the value of your custom checkout field from the order / session (or wherever the previous step saves the data).

   Order Context Getters

   - AbstractOrderContext
   - getBillingDateOfBirth()
   - getBillingGender()

   These functions can be found in "system/library/cw/SagePay /AbstractOrderContext.php".

11 Error Logging

The module will log different unexpected errors or information depending on the configured level. If there is any issue with the module, this log can help identify the cause.

11.1 Log Levels

You can configure the log level in the Opayo settings.

- Error: Logs unexpected errors only. (Default)
- Info: Logs extended information.
- Debug: Logs information helpful for debugging.

11.2 Log Location

The log file is stored in the default log folder of OpenCart. The path is configured in the config.php of your shop system. (Default Path: {shopRootDirectory}/system/logs or {shopRootDirectory} /system/storage/logs)

12 Advanced Information

This section of the manual is for advanced usage of the module. The content is for advanced users with special requirements. Everything in this section is optional and not required for the daily usage of the module.

12.1 Transaction Object

This section describes how to extract information from a transaction, if you need it for further processing. E.g. you require more information of the transaction for further processing an order in your ERP system.

The code snippets in this section assume your script resides in the root folder of the shop with the default shop folder structure.

In your script initialize the base of OpenCart.
Opencart 3.x

```
require_once('config.php');
require_once(DIR_SYSTEM . 'startup.php');
// Registry
$registry = new Registry();

// Config
$config = new Config();
$config->load('default');
$config->load('catalog');
$registry->set('config', $config);
$loader = new Loader($registry);
$registry->set('load', $loader);
$registry->set('db', new DB($config->get('db_type'), $config->get
('db_hostname'), $config->get('db_username'), $config->get
('db_password'), $config->get('db_database'), $config->get('db_port')));
```

Include the module specific files and set registry.

```
require_once DIR_SYSTEM.'library/cw/init.php';
require_once DIR_SYSTEM.'library/cw/SagePayCw/Util.php';
require_once DIR_SYSTEM.'library/cw/SagePayCw/Entity/Transaction.php';
SagePayCw_Util::setRegistry($registry);
```

Now you can load the transaction and then extract the transactionObject.
Load the transaction by Id:

```
$transactionById = SagePayCw_Entity_Transaction::loadById($transactionId);
$transactionObject = $transactionById->getTransactionObject();
```

Load transactions by Order ID:

```
$transactionsByOrderId = SagePayCw_Entity_Transaction::
getTransactionsByOrderId($orderId);
foreach($transactionsByOrderId as $transaction){
    $transactionObject = $transaction->getTransactionObject();
    //Do something with each object
}
```