**HiPay Integration**

Version 20.1.0

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# Summary

HiPay Fullservice offers tailored payment solutions for retailers, with functionalities adapted to today’s e-commerce landscape. HiPay provides a single integration solution for the most relevant domestic and international payment methods in each market.

The HiPay cartridge enables merchants to use HiPay full service as a payment option on their Salesforce Commerce Cloud storefronts. The cartridge provides several options for entering payment information (credit card or debit card information) during the checkout process: through a hosted page that is, external to the Salesforce Commerce Cloud platform or directly on the merchant’s Salesforce Commerce Cloud storefront, through API module calls. Beside this, a full range of other payment methods can be supported.

This document fully describes how to install the cartridge and integrate it into the online store. It is required for the merchant to first contact HiPay and request an account for the integration to work properly. HiPay shall provide a testing and production accounts for the merchant.

There are also configurations to be made in both Salesforce Commerce Cloud Business Manager and HiPay back office.

The integration consists of an archive, which contains the following contents:

* cartridge called ‘int\_hipay\_controllers’ – core integration cartridge
* cartridge called ‘bm\_hipay\_controllers’ - extension for the cartridge within Business Manager
* ‘site\_template’ folder with metadata

The integration is based on the Site Genesis demo store provided by Salesforce Commerce Cloud.

The HiPay cartridge supports next payment methods:

|  |  |
| --- | --- |
| * Credit Card * Belfius Direct Net * Giropay * PayPal * iDEAL * ING HomePay * Klarna * MasterCard * Przelewy24 * QIWI Wallet * Sisal * Sofort Überweisung * WebMoney Transfer * Yandex Money * Oney Facily Pay (3xcb) * Oney Facily Pay (3xcb-no-fees) * Oney Facily Pay (4xcb) * Oney Facily Pay (4xcb-no-fees) | * Hosted Credit Cards * Hosted Belfius Direct Net * Hosted Giropay * Hosted iDEAL * Hosted ING HomePay * Hosted Klarna * Hosted Przelewy24 * Hosted QIWI Wallet * Hosted Sisal * Hosted Sofort Überweisung * Hosted WebMoney Transfer * Hosted Yandex Money * Hosted Oney Facily Pay (3xcb) * Hosted Oney Facily Pay (3xcb-no-fees) * Hosted Oney Facily Pay (4xcb) * Hosted Oney Facily Pay (4xcb-no-fees) |

# Component Overview

## Functional Overview

This section describes the functionalities that HiPay cartridge offers for the merchant.

### Frontend and Business Manager Functionalities

**Business Manager Extension for HiPay**

Merchants can configure the HiPay cartridge features from the Salesforce Commerce Cloud BM. On the Business Manager page each merchant can configure the connection to HiPay. The merchant will have to enter his credentials to create a connection to HiPay.

**Hosted Pages**

The cartridge supports the hosted payment page approach of entering payment information directly on pages that are hosted and provided by HiPay. During the checkout process, when the customer is asked to enter the payment details, he/she will be redirected to the HiPay hosted payment pages where he/she can select the preferred payment method. Each merchant can choose what payment methods shall be offered to the customer. The hosted payment pages can be customized in order to match the merchant storefront style.

**iFrame Integration**

The cartridge enables the merchant to use the HiPay payment solution via an iFrame that is integrated into his own Salesforce Commerce Cloud implementation.

**Multiple Payment Methods**

The cartridge allows users to complete the checkout process by using a wide variety of payment methods.

**Direct Payment API**

The cartridge offers to customers the possibility of filling in the payment information directly on the merchant’s website; in this case, the merchant will have to be PCI compliant. The transaction will be validated through the module called HiPay Fullservice API.

The cartridge can provide several options for entering payment details (credit card or debit card information) during the checkout process: through a hosted page, external to Salesforce Commerce Cloud platform or directly on the merchants’ Salesforce Commerce Cloud storefront, through API module calls. Additionally, a full range of other payment methods can be supported.

### Security Features and Functionalities

**3D Secure**

The cartridge supports 3D secure rules and activation where it is available on the card used. The 3D secure authentication process redirects the customer to a special page that is hosted by the card company that issued the customers’ credit or debit card. The cartridge enables the redirection to that page. After the authentication is completed, the cartridge has to ensure that the result of the authentication process is transferred back to Salesforce Commerce Cloud, and after the process is completed, the right message will be displayed on the frontend and the status of the order is set accordingly.

When using 3D Secure the merchant can set specific rules. These rules can be created, edited or deleted in the configuration parameter named “rules 3d secure”.

**PSD2 and Strong Customer Authentication – 3D Secure 2 compliance and guidance**

In effect since the beginning of 2018, the second Payment Services Directive (PSD2) redefines security standards for online payments. Given the strong growth of e-commerce in Europe, it aims to increase security during payment processing, while fighting more actively against fraud attempts.

For more information about these evolutions, please read our dedicated support page: <https://support.hipay.com/hc/en-us/articles/360005968459-PSD2-and-Strong-Customer-Authentication-3-D-Secure-v2-compliance-and-guidance>

**Device Fingerprint**

The cartridge supports device fingerprint information by sourcing the dynamically generated JavaScript from HiPay TPP. The JavaScript determines the available information and creates or generates a so called “black box”. For the usage of this functionality custom configurations are needed which require individual implementation for each merchant, as they are not part of the standard development.

**Signature Verification**

A signature verification mechanism is available for verifying the content of requests and redirections between the merchant site and the HiPay pages. The first step is for the merchant to set a secret password or phrase in the HiPay backend. The secret password or phrase will be used to generate a unique string that will be hashed with a SHA algorithm.

**Automatic Cancel**

Pending orders are automatically cancelled if they are not completed within 30 minutes.

### Payment Configurations

These cartridge supports both authorization mode and direct capture mode.

**Direct Capture**

In this case the capture is requested automatically after the authorization. If the capture is not successful, the customer (the buyer) is redirected to an error page. If the capture is successful, the customer is redirected to a success page and completes the checkout process.

**Authorization**

In this case the customer (the buyer) is not charged automatically or direct after the order is placed. The merchant has a defined amount of time to capture the amount money from the customer. This can be configured manually from Business Manager > HiPay Integration > Order capture; partial or full capture action can be done; Order Cleanup Time can be configured from **Hung Order Cleanup Time** configuration option.

If the transaction fails, the customer is redirected to an error page. If the transaction is successful, the customer is redirected to a success page. The authorization can be used within an interval of 7 days otherwise it will be cancelled.

## Use Cases

**Short description of the HiPay payment system**

HiPay generally can receive payments in 2 ways:

* via the HiPay Direct Payment API. A result is returned right away. This can only be used for Credit Cards.
* via the 'redirect model' where a form containing certain fields is posted to HiPay and the shopper is redirected to HiPay's Hosted Payment Page (HPP). After completing the payment, the shopper is returned to the shop's resultURL. This resultURL can be configured and contains the result of the payment (success or fail). The redirect model can also be implemented in an iFrame solution where the merchants’ customer is redirected to HiPay pages, but these pages render within a frame that is inserted inside the merchant’s page. This approach gives the merchant’s customer the feeling that he has not left the merchant’s site.

Compared to the API implementation, the redirect model supports more payment methods as well as some other functionality.

Payment results should be sent asynchronously to a 'notification URL' at the Merchant (SFCC) site. Payments can change status over the time (Authorized, Refunded, Cancelled and others) on the HiPay side, and these statuses are updated automatically on the Salesforce Commerce Cloud side through the sending update notifications. HiPay Fullservice is sending notifications to Salesforce Commerce Cloud for each event occurred/ transaction changed. In order to handle all notifications, notes are added to the order.

In both cases, the 'two phase ordering' approach is used. The order is first created (but only 'placed', status is “Created”) and after the payment has been authorized (which is now standard behavior in Site Genesis) the order can be captured and its status will change to „Paid”. In cases where payment cannot be authorized, the order will fail and its status will change to “Failed”.

Registered and unregistered shoppers will be able to follow the standard Site Genesis flow with the following changes:

HiPay redirect (hosted payment pages, iFrame integration and multiple payment methods) and the HiPay Direct Payment API will be the only payment option.

**If HiPay redirect is enabled**

* when the user selects this payment method, no credit card details will be entered on the Billing page (this is done on HiPay hosted payment pages)
* the possibility to choose one of the predefined payment methods on the Billing page with further redirection to HiPay hosted payment pages, if Directory Lookup is enabled and the user selected HiPay payment method
* a redirect to HiPay hosted payment pages after clicking the ‘SUBMIT ORDER’ button on the Order Confirmation page
* a return to the SFCC Order Summary page after successful payment authorization
* a return to the SFCC Order Confirmation page, if the user cancelled the payment on HiPay hosted payment pages
* a return to the SFCC Order Confirmation page with an error message displayed, if the payment was refused

**If HiPay API payments are enabled**

* credit card details are entered and stored in your SFCC shop
* for the other payment methods, you can still redirect to the HiPay hosted payment pages, but can disable credit cards via the configuration of your skin

**Sample of testing scenarios**

* All test scenarios involve successful and declined payments
* Test scenarios should be done with every available payment method
* The used currency should be EUR, USD has only credit cards enabled
* If for a payment method on a hosted page there is an emulation page, all options (e.g. cancel, exception, decline) should be used as an outcome to test how the system will behave
* When making a payment a Salesforce Commerce Cloud Order object changes its status as follows
  + CREATED - the IFrame or Hosted page has been shown – the Basket has been cleared – the order may stay/hang in this status if the process did not complete properly (bug) or the user abandons the Iframe or Hosted page and does not complete the payment
  + NEW – the Iframe or Hosted page has been closed with an accept – the Order changed it’s status
  + OPEN – the Order has been viewed in SFCC Business Manager after it was in status NEW
  + FAILED – all cases of cancel and decline

| **UC - 1** | **HiPay Hosted Page** |
| --- | --- |
| This use case describes the high-level steps in which a registered/guest customer successfully creates an order and the order with HiPay Hosted Page. | Preconditions   * Go to Merchant Tools > Site Preferences > Custom Preferences > HiPay Settings * For HiPay Operation Mode, select hosted (Hosted Page) and click on Apply  1. A registered customer navigates to the site, an item, add it to the cart and proceeds to the cart page. 2. The customer clicks on the **Checkout** button and fills in the shipping form requirements. 3. The customer clicks on the **Continue** button and proceeds to fill in the billing form requirements and for payment method, select “**HiPay Hosted**”. 4. The customer clicks on the **Continue** button, proceeds to the **Payment** page and clicks on the **Place order** button. 5. A HiPay hosted page is opened and the customer enters the card details. 6. After successful payment the customer gets redirected to the Summary page and the thank you message is successfully loaded. 7. The customer can verify Order Summary information 8. Merchant can verify Order status in SFCC BM 9. Merchant can verify information in HiPay Fullservice account   **Note that a similar flow can be done for guest checkout** |

| **UC - 2** | **HiPay Hosted Page with 3-D Secure** |
| --- | --- |
| This use case describes the high-level steps in which a registered/guest customer successfully creates an order and the order with HiPay Hosted Page with 3-D Secure. | Preconditions   * Go to Merchant Tools > Site Preferences > Custom Preferences > HiPay Settings * For HiPay Operation Mode, select hosted (Hosted Page) and click on Apply * For 3-D Secure, select “1 (3-D Secure authentication if available)” and click on “Apply”  1. A registered customer navigates to the site, an item, add it to the cart and proceeds to the cart page. 2. The customer clicks on the **Checkout** button and fills in the shipping form requirements. 3. The customer clicks on the **Continue** button and proceeds to fill in the billing form requirements and for payment method, select “**HiPay Hosted**”. 4. The customer clicks on the **Continue** button, proceeds to the **Payment** page and clicks on the **Place order** button. 5. A HiPay hosted page is opened and the customer enters the 3-D Secure card details. 6. The customer is redirected to the card vendor’s site and it enters the 3-D Secure password. 7. After successful identification the customer clicks on “Back to Payment”. 8. After successful payment the customer gets redirected to the Summary page and the thank you page is successfully loaded. 9. The customer can verify Order Summary information 10. Merchant can verify Order status in SFCC BM 11. Merchant can verify information in HiPay Fullservice account   **Note that a similar flow can be done for guest checkout** |

| **UC - 3** | **HiPay API Integration** |
| --- | --- |
| This use case describes the high-level steps in which a registered/guest customer successfully creates an order and the order with HiPay API Integration. | Preconditions   * Go to Merchant Tools > Site Preferences > Custom Preferences > HiPay Settings * For HiPay Operation Mode, select api (API) and click on Apply  1. A registered customer navigates to the site, an item, add it to the cart and proceeds to the cart page. 2. The customer clicks on the **Checkout** button and fills in the shipping form requirements. 3. The customer clicks on the **Continue** button and proceeds to fill in the billing form requirements and for payment method, select “iDEAL” 4. The customer selects the desired issuing bank and clicks on the **Place order** button. 5. The customer is redirected to the iDEAL vendor site. 6. The customer enters the payment details. 7. After successful payment the customer gets redirected to the Summary page and the thank you message is successfully loaded. 8. The customer can verify Order Summary information 9. Merchant can verify Order status in SFCC BM – in Order screen, open Payment tab to verify the payment information. 10. Merchant can verify information in HiPay Fullservice account   **Note that a similar flow can be done for guest checkout** |

## Limitations, Constraints

* The merchant needs a configured HiPay account
* The merchant can style the hosted pages to make it match the look and feel of their store.
* The following features are out of scope:
  + Cancelled Order support
  + Refund support
  + One-Click Payment (credit card only)

## Compatibility

The HiPay integration cartridge is compatible with the latest Salesforce Commerce Cloud API version, currently 19.10 and SiteGenesis version 104.1.3.

## Privacy, Payment

When the redirect method is used, all payment data is entered into the HiPay hosted pages by the customer and no Credit Card data is stored in Salesforce Commerce Cloud (other than the brand of the used card).

Examples:

HiPay Product Name: hosted

HiPay Payment Product List: bcmc,cb,maestro,mastercard,visa,american-express

HiPay Payment Category List: credit-card,debit-card

HiPay Product Name: dexia-directnet

HiPay Payment Product List: dexia-directnet

HiPay Payment Category List: realtime-banking

# Implementation Guide

## Integration Efforts

The following steps are needed to complete the integration:

* Install the cartridge
* Change and import ‘site-template.zip’ (system objects)
* Do the required code changes
* Configure your merchant's HiPay Account in the HiPay back office
* Configure HiPay parameters in Salesforce Commerce Cloud BM
* Test

## Setup

### Installation

Install the “int\_hipay\_controllers”, “bm\_hipay\_controllers” cartridges from the distributive zip-archive in the standard way using the Salesforce Commerce Cloud UX-studio.

### Metadata Import

Open the folder ‘metadata’ in the installation package. Please review the ‘site\_template’ folder, do the necessary modifications if required:

1. **Rename the “SiteGenesis” folder (under the site\_template/sites folder) to the ID of your site.**
2. **In the file “jobs.xml”, change the “SiteGenesis” in the markups** <context site-id="RefArchGlobal"/> **to the ID of your site.**
3. **In the file “services.xml”, change the “SiteGenesis” in the markups** <service service-id="hipay.rest.\*.SiteGenesis"> **to the ID of your site.**
4. **If you don’t need** ‘pin-price-lists.xml’ with pricebook, you may just remove this file and the ‘pricebooks’ folder.

For multiple sites integration, you will also need to repeat these steps for each site.

Then, archive the ‘site\_template’ folder into a file named site\_template.zip.

Before importing the ‘site-template.zip’, check and save the cartridge paths of your site and Business Manager, because these will be modified. By saving them elsewhere you will be able to configure them manually if something goes wrong. Also, check the fields which will be updated after importing the file ‘site-template.zip’ and be sure that there will be no conflict with any existing fields.

Finally, import it through BM Administration > Site Development > Site Import & Export section: Browse your local file and click “Upload”, then select it and click “Import” and confirm the import by clicking “OK”. The import lasts a few minutes only.

## Configuration

* Add **int\_hipay\_controllers, int\_hipay\_sg\_changes** and **int\_hipay\_core** to the cartridge site path:
  + For storefront controller version:

Go to BM > Administration > Sites > Manage Sites, under Storefront Sites click your site name, then click the Settings tab and add “int\_hipay\_ controllers:int\_hipay\_ core” at the beginning of the “Cartridges” field.

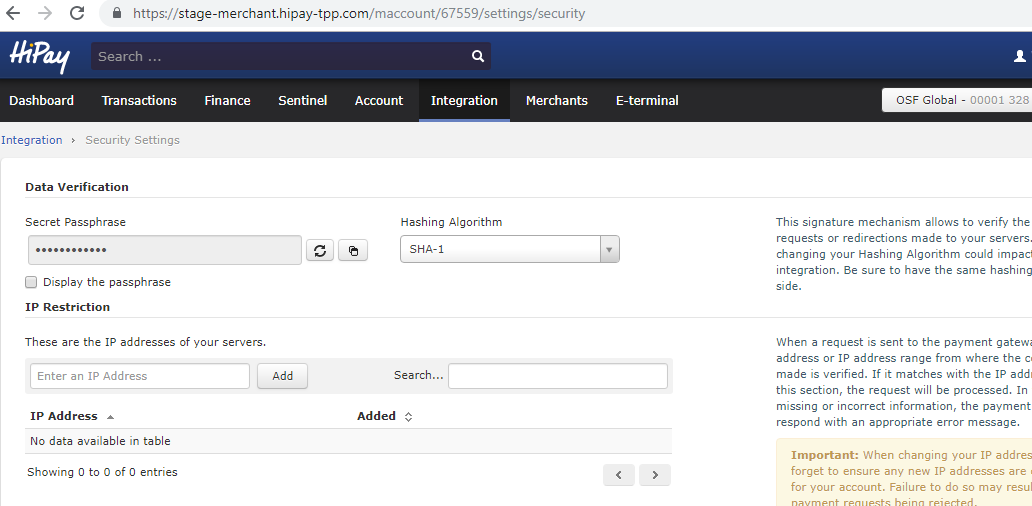
Example: int\_hipay\_controllers:int\_hipay\_sg\_changes:int\_hipay\_core:app\_storefront\_controllers:app\_storefront\_core

* + For storefront pipeline version:

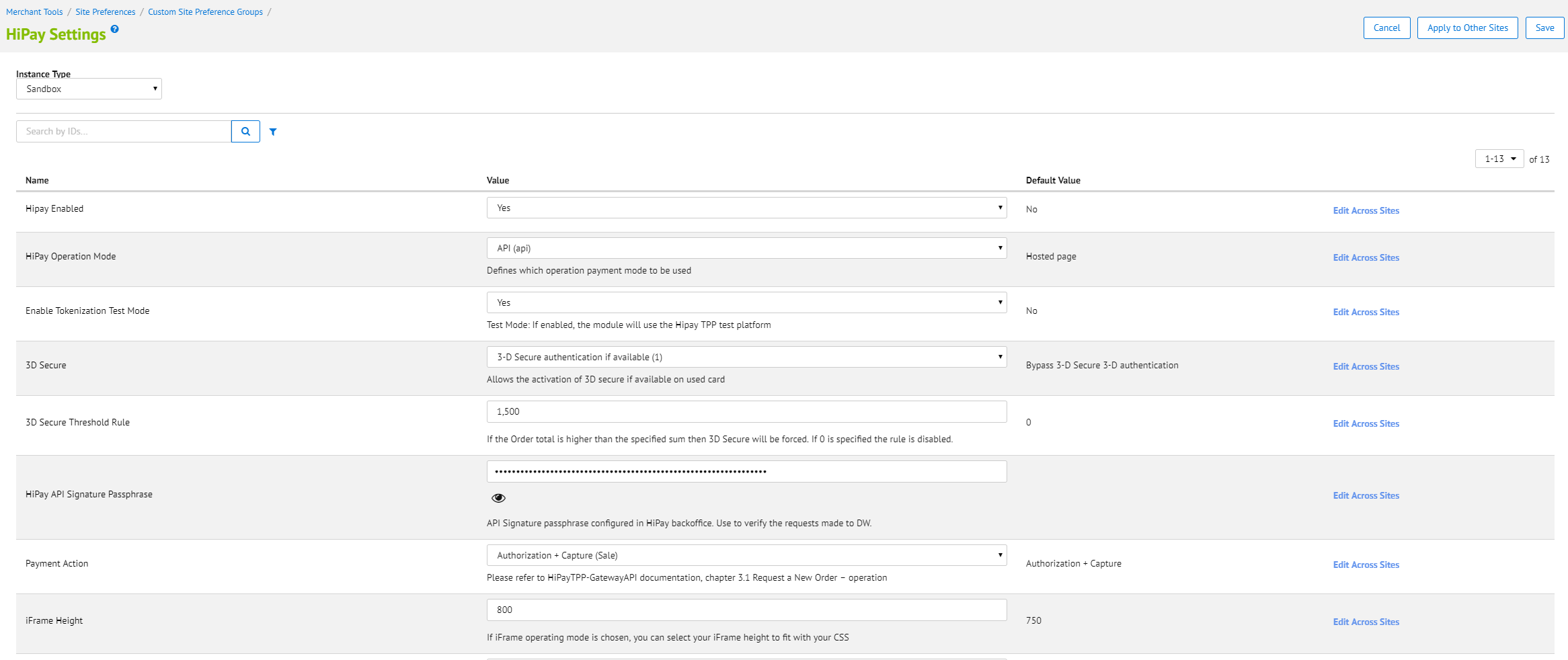
Go to BM > Administration > Sites > Manage Sites, under Storefront Sites click your site name, then click the Settings tab and add “int\_hipay\_ controllers:int\_hipay\_sg\_changes:int\_hipay\_core” at the beginning of the “Cartridges” field.

Exemple: int\_hipay\_controllers:app\_storefront\_pipelines:app\_storefront\_core

* Add **bm\_hipay\_controllers** to the cartridge BM path:  
  Go to BM > Administration > Sites > Manage Sites, under Business Manager Sites click “Business Manager” link, while in the Settings tab add “bm\_hipay\_controllers:” at the beginning of the “Cartridges” field.
* Custom site preferences (HiPay preferences):  
  **Merchant Tools > Site Preferences > Custom Preferences (or Custom Site Preference Groups) >** HiPay (HiPay Settings):
  + **Hipay Enabled** – Set to Yes.  
    Enable/disable HiPay.
  + **Enable One-Click payments** – Set to Yes.  
    Enable/disable One-Click payments.
  + **HiPay Operation Mode**  
    **Defines which operation payment mode to be used – these are HOSTED/IFRAME/API.**  
    **When selecting the API mode then the HIPAY\_HOSTED payment method will be hidden from Billing page. If HOSTED or IFRAME is selected, then all API payment methods are hidden from the Billing page.**
  + **Enable Tokenization Test Mode** – Set to Yes.  
    Test Mode: If enabled, the module will use the HiPay TPP test platform.
  + **3D Secure** -Set to ‘Bypass 3-D Secure 3-D authentication (0)’.  
    Allows the activation of 3D secure if available on used card*.*
  + **3D Secure Threshold Rule** – Set to 100.  
    If the Order total is higher than the specified sum, then 3D Secure will be forced.  
    If 0 is specified, the rule is disabled.
  + **HiPay API Signature Passphrase**  
    **API Signature passphrase configured in HiPay backoffice. Use to verify the requests made to** *SFCC. Can be find under the Integration -> Security Settings -> Secret Passphrase section.*



* + **Payment Action** -Select ‘Authorization + Capture (Sale)’.  
    Please refer to documentation *on HiPay portal, Payments section (*[*https://developer.hipay.com/doc-api/enterprise/gateway/*](https://developer.hipay.com/doc-api/enterprise/gateway/)*).*
  + **iFrame Height** - Set 750.  
    If iFrame operating mode is chosen, you can select your iFrame height to fit with your CSS.
  + **iFrame Width** - Set 900.  
    If iFrame operating mode is chosen, you can select your iFrame width to fit with your CSS.
  + **HiPay CSS content** - May be set to empty.  
    CSS applied to either Hosted or IFrame page, not enclosed in style tags.
  + **Display card selector** – Set to Yes.  
    Enable/disable the payment methods selector on iFrame and Hosted page.
  + **Hung Order Cleanup Time** - Set to 30.  
    The time in minutes after which all Orders hung in status CREATED that are left by the payment processing are cleaned.
  + **List of shipping methods**  
    **A comma-separated list of available shipping methods ids**. Required for the Oney payments configuration BM module.



**Do not forget to click “Save” button at the top right of the page, in order to save your preferences!**



* **Review System Object Types configuration:**  
  **Go to BM > Administration > Site Development > System Object Types.**
  + In Profile, click “Attribute Definitions”. Check that you see a new attribute: **datePasswordLastChange**.  
    It is used for 3-D Secure 2.0 (PSD2), in order to detect if the customer changed its password recently.
  + In Product, click “Attribute Definitions”. Check that you see a new attribute: **productDematerialized**.  
    It is used for 3-D Secure 2.0 (PSD2), in order to process extra security checks if the product could be sent immediately to the customer.
* **Review Custom Object Types configuration:**  
  **Go to BM > Site Development > Custom Object Types**. In the list, check that you see a new object type: **SaveOneclick**.  
  It is used for 3-D Secure 2.0 (PSD2), in order to count the credit cards added by a customer during the last 24 hours.
* **Review Jobs configuration:**  
  You will need to assign and schedule our two jobs (ClearHungOrder and HiPayClear) to your site(s).  
  Please read the section 4.2.4 Schedules for this configuration.
* **Review Service configuration:**  
  You will need to update the services credentials values User and Password. You can take these values from the Hipay Dashboard, under **Integration > Security Settings > Api credentials**. Please note that two kind of values exists: “Private” Accessibility and “Public” Accessibility.  
    
  Please read the section 4.2.3 Services before applying the configuration below.
  + For Private Accessibility - Update fields User and Password for the following services:

**Administration > Operations > Services > Tab “Credentials” > hipay.hosted.cred**  
**Administration > Operations > Services > Tab “Credentials” > hipay.maintenance.cred**  
 [**Administration > Operations > Services > Tab “Credentials” > hipay.order.cred**](https://osfglobal09.alliance-prtnr-na02.dw.demandware.net/on/demandware.store/Sites-Site/default/ViewApplication-ExpandMenuGroup?MenuGroupID=AdministrationMenu&OverviewPage=SiteNavigationBar-ShowAdministrationOverview)

* + For Public Accessibility - Update fields User and Password for the following services:

[**Administration > Operations > Services > Tab “Credentials” > hipay.token.cred**](https://osfglobal09.alliance-prtnr-na02.dw.demandware.net/on/demandware.store/Sites-Site/default/ViewApplication-ExpandMenuGroup?MenuGroupID=AdministrationMenu&OverviewPage=SiteNavigationBar-ShowAdministrationOverview)

## Custom Code (20.1 version)

For all custom code changes required required by HiPay, the source directory of concerned SiteGenesis cartridges is included in “SGIntegration\_104\_1\_3”, which allows you to perform code comparison if you need it.

Each code change is identified with two comment lines (/\* HiPay custom code - start \*/ and /\* HiPay custom code - end \*/), which is convenient if you need to make searches in your source code. Furthermore, the changes are also described in the current section.

Two SiteGenesis core cartridges are customized: “app\_storefront\_controllers” and “app\_storefront\_core”.

1. **Cartridge “app\_storefront\_controllers”**
   1. File: app\_storefront\_controllers/cartridge/controllers/COBilling.js

|  |
| --- |
| **Before (line 22-25)** |
| var Countries = require('app\_storefront\_core/cartridge/scripts/util/Countries');  /\* Script Modules \*/  var app = require('~/cartridge/scripts/app'); |
| **After (add the code highlighted)** |
| var Countries = require('app\_storefront\_core/cartridge/scripts/util/Countries');  /\* HiPay custom code - start \*/  var sitePrefs = require('dw/system/Site').getCurrent().getPreferences().getCustom();  /\* HiPay custom code - end \*/  /\* Script Modules \*/  var app = require('~/cartridge/scripts/app'); |

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| **Before (line 155-160)** |
| if (customer.authenticated) {  var profile = app.getModel('Profile').get();  if (profile) {  applicableCreditCards = profile.validateWalletPaymentInstruments(countryCode, paymentAmount.getValue()).ValidPaymentInstruments;  }  } |
| **After (add the code highlighted)** |
| if (customer.authenticated) {  /\* HiPay custom code - start \*/  if (!empty(sitePrefs.hipayEnabled) && sitePrefs.hipayEnabled && !empty(sitePrefs.hipayEnableOneClick) && sitePrefs.hipayEnableOneClick) { /\* if hipay and one click payment enabled \*/  applicableCreditCards = require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayCheckoutModule').getApplicableCreditCards(countryCode, paymentAmount.getValue()).ValidPaymentInstruments;  } else {  var profile = app.getModel('Profile').get();  if (profile) {  applicableCreditCards = profile.validateWalletPaymentInstruments(countryCode, paymentAmount.getValue()).ValidPaymentInstruments;  }  }  /\* HiPay custom code - end \*/  } |

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| **Before (line 168-171)** |
| return {  ApplicablePaymentMethods: applicablePaymentMethods,  ApplicableCreditCards: applicableCreditCards  }; |
| **After (add the code highlighted)** |
| /\* HiPay custom code - start \*/  return {  ApplicablePaymentMethods: applicablePaymentMethods,  ApplicableCreditCards: applicableCreditCards,  ApplicablePaymentCards: applicablePaymentCards  };  /\* HiPay custom code - end \*/ |

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| **Before (line 200-203)** |
| app.getForm('billing.couponCode').clear();  app.getForm('billing.giftCertCode').clear();  start(cart, {ApplicableCreditCards: creditCardList.ApplicableCreditCards}); |
| **After (add the code highlighted)** |
| app.getForm('billing.couponCode').clear();  app.getForm('billing.giftCertCode').clear();  /\* HiPay custom code - start \*/  start(cart, {ApplicableCreditCards: creditCardList.ApplicableCreditCards, ApplicablePaymentCards: creditCardList.ApplicablePaymentCards});  /\* HiPay custom code - end \*/ |

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| **Before (line 358-360)** |
| function resetPaymentForms() {   var cart = app.getModel('Cart').get(); |
| **After (add the code highlighted)** |
| function resetPaymentForms() {  /\* HiPay custom code - start \*/   if (!empty(sitePrefs.hipayEnabled) && sitePrefs.hipayEnabled) {  return require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayCheckoutModule').resetPaymentForms();  }  /\* HiPay custom code - end \*/    var cart = app.getModel('Cart').get(); |

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| **Before (line 399-402)** |
| function validateBilling() {  if (!app.getForm('billing').object.billingAddress.valid) {  return false;  } |
| **After (add the code highlighted)** |
| function validateBilling() {  /\* HiPay custom code - start \*/  if (!empty(sitePrefs.hipayEnabled) && sitePrefs.hipayEnabled) {  return require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayCheckoutModule').validateBilling();  }  /\* HiPay custom code - end \*/  if (!app.getForm('billing').object.billingAddress.valid) {  return false;  } |

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| **Before (line 801-803)** |
| function saveCreditCard() {  var i, creditCards, newCreditCard; |
| **After (add the code highlighted)** |
| function saveCreditCard() {  var i, creditCards, newCreditCard;  /\* HiPay custom code - start \*/  if (!empty(sitePrefs.hipayEnabled) && sitePrefs.hipayEnabled && !empty(sitePrefs.hipayEnableOneClick) && sitePrefs.hipayEnableOneClick) {  return require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayCheckoutModule').validateBilling();  }  /\* HiPay custom code - end \*/ |

* 1. File: app\_storefront\_controllers/cartridge/controllers/COPlaceOrder.js

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| **Before (line 17-21)** |
| var Transaction = require('dw/system/Transaction');  /\* Script Modules \*/  var app = require('~/cartridge/scripts/app');  var guard = require('~/cartridge/scripts/guard'); |
| **After (add the code highlighted)** |
| var Transaction = require('dw/system/Transaction');  /\* HiPay custom code - start \*/  var sitePrefs = require('dw/system/Site').getCurrent().getPreferences().getCustom();  var Logger = require('dw/system/Logger');  /\* HiPay custom code – end \*/  /\* Script Modules \*/  var app = require('~/cartridge/scripts/app');  var guard = require('~/cartridge/scripts/guard');  /\* HiPay custom code - start \*/  var Helpers = require('~/cartridge/scripts/util/Helpers');  /\* HiPay custom code – end \*/ |

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| **Before (line 74-78)** |
| if (authorizationResult.not\_supported || authorizationResult.error) {  return {  error: true  };  } |
| **After (add the code highlighted)** |
| if (authorizationResult.not\_supported || authorizationResult.error) {  return {  error: true  };  }  /\* HiPay custom code - start \*/  if (!empty(sitePrefs.hipayEnabled) && sitePrefs.hipayEnabled && authorizationResult.authorized) {  return {  authorized : true  }  }  /\* HiPay custom code - end \*/ |

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| **Before (line 126-130)** |
| Transaction.wrap(function () {  cart.calculate();  });  var COBilling = app.getController('COBilling'); |
| **After (add the code highlighted)** |
| Transaction.wrap(function () {  cart.calculate();  });  /\* HiPay custom code - start \*/ // If Card not exist in the list of PaymentInstruments : Incrementing the attempts (Create Custom Object for attempts)  var incrementAttempt = session.custom['saveCardChecked'];  var varCustomer = cart.getCustomer();  if (varCustomer.isAuthenticated() && varCustomer.isRegistered() && incrementAttempt) {  var params = {  objName: 'SaveOneclick',  data: {  customerNo: cart.getCustomerNo(),  attemptDate: new Date()  }  };  var result = Helpers.writeToCustomObject(params);  if (result === 'ERROR') {  Logger.error('writeToCustomObject : Fail to add the custom object : ' + params.objName);  } else {  Logger.info('writeToCustomObject : Record added for custom object : ' + params.objName);  }  }  /\* HiPay custom code – end \*/  var COBilling = app.getController('COBilling'); |

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| **Before (line 210-214)** |
| var orderPlacementStatus = Order.submit(order);  if (!orderPlacementStatus.error) {  clearForms();  }  return orderPlacementStatus; |
| **After (add the code highlighted)** |
| /\* HiPay custom code - start \*/  if (!empty(sitePrefs.hipayEnabled) && sitePrefs.hipayEnabled) {  if (handlePaymentsResult.authorized) {  var orderPlacementStatus = Order.submit(order);  if (!orderPlacementStatus.error) {  clearForms();  }  return orderPlacementStatus;  } else {  return {  Order: order,  order\_created: false  };  }  } else {  var orderPlacementStatus = Order.submit(order);  if (!orderPlacementStatus.error) {  clearForms();  }  return orderPlacementStatus;  }  /\* HiPay custom code - end \*/ |

* 1. File: app\_storefront\_controllers/cartridge/controllers/PaymentInstruments.js

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| **Before (line 10-15)** |
| /\* API includes \*/  var PaymentMgr = require('dw/order/PaymentMgr');  var PaymentStatusCodes = require('dw/order/PaymentStatusCodes');  var Status = require('dw/system/Status');  var Transaction = require('dw/system/Transaction');  var URLUtils = require('dw/web/URLUtils'); |
| **After (add the code highlighted)** |
| /\* API includes \*/  var PaymentMgr = require('dw/order/PaymentMgr');  var PaymentStatusCodes = require('dw/order/PaymentStatusCodes');  var Status = require('dw/system/Status');  var Transaction = require('dw/system/Transaction');  var URLUtils = require('dw/web/URLUtils');  /\* HiPay custom code - start \*/ var sitePrefs = require('dw/system/Site').getCurrent().getPreferences().getCustom(); /\* HiPay custom code - end \*/ |

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| **Before (line 33-37)** |
| function list() {  var wallet = customer.getProfile().getWallet();  var paymentInstruments = wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD\_CREDIT\_CARD);  var pageMeta = require('~/cartridge/scripts/meta');  var paymentForm = app.getForm('paymentinstruments'); |
| **After (add the code highlighted)** |
| function list() {  var wallet = customer.getProfile().getWallet();  /\* HiPay custom code - start \*/   if (!empty(sitePrefs.hipayEnabled) && sitePrefs.hipayEnabled && !empty(sitePrefs.hipayEnableOneClick) && sitePrefs.hipayEnableOneClick) {  var paymentInstruments = wallet.getPaymentInstruments('HIPAY\_CREDIT\_CARD');  } else {  var paymentInstruments = wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD\_CREDIT\_CARD);  }  /\* HiPay custom code – end \*/  var pageMeta = require('~/cartridge/scripts/meta');  var paymentForm = app.getForm('paymentinstruments'); |

* 1. File: app\_storefront\_controllers/cartridge/scripts/util/Helpers.js

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| **Before (file does not exist)** |
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| **After (create the file and add all the code)** |
| 'use strict';  /\* HiPay custom code - start \*/  var Logger = require('dw/system/Logger');  var UUIDUtils = require('dw/util/UUIDUtils');  var CustomObjectMgr = require('dw/object/CustomObjectMgr');  var Transaction = require('dw/system/Transaction');    /\*\*  \* write To Custom Object  \* @returns ERROR or OK  \*/  function writeToCustomObject(params) {  var objectUUID = UUIDUtils.createUUID();  try {  Transaction.wrap(function () {  var instance = CustomObjectMgr.createCustomObject(params.objName, objectUUID);  instance.custom.customerNo = params.data.customerNo;  instance.custom.attemptDate = params.data.attemptDate;  });  } catch (e) {  Logger.error('writeToCustomObject ERROR :' + e);  return 'ERROR';  }  return 'OK';  }    /\* Exports of the modules \*/  exports.writeToCustomObject = writeToCustomObject;  /\* HiPay custom code – end \*/ |

1. **Cartridge “app\_storefront\_core”**
   1. app\_storefront\_controllers/cartridge/countries.json

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| **Before (line 491-492)** |
| }  }] |
| **After (add the code highlighted)** |
| }, {  "countryCode": "PL",  "name": {  "pl\_PL": "Poland"  },  "continent": "europe",  "locales": ["pl\_PL"],  "currencyCode": "PLN",  "taxation": {  "type": "net"  },  "priceBooks": [  "pln-list-prices",  "pln-sale-prices"  ],  "dynamicForms": {  "addressDetails": {  "country": {  "type": "select"  },  "states": [{  "fieldName": "state",  "type": "input"  }],  "phone": {  "help": {  "cid": "help-telephone",  "label": {  "property": "singleshipping.phonerequired",  "file": "checkout"  }  }  }  },  "giftRegistryEvent" : {  "eventaddress": [{  "fieldName": "country",  "type": "select"  }, {  "fieldName": "states.state"  }],  "type": {  "type": "select"  }  },  "giftRegistrySearch": {  "simple": {  "eventType": {  "type": "select"  }  },  "advanced": {  "eventMonth": {  "type": "select"  },  "eventYear": {  "type": "select"  },  "eventAddress": [{  "fieldName": "states.state"  }, {  "fieldName": "country",  "type": "select"  }]  }  },  "expirationInfo": {  "year" : {  "type" : "select",  "rowclass": "year"  },  "month" : {  "type" : "select",  "rowclass": "month"  }  }  }  }, {  "countryCode": "RU",  "name": {  "en\_RU": "Russia"  },  "continent": "asia",  "locales": ["en\_RU"],  "currencyCode": "RUB",  "taxation": {  "type": "net"  },  "priceBooks": [  "rub-list-prices",  "rub-sale-prices"  ],  "dynamicForms": {  "addressDetails": {  "country": {  "type": "select"  },  "states": [{  "fieldName": "state",  "type": "input"  }],  "phone": {  "help": {  "cid": "help-telephone",  "label": {  "property": "singleshipping.phonerequired",  "file": "checkout"  }  }  }  },  "giftRegistryEvent" : {  "eventaddress": [{  "fieldName": "country",  "type": "select"  }, {  "fieldName": "states.state"  }],  "type": {  "type": "select"  }  },  "giftRegistrySearch": {  "simple": {  "eventType": {  "type": "select"  }  },  "advanced": {  "eventMonth": {  "type": "select"  },  "eventYear": {  "type": "select"  },  "eventAddress": [{  "fieldName": "states.state"  }, {  "fieldName": "country",  "type": "select"  }]  }  },  "expirationInfo": {  "year" : {  "type" : "select",  "rowclass": "year"  },  "month" : {  "type" : "select",  "rowclass": "month"  }  }  }  }, {  "countryCode": "DE",  "name": {  "de\_DE": "Germany"  },  "continent": "europe",  "locales": ["de\_DE"],  "currencyCode": "EUR",  "taxation": {  "type": "gross"  },  "priceBooks": [  "eur-list-prices",  "eur-sale-prices"  ],  "dynamicForms": {  "addressDetails": {  "country": {  "type": "select"  },  "states": [{  "fieldName": "state",  "type": "input"  }],  "phone": {  "help": {  "cid": "help-telephone",  "label": {  "property": "singleshipping.phonerequired",  "file": "checkout"  }  }  }  },  "giftRegistryEvent" : {  "eventaddress": [{  "fieldName": "country",  "type": "select"  }, {  "fieldName": "states.state"  }],  "type": {  "type": "select"  }  },  "giftRegistrySearch": {  "simple": {  "eventType": {  "type": "select"  }  },  "advanced": {  "eventMonth": {  "type": "select"  },  "eventYear": {  "type": "select"  },  "eventAddress": [{  "fieldName": "states.state"  }, {  "fieldName": "country",  "type": "select"  }]  }  },  "expirationInfo": {  "year" : {  "type" : "select",  "rowclass": "year"  },  "month" : {  "type" : "select",  "rowclass": "month"  }  }  }  }] |

* 1. app\_storefront\_core/cartridge/forms/default/de\_DE/billingaddress.xml

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| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="firstName" label="profile.firstname" type="string" mandatory="true" binding="firstName" max-length="50" missing-error="address.firstname.missing" range-error="address.field.invalid" />  <field formid="lastName" label="profile.lastname" type="string" mandatory="true" binding="lastName" max-length="50" missing-error="address.lastname.missing" range-error="address.field.invalid" />  <field formid="address1" label="resource.address1" type="string" mandatory="true" binding="address1" max-length="50" missing-error="resource.addresserror" range-error="address.field.invalid" />  <field formid="address2" label="resource.address2" type="string" mandatory="false" binding="address2" max-length="50" range-error="address.field.invalid" />  <field formid="postal" label="resource.zipcode" type="string" mandatory="true" min-length="5" max-length="10" regexp="(^\d{5}(-\d{4})?$)|(^[abceghjklmnprstvxyABCEGHJKLMNPRSTVXY]{1}\d{1}[A-Za-z]{1} \*\d{1}[A-Za-z]{1}\d{1}$)" binding="postalCode" missing-error="resource.errorzip" description="address.postalcode.example"/>  <field formid="city" label="resource.city" type="string" mandatory="true" binding="city" min-length="2" max-length="50" missing-error="address.city.missing" range-error="address.field.invalid" />  <!-- use set of supported billing countries -->  <field formid="country" label="resource.country" type="string" default="de" mandatory="true" binding="countryCode" missing-error="address.country.missing" value-error="address.field.invalid">  <options>  <option optionid="de" label="country.germany" value="de"/>  </options>  </field>  <!-- use global state list -->  <include formid="states" name="states"/>  <!-- phone is optional for billing addresses -->  <field formid="phone" label="profile.phone" description="address.phone.example" type="string" mandatory="true" binding="phone" max-length="20" missing-error="address.phone.missing" range-error="address.field.invalid"/>  <!-- actions provided by the edit billing address dialog -->  <action formid="apply" valid-form="true"/>  <action formid="remove" valid-form="false"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/de\_DE/shippingaddress.xml

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| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="firstName" label="profile.firstname" type="string" mandatory="true" binding="firstName" max-length="50" missing-error="address.firstname.missing" range-error="address.field.invalid" />  <field formid="lastName" label="profile.lastname" type="string" mandatory="true" binding="lastName" max-length="50" missing-error="address.lastname.missing" range-error="address.field.invalid" />  <field formid="address1" label="resource.address1" type="string" mandatory="true" binding="address1" max-length="50" missing-error="resource.addresserror" range-error="address.field.invalid" />  <field formid="address2" label="resource.address2" type="string" mandatory="false" binding="address2" max-length="50" range-error="address.field.invalid" />  <field formid="postal" label="resource.zipcode" type="string" mandatory="true" min-length="5" max-length="10" regexp="(^\d{5}(-\d{4})?$)|(^[abceghjklmnprstvxyABCEGHJKLMNPRSTVXY]{1}\d{1}[A-Za-z]{1} \*\d{1}[A-Za-z]{1}\d{1}$)" binding="postalCode" missing-error="resource.errorzip" description="address.postalcode.example"/>  <!-- use global state list -->  <include formid="states" name="states"/>  <field formid="city" label="resource.city" type="string" mandatory="true" binding="city" min-length="2" max-length="50" missing-error="address.city.missing" range-error="address.field.invalid" />  <!-- use set of supported shipping countries -->  <field formid="country" label="resource.country" type="string" mandatory="true" binding="countryCode" missing-error="address.country.missing" value-error="address.field.invalid">  <options>  <option optionid="de" label="country.germany" value="de"/>  </options>  </field>  <!-- phone is mandatory for shipping addresses -->  <field formid="phone" label="profile.phone" description="address.phone.example" type="string" mandatory="true" binding="phone" max-length="20" missing-error="address.phone.missing" range-error="address.field.invalid"/>  <!-- actions provided by the edit shipping address dialog -->  <action formid="apply" valid-form="true"/>  <action formid="remove" valid-form="false"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/de\_DE/states.xml

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| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="state" label="resource.state" type="string" mandatory="false" binding="stateCode" missing-error="address.state.missing" value-error="address.field.invalid"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/billing.xml

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| **Before (line 37-47)** |
| <!--  the selected payment method, e.g. "CREDIT\_CARD" or "PayPal", this field is  used to transport the payment method selection; validations then can be  made on the proper form group which defines the actual payment method attributes  -->  <field formid="selectedPaymentMethodID" type="string" default-value="CREDIT\_CARD">  <options optionid-binding="ID" value-binding="ID" label-binding="name"/>  </field>  <!-- list of available credit cards to select from -->  <list formid="creditCardList"> |
| **After (add the code highlighted)** |
| <!-- HiPay custom code - start -->  <!--  the selected payment method, e.g. "CREDIT\_CARD" or "PayPal", this field is  used to transport the payment method selection; validations then can be  made on the proper form group which defines the actual payment method attributes  -->  <field formid="selectedPaymentMethodID" type="string" default-value="HIPAY\_CREDIT\_CARD">  <options optionid-binding="ID" value-binding="ID" label-binding="name"/>  </field>  <!-- HiPay fingerprint -->  <field formid="deviceFingerprint" type="string" />  <!-- HiPay browserInfo -->  <field formid="browserInfo" type="string" />  <!-- HiPay custom code – end -->  <!-- list of available credit cards to select from -->  <list formid="creditCardList"> |

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| **Before (line 66-67)** |
| <!-- fields for BML selection -->  <include formid="bml" name="bml"/> |
| **After (add the code highlighted)** |
| <!-- fields for BML selection -->  <include formid="bml" name="bml"/>   <!-- HiPay custom code - start -->  <!-- fields for HiPay custom payment methods selection -->  <include formid="hipaymethods" name="hipaymethods"/>  <!-- HiPay custom code – end --> |

* 1. app\_storefront\_core/cartridge/forms/default/creditcard.xml

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| **Before (line 10-13)** |
| <!-- field for credit card number -->  <field formid="number" label="creditcard.number" type="string" mandatory="true" masked="4" max-length="16"  description="creditcard.numberexample" binding="creditCardNumber"  missing-error="creditcard.numbermissingerror" value-error="creditcard.numbervalueerror"/> |
| **After (add the code highlighted)** |
| <!-- HiPay custom code - start -->  <!-- field for credit card number -->  <field formid="number" label="creditcard.number" type="string" mandatory="true" masked="4" max-length="17"  description="creditcard.numberexample" binding="creditCardNumber"  missing-error="creditcard.numbermissingerror" value-error="creditcard.numbervalueerror"/>  <!-- HiPay custom code – end --> |

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| **Before (line 55-64)** |
| <!-- field for credit card owner -->  <field formid="owner" label="creditcard.ownerlabel" type="string" mandatory="true" max-length="40" binding="creditCardHolder"  missing-error="creditcard.ownermissingerror"/>  <!-- field for credit card security code -->  <field formid="cvn" label="creditcard.cvnlabel" type="string" mandatory="true" masked="0"  missing-error="creditcard.cvnmissingerror" value-error="creditcard.cvnrangeerror"/>    <!-- optional flags -->  <field formid="saveCard" label="creditcard.savecard" type="boolean" mandatory="false" default-value="true" /> |
| **After (add the code highlighted)** |
| <!-- HiPay custom code - start -->  <!-- field for credit card owner -->  <field formid="owner" label="creditcard.ownerlabel" type="string" mandatory="false" max-length="40" binding="creditCardHolder"  missing-error="creditcard.ownermissingerror"/>  <!-- field for credit card owner first name -->  <field formid="ownerfirst" label="creditcard.ownerlabel.first" type="string" mandatory="false" max-length="40" missing-error="creditcard.ownermissingerror"/>  <!-- field for credit card owner last name-->  <field formid="ownerlast" label="creditcard.ownerlabel.last" type="string" mandatory="false" max-length="40" missing-error="creditcard.ownermissingerror"/>  <!-- field for credit card security code -->  <field formid="cvn" label="creditcard.cvnlabel" type="string" mandatory="true" min-length="0" masked="0"  missing-error="creditcard.cvnmissingerror" value-error="creditcard.cvnrangeerror"/>  <!-- field for UUID of selected card -->  <field formid="uuid" label="" type="string" mandatory="false" masked="0" missing-error="" value-error=""/>  <!-- HiPay custom code – end -->  <!-- optional flags -->  <field formid="saveCard" label="creditcard.savecard" type="boolean" mandatory="false" default-value="true" /> |

* 1. app\_storefront\_core/cartridge/forms/default/hipaymethods.xml

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| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| <?xml version="1.0" encoding="UTF-8"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <group formid="giropay">  <field formid="bic" label="hipay.label.bic" type="string" mandatory="true" missing-error="error.message.required"/>  </group>  <group formid="klarna">  <field formid="birthdate" label="hipay.label.birthdate" type="string" mandatory="true" missing-error="error.message.required"/>  <field formid="houseNumber" label="hipay.label.housenumber" type="integer" binding="houseNumber" mandatory="true" missing-error="error.message.required"/>    <field formid="gender" label="hipay.label.gender" type="string" default-value="1" binding="gender" mandatory="true">  <options>  <option label="hipay.gender.female" value="F"/>  <option label="hipay.gender.male" value="M"/>  </options>  </field>  </group>  <field formid="issuer\_bank\_id" label="hipay.label.issuer\_bank\_id" default="ABNANL2A" type="string" mandatory="true" >  <options>  <option optionid="" label="resource.select" value=""/>  <option optionid="ABNANL2A" value="ABNANL2A" label="ABN AMRO"/>  <option optionid="INGBNL2A" value="INGBNL2A" label="ING"/>  <option optionid="RABONL2U" value="RABONL2U" label="Rabobank"/>  <option optionid="SNSBNL2A" value="SNSBNL2A" label="SNS Bank"/>  <option optionid="ASNBNL21" value="ASNBNL21" label="ASN Bank"/>  <option optionid="FRBKNL2L" value="FRBKNL2L" label="Friesland Bank"/>  <option optionid="KNABNL2H" value="KNABNL2H" label="Knab"/>  <option optionid="RBRBNL21" value="RBRBNL21" label="SNS Regio Bank"/>  <option optionid="TRIONL2U" value="TRIONL2U" label="Triodos bank"/>  <option optionid="FVLBNL22" value="FVLBNL22" label="Van Lanschot"/>  </options>  </field>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/en\_RU/billingaddress.xml

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| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="firstName" label="profile.firstname" type="string" mandatory="true" binding="firstName" max-length="50" missing-error="address.firstname.missing" range-error="address.field.invalid" />  <field formid="lastName" label="profile.lastname" type="string" mandatory="true" binding="lastName" max-length="50" missing-error="address.lastname.missing" range-error="address.field.invalid" />  <field formid="address1" label="resource.address1" type="string" mandatory="true" binding="address1" max-length="50" missing-error="resource.addresserror" range-error="address.field.invalid" />  <field formid="address2" label="resource.address2" type="string" mandatory="false" binding="address2" max-length="50" range-error="address.field.invalid" />  <field formid="postal" label="resource.zipcode" type="string" mandatory="true" min-length="5" max-length="10" regexp="(^\d{5}(-\d{4})?$)|(^[abceghjklmnprstvxyABCEGHJKLMNPRSTVXY]{1}\d{1}[A-Za-z]{1} \*\d{1}[A-Za-z]{1}\d{1}$)" binding="postalCode" missing-error="resource.errorzip" description="address.postalcode.example"/>  <field formid="city" label="resource.city" type="string" mandatory="true" binding="city" min-length="2" max-length="50" missing-error="address.city.missing" range-error="address.field.invalid" />  <!-- use set of supported billing countries -->  <field formid="country" label="resource.country" type="string" default="ru" mandatory="true" binding="countryCode" missing-error="address.country.missing" value-error="address.field.invalid">  <options>  <option optionid="ru" label="country.russ" value="ru"/>  </options>  </field>  <!-- use global state list -->  <include formid="states" name="states"/>  <!-- phone is optional for billing addresses -->  <field formid="phone" label="profile.phone" description="address.phone.example" type="string" mandatory="true" binding="phone" max-length="20" missing-error="address.phone.missing" range-error="address.field.invalid"/>  <!-- actions provided by the edit billing address dialog -->  <action formid="apply" valid-form="true"/>  <action formid="remove" valid-form="false"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/en\_RU/shippingaddress.xml

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| **Before (file does not exist)** |
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| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="firstName" label="profile.firstname" type="string" mandatory="true" binding="firstName" max-length="50" missing-error="address.firstname.missing" range-error="address.field.invalid" />  <field formid="lastName" label="profile.lastname" type="string" mandatory="true" binding="lastName" max-length="50" missing-error="address.lastname.missing" range-error="address.field.invalid" />  <field formid="address1" label="resource.address1" type="string" mandatory="true" binding="address1" max-length="50" missing-error="resource.addresserror" range-error="address.field.invalid" />  <field formid="address2" label="resource.address2" type="string" mandatory="false" binding="address2" max-length="50" range-error="address.field.invalid" />  <field formid="postal" label="resource.zipcode" type="string" mandatory="true" min-length="5" max-length="10" regexp="(^\d{5}(-\d{4})?$)|(^[abceghjklmnprstvxyABCEGHJKLMNPRSTVXY]{1}\d{1}[A-Za-z]{1} \*\d{1}[A-Za-z]{1}\d{1}$)" binding="postalCode" missing-error="resource.errorzip" description="address.postalcode.example"/>  <field formid="city" label="resource.city" type="string" mandatory="true" binding="city" min-length="2" max-length="50" missing-error="address.city.missing" range-error="address.field.invalid" />  <!-- use set of supported shipping countries -->  <field formid="country" label="resource.country" type="string" mandatory="true" binding="countryCode" missing-error="address.country.missing" value-error="address.field.invalid">  <options>  <option optionid="ru" label="country.russ" value="ru"/>  </options>  </field>  <!-- use global state list -->  <include formid="states" name="states"/>  <!-- phone is mandatory for shipping addresses -->  <field formid="phone" label="profile.phone" description="address.phone.example" type="string" mandatory="true" binding="phone" max-length="20" missing-error="address.phone.missing" range-error="address.field.invalid"/>  <!-- actions provided by the edit shipping address dialog -->  <action formid="apply" valid-form="true"/>  <action formid="remove" valid-form="false"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/en\_RU/states.xml

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| **Before (file does not exist)** |
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| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="state" label="resource.state" type="string" mandatory="false" binding="stateCode" missing-error="address.state.missing" value-error="address.field.invalid"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/pl\_PL/billingaddress.xml

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| **Before (file does not exist)** |
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| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="firstName" label="profile.firstname" type="string" mandatory="true" binding="firstName" max-length="50" missing-error="address.firstname.missing" range-error="address.field.invalid" />  <field formid="lastName" label="profile.lastname" type="string" mandatory="true" binding="lastName" max-length="50" missing-error="address.lastname.missing" range-error="address.field.invalid" />  <field formid="address1" label="resource.address1" type="string" mandatory="true" binding="address1" max-length="50" missing-error="resource.addresserror" range-error="address.field.invalid" />  <field formid="address2" label="resource.address2" type="string" mandatory="false" binding="address2" max-length="50" range-error="address.field.invalid" />  <field formid="postal" label="resource.zipcode" type="string" mandatory="true" min-length="5" max-length="10" regexp="(^\d{5}(-\d{4})?$)|(^[abceghjklmnprstvxyABCEGHJKLMNPRSTVXY]{1}\d{1}[A-Za-z]{1} \*\d{1}[A-Za-z]{1}\d{1}$)" binding="postalCode" missing-error="resource.errorzip" description="address.postalcode.example"/>  <field formid="city" label="resource.city" type="string" mandatory="true" binding="city" min-length="2" max-length="50" missing-error="address.city.missing" range-error="address.field.invalid" />  <!-- use set of supported billing countries -->  <field formid="country" label="resource.country" type="string" default="pl" mandatory="true" binding="countryCode" missing-error="address.country.missing" value-error="address.field.invalid">  <options>  <option optionid="pl" label="country.poland" value="pl"/>  </options>  </field>  <!-- use global state list -->  <include formid="states" name="states"/>  <!-- phone is optional for billing addresses -->  <field formid="phone" label="profile.phone" description="address.phone.example" type="string" mandatory="true" binding="phone" max-length="20" missing-error="address.phone.missing" range-error="address.field.invalid"/>  <!-- actions provided by the edit billing address dialog -->  <action formid="apply" valid-form="true"/>  <action formid="remove" valid-form="false"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/pl\_PL/shippingaddress.xml

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| **Before (file does not exist)** |
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| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="firstName" label="profile.firstname" type="string" mandatory="true" binding="firstName" max-length="50" missing-error="address.firstname.missing" range-error="address.field.invalid" />  <field formid="lastName" label="profile.lastname" type="string" mandatory="true" binding="lastName" max-length="50" missing-error="address.lastname.missing" range-error="address.field.invalid" />  <field formid="address1" label="resource.address1" type="string" mandatory="true" binding="address1" max-length="50" missing-error="resource.addresserror" range-error="address.field.invalid" />  <field formid="address2" label="resource.address2" type="string" mandatory="false" binding="address2" max-length="50" range-error="address.field.invalid" />  <field formid="postal" label="resource.zipcode" type="string" mandatory="true" min-length="5" max-length="10" regexp="(^\d{5}(-\d{4})?$)|(^[abceghjklmnprstvxyABCEGHJKLMNPRSTVXY]{1}\d{1}[A-Za-z]{1} \*\d{1}[A-Za-z]{1}\d{1}$)" binding="postalCode" missing-error="resource.errorzip" description="address.postalcode.example"/>  <!-- use global state list -->  <include formid="states" name="states"/>  <field formid="city" label="resource.city" type="string" mandatory="true" binding="city" min-length="2" max-length="50" missing-error="address.city.missing" range-error="address.field.invalid" />  <!-- use set of supported shipping countries -->  <field formid="country" label="resource.country" type="string" mandatory="true" binding="countryCode" missing-error="address.country.missing" value-error="address.field.invalid">  <options>  <option optionid="pl" label="country.poland" value="pl"/>  </options>  </field>  <!-- phone is mandatory for shipping addresses -->  <field formid="phone" label="profile.phone" description="address.phone.example" type="string" mandatory="true" binding="phone" max-length="20" missing-error="address.phone.missing" range-error="address.field.invalid"/>  <!-- actions provided by the edit shipping address dialog -->  <action formid="apply" valid-form="true"/>  <action formid="remove" valid-form="false"/>  </form> |

* 1. app\_storefront\_core/cartridge/forms/default/pl\_PL/states.xml

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| **Before (file does not exist)** |
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| **After (create the file and add all the code)** |
| <?xml version="1.0"?>  <form xmlns="<http://www.demandware.com/xml/form/2008-04-19>">  <field formid="state" label="resource.state" type="string" mandatory="false" binding="stateCode" missing-error="address.state.missing" value-error="address.field.invalid"/>  </form> |

* 1. app\_storefront\_core/cartridge/js/pages/checkout/billing.js

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| **Before (line 13-15)** |
| function setCCFields(data) {  var $creditCard = $('[data-method="CREDIT\_CARD"]');  $creditCard.find('input[name$="creditCard\_owner"]').val(data.holder).trigger('change'); |
| **After (add the code highlighted)** |
| function setCCFields(data) {  /\* HiPay custom code - start \*/  if (SitePreferences.HIPAY\_ENABLED) {  var $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');  $creditCard.find('input[name$="uuid"]').val(data.uuid).trigger('change');  } else {  var $creditCard = $('[data-method="CREDIT\_CARD"]');  }  /\* HiPay custom code - end \*/  $creditCard.find('input[name$="creditCard\_owner"]').val(data.holder).trigger('change'); |

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| **Before (line 30-35)** |
| /\*\*  \* @function  \* @description Updates the credit card form with the attributes of a given card  \* @param {String} cardID the credit card ID of a given card  \*/  function populateCreditCardForm(cardID) { |
| **After (add the code highlighted)** |
| /\* HiPay custom code – start \*/  /\*\*  \* @function  \* @description Clears the Credit Card form and show fields  \*/  function clearCCFields() {  var $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');  $creditCard.find('input[name$="creditCard\_owner"]').val('').trigger('change');  $creditCard.find('input[name$="creditCard\_uuid"]').val('').trigger('change');  $creditCard.find('select[name$="\_type"]').val('').trigger('change');  $creditCard.find('input[name\*="\_creditCard\_number"]').val('').trigger('change');  $creditCard.find('[name$="\_month"]').val('').trigger('change');  $creditCard.find('[name$="\_year"]').val('').trigger('change');  $creditCard.find('input[name$="\_cvn"]').val('').trigger('change');  } /\* HiPay custom code - end \*/  /\*\*  \* @function  \* @description Updates the credit card form with the attributes of a given card  \* @param {String} cardID the credit card ID of a given card  \*/  function populateCreditCardForm(cardID) { |

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| **Before (line 58-62)** |
| if (!data) {  window.alert(Resources.CC\_LOAD\_ERROR);  return false;  }  setCCFields(data); |
| **After (add the code highlighted)** |
| if (!data) {  window.alert(Resources.CC\_LOAD\_ERROR);  return false;  }  setCCFields(data);  /\* HiPay custom code – start \*/  if (SitePreferences.HIPAY\_ENABLED && SitePreferences.HIPAY\_ENABLE\_ONECLICK) {  $('[data-method="HIPAY\_CREDIT\_CARD"]').find('.ccfields-wrap').hide();  formPrepare.validateForm();  }  /\* HiPay custom code - end \*/ |

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| **Before (line 109-129)** |
| formPrepare.init({  formSelector: 'form[id$="billing"]',  continueSelector: '[name$="billing\_save"]'  });  // default payment method to 'CREDIT\_CARD'  updatePaymentMethod((selectedPaymentMethod) ? selectedPaymentMethod : 'CREDIT\_CARD');  $selectPaymentMethod.on('click', 'input[type="radio"]', function () {  updatePaymentMethod($(this).val());  });  // select credit card from list  $('#creditCardList').on('change', function () {  var cardUUID = $(this).val();  if (!cardUUID) {return;}  populateCreditCardForm(cardUUID);  // remove server side error  $('.required.error').removeClass('error');  $('.error-message').remove();  }); |
| **After (add the code highlighted)** |
| formPrepare.init({  formSelector: 'form[id$="billing"]',  continueSelector: '[name$="billing\_save"]'  });  /\* HiPay custom code – start \*/  if (SitePreferences.HIPAY\_ENABLED) {  // select payment method if available  if(selectedPaymentMethod){  updatePaymentMethod(selectedPaymentMethod);  }  $selectPaymentMethod.on('click', 'input[type="radio"]', function () {  $(this).prop('checked', true);  updatePaymentMethod($(this).val());  });  } else {  // default payment method to 'CREDIT\_CARD'  updatePaymentMethod((selectedPaymentMethod) ? selectedPaymentMethod : 'CREDIT\_CARD');  $selectPaymentMethod.on('click', 'input[type="radio"]', function () {  updatePaymentMethod($(this).val());  });  }  /\* HiPay custom code – end \*/  // select credit card from list  $('#creditCardList').on('change', function () {  var cardUUID = $(this).val();  /\* HiPay custom code – start \*/  if (!cardUUID) {  if (SitePreferences.HIPAY\_ENABLED && SitePreferences.HIPAY\_ENABLE\_ONECLICK) {  clearCCFields();  var $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');  $creditCard.find('.ccfields-wrap').show();  formPrepare.validateForm();  }  return;  }  /\* HiPay custom code – end \*/  populateCreditCardForm(cardUUID);  // remove server side error  $('.required.error').removeClass('error');  $('.error-message').remove();  });   /\* HiPay custom code - start \*/  if (SitePreferences.HIPAY\_ENABLED) {  var $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');  //on init, set limit for a selected card. After change limits accordingly  var initCard = $creditCard.find('select[name$="\_type"]').find(":selected").text();  if (initCard == "Amex") {  $creditCard.find('input[name$="\_cvn"]').attr({maxLength : 4});  } else {  $creditCard.find('input[name$="\_cvn"]').attr({maxLength : 3});  }  $creditCard.find('select[name$="\_type"]').on('change', function () {  console.log('another card selected');  var cvv = $creditCard.find('.cvn-wrap');  var hiPaySaveOptions = $('\*[data-hipay-cardtype="'+$(this).val()+'"]');  var selectedCard = $(this).val();  //CVC digits min and max  if (selectedCard == "Maestro" || selectedCard == "Master Card" || selectedCard == "Visa" || selectedCard == "CarteBancaire") {  $creditCard.find('input[name$="\_cvn"]').attr({maxLength : 3});  } else if (selectedCard == "Amex") {  $creditCard.find('input[name$="\_cvn"]').attr({maxLength : 4});  }  //hide cvv for Mister Cash  if (selectedCard == "BancontactMisterCash") {  cvv.hide();  $creditCard.find('input[name$="\_cvn"]').val('000').trigger('change');  } else {  $creditCard.find('input[name$="\_cvn"]').val('').trigger('change');  cvv.show();  }  if (hiPaySaveOptions.attr('data-hipay-cvv-disabled') == 'true') {  $creditCard.find('input[name$="\_cvn"]').removeClass('required');  $creditCard.find('input[name$="\_cvn"]').val(' ');  $creditCard.find('div.cvn').removeClass('required');  $creditCard.find('div.cvn').find('span.required-indicator').hide();  if (selectedCard == 'Maestro') {  $creditCard.find('input[name$="\_cvn"]').addClass('optional');  $creditCard.find('div.cvn').addClass('optional');  } else {  $creditCard.find('input[name$="\_cvn"]').removeClass('optional');  $creditCard.find('div.cvn').removeClass('optional');  }  } else {  $creditCard.find('input[name$="\_cvn"]').addClass('required');  $creditCard.find('div.cvn').addClass('required');  $creditCard.find('span.required-indicator').show();  if (selectedCard != 'Maestro') {  $creditCard.find('input[name$="\_cvn"]').removeClass('optional');  $creditCard.find('div.cvn').removeClass('optional');  }  }  if (selectedCard == "Amex") {  $(".owner-single").addClass("hide");  $(".owner-split").removeClass("hide");  } else {  $(".owner-split").addClass("hide");  $(".owner-single").removeClass("hide");  }  //hide 'Save Card' based on custom.hipayOneClickDisabled  var saveCard = $creditCard.find('.save-card');  var saveCardBox = saveCard.find('input[name$="\_saveCard"]');  if (hiPaySaveOptions.attr('data-hipay-oneclick-disabled') == 'true') {  saveCardBox.prop('checked', false);  saveCard.hide();  } else {  saveCardBox.prop('checked', true);  saveCard.show();  }  });  }  /\* HiPay custom code - end \*/ |

* 1. app\_storefront\_core/cartridge/js/validator.js

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| **Before (line 55-64)** |
| /\*\*  \* @function  \* @description Validates that a credit card owner is not a Credit card number  \* @param {String} value The owner field which will be validated  \* @param {String} el The input field  \*/  var validateOwner = function (value) {  var isValid = regex.notCC.test($.trim(value));  return isValid;  }; |
| **After (add the code highlighted)** |
| /\*\*  \* @function  \* @description Validates that a credit card owner is not a Credit card number  \* @param {String} value The owner field which will be validated  \* @param {String} el The input field  \*/  var validateOwner = function (value) {  var isValid = regex.notCC.test($.trim(value));  return isValid;  };    /\* HiPay custom code – start \*/ var validateCVC = function (value, el) {  var selectedCard = $(el).closest('form').find('select[id$="creditCard\_type"]').find(":selected").text();  if (selectedCard == 'MasterCard' || selectedCard == 'Carte Bancaire' || selectedCard == 'Visa') {  if (value.length == 3) {  return true;  } else {  return false;  }  } else if (selectedCard == 'American Express') {  if (value.length == 4) {  return true;  } else {  return false;  }  } else {  return true;  }  };  /\*\*  \* Add cvc validation method to jQuery validation plugin.  \* Text fields must have 'cvn' css class to be validated as cvn  \*/  $.validator.addMethod('cvn', validateCVC, Resources.VALIDATE\_RANGELENGTH);  /\* HiPay custom code - end \*/ |

* 1. app\_storefront\_core/cartridge/scripts/assets.js

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| **Before (file does not exist)** |
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| **After (create the file and add all the code)** |
| 'use strict';  var URLUtils = require('dw/web/URLUtils');  var styles = [];  var scripts = [];  module.exports = {  addCss: function (src) {  if (/((http(s)?:)?\/\/).\*.css/.test(src)) {  if (styles.lastIndexOf(src) < 0) {  styles.push(src);  }  } else if (styles.lastIndexOf(URLUtils.staticURL(src).toString()) < 0) {  styles.push(URLUtils.staticURL(src).toString());  }  },  addJs: function (src) {  if (/((http(s)?:)?\/\/).\*.js/.test(src)) {  if (scripts.lastIndexOf(src) < 0) {  scripts.push(src);  }  } else if (scripts.lastIndexOf(URLUtils.staticURL(src).toString()) < 0) {  scripts.push(URLUtils.staticURL(src).toString());  }  },  scripts: scripts,  styles: styles  }; |

* 1. app\_storefront\_core/cartridge/scripts/common/inputField.js

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| **Before (line 89-96)** |
| /\*  if it is a phone, country field then add these as css class names as well  so that client side validation can work  please note this is kind of hack (to hard code ids) to avoid mass changes in the templates wherever phone/country is used  \*/  if (pdict.formfield.formId === 'phone' || pdict.formfield.formId === 'country') {  fieldClass += pdict.formfield.formId;  } |
| **After (add the code highlighted)** |
| /\* HiPay custom code – start \*/ /\*  if it is a phone, country field then add these as css class names as well  so that client side validation can work  please note this is kind of hack (to hard code ids) to avoid mass changes in the templates wherever phone/country is used  \*/  if (pdict.formfield.formId === 'phone' || pdict.formfield.formId === 'country' || pdict.formfield.formId === 'cvn') {  fieldClass += pdict.formfield.formId;  } /\* HiPay custom code – end \*/ |

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| **Before (line 100-113)** |
| // required  // pdict.required override pdict.formfield.mandatory  if (pdict.required !== undefined && pdict.required !== null) {  required = pdict.required;  }  if (required) {  fieldClass += ' required';  rowClass += ' required';  }  // validation  if (!pdict.formfield.valid) {  rowClass += ' error';  } |
| **After (add the code highlighted)** |
| // required  // pdict.required override pdict.formfield.mandatory  if (pdict.required !== undefined && pdict.required !== null) {  required = pdict.required;  }  /\* HiPay custom code – start \*/ if (rowClass == 'cvn optional') {  required = false;  } /\* HiPay custom code – end \*/  if (required) {  fieldClass += ' required';  rowClass += ' required';  }  // validation  if (!pdict.formfield.valid) {  /\* HiPay custom code – start \*/  if (rowClass != 'cvn optional') {  rowClass += ' error';  }  /\* HiPay custom code – end \*/ } |

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| **Before (line 195-197)** |
| // caption - error message or description  var hasError = !!pdict.formfield.error;  var message = ''; |
| **After (add the code highlighted)** |
| // caption - error message or description  var hasError = !!pdict.formfield.error;  var message = '';  /\* HiPay custom code – start \*/ if (hasError && rowClass == 'cvn optional') {  hasError = false;  }  /\* HiPay custom code – end \*/ |

* 1. app\_storefront\_core/cartridge/scripts/util/Resource.ds

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| **Before (line 210-225)** |
| /\*\*  \* Get the client-side preferences of a given page  \* @returns {Object} An objects key key-value pairs holding the preferences  \*/  ResourceHelper.getPreferences = function(pageContext) {  var cookieHintAsset = ContentMgr.getContent('cookie\_hint');  var consentTrackingHintAsset = ContentMgr.getContent('consent\_tracking\_hint');  return {  LISTING\_INFINITE\_SCROLL: (Site.getCurrent().getCustomPreferenceValue('enableInfiniteScroll') ? true : false),  LISTING\_REFINE\_SORT: true,  STORE\_PICKUP: Site.getCurrent().getCustomPreferenceValue('enableStorePickUp'),  COOKIE\_HINT: (cookieHintAsset && cookieHintAsset.online) || false,  CONSENT\_TRACKING\_HINT: (consentTrackingHintAsset && consentTrackingHintAsset.online) || false,  CHECK\_TLS: Site.getCurrent().getCustomPreferenceValue('checkTLS')  };  } |
| **After (add the code highlighted)** |
| /\* HiPay custom code – start \*/ /\*\*  \* Get the client-side preferences of a given page  \* @returns {Object} An objects key key-value pairs holding the preferences  \*/  ResourceHelper.getPreferences = function(pageContext) {  var cookieHintAsset = ContentMgr.getContent('cookie\_hint');  var consentTrackingHintAsset = ContentMgr.getContent('consent\_tracking\_hint');  return {  LISTING\_INFINITE\_SCROLL: (Site.getCurrent().getCustomPreferenceValue('enableInfiniteScroll') ? true : false),  LISTING\_REFINE\_SORT: true,  STORE\_PICKUP: Site.getCurrent().getCustomPreferenceValue('enableStorePickUp'),  COOKIE\_HINT: (cookieHintAsset && cookieHintAsset.online) || false,  CONSENT\_TRACKING\_HINT: (consentTrackingHintAsset && consentTrackingHintAsset.online) || false,  CHECK\_TLS: Site.getCurrent().getCustomPreferenceValue('checkTLS'),  HIPAY\_ENABLED: Site.getCurrent().getCustomPreferenceValue('hipayEnabled'),  HIPAY\_ENABLE\_ONECLICK: Site.getCurrent().getCustomPreferenceValue('hipayEnableOneClick')  };  }  /\* HiPay custom code – end \*/ |

* 1. app\_storefront\_core/cartridge/templates/default/account/checkout/billing/creditcardjson.isml

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| **Before (line 6-15)** |
| <isscript>  var cc = {  maskedNumber:pdict.SelectedCreditCard.maskedCreditCardNumber,  holder:pdict.SelectedCreditCard.creditCardHolder,  type:pdict.SelectedCreditCard.creditCardType,  expirationMonth:pdict.SelectedCreditCard.creditCardExpirationMonth,  expirationYear:pdict.SelectedCreditCard.creditCardExpirationYear  }  var json = JSON.stringify(cc);  </isscript> |
| **After (add the code highlighted)** |
| <iscomment> HiPay custom code – start </iscomment>  <isset name="hipayEnabled" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')}" scope="page"/>  <isif condition="${hipayEnabled}" >  <isscript>  var cc = {  maskedNumber:pdict.SelectedCreditCard.maskedCreditCardNumber,  holder:pdict.SelectedCreditCard.creditCardHolder,  type:pdict.SelectedCreditCard.creditCardType,  expirationMonth:pdict.SelectedCreditCard.creditCardExpirationMonth,  expirationYear:pdict.SelectedCreditCard.creditCardExpirationYear,  uuid:pdict.SelectedCreditCard.UUID  }  var json = JSON.stringify(cc);  </isscript>  <iselse/>  <isscript>  var cc = {  maskedNumber:pdict.SelectedCreditCard.maskedCreditCardNumber,  holder:pdict.SelectedCreditCard.creditCardHolder,  type:pdict.SelectedCreditCard.creditCardType,  expirationMonth:pdict.SelectedCreditCard.creditCardExpirationMonth,  expirationYear:pdict.SelectedCreditCard.creditCardExpirationYear  }  var json = JSON.stringify(cc);  </isscript>  </isif>  <iscomment> HiPay custom code – end </iscomment> |

* 1. app\_storefront\_core/cartridge/templates/default/account/checkout/billing/paymentmethods.isml

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| **Before (line 4-40)** |
| <isinclude template="util/modules"/>  <isif condition="${pdict.OrderTotal > 0}">  <fieldset>  <legend>  ${Resource.msg('billing.paymentheader','checkout',null)}  <div class="dialog-required"> <span class="required-indicator">&#8226; <em>${Resource.msg('global.requiredfield','locale',null)}</em></span></div>  </legend>  <div class="payment-method-options form-indent">  <isloop items="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.options}" var="paymentMethodType">  <iscomment>Ignore GIFT\_CERTIFICATE method, GCs are handled separately before other payment methods.</iscomment>  <isif condition="${paymentMethodType.value.equals(dw.order.PaymentInstrument.METHOD\_GIFT\_CERTIFICATE)}"><iscontinue/></isif>  <div class="form-row label-inline">  <isset name="radioID" value="${paymentMethodType.value}" scope="page"/>  <div class="field-wrapper">  <input id="is-${radioID}" type="radio" class="input-radio" name="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlName}" value="${paymentMethodType.htmlValue}" <isif condition="${paymentMethodType.value == pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlValue}">checked="checked"</isif> />  </div>  <label for="is-${radioID}"><isprint value="${Resource.msg(paymentMethodType.label,'forms',null)}"/></label>  </div>  </isloop>  </div>  <div class="form-row form-row-button">  <button id="payment-select-go" name="${pdict.CurrentForms.billing.paymentSelect.htmlName}" type="submit" value="Go" class="simple-submit">Select</button>  </div>  <isif condition="${!empty(pdict.MissingPaymentProcessor)}">  <div class="billing-error">${Resource.msg('billing.missingprocessorerror','checkout',null)}</div>  </isif>  <iscomment>  Credit card block  --------------------------------------------------------------  </iscomment> |
| **After (add the code highlighted)** |
| <isinclude template="util/modules"/>  <isif condition="${pdict.OrderTotal > 0}">  <iscomment> HiPay custom code – start </iscomment>  <isset name="hipayEnabled" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')}" scope="page"/>  <isset name="hipayEnableOneClick" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnableOneClick')}" scope="page"/>  <iscomment> HiPay custom code – end </iscomment>  <fieldset>  <legend>  ${Resource.msg('billing.paymentheader','checkout',null)}  <div class="dialog-required"> <span class="required-indicator">&#8226; <em>${Resource.msg('global.requiredfield','locale',null)}</em></span></div>  </legend>  <iscomment> HiPay custom code – start </iscomment>  <isif condition="${hipayEnabled}" >  <link rel="stylesheet" href="${URLUtils.staticURL('/css/hipay.css')}" />  <isinclude template="checkout/components/devicefingerprint"/>  <isinclude template="checkout/components/sdkjs"/>  <isscript>  var HiPayHelper = require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayHelper'),  helper = new HiPayHelper();  var renderOney = helper.validateOneyAvailability(pdict.Basket);  var applicablePaymentCards = helper.getApplicablePaymentCards(pdict.Basket);  var HiPayConfig = require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayConfig').HiPayConfig,  isHiPayHostedMode = false;  if (HiPayConfig.hipayOperationMode == HiPayConfig.OPERATION.HOSTED || HiPayConfig.hipayOperationMode == HiPayConfig.OPERATION.IFRAME) {  isHiPayHostedMode = true;  }  </isscript>  <div class="payment-method-options form-indent">  <isloop items="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.options}" var="paymentMethodType">  <iscomment>Ignore GIFT\_CERTIFICATE method, GCs are handled separately before other payment methods.</iscomment>  <isif condition="${paymentMethodType.value.equals(dw.order.PaymentInstrument.METHOD\_GIFT\_CERTIFICATE)}"><iscontinue/></isif>  <!--- HIPAY INTEGRATION ------ skip all non-HiPay methods if HiPay is enabled--->  <isif condition="${(paymentMethodType.value.indexOf('HIPAY') == -1)}" ><iscontinue/></isif>  <isif condition="${(paymentMethodType.value.indexOf('HIPAY') > -1)}">  <iscomment>Skip HIPAY\_ payment methods if is in HOSTED operation mode.</iscomment>  <isif condition="${isHiPayHostedMode && paymentMethodType.value.indexOf('HIPAY\_HOSTED') == -1}"><iscontinue/></isif>  <iscomment>Skip hosted page payment method if is in API operation mode.</iscomment>  <isif condition="${!isHiPayHostedMode && paymentMethodType.value.indexOf('HIPAY\_HOSTED') > - 1}"> <iscontinue/></isif>  <iscomment>Skip Oney pay if product and shipping is not configured for it.</iscomment>  <isif condition="${renderOney === false && paymentMethodType.value.indexOf('ONEY\_FACILITY\_PAY') > - 1}"> <iscontinue/></isif>  </isif>  <div class="form-row label-inline">  <isset name="radioID" value="${paymentMethodType.value}" scope="page"/>  <label for="is-${radioID}"> <isprint value="${Resource.msg(paymentMethodType.label,'forms',null)}"/>  <isscript>  var paymentMethod = dw.order.PaymentMgr.getPaymentMethod(paymentMethodType.value),  hipayProductName = paymentMethod.custom.hipayProductName;  if (!empty(hipayProductName)) {  hipayProductName = hipayProductName.toLowerCase();  }  </isscript>  <isif condition="${!empty(hipayProductName)}">  <i class="payment-product-sprite-${hipayProductName}"></i>  </isif>  </label>  <div class="field-wrapper">  <input id="is-${radioID}" type="radio" class="input-radio" name="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlName}" value="${paymentMethodType.htmlValue}" <isif condition="${paymentMethodType.value == pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlValue}">checked="checked"</isif> />  </div>  </div>  </isloop>  </div>  <div class="form-row form-row-button">  <button id="payment-select-go" name="${pdict.CurrentForms.billing.paymentSelect.htmlName}" type="submit" value="Go" class="simple-submit">Select</button>  </div>  <isif condition="${!empty(pdict.MissingPaymentProcessor)}">  <div class="billing-error">${Resource.msg('billing.missingprocessorerror','checkout',null)}</div>  </isif>  <iselse/>  <iscomment> HiPay custom code – end </iscomment>  <div class="payment-method-options form-indent">  <isloop items="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.options}" var="paymentMethodType">  <iscomment> HiPay custom code – start </iscomment>  <!--- HIPAY INTEGRATION ------ skip all HiPay methods if HiPay is disabled --->  <isif condition="${paymentMethodType.value.indexOf('HIPAY') > -1}" ><iscontinue/></isif> <iscomment> HiPay custom code – end </iscomment>  <iscomment>Ignore GIFT\_CERTIFICATE method, GCs are handled separately before other payment methods.</iscomment>  <isif condition="${paymentMethodType.value.equals(dw.order.PaymentInstrument.METHOD\_GIFT\_CERTIFICATE)}"><iscontinue/></isif>  <div class="form-row label-inline">  <isset name="radioID" value="${paymentMethodType.value}" scope="page"/>  <div class="field-wrapper">  <input id="is-${radioID}" type="radio" class="input-radio" name="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlName}" value="${paymentMethodType.htmlValue}" <isif condition="${paymentMethodType.value == pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlValue}">checked="checked"</isif> />  </div>  <label for="is-${radioID}"><isprint value="${Resource.msg(paymentMethodType.label,'forms',null)}"/></label>  </div>  </isloop>  </div>  <div class="form-row form-row-button">  <button id="payment-select-go" name="${pdict.CurrentForms.billing.paymentSelect.htmlName}" type="submit" value="Go" class="simple-submit">Select</button>  </div>  <isif condition="${!empty(pdict.MissingPaymentProcessor)}">  <div class="billing-error">${Resource.msg('billing.missingprocessorerror','checkout',null)}</div>  </isif>  <iscomment> HiPay custom code – start </iscomment> </isif>  <isif condition="${!hipayEnabled}" >  <iscomment> HiPay custom code – end </iscomment>  <iscomment>  Credit card block  --------------------------------------------------------------  </iscomment> |

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| **Before (line 219-230)** |
| <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='PayPal'}">payment-method-expanded</isif>" data-method="Custom">  <!-- Your custom payment method implementation goes here. -->  ${Resource.msg('billing.custompaymentmethod','checkout',null)}  </div>  </fieldset>  <iselse/>  <div class="gift-cert-used form-indent">  <isif condition="${pdict.gcPITotal>0}">${Resource.msg('billing.giftcertnomethod','checkout',null)}<iselse/>${Resource.msg('billing.zerobalance','checkout',null)}</isif>  <input type="hidden" name="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlName}" value="${dw.order.PaymentInstrument.METHOD\_GIFT\_CERTIFICATE}" />  <input type="hidden" id="noPaymentNeeded" name="noPaymentNeeded" value="true" />  </div>  </isif> |
| **After (add the code highlighted)** |
| <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='PayPal'}">payment-method-expanded</isif>" data-method="Custom">  <!-- Your custom payment method implementation goes here. -->  ${Resource.msg('billing.custompaymentmethod','checkout',null)}  </div>  <iscomment> HiPay custom code – start </iscomment>  </isif>  <isif condition="${hipayEnabled}" >  <!--- HIPAY INTEGRATION ------ BEGIN --->  <iscomment>  HIPAY Credit card  --------------------------------------------------------------  </iscomment>  <div class="payment-method <isif condition="${(empty(pdict.selectedPaymentID) || pdict.selectedPaymentID=='HIPAY\_CREDIT\_CARD') && isHiPayHostedMode == false }">payment-method-expanded</isif>" data-method="HIPAY\_CREDIT\_CARD">  <iscomment>display select box with stored credit cards if customer is authenticated</iscomment>  <isif condition="${pdict.CurrentCustomer.authenticated && !empty(pdict.ApplicableCreditCards) && hipayEnableOneClick}">  <div class="form-row">  <label class="label">${Resource.msg('billing.selectcreditcard','checkout',null)}</label>  <div class="field-wrapper">  <select name="${pdict.CurrentForms.billing.paymentMethods.creditCardList.htmlName}" id="creditCardList" class="input-select">  <option value="">${Resource.msg('billing.creditcardlistselect','checkout',null)}</option>  <isloop items="${pdict.ApplicableCreditCards}" var="creditCardInstr">  <option value="${creditCardInstr.UUID}">(<isprint value="${creditCardInstr.creditCardType}"/>) <isprint value="${creditCardInstr.maskedCreditCardNumber}"/> - ${Resource.msg('billing.creditcardlistexp','checkout',null)} <isprint value="${creditCardInstr.creditCardExpirationMonth}" formatter="00" />.<isprint value="${creditCardInstr.creditCardExpirationYear}" formatter="0000" /></option>  </isloop>  </select>  </div>  </div>  <div class="form-row form-row-button">  <button id="credit-card-select-go" name="${pdict.CurrentForms.billing.creditCardSelect.htmlName}" type="submit" value="Go" class="simple-submit">Select</button>  </div>  <iscomment>  <isloop items="${pdict.ApplicableCreditCards}" var="creditCardInstr">  <a href="${URLUtils.https('COBilling-UpdateCreditCardSelection', 'creditCardUUID', creditCardInstr.UUID)}">  (<isprint value="${creditCardInstr.creditCardType}"/>)  <isprint value="${creditCardInstr.maskedCreditCardNumber}"/>  - ${Resource.msg('billing.creditcardlistexp','checkout',null)}  <isprint value="${creditCardInstr.creditCardExpirationMonth}" formatter="00" />  .<isprint value="${creditCardInstr.creditCardExpirationYear}" formatter="0000" />  </a>  </isloop>  </iscomment>  </isif>  <div class="ccfields-wrap">  <isset name="selectedCreditCardType" value="${ pdict.CurrentForms.billing.paymentMethods.creditCard.type.selectedOptionObject ? pdict.CurrentForms.billing.paymentMethods.creditCard.type.selectedOptionObject.cardType : null}" scope="page" />  <div class="owner-wrap">  <div class="owner-split ${selectedCreditCardType != 'Amex' ? 'hide' : ''}">  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.ownerfirst}" type="input" attribute1="autocomplete" value1="off" xhtmlclass="owner"/>  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.ownerlast}" type="input" attribute1="autocomplete" value1="off" xhtmlclass="owner"/>  </div>  <div class="owner-single ${selectedCreditCardType == 'Amex' ? 'hide' : ''}">  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.owner}" type="input" attribute1="autocomplete" value1="off" xhtmlclass="owner"/>  </div>  </div>  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.type}" type="select"/>    <isif condition="${!empty(applicablePaymentCards)}">  <isloop items="${applicablePaymentCards}" var="creditCardInstr">  <input type="hidden" data-hipay-cvv-disabled="${creditCardInstr.custom.hipayCVVIgnored}" data-hipay-oneclick-disabled="${creditCardInstr.custom.hipayOneClickDisabled}" data-hipay-cardtype="${creditCardInstr.cardType}" />  </isloop>  </isif>    <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.number}" type="input" attribute1="autocomplete" value1="off"/>  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.uuid}" type="hidden" attribute1="autocomplete" value1="off"/>  <div class="form-label-text"><span class="required-indicator">${Resource.msg('billing.requiredindicator','checkout',null)}</span>${Resource.msg('billing.creditcardlistexpdate', 'checkout', null)}</div>  <isif condition="${pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.month.selectedOption === null || pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.year.selectedOption === null}">  <isscript>  var currentYear = (new Date()).getYear(),  currentMonth = (new Date()).getMonth(),  year = pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.year,  month = pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.month;  currentMonth += 1;  year.setHtmlValue(currentYear);  month.setHtmlValue(currentMonth);  </isscript>  </isif>  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.month}" type="select" rowclass="month"/>  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.year}" type="select" rowclass="year"/>    <div class="cvn-wrap ${selectedCreditCardType === 'BancontactMisterCash' ? 'hide' : ''}">  <isif condition="${selectedCreditCardType === 'Maestro'}">  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.cvn}" type="input" rowclass="cvn optional" attribute1="autocomplete" value1="off" helpcid="checkout-security-code" helplabel="${Resource.msg('billing.linkcvn', 'checkout', null)}"/>  <iselse/>  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.cvn}" type="input" rowclass="cvn" attribute1="autocomplete" value1="off" helpcid="checkout-security-code" helplabel="${Resource.msg('billing.linkcvn', 'checkout', null)}"/>  </isif>  </div>    <isif condition="${pdict.CurrentCustomer.authenticated && hipayEnableOneClick && selectedCreditCardType != 'Maestro'}">  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.saveCard}" type="checkbox" rowclass="label-inline form-indent save-card"/>  </isif>  </div>  </div>    <iscomment>Belfius Direct Net</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_DEXIA\_DIRECTNET'}">payment-method-expanded</isif>" data-method="HIPAY\_DEXIA\_DIRECTNET">  <!--- No form is applied --->  </div>    <iscomment>Giropay</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_GIROPAY'}">payment-method-expanded</isif>" data-method="HIPAY\_GIROPAY">  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.giropay.bic}" type="input" />  </div>    <iscomment>Hosted Pages</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_HOSTED'}">payment-method-expanded</isif>" data-method="HIPAY\_HOSTED">  <!--- No form is applied --->  </div>    <iscomment>iDEAL</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_IDEAL'}">payment-method-expanded</isif>" data-method="HIPAY\_IDEAL">  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.issuer\_bank\_id}" type="select" />  </div>    <iscomment>ING HomePay</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_ING\_HOMEPAY'}">payment-method-expanded</isif>" data-method="HIPAY\_ING\_HOMEPAY">  <!--- No form is applied --->  </div>    <iscomment>Klarna</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_KLARNA'}">payment-method-expanded</isif>" data-method="HIPAY\_KLARNA">  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.klarna.birthdate}" type="date" />  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.klarna.houseNumber}" type="input" />  <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.klarna.gender}" type="select"/>  </div>    <iscomment>Przelewy24</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_PRZELEWY24'}">payment-method-expanded</isif>" data-method="HIPAY\_PRZELEWY24">  <!--- No form is applied --->  </div>    <iscomment>QIWI Wallet</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_QIWI\_WALLET'}">payment-method-expanded</isif>" data-method="HIPAY\_QIWI\_WALLET">  <!--- No form is applied --->  </div>    <iscomment>Sisal</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_SISAL'}">payment-method-expanded</isif>" data-method="HIPAY\_SISAL">  <!--- No form is applied --->  </div>    <iscomment>Sofort Uberweisung</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_SOFORT\_UBERWEISUNG'}">payment-method-expanded</isif>" data-method="HIPAY\_SOFORT\_UBERWEISUNG">  <!--- No form is applied --->  </div>    <iscomment>WebMoney Transfer</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_WEBMONEY\_TRANSFER'}">payment-method-expanded</isif>" data-method="HIPAY\_WEBMONEY\_TRANSFER">  <!--- No form is applied --->  </div>    <iscomment>Yandex Money</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_YANDEX'}">payment-method-expanded</isif>" data-method="HIPAY\_YANDEX">  <!--- No form is applied --->  </div>    <iscomment>PayPal</iscomment>  <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='PayPal'}">payment-method-expanded</isif>" data-method="PayPal">  <!--- No form is applied --->  </div>  <!--- HIPAY INTEGRATION ------ END --->    </isif>  <iscomment> HiPay custom code – end </iscomment>  </fieldset>  <iselse/>  <div class="gift-cert-used form-indent">  <isif condition="${pdict.gcPITotal>0}">${Resource.msg('billing.giftcertnomethod','checkout',null)}<iselse/>${Resource.msg('billing.zerobalance','checkout',null)}</isif>  <input type="hidden" name="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlName}" value="${dw.order.PaymentInstrument.METHOD\_GIFT\_CERTIFICATE}" />  <input type="hidden" id="noPaymentNeeded" name="noPaymentNeeded" value="true" />  </div>  </isif> |

* 1. app\_storefront\_core/cartridge/templates/default/checkout/cart/cart.isml

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| **Before (line 149-159)** |
| <isscript>  var isInWishList = false;  if (pdict.WishList) {  var wishListItems = pdict.WishList.items;  var wishListItemsSize = wishListItems.size();  for each( var wishListItem in wishListItems ) {  if (lineItem.productID == wishListItem.product.ID) {  isInWishList = true;  break;  }  }  }  </isscript> |
| **After (add the code highlighted)** |
| <isscript>  var isInWishList = false;  if (pdict.WishList) {  var wishListItems = pdict.WishList.items;  if (wishListItems) {  var wishListItemsSize = wishListItems.size();  for each( var wishListItem in wishListItems ) {  if (lineItem.productID == wishListItem.product.ID) {  isInWishList = true;  break;  }  }  }  }  </isscript> |

* 1. app\_storefront\_core/cartridge/templates/default/checkout/components/devicefingerprint.isml

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| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| <!--- TEMPLATENAME: devicefingerprint.isml.isml --->  <!-- hidden field to store blackbox -->  <input type="hidden" name="${pdict.CurrentForms.billing.paymentMethods.deviceFingerprint.htmlName}" id="ioBB">  <!-- Include HiPay JavaScript fingerprint library -->  <script language="javascript" src="<https://secure-gateway.hipay-tpp.com/gateway/toolbox/fingerprint>"></script> |

* 1. app\_storefront\_core/cartridge/templates/default/checkout/components/sdkjs.isml

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| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| <input type="hidden" name="${pdict.CurrentForms.billing.paymentMethods.browserInfo.htmlName}" id="browserInfo">  <script language="javascript" src="<https://libs.hipay.com/js/sdkjs.js>">  </script>  <script>  document.addEventListener("DOMContentLoaded", function(event) {  const hipay = HiPay({  username: 'public',  password: 'password'  });  let browserInfo = hipay.getBrowserInfo();  $("#browserInfo").val(JSON.stringify(browserInfo));  });  </script> |

* 1. app\_storefront\_core/cartridge/templates/default/checkout/summary/summary.isml

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| **Before (line 19-21)** |
| <isif condition="${pdict.PlaceOrderError != null}">  <div class="error-form">${Resource.msg(pdict.PlaceOrderError.code,'checkout',null)}</div>  </isif> |
| **After (add the code highlighted)** |
| <iscomment> HiPay custom code – start </iscomment>  <isset name="hipayEnabled" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')}" scope="page"/>  <isif condition="${hipayEnabled}" >  <isscript>  var paymentStatus = null;  if ( pdict.CurrentHttpParameterMap.status != null ) {  paymentStatus = pdict.CurrentHttpParameterMap.status.stringValue;  }  </isscript>  <isif condition="${pdict.PlaceOrderError != null || paymentStatus != null}">  <isif condition="${paymentStatus === 'cancel'}">  <div class="error-form">${dw.web.Resource.msg('hipay.paymant.cancel', 'hipay', null)}</div>  <iselseif condition="${paymentStatus === 'decline'}">  <div class="error-form">${dw.web.Resource.msg('hipay.payment.decline', 'hipay', null)}</div>  <iselseif condition="${paymentStatus === 'error'}">  <div class="error-form">${dw.web.Resource.msg('hipay.payment.error', 'hipay', null)}</div>  <iselse>  <div class="error-form">${dw.web.Resource.msg(pdict.PlaceOrderError.code,'checkout',null)}</div>  </isif>  </isif>  <iselse/>  <isif condition="${pdict.PlaceOrderError != null}">  <div class="error-form">${Resource.msg(pdict.PlaceOrderError.code,'checkout',null)}</div>  </isif>  </isif>  <iscomment> HiPay custom code – end </iscomment> |

* 1. app\_storefront\_core/cartridge/templates/default/resources/forms.properties

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| --- |
| **Before (line 1-26)** |
| ##############################################  # Directory: forms  ##############################################  billing.email=Email  billingcoupon.couponenter=Enter coupon code  billingcoupon.couponinvalid=Invalid Coupon Code  billingcoupon.couponused=This Promo Code has already been used  billingcoupon.couponexpired=Expired Promo Code  billingcoupon.couponalreadyapplied=The Coupon is already applied  billingcoupon.couponnotqualified=You have not qualified for the discount  billinggiftcert.giftcertlabel=Redeem Gift Certificate  billinggiftcert.giftcertinvalid=Invalid Gift Certificate  billinggiftcert.giftcertwrongcurrency=The gift Certificate can only be redeemed for orders placed in the same currency as the gift certificate  billinggiftcert.giftcertnofunds=Insufficient Gift Certificate balance  country.the.unitedstates=The United States  country.unitedstates=United States  country.germany=Germany  country.canada=Canada  country.japan=Japan  country.france=France  country.italy=Italy  country.china=China  country.unitedkingdom=United Kingdom |
| **After (add the code highlighted)** |
| ##############################################  # Directory: forms  ##############################################  billing.email=Email  billingcoupon.couponenter=Enter coupon code  billingcoupon.couponinvalid=Invalid Coupon Code  billingcoupon.couponused=This Promo Code has already been used  billingcoupon.couponexpired=Expired Promo Code  billingcoupon.couponalreadyapplied=The Coupon is already applied  billingcoupon.couponnotqualified=You have not qualified for the discount  billinggiftcert.giftcertlabel=Redeem Gift Certificate  billinggiftcert.giftcertinvalid=Invalid Gift Certificate  billinggiftcert.giftcertwrongcurrency=The gift Certificate can only be redeemed for orders placed in the same currency as the gift certificate  billinggiftcert.giftcertnofunds=Insufficient Gift Certificate balance  country.the.unitedstates=The United States  country.unitedstates=United States  country.germany=Germany  country.canada=Canada  country.japan=Japan  country.france=France  ##############################################  # HiPay custom code – start  ##############################################  country.poland=Poland  country.russ=Russia  ##############################################  # HiPay custom code – end  ##############################################  country.italy=Italy  country.china=China  country.unitedkingdom=United Kingdom |

* 1. app\_storefront\_core/cartridge/templates/resources/forms\_de\_DE.properties

|  |
| --- |
| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| profile.phoneexample=Format: 015 221 1335  address.phone.example=Example: 015 221 1335  address.postalcode.example=Example : 12345  resource.errorzip=Please enter a Postal Code  resource.zippostalcode=Postal Code  resource.zipcode=Postal Code  ordertrack.postalCode=Billing Postal Code  resource.city=City/Town  resource.state=County  resource.stateprovince=County |

* 1. app\_storefront\_core/cartridge/templates/resources/forms\_en\_RU.properties

|  |
| --- |
| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| profile.phoneexample=Format: 333-333-3333  address.phone.example=Example: 333-333-3333  address.postalcode.example=Example : 12345  resource.errorzip=Please enter a Postal Code  resource.zippostalcode=Postal Code  resource.zipcode=Postal Code  ordertrack.postalCode=Billing Postal Code  resource.city=City/Town  resource.state=County  resource.stateprovince=County |

* 1. app\_storefront\_core/cartridge/templates/resources/forms\_pl\_PL.properties

|  |
| --- |
| **Before (file does not exist)** |
|  |
| **After (create the file and add all the code)** |
| profile.phoneexample=Format: 333-333-3333  address.phone.example=Example: 333-333-3333  address.postalcode.example=Example : 12345  resource.errorzip=Please enter a Postal Code  resource.zippostalcode=Postal Code  resource.zipcode=Postal Code  ordertrack.postalCode=Billing Postal Code  resource.city=City/Town  resource.state=County  resource.stateprovince=County |

## Custom Code (19.1 and previous versions)

For all custom code changes an example is included in int\_hipay\_controllers and each is also described in the current section:

1. **app\_storefront\_core/cartridge/templates/default/checkout/billing/creditcardjson.isml** (see the int\_hipay\_controllers/cartridge/templates/default/checkout/billing/creditcardjson\_sample.isml as an example)

Add:

<isset name="hipayEnabled" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')}" scope="page"/>

<isif condition="${hipayEnabled}" >

<iselse/>

</isif>

After:

<isinclude template="util/jsonmodule"/>

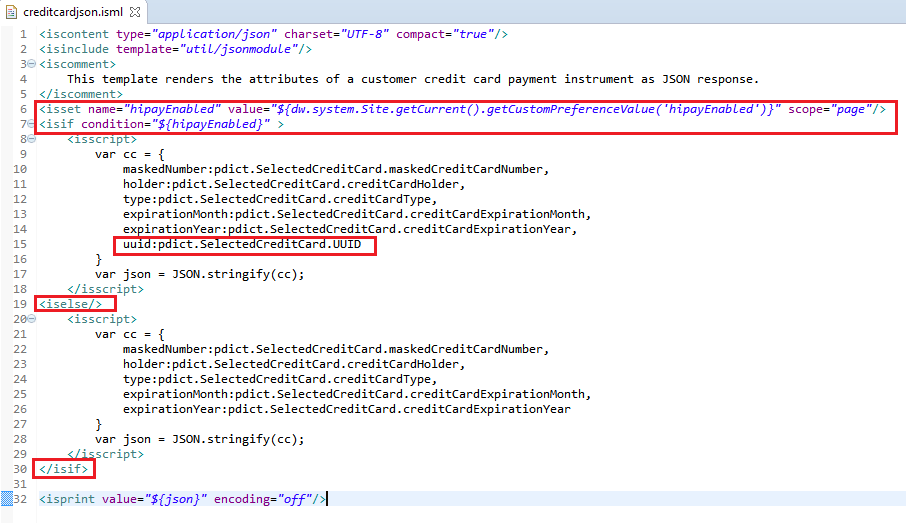
Put an existing <isscript>...</isscript> section between <iselse/></isif> lines and between <isif condition="${hipayEnabled}" ><iselse/> lines.

In the first if-else condition block add:

uuid:pdict.SelectedCreditCard.UUID

After:

expirationYear:pdict.SelectedCreditCard.creditCardExpirationYear



1. **app\_storefront\_core/cartridge/templates/default/checkout/billing/paymentmethods.isml** (see the int\_hipay\_controllers/cartridge/templates/default/checkout/billing/paymentmethods\_sample.isml as an example)

Add:

<isset name="hipayEnabled" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')}" scope="page"/>

<isset name="hipayEnableOneClick" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnableOneClick')}" scope="page"/>

After:

<isif condition="${pdict.OrderTotal > 0}">

Add:

<isif condition="${hipayEnabled}" >

<link rel="stylesheet" href="${URLUtils.staticURL('/css/hipay.css')}" />

<isinclude template="checkout/components/devicefingerprint"/>

<isscript>

var HiPayHelper = require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayHelper');

helper = new HiPayHelper();

var renderOney = helper.validateOneyAvailability(pdict.Basket);

var applicablePaymentCards = helper.getApplicablePaymentCards(pdict.Basket);

var HiPayConfig = require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayConfig').HiPayConfig,

isHiPayHostedMode = false;

if(HiPayConfig.hipayOperationMode == HiPayConfig.OPERATION.HOSTED || HiPayConfig.hipayOperationMode == HiPayConfig.OPERATION.IFRAME) {

isHiPayHostedMode = true;

}

</isscript>

<div class="payment-method-options form-indent">

<isloop items="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.options}" var="paymentMethodType">

<iscomment>Ignore GIFT\_CERTIFICATE method, GCs are handled separately before other payment methods.</iscomment>

<isif condition="${paymentMethodType.value.equals(dw.order.PaymentInstrument.METHOD\_GIFT\_CERTIFICATE)}"><iscontinue/></isif>

<!--- HIPAY INTEGRATION ------ skip all non-HiPay methods if HiPay is enabled--->

<isif condition="${(paymentMethodType.value.indexOf('HIPAY') == -1)}" ><iscontinue/></isif>

<isif condition="${(paymentMethodType.value.indexOf('HIPAY') > -1)}">

<iscomment>Skip HIPAY\_ payment methods if is in HOSTED operation mode.</iscomment>

<isif condition="${isHiPayHostedMode && paymentMethodType.value.indexOf('HIPAY\_HOSTED') == -1}"><iscontinue/></isif>

<iscomment>Skip hosted page payment method if is in API operation mode.</iscomment>

<isif condition="${!isHiPayHostedMode && paymentMethodType.value.indexOf('HIPAY\_HOSTED') > - 1}"> <iscontinue/></isif>

<iscomment>Skip Oney pay if product and shipping is not configured for it.</iscomment>

<isif condition="${renderOney === false && paymentMethodType.value.indexOf('ONEY\_FACILITY\_PAY') > - 1}"> <iscontinue/></isif>

</isif>

<div class="form-row label-inline">

<isset name="radioID" value="${paymentMethodType.value}" scope="page"/>

<label for="is-${radioID}"> <isprint value="${Resource.msg(paymentMethodType.label,'forms',null)}"/>

<isscript>

var paymentMethod = dw.order.PaymentMgr.getPaymentMethod(paymentMethodType.value);

var hipayProductName = paymentMethod.custom.hipayProductName; if(!empty(hipayProductName)) { hipayProductName = hipayProductName.toLowerCase(); }

</isscript>

<isif condition="${!empty(hipayProductName)}">

<i class="payment-product-sprite-${hipayProductName}"></i>

</isif>

</label>

<div class="field-wrapper">

<input id="is-${radioID}" type="radio" class="input-radio" name="${pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlName}" value="${paymentMethodType.htmlValue}" <isif condition="${paymentMethodType.value == pdict.CurrentForms.billing.paymentMethods.selectedPaymentMethodID.htmlValue}">checked="checked"</isif> />

</div>

</div>

</isloop>

</div>

<div class="form-row form-row-button">

<button id="payment-select-go" name="${pdict.CurrentForms.billing.paymentSelect.htmlName}" type="submit" value="Go" class="simple-submit">Select</button>

</div>

<isif condition="${!empty(pdict.MissingPaymentProcessor)}">

<div class="billing-error">${Resource.msg('billing.missingprocessorerror','checkout',null)}</div>

</isif>

<iselse/>

After:

<legend>  
 ${Resource.msg('billing.paymentheader','checkout',null)}  
 <div class="dialog-required"> <span class="required-indicator">&#8226; <em>${Resource.msg('global.requiredfield','locale',null)}</em></span>

</div>  
</legend>



Add </isif> after an existing code block for payment methods rendering.

Also add next lines:

<!--- HIPAY INTEGRATION ------ skip all HiPay methods if HiPay is disabled--->

<isif condition="${paymentMethodType.value.indexOf('HIPAY') > -1}" ><iscontinue/></isif>



Add <isif condition="${!hipayEnabled}" > before:

<iscomment>

Credit card block

</iscomment>



Add: </isif> after:

<iscomment>

Custom processor

--------------------------------------------------------------

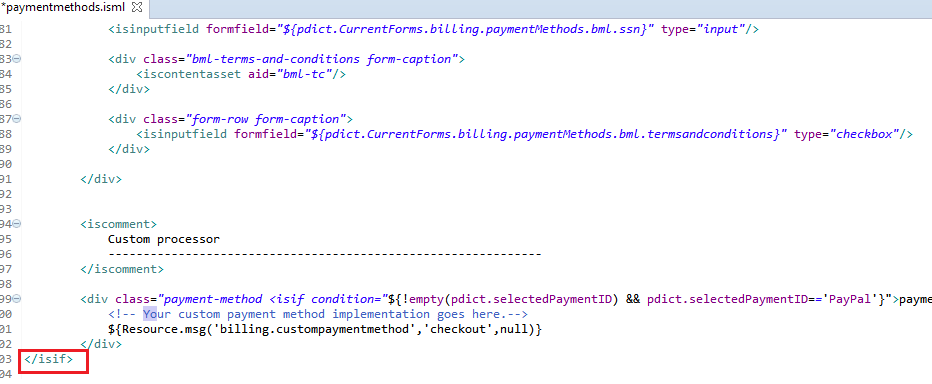
</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='PayPal'}">payment-method-expanded</isif>" data-method="Custom">

<!-- Your custom payment method implementation goes here.-->

${Resource.msg('billing.custompaymentmethod','checkout',null)}

</div>



Add:

<isif condition="${hipayEnabled}" >

<!--- HIPAY INTEGRATION ------ BEGIN --->

<iscomment>

HIPAY Credit card

--------------------------------------------------------------

</iscomment>

<div class="payment-method <isif condition="${(empty(pdict.selectedPaymentID) || pdict.selectedPaymentID=='HIPAY\_CREDIT\_CARD') && isHiPayHostedMode == false }">payment-method-expanded</isif>" data-method="HIPAY\_CREDIT\_CARD">

<iscomment>display select box with stored credit cards if customer is authenticated</iscomment>

<isif condition="${pdict.CurrentCustomer.authenticated && !empty(pdict.ApplicableCreditCards) && hipayEnableOneClick}">

<div class="form-row">

<label class="label">${Resource.msg('billing.selectcreditcard','checkout',null)}</label>

<div class="field-wrapper">

<select name="${pdict.CurrentForms.billing.paymentMethods.creditCardList.htmlName}" id="creditCardList" class="input-select">

<option value="">${Resource.msg('billing.creditcardlistselect','checkout',null)}</option>

<isloop items="${pdict.ApplicableCreditCards}" var="creditCardInstr">

<option value="${creditCardInstr.UUID}">(<isprint value="${creditCardInstr.creditCardType}"/>) <isprint value="${creditCardInstr.maskedCreditCardNumber}"/> - ${Resource.msg('billing.creditcardlistexp','checkout',null)} <isprint value="${creditCardInstr.creditCardExpirationMonth}" formatter="00" />.<isprint value="${creditCardInstr.creditCardExpirationYear}" formatter="0000" /></option>

</isloop>

</select>

</div>

</div>

<div class="form-row form-row-button">

<button id="credit-card-select-go" name="${pdict.CurrentForms.billing.creditCardSelect.htmlName}" type="submit" value="Go" class="simple-submit">Select</button>

</div>

<iscomment>

<isloop items="${pdict.ApplicableCreditCards}" var="creditCardInstr">

<a href="${URLUtils.https('COBilling-UpdateCreditCardSelection', 'creditCardUUID', creditCardInstr.UUID)}">

(<isprint value="${creditCardInstr.creditCardType}"/>)

<isprint value="${creditCardInstr.maskedCreditCardNumber}"/>

- ${Resource.msg('billing.creditcardlistexp','checkout',null)}

<isprint value="${creditCardInstr.creditCardExpirationMonth}" formatter="00" />

.<isprint value="${creditCardInstr.creditCardExpirationYear}" formatter="0000" />

</a>

</isloop>

</iscomment>

</isif>

<div class="ccfields-wrap">

<isset name="selectedCreditCardType" value="${ pdict.CurrentForms.billing.paymentMethods.creditCard.type.selectedOptionObject ? pdict.CurrentForms.billing.paymentMethods.creditCard.type.selectedOptionObject.cardType : null}" scope="page" />

<div class="owner-wrap">

<div class="owner-split ${selectedCreditCardType != 'Amex' ? 'hide' : ''}">

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.ownerfirst}" type="input" attribute1="autocomplete" value1="off" xhtmlclass="owner"/>

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.ownerlast}" type="input" attribute1="autocomplete" value1="off" xhtmlclass="owner"/>

</div>

<div class="owner-single ${selectedCreditCardType == 'Amex' ? 'hide' : ''}">

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.owner}" type="input" attribute1="autocomplete" value1="off" xhtmlclass="owner"/>

</div>

</div>

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.type}" type="select"/>

<isif condition="${!empty(applicablePaymentCards)}">

<isloop items="${applicablePaymentCards}" var="creditCardInstr">

<input type="hidden" data-hipay-cvv-disabled="${creditCardInstr.custom.hipayCVVIgnored}" data-hipay-oneclick-disabled="${creditCardInstr.custom.hipayOneClickDisabled}" data-hipay-cardtype="${creditCardInstr.cardType}" />

</isloop>

</isif> <isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.number}" type="input" attribute1="autocomplete" value1="off"/>

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.uuid}" type="hidden" attribute1="autocomplete" value1="off"/>

<div class="form-label-text"><span class="required-indicator">${Resource.msg('billing.requiredindicator','checkout',null)}</span>${Resource.msg('billing.creditcardlistexpdate', 'checkout', null)}</div>

<isif condition="${pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.month.selectedOption === null || pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.year.selectedOption === null}">

<isscript>

var currentYear = (new Date()).getYear(),

currentMonth = (new Date()).getMonth(),

year = pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.year,

month = pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.month;

currentMonth += 1;

year.setHtmlValue(currentYear);

month.setHtmlValue(currentMonth);

</isscript>

</isif>

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.month}" type="select" rowclass="month"/>

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.expiration.year}" type="select" rowclass="year"/>

<div class="cvn-wrap ${selectedCreditCardType === 'BancontactMisterCash' ? 'hide' : ''}">

<isif condition="${selectedCreditCardType === 'Maestro'}">

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.cvn}" type="input" rowclass="cvn optional" attribute1="autocomplete" value1="off" helpcid="checkout-security-code" helplabel="${Resource.msg('billing.linkcvn', 'checkout', null)}"/>

<iselse/>

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.cvn}" type="input" rowclass="cvn" attribute1="autocomplete" value1="off" helpcid="checkout-security-code" helplabel="${Resource.msg('billing.linkcvn', 'checkout', null)}"/>

</isif>

</div>

<isif condition="${pdict.CurrentCustomer.authenticated && hipayEnableOneClick && selectedCreditCardType != 'Maestro'}">

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.saveCard}" type="checkbox" rowclass="label-inline form-indent save-card"/>

</isif>

</div>

</div>

<iscomment>Belfius Direct Net</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_DEXIA\_DIRECTNET'}">payment-method-expanded</isif>" data-method="HIPAY\_DEXIA\_DIRECTNET">

<!--- No form is applied --->

</div>

<iscomment>Giropay</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_GIROPAY'}">payment-method-expanded</isif>" data-method="HIPAY\_GIROPAY">

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.giropay.bic}" type="input" />

</div>

<iscomment>Hosted Pages</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_HOSTED'}">payment-method-expanded</isif>" data-method="HIPAY\_HOSTED">

<!--- No form is applied --->

</div>

<iscomment>iDEAL</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_IDEAL'}">payment-method-expanded</isif>" data-method="HIPAY\_IDEAL">

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.issuer\_bank\_id}" type="select" />

</div>

<iscomment>ING HomePay</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_ING\_HOMEPAY'}">payment-method-expanded</isif>" data-method="HIPAY\_ING\_HOMEPAY">

<!--- No form is applied --->

</div>

<iscomment>Klarna</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_KLARNA'}">payment-method-expanded</isif>" data-method="HIPAY\_KLARNA">

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.klarna.birthdate}" type="date" />

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.klarna.houseNumber}" type="input" />

<isinputfield formfield="${pdict.CurrentForms.billing.paymentMethods.hipaymethods.klarna.gender}" type="select"/>

</div>

<iscomment>Przelewy24</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_PRZELEWY24'}">payment-method-expanded</isif>" data-method="HIPAY\_PRZELEWY24">

<!--- No form is applied --->

</div>

<iscomment>QIWI Wallet</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_QIWI\_WALLET'}">payment-method-expanded</isif>" data-method="HIPAY\_QIWI\_WALLET">

<!--- No form is applied --->

</div>

<iscomment>Sisal</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_SISAL'}">payment-method-expanded</isif>" data-method="HIPAY\_SISAL">

<!--- No form is applied --->

</div>

<iscomment>Sofort Uberweisung</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_SOFORT\_UBERWEISUNG'}">payment-method-expanded</isif>" data-method="HIPAY\_SOFORT\_UBERWEISUNG">

<!--- No form is applied --->

</div>

<iscomment>WebMoney Transfer</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_WEBMONEY\_TRANSFER'}">payment-method-expanded</isif>" data-method="HIPAY\_WEBMONEY\_TRANSFER">

<!--- No form is applied --->

</div>

<iscomment>Yandex Money</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='HIPAY\_YANDEX'}">payment-method-expanded</isif>" data-method="HIPAY\_YANDEX">

<!--- No form is applied --->

</div>

<iscomment>PayPal</iscomment>

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='PayPal'}">payment-method-expanded</isif>" data-method="PayPal">

<!--- No form is applied --->

</div>

<!--- HIPAY INTEGRATION ------ END --->

</isif>

After:

<div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID) && pdict.selectedPaymentID=='PayPal'}">payment-method-expanded</isif>" data-method="Custom">  
 <!--- Your custom payment method implementation goes here. --->

${Resource.msg('billing.custompaymentmethod','checkout',null)}  
</div>

</isif>



1. **Create a file devicefingerprint.isml in app\_storefront\_core/cartridge/templates/default/checkout/components/devicefingerprint.isml** (see the int\_hipay\_controllers/cartridge/templates/default/checkout/components/devicefingerprint\_sample.isml as an example)

<!-- hidden field to store blackbox -->  
<input type="hidden" name="${pdict.CurrentForms.billing.paymentMethods.deviceFingerprint.htmlName}" id="ioBB">  
<!-- Include HiPay JavaScript fingerprint library -->  
<script language="javascript" src="https://secure-gateway.hipay-tpp.com/gateway/toolbox/fingerprint">  
</script>

1. **app\_storefront\_core/cartridge/templates/default/checkout/summary/summary.isml** (see the int\_hipay\_controllers/cartridge/templates/default/checkout/summary/summary\_sample.isml as an example)

Add:

<isset name="hipayEnabled" value="${dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')}" scope="page"/>

<isif condition="${hipayEnabled}" >

<iselse/>

</isif>

Before:

<isif condition="${pdict.PlaceOrderError != null}">

<div class="error-form">

${Resource.msg(pdict.PlaceOrderError.code,'checkout',null)}

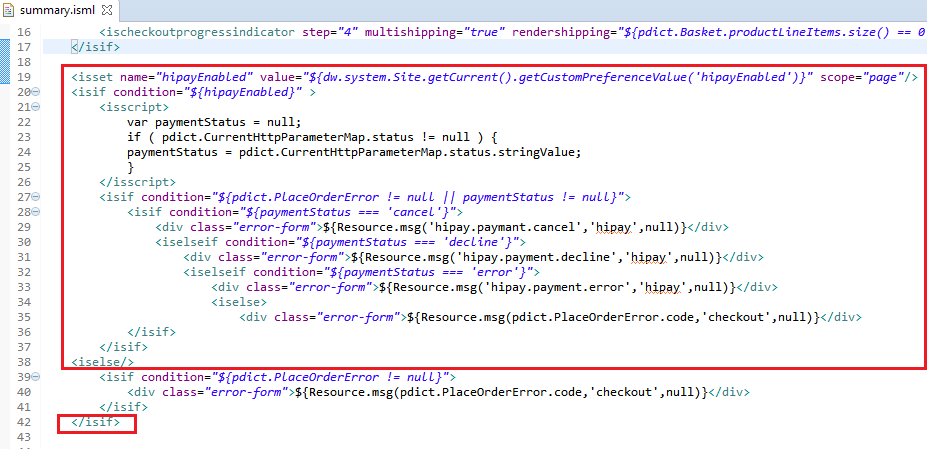
</div>

</isif>

Put an existing <isif condition="${pdict.PlaceOrderError != null}">...</isif> section between just added <iselse/></isif> lines.

In the first if-else condition block add:

<isscript>  
var paymentStatus = null;  
if ( pdict.CurrentHttpParameterMap.status != null ) {  
 paymentStatus = pdict.CurrentHttpParameterMap.status.stringValue;  
}  
</isscript>  
<isif condition="${pdict.PlaceOrderError != null || paymentStatus != null}">  
 <isif condition="${paymentStatus === 'cancel'}">  
 <div class="error-form">${Resource.msg('hipay.paymant.cancel','hipay',null)}</div>  
 <iselseif condition="${paymentStatus === 'decline'}">   
 <div class="error-form">${Resource.msg('hipay.payment.decline','hipay',null)}</div>  
 <iselseif condition="${paymentStatus === 'error'}">   
 <div class="error-form">${Resource.msg('hipay.payment.error','hipay',null)}</div>  
 <iselse>   
 <div class="error-form">${Resource.msg(pdict.PlaceOrderError.code,'checkout',null)}</div>  
 </isif>  
</isif>



1. **app\_storefront\_core/cartridge/js/pages/checkout/billing.js**

Replace:

**var** $creditCard = $('[data-method="CREDIT\_CARD"]');

With:

if (SitePreferences.HIPAY\_ENABLED) {

var $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');

$creditCard.find('input[name$="uuid"]').val(data.uuid).trigger('change');

} else {

var $creditCard = $('[data-method="CREDIT\_CARD"]');

}



Create clearCCFields function after setCCFields function:

/\*\*

\* @function

\* @description Clears the Credit Card form and show fields

\*/

function clearCCFields() {

var $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');

$creditCard.find('input[name$="creditCard\_owner"]').val('').trigger('change');

$creditCard.find('input[name$="creditCard\_uuid"]').val('').trigger('change');

$creditCard.find('select[name$="\_type"]').val('').trigger('change');

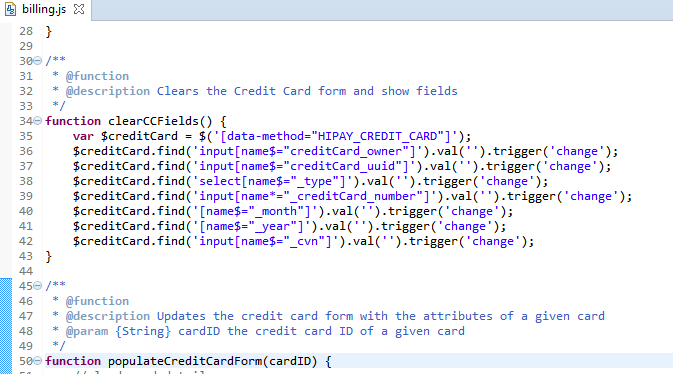
$creditCard.find('input[name\*="\_creditCard\_number"]').val('').trigger('change');

$creditCard.find('[name$="\_month"]').val('').trigger('change');

$creditCard.find('[name$="\_year"]').val('').trigger('change');

$creditCard.find('input[name$="\_cvn"]').val('').trigger('change');

}



Add:

if (SitePreferences.HIPAY\_ENABLED && SitePreferences.HIPAY\_ENABLE\_ONECLICK) {

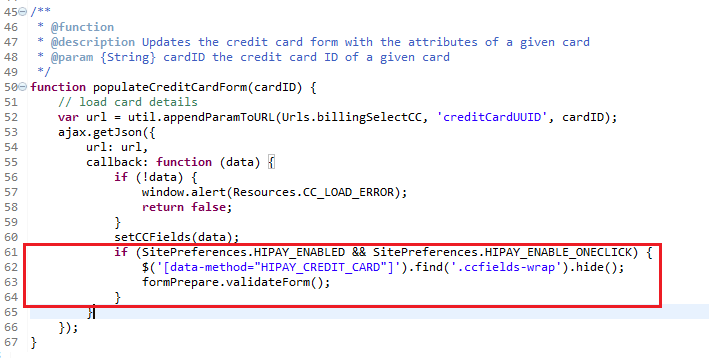
$('[data-method="HIPAY\_CREDIT\_CARD"]').find('.ccfields-wrap').hide();

formPrepare.validateForm();

}

After:

setCCFields(data);



Replace:

// default payment method to 'CREDIT\_CARD'

updatePaymentMethod((selectedPaymentMethod) ? selectedPaymentMethod : 'CREDIT\_CARD');

$selectPaymentMethod.on('click', 'input[type="radio"]', function () {

updatePaymentMethod($(this).val());

});

With:

if (SitePreferences.HIPAY\_ENABLED) {

// select payment method if available

if(selectedPaymentMethod){

updatePaymentMethod(selectedPaymentMethod);

}

$selectPaymentMethod.on('click', 'input[type="radio"]', function () {

$(this).prop('checked', true);

updatePaymentMethod($(this).val());

});

} else {

// default payment method to 'CREDIT\_CARD'

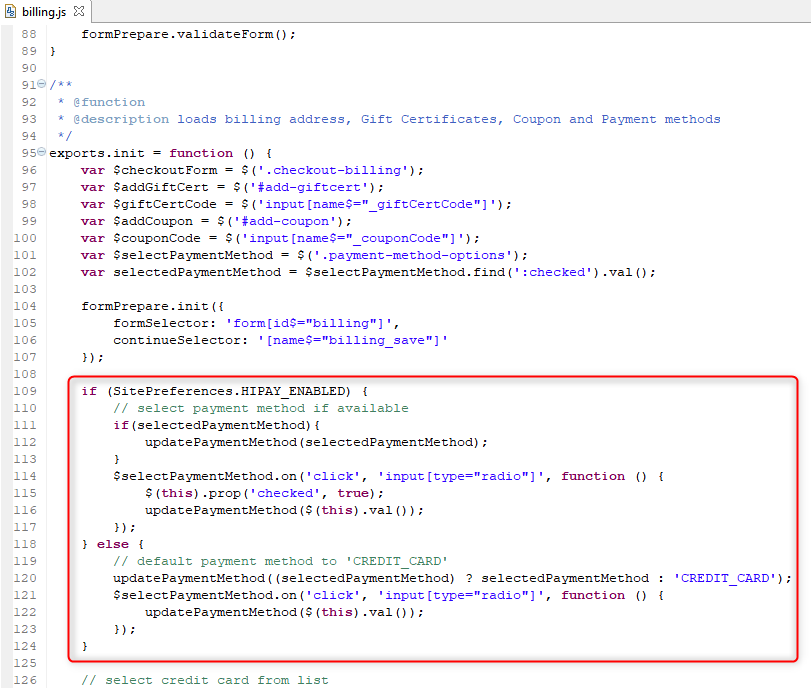
updatePaymentMethod((selectedPaymentMethod) ? selectedPaymentMethod : 'CREDIT\_CARD');

$selectPaymentMethod.on('click', 'input[type="radio"]', function () {

updatePaymentMethod($(this).val());

});

}



Add:

if (SitePreferences.HIPAY\_ENABLED && SitePreferences.HIPAY\_ENABLE\_ONECLICK) {

clearCCFields();

var $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');

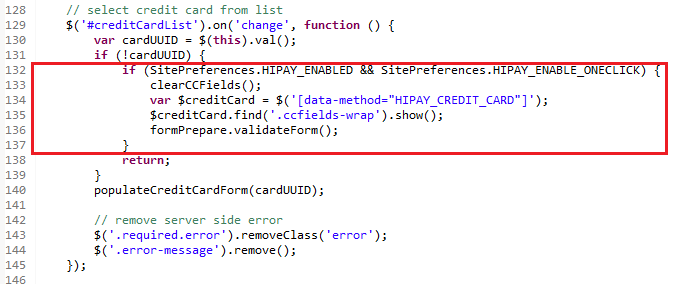
$creditCard.find('.ccfields-wrap').show();

formPrepare.validateForm();

}

After:

if (!cardUUID) {



Add:

**if** (SitePreferences.HIPAY\_ENABLED) {

**var** $creditCard = $('[data-method="HIPAY\_CREDIT\_CARD"]');

//on init, set limit for a selected card. After change limits accordingly

**var** initCard = $creditCard.find('select[name$="\_type"]').find(":selected").text();

**if** (initCard == "Amex") {

$creditCard.find('input[name$="\_cvn"]').attr({maxLength : 4});

} **else** {

$creditCard.find('input[name$="\_cvn"]').attr({maxLength : 3});

}

$creditCard.find('select[name$="\_type"]').on('change', **function** () {

console.log('another card selected');

**var** cvv = $creditCard.find('.cvn-wrap');

**var** hiPaySaveOptions = $('\*[data-hipay-cardtype="'+$(**this**).val()+'"]');

**var** selectedCard = $(**this**).val();

//CVC digits min and max

**if** (selectedCard == "Maestro" || selectedCard == "Master Card" || selectedCard == "Visa" || selectedCard == "CarteBancaire") {

$creditCard.find('input[name$="\_cvn"]').attr({maxLength : 3});

} **else** **if** (selectedCard == "Amex") {

$creditCard.find('input[name$="\_cvn"]').attr({maxLength : 4});

}

//hide cvv for Mister Cash

**if** (selectedCard == "BancontactMisterCash") {

cvv.hide();

$creditCard.find('input[name$="\_cvn"]').val('000').trigger('change');

} **else** {

$creditCard.find('input[name$="\_cvn"]').val('').trigger('change');

cvv.show();

}

**if** (hiPaySaveOptions.attr('data-hipay-cvv-disabled') == 'true') {

$creditCard.find('input[name$="\_cvn"]').removeClass('required');

$creditCard.find('input[name$="\_cvn"]').val(' ');

$creditCard.find('div.cvn').removeClass('required');

$creditCard.find('div.cvn').find('span.required-indicator').hide();

**if** (selectedCard == 'Maestro') {

$creditCard.find('input[name$="\_cvn"]').addClass('optional');

$creditCard.find('div.cvn').addClass('optional');

} **else** {

$creditCard.find('input[name$="\_cvn"]').removeClass('optional');

$creditCard.find('div.cvn').removeClass('optional');

}

} **else** {

$creditCard.find('input[name$="\_cvn"]').addClass('required');

$creditCard.find('div.cvn').addClass('required');

$creditCard.find('span.required-indicator').show();

**if** (selectedCard != 'Maestro') {

$creditCard.find('input[name$="\_cvn"]').removeClass('optional');

$creditCard.find('div.cvn').removeClass('optional');

}

}

**if** (selectedCard == "Amex") {

$(".owner-single").addClass("hide");

$(".owner-split").removeClass("hide");

} **else** {

$(".owner-split").addClass("hide");

$(".owner-single").removeClass("hide");

}

//hide 'Save Card' based on custom.hipayOneClickDisabled

**var** saveCard = $creditCard.find('.save-card');

**var** saveCardBox = saveCard.find('input[name$="\_saveCard"]');

**if** (hiPaySaveOptions.attr('data-hipay-oneclick-disabled') == 'true') {

saveCardBox.prop('checked', **false**);

saveCard.hide();

} **else** {

saveCardBox.prop('checked', **true**);

saveCard.show();

}

});

}

Before:

$('#check-giftcert').on('click', function (e) {



1. **app\_storefront\_core/cartridge/js/validator.js**

Add validator for the CVC field

var validateCVC = function (value, el) {

var selectedCard = $(el).closest('form').find('select[id$="creditCard\_type"]').find(":selected").text();

//3 MasterCard, Carte Bancaire, Visa

//4 American Express

//skip Maestro, Bcmc

if (selectedCard == 'MasterCard' || selectedCard == 'Carte Bancaire' || selectedCard == 'Visa') {

if (value.length == 3) {

return true;

} else {

return false;

}

} else if (selectedCard == 'American Express') {

if (value.length == 4) {

return true;

} else {

return false;

}

} else {

return true;

}

};

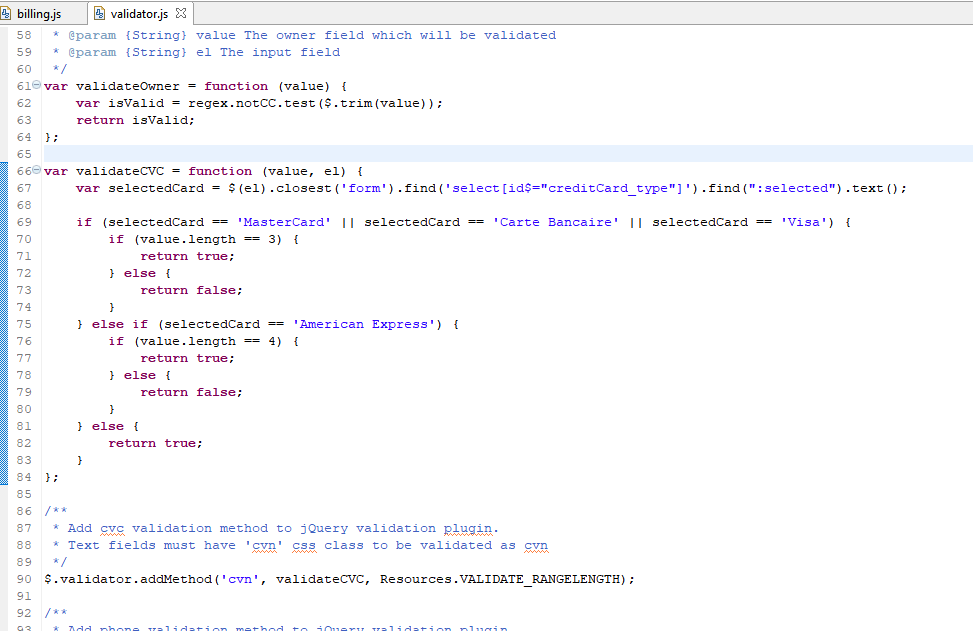
/\*\*

\* Add cvc validation method to jQuery validation plugin.

\* Text fields must have 'cvn' css class to be validated as cvn

\*/

$.validator.addMethod('cvn', validateCVC, Resources.VALIDATE\_RANGELENGTH);



1. **app\_storefront\_core/cartridge/scripts/common/inputField.js**

Add:

if (rowClass == 'cvn optional') {

required = false;

}

Before:

if (required) {

fieldClass += ' required';

rowClass += ' required';

}

Add:

if (!pdict.formfield.valid) {

if (rowClass != 'cvn optional') {

rowClass += ' error';

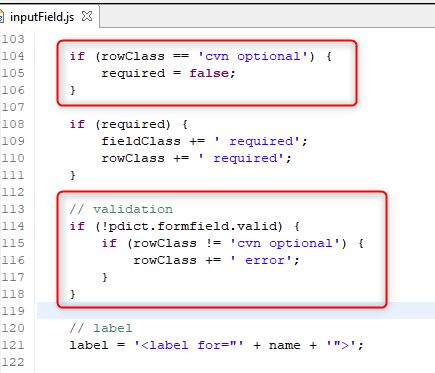
}

}

Before:

// label

label = '<label for="' + name + '">';



Add:

if (hasError && rowClass == 'cvn optional') {

hasError = false;

}

Before:

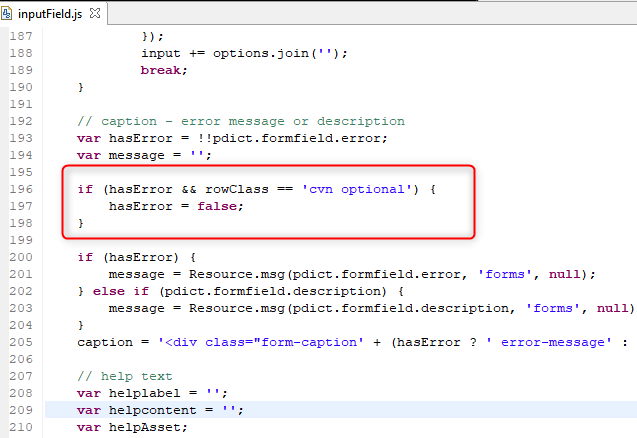
if (hasError) {

message = Resource.msg(pdict.formfield.error, 'forms', null);

} else if (pdict.formfield.description) {

message = Resource.msg(pdict.formfield.description, 'forms', null);

}



1. **app\_storefront\_core/cartridge/forms/default/billing.xml** (see the int\_hipay\_controllers/cartridge/forms/default/billing\_sample.xml as an example)

Change:

<field formid="selectedPaymentMethodID" type="string" default-value="CREDIT\_CARD">

To:

<field formid="selectedPaymentMethodID" type="string" default-value="HIPAY\_CREDIT\_CARD">

Add:

<!-- HyPay fingerprint -->

<field formid="deviceFingerprint" type="string" />

Before:

<!-- list of available credit cards to select from -->

<list formid="creditCardList">

Add:

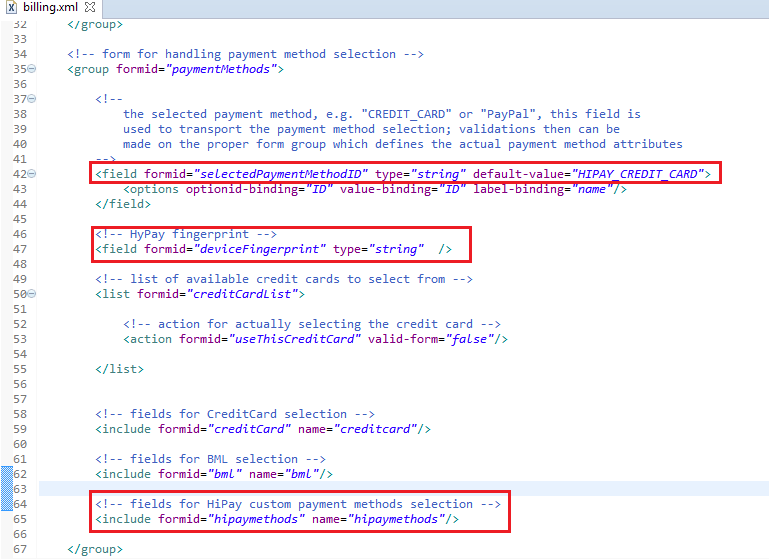
<!-- fields for HiPay custom payment methods selection -->

<include formid="hipaymethods" name="hipaymethods"/>

After:

<!-- fields for BML selection -->

<include formid="bml" name="bml"/>



1. **app\_storefront\_core/cartridge/forms/default/creditcard.xml** (see the int\_hipay\_controllers/cartridge/forms/default/creditcard\_sample.xml as an example)

Change:

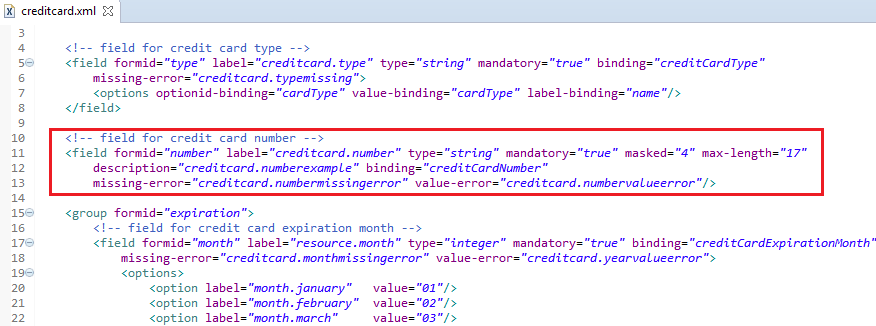
<field formid="number" label="creditcard.number" type="string" mandatory="true" masked="4" max-length="16"

description="creditcard.numberexample" binding="creditCardNumber"

missing-error="creditcard.numbermissingerror" value-error="creditcard.numbervalueerror"/>

To:

<field formid="number" label="creditcard.number" type="string" mandatory="true" masked="4" max-length="17" description="creditcard.numberexample" binding="creditCardNumber" missing-error="creditcard.numbermissingerror" value-error="creditcard.numbervalueerror"/>



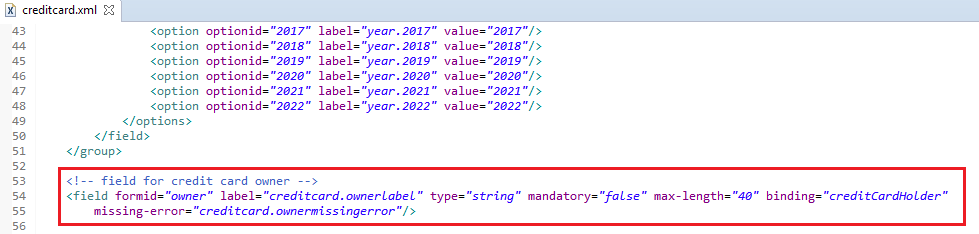
Change:

<field formid="owner" label="creditcard.ownerlabel" type="string" mandatory="true" max-length="40" binding="creditCardHolder"

missing-error="creditcard.ownermissingerror"/>

To:

<field formid="owner" label="creditcard.ownerlabel" type="string" mandatory="false" max-length="40" binding="creditCardHolder" missing-error="creditcard.ownermissingerror"/>



Add:

<!-- field for credit card owner first name -->

<field formid="ownerfirst" label="creditcard.ownerlabel.first" type="string" mandatory="false" max-length="40" missing-error="creditcard.ownermissingerror"/>

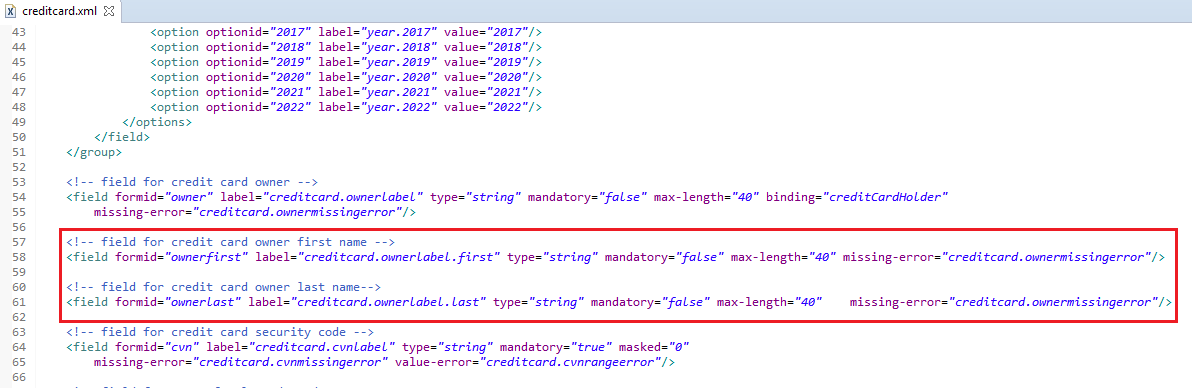
<!-- field for credit card owner last name-->

<field formid="ownerlast" label="creditcard.ownerlabel.last" type="string" mandatory="false" max-length="40" missing-error="creditcard.ownermissingerror"/>

Before:

<!-- field for credit card security code -->

<field formid="cvn" label="creditcard.cvnlabel" type="string" mandatory="true" masked="0" missing-error="creditcard.cvnmissingerror" value-error="creditcard.cvnrangeerror"/>



Add:

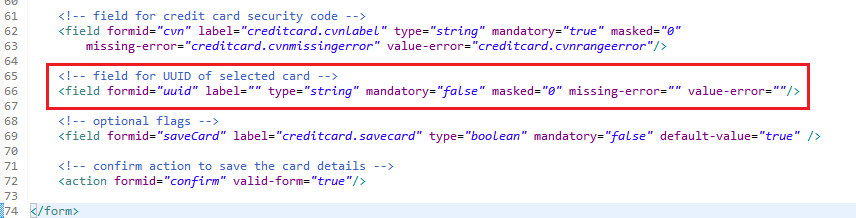
<!-- field for UUID of selected card -->

<field formid="uuid" label="" type="string" mandatory="false" masked="0" missing-error="" value-error=""/>

Before:

<!-- optional flags -->

<field formid="saveCard" label="creditcard.savecard" type="boolean" mandatory="false" default-value="true" />



1. **Create a file app\_storefront\_core/cartridge/forms/default/hipaymethods.xml** (see the int\_hipay\_controllers/cartridge/forms/default/hipaymethods\_sample.xml as an example)

Add next code into the hipaymethods.xml file:

<?xml version="1.0" encoding="UTF-8"?>

<form xmlns="http://www.demandware.com/xml/form/2008-04-19">

<group formid="giropay">

<field formid="bic" label="hipay.label.bic" type="string" mandatory="true" missing-error="error.message.required"/>

</group>

<group formid="klarna">

<field formid="birthdate" label="hipay.label.birthdate" type="string" mandatory="true" missing-error="error.message.required"/>

<field formid="houseNumber" label="hipay.label.housenumber" type="integer" binding="houseNumber" mandatory="true" missing-error="error.message.required"/>

</group>

<field formid="issuer\_bank\_id" label="hipay.label.issuer\_bank\_id" default="ABNANL2A" type="string" mandatory="true" >

<options>

<option optionid="" label="resource.select" value=""/>

<option optionid="ABNANL2A" value="ABNANL2A" label="ABN AMRO"/>

<option optionid="INGBNL2A" value="INGBNL2A" label="ING"/>

<option optionid="RABONL2U" value="RABONL2U" label="Rabobank"/>

<option optionid="SNSBNL2A" value="SNSBNL2A" label="SNS Bank"/>

<option optionid="ASNBNL21" value="ASNBNL21" label="ASN Bank"/>

<option optionid="FRBKNL2L" value="FRBKNL2L" label="Friesland Bank"/>

<option optionid="KNABNL2H" value="KNABNL2H" label="Knab"/>

<option optionid="RBRBNL21" value="RBRBNL21" label="SNS Regio Bank"/>

<option optionid="TRIONL2U" value="TRIONL2U" label="Triodos bank"/>

<option optionid="FVLBNL22" value="FVLBNL22" label="Van Lanschot"/>

</options>

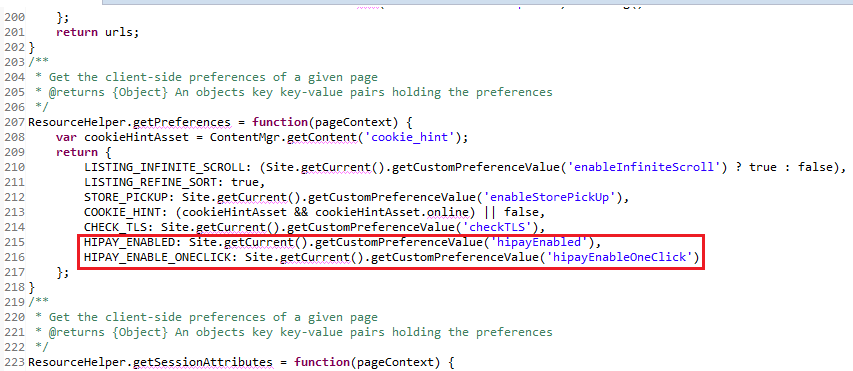
</field>

</form>

1. **app\_storefront\_core/cartridge/scripts/util/Resource.ds**

Add next line into the preferences object:

HIPAY\_ENABLED: Site.getCurrent().getCustomPreferenceValue('hipayEnabled'), HIPAY\_ENABLE\_ONECLICK: Site.getCurrent().getCustomPreferenceValue('hipayEnableOneClick')



The following steps should be applied only to pipeline storefront version. For controllers storefront version, please jump to step 13.

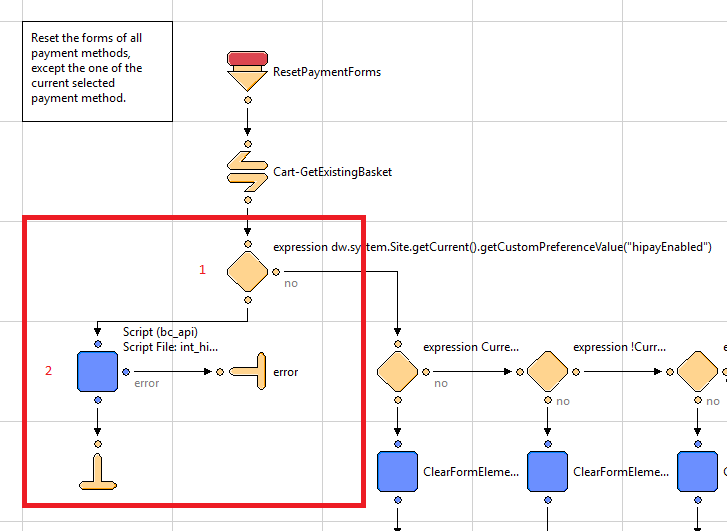
1. **app\_storefront\_pipelines/cartridge/pipelines/COBilling.xml**

There is a change made in COBilling-ResetPaymentForms due to the fact that multiple HiPay payment methods have been added. This change removes the existing payment instruments, if any, and applies only the selected one for case if HiPay enabled.

After the Cart-GetExistingBasket add the Decision node. The ‘no’ transition goes to the default implementation for case if HiPay is disabled.

For case if HiPay is enabled add the script node set to HiPayResetPayments.js and two end nodes as described below.

1. Decision Key : dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')
2. Script Node : int\_hipay\_controllers:pipelets/HiPayResetPaymentForms.js



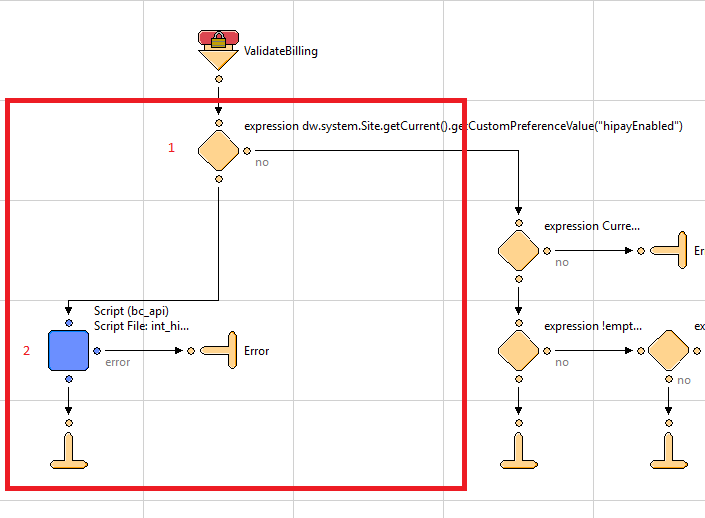
To split the full Card Holder name for American Express cards into First Name and Last Name the validation logic was changed in COBilling-ValidateBilling.

After the ValidateBilling start node add the Decision node. The ‘no’ transition goes to the default implementation for case if HiPay is disabled.

For case if HiPay is enabled add the nodes described below.

For case if HiPay is enabled add the script node set to HiPayValidateBilling.js and two end nodes as described below.

1. Decision Key : dw.system.Site.getCurrent().getCustomPreferenceValue('hipayEnabled')
2. Script Node : int\_hipay\_controllers:pipelets/HiPayValidateBilling.js

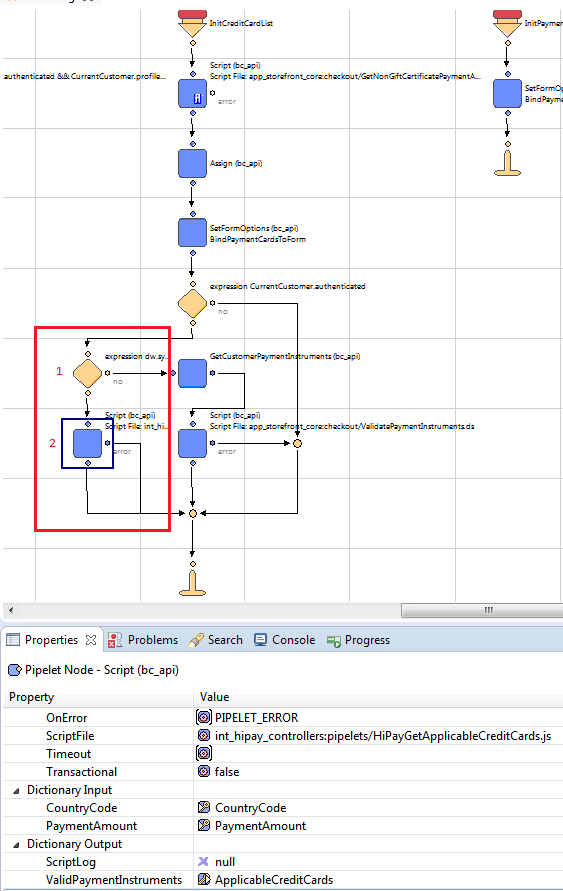


There is a change made in COBilling-InitCreditCardList to initialize the credit cards list using saved customer payment instruments of type hipay credit card.

After the first Decision Node (expression CurrentCustomer.authenticated) add another Decision node as described in the picture below. The ‘no’ transition goes to the default implementation for case if HiPay or HiPay One-Click is disabled.

For case if HiPay and HiPay One-Click is enabled add the script node set to HiPayGetApplicableCreditCards.js as described below.

1. Decision Key : dw.system.Site.getCurrent().getCustomPreferenceValue("hipayEnabled") && dw.system.Site.getCurrent().getCustomPreferenceValue("hipayEnableOneClick")
2. Script Node :
   1. Script File: int\_hipay\_controllers:pipelets/HiPayGetApplicableCreditCards.js
   2. CountryCode: CountryCode
   3. PaymentAmount: PaymentAmount
   4. ValidPaymentInstruments: ApplicableCreditCards

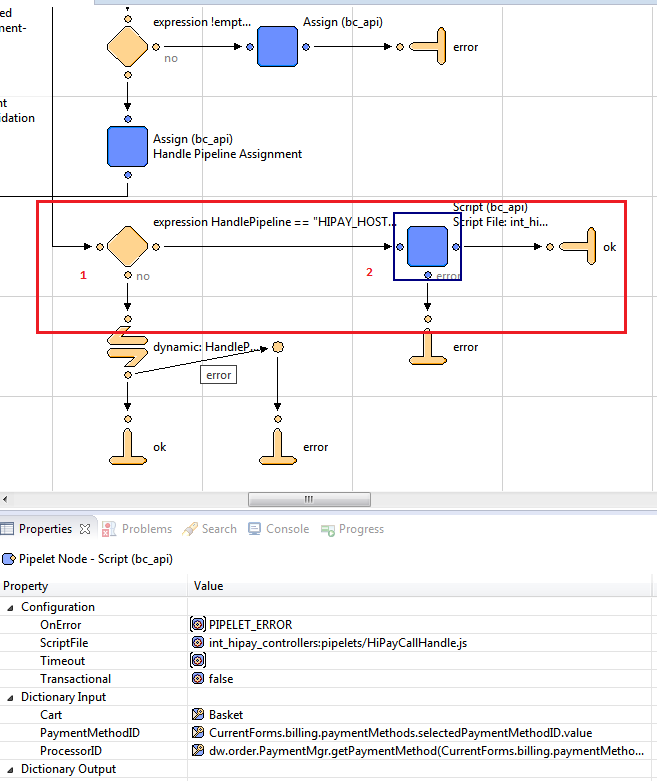


There is a change made in COBilling-HandlePaymentSelection to call HAYPAY or HAYPAY\_HOSTED controller responsible for specific validation and payment instrument creation.

After the “Handle Pipeline Assignment” Assign Node add a Decision node as described in the picture below. The ‘no’ transition goes to the default implementation for case if HandlePipeline is not “HIPAY\_HOSTED” and “HIPAY”.

For case if HandlePipeline is “HIPAY\_HOSTED” or “HIPAY” add the script node set to HiPayCallHandle.js and two end nodes as described below

1. Decision Key : HandlePipeline == "HIPAY\_HOSTED" || HandlePipeline == "HIPAY"
2. Script Node :
   1. Script File: int\_hipay\_controllers:pipelets/HiPayCallHandle.js
   2. Cart: Basket
   3. PaymentMethodID: CurrentForms.billing.paymentMethods.selectedPaymentMethodID.value
   4. ProcessorID:dw.order.PaymentMgr.getPaymentMethod(CurrentForms.billing.paymentMethods.selectedPaymentMethodID.value).paymentProcessor.ID



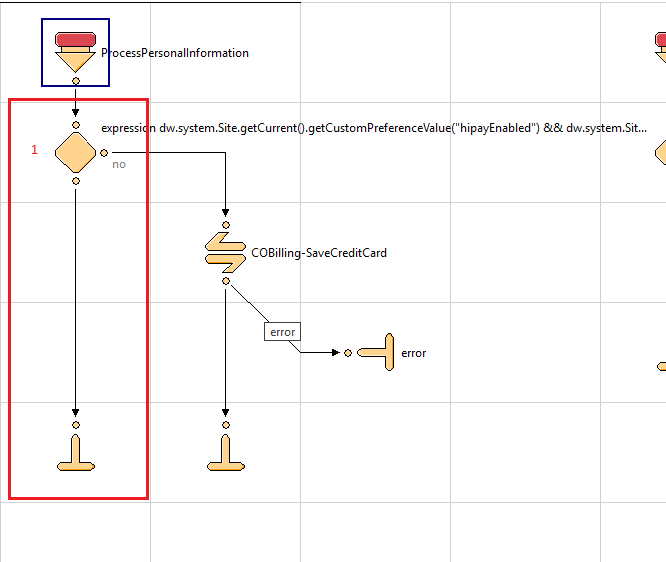
1. **app\_storefront\_pipelines/cartridge/pipelines/COPlaceOrder.xml**

There is a change made in COPlaceOrder-ProcessPersonalInformation to skip the default call to COBilling-SaveCreditCard.

After the ProcessPersonalInformation start node add a decision node. The ‘no’ transition goes to the default implementation for case if HiPay and HiPay One-Click is disabled.

For case if HiPay and HiPay One-Click is enabled add the end node described below

1. Decision Key: dw.system.Site.getCurrent().getCustomPreferenceValue("hipayEnabled") && dw.system.Site.getCurrent().getCustomPreferenceValue("hipayEnableOneClick")

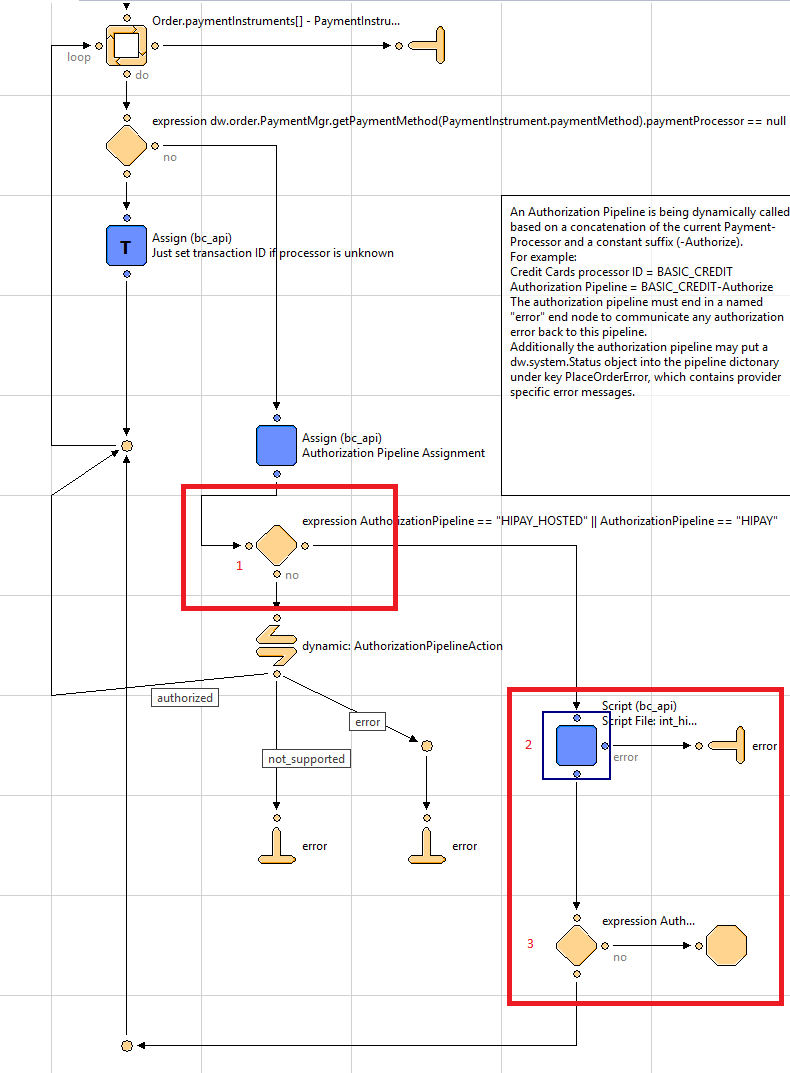


There is a change made in COPlaceOrder-HandlePayments to call HAYPAY or HAYPAY\_HOSTED controller responsible for authorize HiPay payment.

After the “Authorization Pipeline Assignment” Assign Node add a Decision node as described in the picture below. The ‘no’ transition goes to the default implementation for case if AuthorizationPipeline is not “HIPAY\_HOSTED” and “HIPAY”.

For case if AuthorizationPipeline is “HIPAY\_HOSTED” or “HIPAY” add the script node set to HiPayCallHandle.js, one end node, one decision node and a stop node as described below

1. Decision Key : AuthorizationPipeline == "HIPAY\_HOSTED" || AuthorizationPipeline == "HIPAY"
2. Script Node :
   1. Script File: int\_hipay\_controllers:pipelets/HiPayCallAuthorize.js
   2. Order: Order
   3. PaymentInstrument: PaymentInstrument
   4. PaymentMethodID: PaymentInstrument.paymentMethod
   5. ProcessorID: dw.order.PaymentMgr.getPaymentMethod(PaymentInstrument.paymentMethod).paymentProcessor.ID
   6. AuthorizationResult: AuthorizationResult
3. Decision Key : AuthorizationResult.authorized



1. **app\_storefront\_pipelines/cartridge/pipelines/PaymentInstruments.xml**

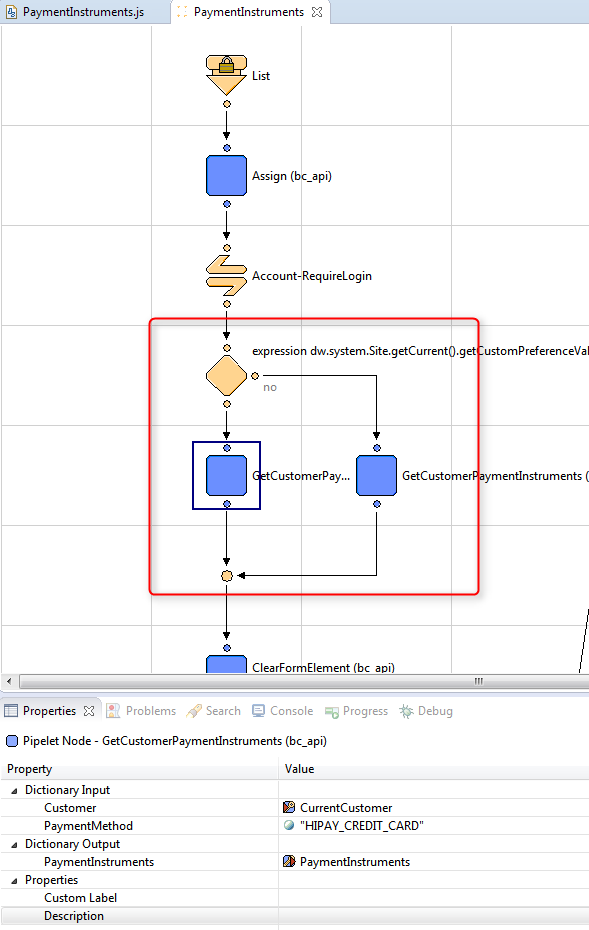
There is a change made in PaymentInstruments-Llist to get the saved credit cards info.

After the Account-RequireLogin call node add a decision node with next parameters:

1. Decision Key : dw.system.Site.getCurrent().getCustomPreferenceValue("hipayEnabled") && dw.system.Site.getCurrent().getCustomPreferenceValue("hipayEnableOneClick")

The ‘no’ transition goes to the default implementation. For case if HiPay and HiPay One-Click enabled add a GetCustomerPaymentInstruments pipelet with next parameters:

1. Customer : CurrentCustomer
2. PaymentMethod : “HIPAY\_CREDIT\_CARD”
3. PaymentInstruments : PaymentInstruments



The next steps should be applied to controller storefront version.

1. **app\_storefront\_controllers/cartridge/controllers/COBilling.js**

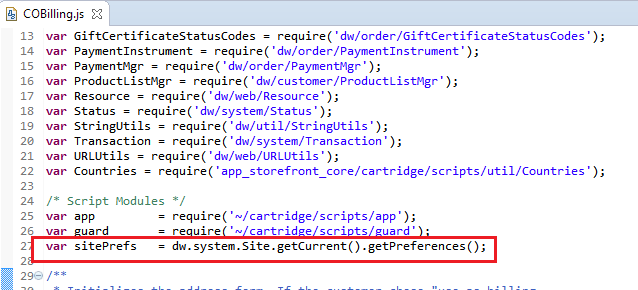
Add:

var sitePrefs = dw.system.Site.getCurrent().getPreferences();

After:

var app = require('~/cartridge/scripts/app');

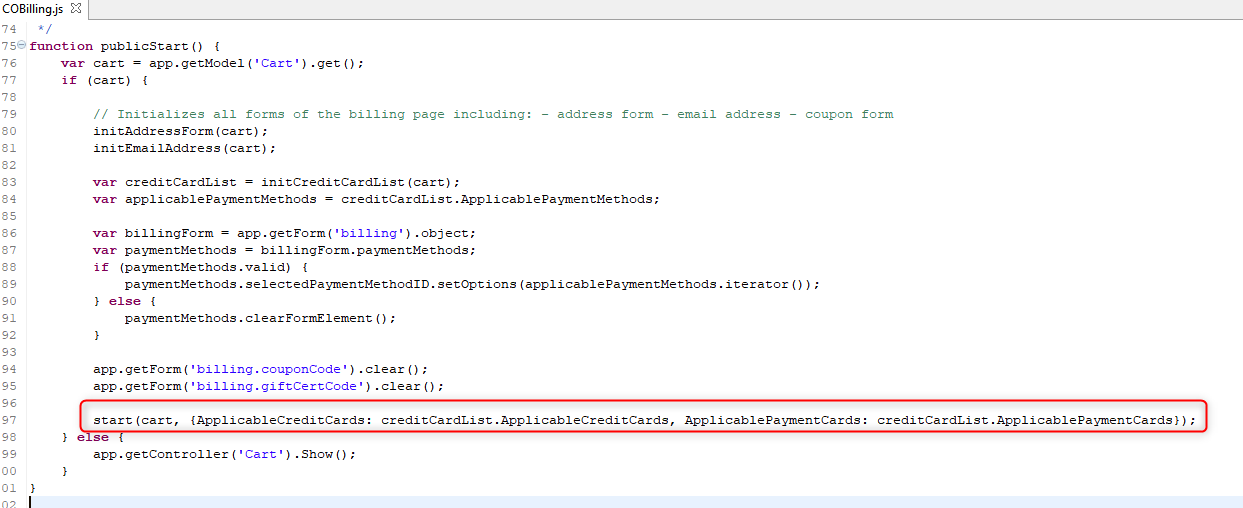
var guard = require('~/cartridge/scripts/guard');



There is a change made in the publicStart() function due to the fact that multiple HiPay payment methods have been added. This change allows to enable or disable ability to save any specific creditcard from the Billing page.

In the publicStart()function update the following lines as described in the example bellow.

start(cart, {ApplicableCreditCards: creditCardList.ApplicableCreditCards, ApplicablePaymentCards: creditCardList.ApplicablePaymentCards});



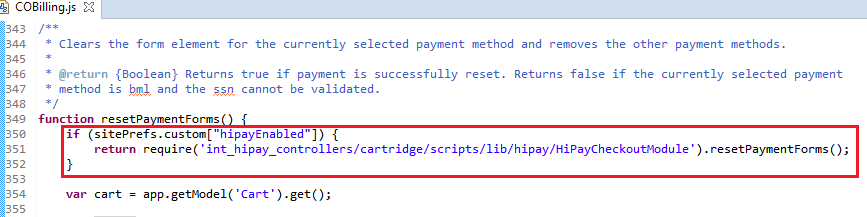
There is a change made in the resetPaymentForms() function due to the fact that multiple HiPay payment methods have been added. This change removes the existing payment instruments, if any, and applies only the selected one for case if HiPay enabled.

In the resetPaymentForms()function insert the following lines as described in the example bellow.

if (sitePrefs.custom("hipayEnabled")) {

return require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayCheckoutModule').resetPaymentForms();

}



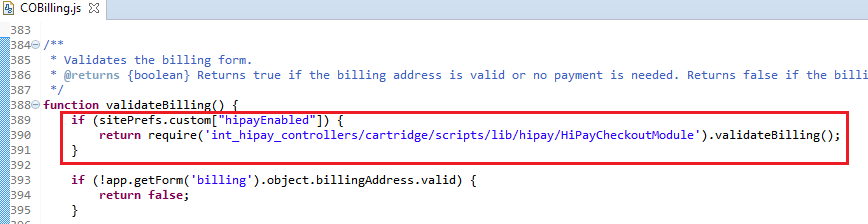
To split the full Card Holder name for American Express cards into First Name and Last Name the validation logic was changed in the validateBilling() function.

In the validateBilling() function insert the following lines as described in the example bellow.

if (sitePrefs.custom("hipayEnabled")) {

return require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayCheckoutModule').validateBilling();

}



There is a change made in the initCreditCardList(cart) function to initialize the credit cards list using saved customer payment instruments of hipay credit card type.

Replace next code:

if (customer.authenticated) {

var profile = app.getModel('Profile').get();

if (profile) {

applicableCreditCards = profile.validateWalletPaymentInstruments(countryCode, paymentAmount.getValue()).ValidPaymentInstruments;

}

}

With next code:

if (customer.authenticated) {

if (sitePrefs.custom["hipayEnabled"] && sitePrefs.custom["hipayEnableOneClick"]) { /\* if hipay and one click payment enabled \*/

applicableCreditCards = require('int\_hipay\_controllers/cartridge/scripts/lib/hipay/HiPayCheckoutModule').getApplicableCreditCards(countryCode, paymentAmount.getValue()).ValidPaymentInstruments;

} else {

var profile = app.getModel('Profile').get();

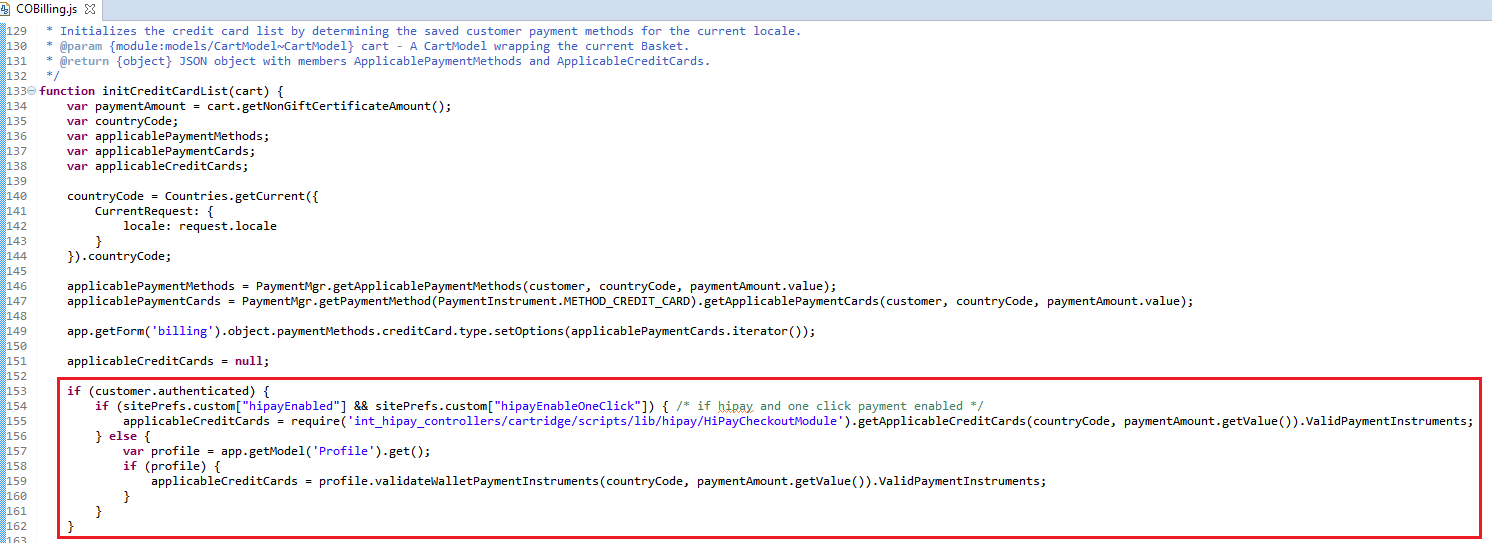
if (profile) {

applicableCreditCards = profile.validateWalletPaymentInstruments(countryCode, paymentAmount.getValue()).ValidPaymentInstruments;

}

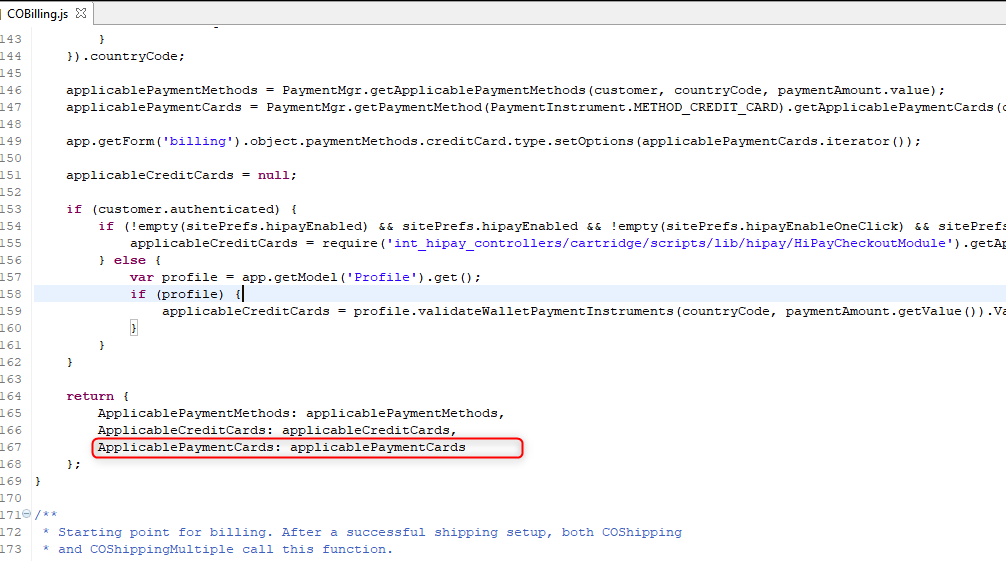
}

}



Also add next

ApplicablePaymentCards: applicablePaymentCards



There is a change made in the saveCreditCard() function to skip the default implementation.

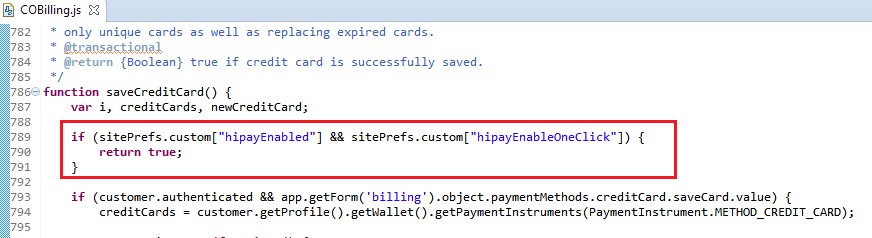
In the saveCreditCard() function insert the following lines as described in the example bellow.

if (sitePrefs.custom["hipayEnabled"] && sitePrefs.custom["hipayEnableOneClick"])

{

return true;

}



1. **app\_storefront\_controllers/cartridge/controllers/COPlaceOrder.js**

Add:

var sitePrefs = dw.system.Site.getCurrent().getPreferences();

After:

var PaymentProcessor = app.getModel('PaymentProcessor');



In the handlePayments(order) function to define if the payment was authorized or redirected.

Add:

if (sitePrefs.custom["hipayEnabled"] && authorizationResult.authorized) {

return {

authorized : true

}

}

After:

if (authorizationResult.not\_supported || authorizationResult.error) {

return {

error: true

};

}



In the start() function add next changes.

Replace:

var orderPlacementStatus = Order.submit(order);

if (!orderPlacementStatus.error) {

clearForms();

}

return orderPlacementStatus;

With:

if (sitePrefs.custom["hipayEnabled"]) {

if (handlePaymentsResult.authorized) {

var orderPlacementStatus = Order.submit(order);

if (!orderPlacementStatus.error) {

clearForms();

}

return orderPlacementStatus;

} else {

return {

Order: order,

order\_created: false

};

}

} else {

var orderPlacementStatus = Order.submit(order);

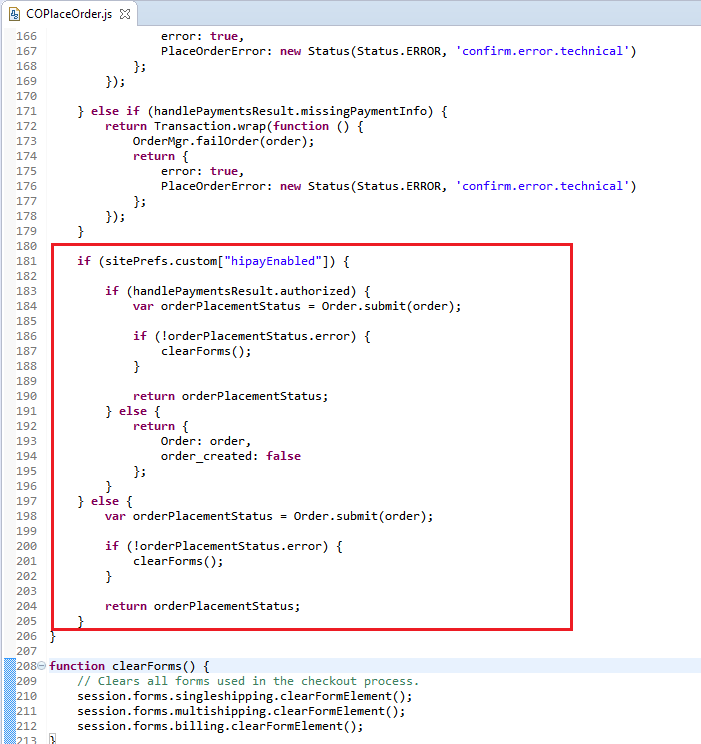
if (!orderPlacementStatus.error) {

clearForms();

}

return orderPlacementStatus;

}



1. **app\_storefront\_controllers/cartridge/controllers/PaymentInstruments.js**

In the list() function add next changes.

Add:

var sitePrefs = dw.system.Site.getCurrent().getPreferences();

Replace:

var paymentInstruments = wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD\_CREDIT\_CARD);

With:

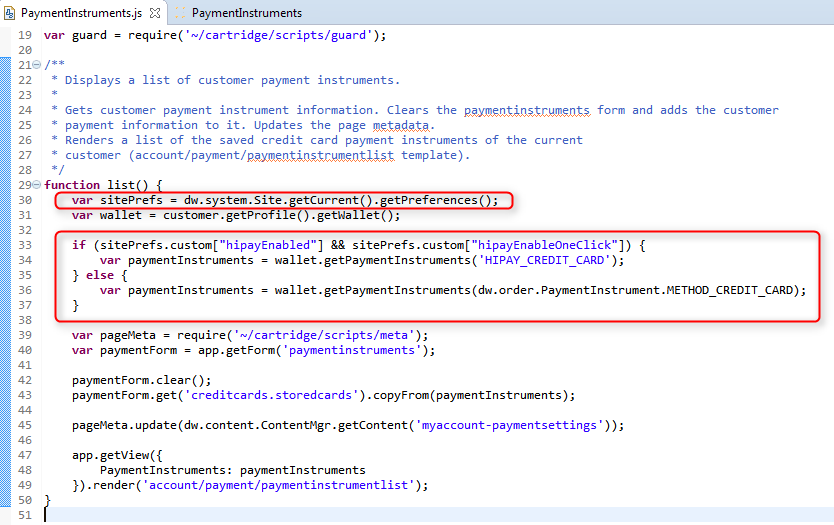
if (sitePrefs.custom["hipayEnabled"] && sitePrefs.custom["hipayEnableOneClick"]) {

var paymentInstruments = wallet.getPaymentInstruments('HIPAY\_CREDIT\_CARD');

} else {

var paymentInstruments = wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD\_CREDIT\_CARD);

}



## External Interfaces

None.

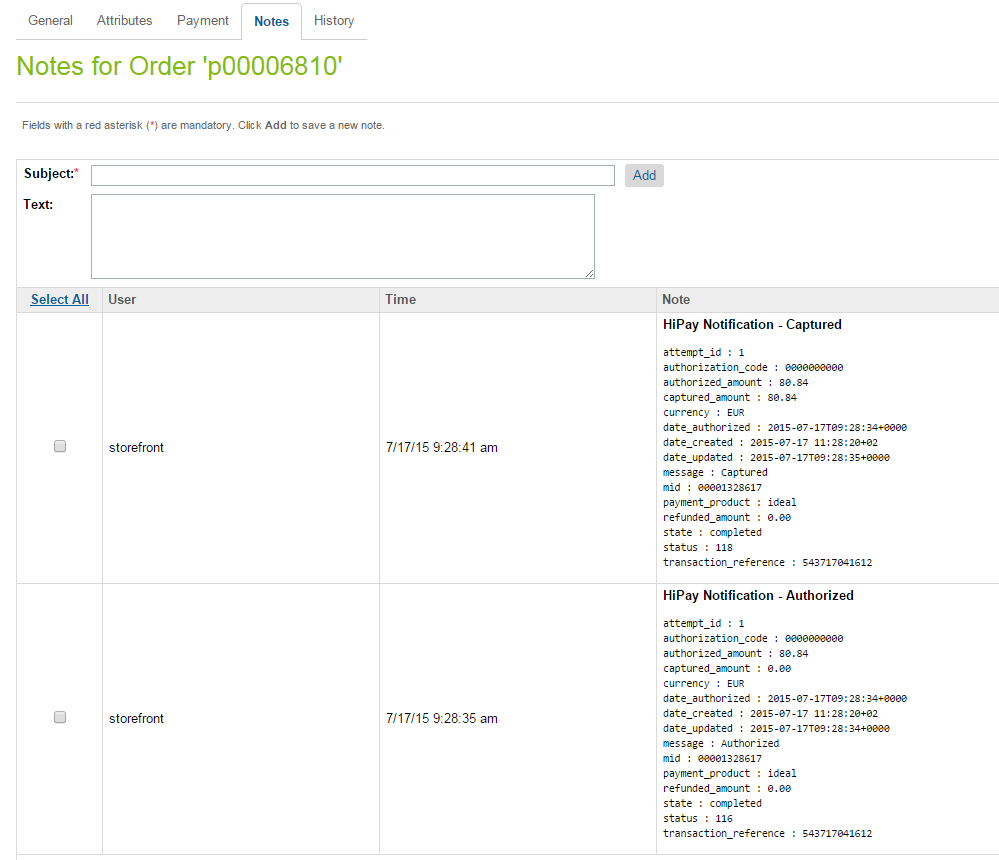
## Testing

Please refer to the use cases in section 2.2. If you have any issues, our technical team will work with you to ensure that everything is thoroughly tested and meets all requirements.

# Operations, Maintenance

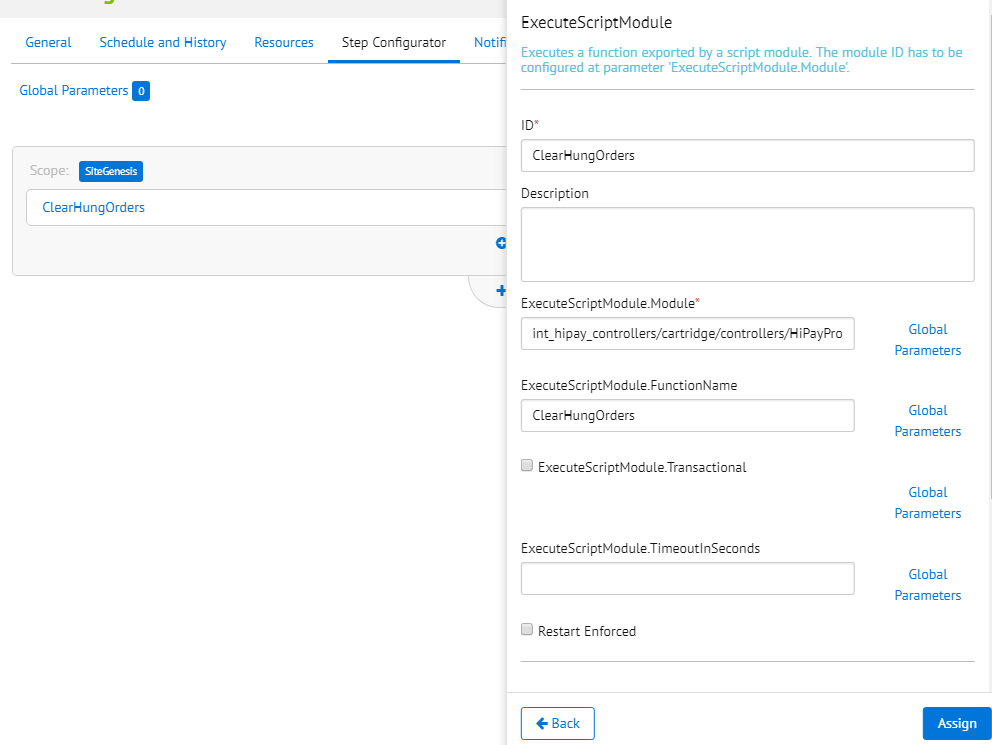
## Data Storage

### Orders

HiPay Fullservice sends notifications for each event that occurs. In order to handle all notifications, notes are added to the order. There should be one event logged for each notification.

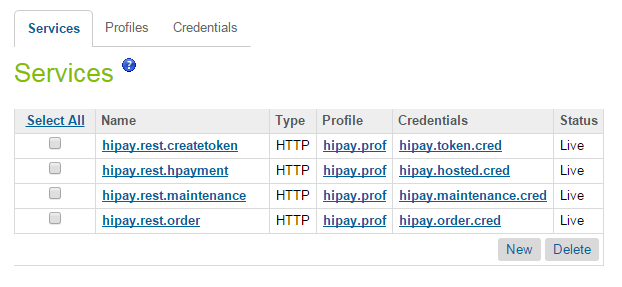
### ClearHungOrders job

When using the HiPay hosted page or an iFrame, the actual payment can be interrupted due to, for example, the user closing out of the browser. In this situation the orders are left in created state and no further progress is made. In order to handle this these orders, a ClearHungOrders job has been created. This can be configured to change the order status to “Failed” and it runs on the configured timeframe (for example, at 30-minutes intervals).

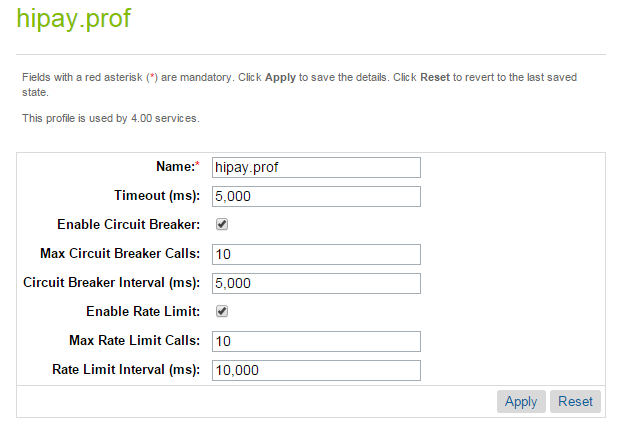


## Availability

HiPay integration cartridge uses the below services.



All services are using the below Profile configuration.



The circuit breaker suspends platform calls to a web service if a certain number of calls fail within a specified time interval. It can be easily changed for different merchants. A different/ a separate Profile can be added for each service.

## Support

In the event of problems with the integration, missing features, etc. please contact the HiPay’s Business IT Services at [https://support.hipay.com](https://support.hipay.com/) or your HiPay’s account manager.

# User Guide

## Roles, Responsibilities

The store administrator should check the correct configuration of the HiPay Merchant account in the HiPay back office and should check the receipt of HiPay notification messages on a regular basis.

Admins should regularly, check all the payments received to ensure they contain the expected data (currencyCode, amount, shopperEmail, etc).

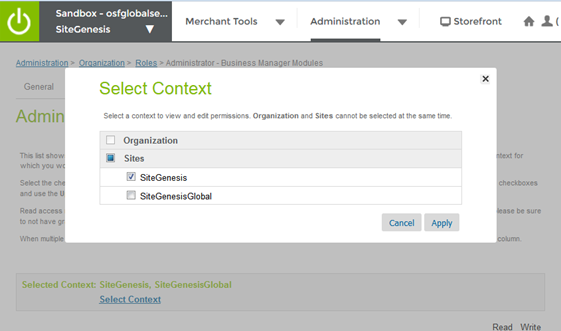
## Business Manager

### HiPay business module

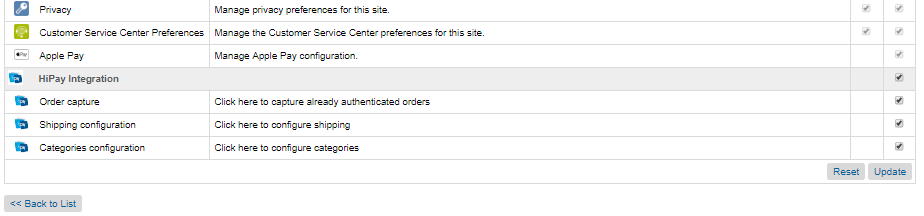
HiPay Integration business modules have been created. They are used to capture amounts for already authorized orders and configure shipping methods and product categories for Oney payment method.

**Configuration**

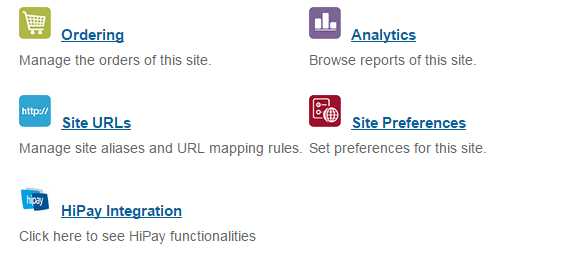
1. Go to: Administration > Organization > Roles > Administrator - Business Manager Modules
2. Select your site context and press **Apply.**



1. Check HiPay Integration module and press Update.

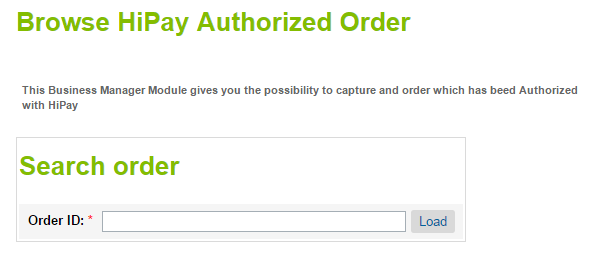


1. Go to the Business Manager> Merchant Tools> HiPay module should be displayed.

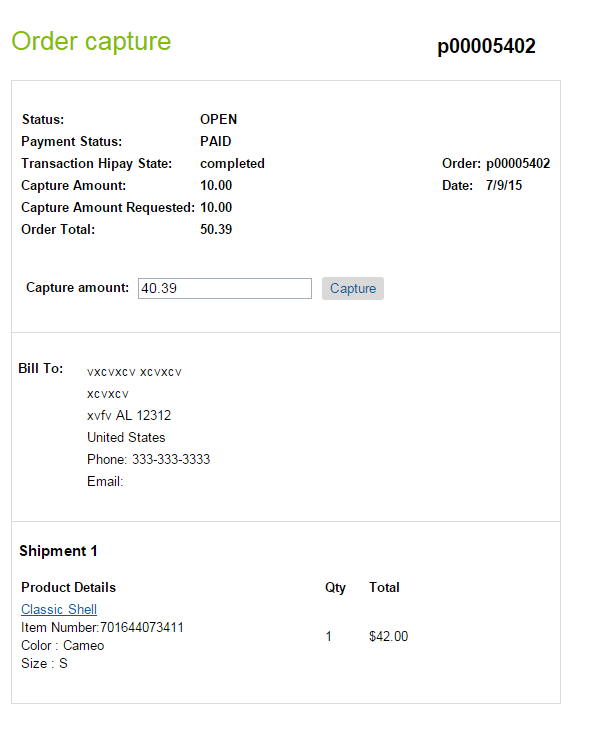


Usage

1. Go to: **HiPay Integration > Order capture**

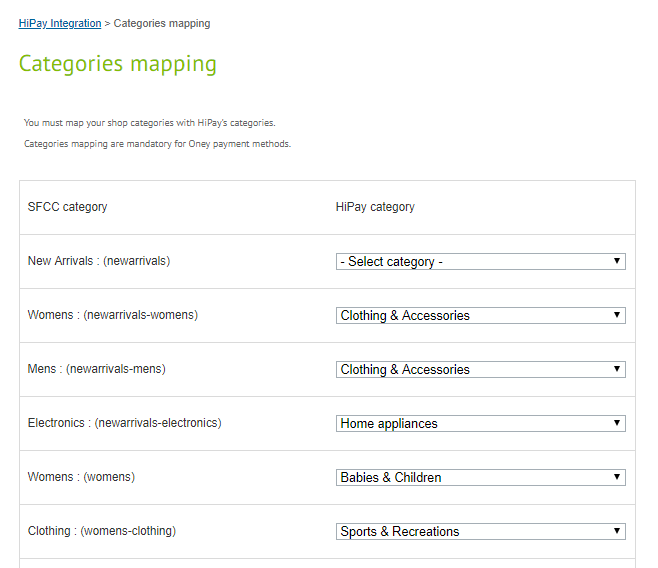


1. Enter an order ID and press **Load**



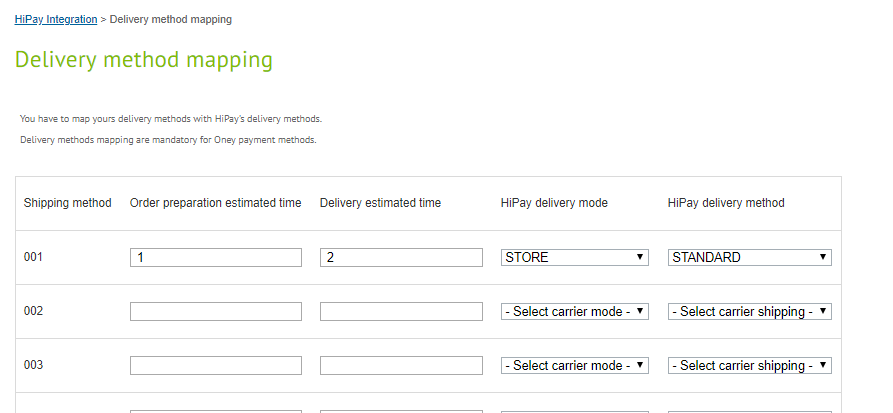
1. Partial or full capture can be requested. If the requested amount is captured, this will send a HiPay notification to Salesforce Commerce Cloud and the **Capture amount** will be updated.
2. For the Oney payment method configuration go to: **HiPay Integration > Categories Configuration.**

This page allows to map SFCC product categories with HiPay’s categories. Once categories mapped, save configuration. In case if a SFCC category is not mapped – the Oney payment method will not be rendered if basket contains at least one product with not configured category.



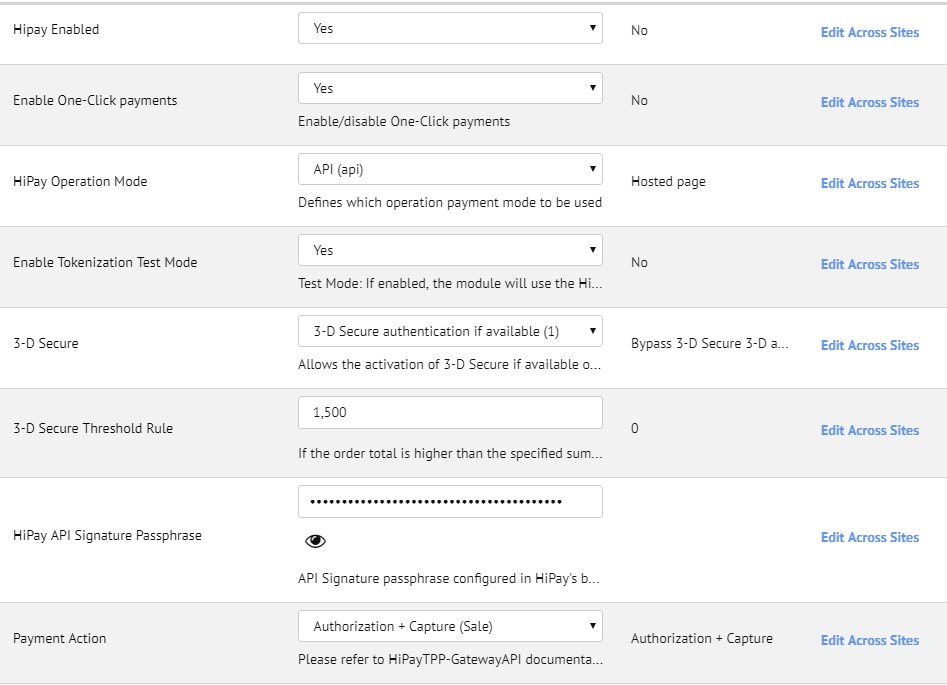
1. For the Oney payment method configuration go to: **HiPay Integration > Shipping Configuration.**

This page allows to configure SFCC shipping methods with HiPay’s delivery methods. The ‘Order preparation estimated time’ and ‘Delivery estimated time’ fileds use Integer type, meaning 1 is one day, 2 is two days etc. Once shipping methods, save configuration. In case if a SFCC shipping method is not configured – the Oney payment method will not be rendered if the not-configured shipping method selected on the shipping page.



### HiPay Site Preferences

Go to: Merchant Tools > Site Preferences > Custom Site Preferences > HiPay Settings



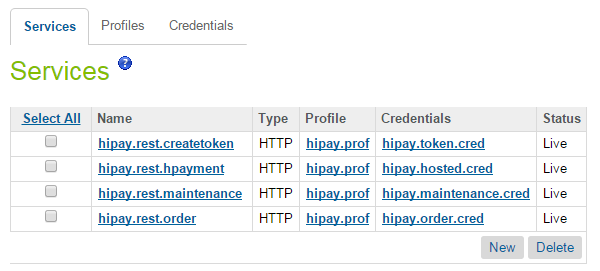


Here you will find the HiPay configuration options.

|  |  |  |  |
| --- | --- | --- | --- |
| **Property name** | **Possible values** | **Default Value** | **Description** |
| Hipay Enabled | true / false | false | Enable/disable HiPay functionality |
| Enable One-Click payments | true / false | false | Enable/disable One-Click payments |
| HiPay Operation Mode | hosted (Hosted page)  iframe (IFrame)  api (API) | hosted (Hosted page) | Defines which operation payment mode to be used |
| Enable Tokenization Test Mode | true / false | false | Test Mode: If enabled, the module will use the Hipay TPP test platform |
| 3D Secure | 0 *(Bypass 3-D Secure 3-D authentication)*  1 (3-D Secure authentication if available)  2 (3-D Secure authentication mandatory) | 0 *(Bypass 3-D Secure 3-D authentication)* | Allows the activation of 3D secure if available on used card |
| 3D Secure Threshold Rule | Integer | 0 | If the Order total is higher than the specified sum, then 3D Secure will be forced. If 0 is specified, the rule is disabled. |
| HiPay API Signature Passphrase | String |  | API Signature passphrase configured in HiPay backoffice. Use to verify the requests made to SFCC. |
| Payment Action | Sale *(Authorization + Capture)*  Authorization (Authorization Only) |  | Please refer to HiPayTPP-GatewayAPI documentation, chapter 3.1 Request a New Order – operation |
| iFrame Height | Integer | 750 | If iFrame operating mode is chosen, you can select your iFrame height to fit with your CSS |
| iFrame Width | Integer | 950 | If iFrame operating mode is chosen, you can select your iFrame width to fit with your CSS |
| HiPay CSS content | Text |  | CSS applied to either Hosted or iFrame page |
| Display card selector | true / false | false | Enable/disable the payment methods selector on iFrame and Hosted page |
| Hung Order Cleanup Time | Integer | 30 | The time in minutes after which all Orders hung in status CREATED that are left by the payment processing are cleaned. |
| List of shipping methods | String |  | A comma-separated list of the shipping methods that should be in use for the Oney payment method. |

### Services

Go to: Administration > Operations > Services



There are four services implemented. Each one corresponds to a different HiPay service, as   
follows:

* **hipay.rest.createtoken** – handles the credit card tokenization
* **hipay.rest.hpayment –** handles the hosted payment calls
* **hipay.rest.maintenance** – handles the order updates after being placed
* **hipay.rest.order** – handles placing order

#### HiPay Multi-account

In order to configure sandbox for multiple HiPay accounts you need duplicate previous services with new names:

* **hipay.rest.createtoken.{siteID}**
* **hipay.rest.hpayment.{siteID}**
* **hipay.rest.maintenance.{siteID}**
* **hipay.rest.order.{siteID}**

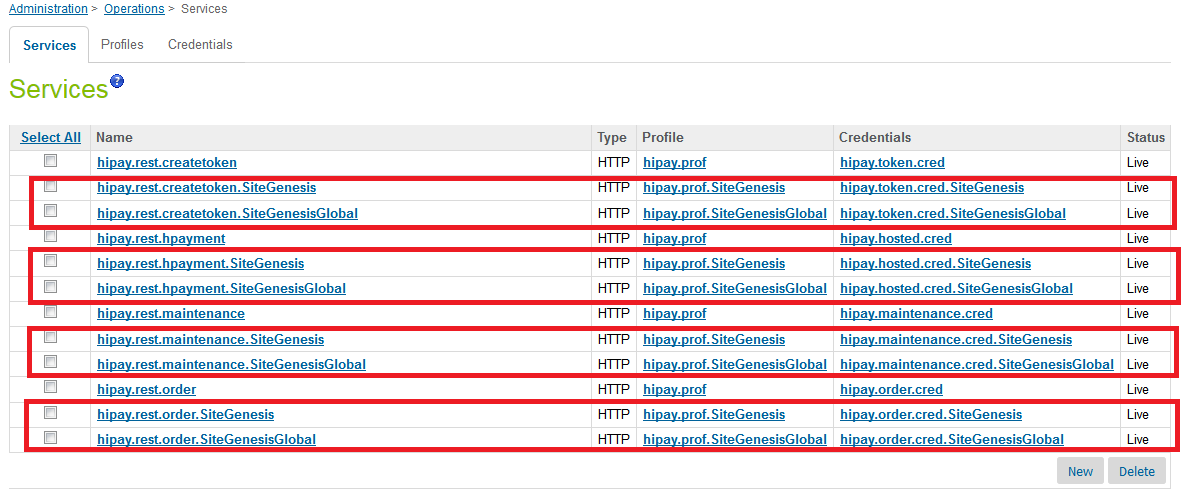
Where siteID is the ID of the site for which you wish to add a new HiPay account. Services without a siteID in the service name should not be deleted as, they will not become default services, in case a specific service cannot be found in BM. You can use the **hipay.prof** profile for those services or you can create a new one in order to make customizations in future for specific site. Also, you will need duplicate default credentials:

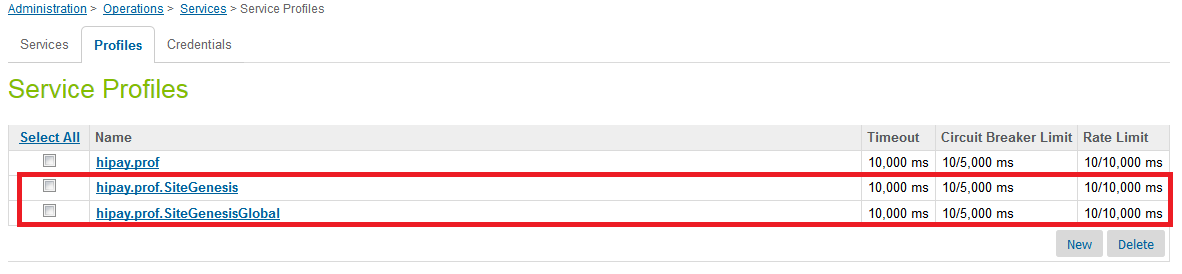
* **hipay.hosted.cred**
* **hipay.maintence.cred**
* **hipay.order.cred**
* **hipay.token.cred**

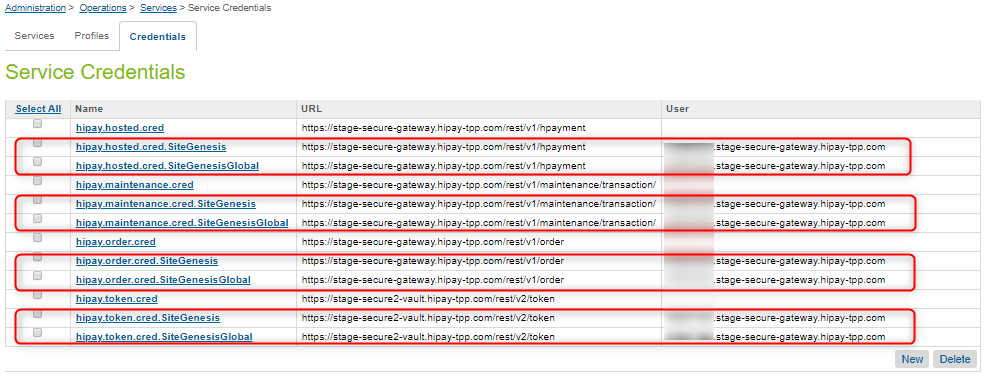
Update them with a new name, HiPay account username and credentials. This is an example mapping for each service which credential should be assigned:

* **hipay.rest.hpayment.SiteGenesis** *service* **- hipay.hosted.cred.SiteGenesis** *credential*
* **hipay.rest.createtoken.SiteGenesis** *service* **- hipay.token.cred.SiteGenesis** *credential*
* **hipay.rest.order.SiteGenesis** *service* **- hipay.order.cred.SiteGenesis** *credential*
* **hipay.rest.maintenance.SiteGenesis** *service* **- hipay.maintenance.cred.SiteGenesis** *credential*

Below you may find an example with Services configured for different sites and two HiPay accounts (please refer to the marked lines).



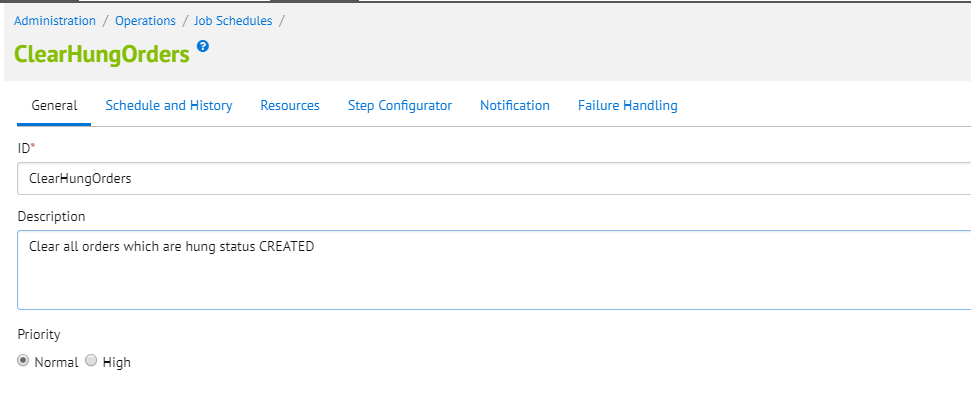




### Schedules

A **ClearHungOrder** process is implemented which is used to clear all orders that have been started with a HiPay hosted solution but have not been completed within the configured time period.

Go to: **Administration > Operations > Jobs (previously Job Schedules) > ClearHungOrders**



Under the “Job Steps” tab (previously “Step Configurator”), change the scope in order to assign the job to your site. Under the “Schedule and History” tab, you can also check that the job is active and review the “Run Time” settings for its automatic execution.

A **HiPayClear** job process is also implemented, which is used to clear custom objects that are useless after a time period.

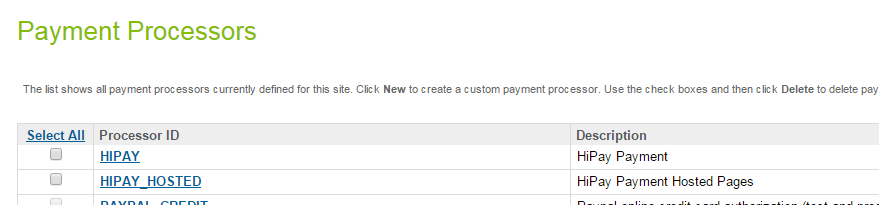
Again, Go to: **Administration > Operations > Jobs (previously Job Schedules) > HiPayClear.**

Under the “Job Steps” tab (previously “Step Configurator”), change the scope in order to assign the job to your site. Under the “Schedule and History” tab, you can also check that the job is active and review the “Run Time” settings for its automatic execution.

### Payment Processors

There are two payment processors added for HiPay – **HIPAY\_HOSTED** and **HIPAY.** The hosted is used only for the hosted and iframe solution. HIPAY processor is used for the HiPay API integration. It is used for all different types of payments like credit cards, IDEAL, ING HomePay, Giropay, KLARNA, etc.

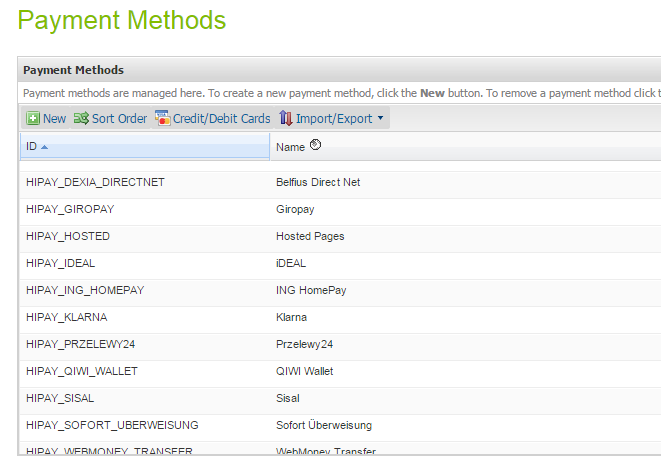
Go to: **Merchant Tools > Ordering > Payment Processors**



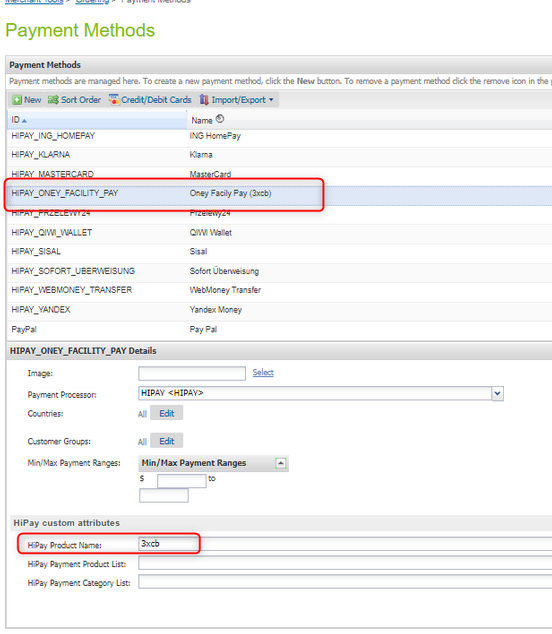
### Payment Methods

All possible HiPay payment methods have been added to the BM. In order to function in Salesforce Commerce Cloud, they must also be activated in the HiPay Fullservice application.

Go to: **Merchant Tools > Ordering > Payment Methods**



In addition, every payment method has a custom filed ‘HiPay Product Name’ which is sent with every order request to HiPay service.



For example, there are 8 payment methods available for Oney Facility Pay. 4 of them (with HOSTED prefix in payment method name) are in use in case if a custom site preference ‘HiPay Operation Mode’ is set to Hosted or Iframe. The payment-product depends on the contract the merchant has with Oney or with any other payment method. It will be the merchant responsibility to configure the right one. Every payment method must be configured and enable on the HiPay side first.

### Logs

The following logs can be found related to the HiPay implementation:

* service-HIPAY-REST-\*service\*-blade1-3-appserver-\*date\*.log – logs HiPay services specific information
* error-blade1-3-appserver-\*date\*.log – logs Salesforce Commerce Cloud errors
* customerror-blade1-3-appserver-\*date\*.log – logs Salesforce Commerce Cloud custom errors

All of the logs can be found in: Administration > Site Development > Development Setup

Select logs and enter you BM credentials if needed.

### Notification url

Go to HiPay Fullservice -> Integration -> Notifications

In the Notification URL, the following url should be added:

http://\*domain.name\*/on/demandware.store/Sites-SiteGenesis-Site/default/HiPayNotification-Notify

This url will be used to handle all HiPay notifications.

### Custom CSS configuration

In order to use custom CSS for HiPay a custom site preference must be configured with the desired CSS.

Go to: **Merchant Tools > Site Preferences > Custom Site Preferences,** select the HiPay custom preferences group. In the **HiPay CSS content** field enter the CSS that is to be utilized on the payment page and click **Apply.** After completing this configuration, the applied CSS should be visible. The content of this preference is printed via a controller called HiPayResource-Style and its URL (e.g. http://\*domain.name\*/on/demandware.store/Sites-\*site.name\*-Site/default/HiPayResource-Style ) is sent when calling the HiPay service, which in turn adds this CSS in the header section of the iFrame or hosted page so it can be applied.

The CSS used must be plain (@include syntax is not supported) and any <style> tags must be omitted.

### Products configuration

For the PSD2 security standards, orders with dematerialized products (immediate delivery) needs to be identified during the payment. The module adds a custom attribute “**Product Dematerialized**” in a new section called “Dematerialization Attributes”, dedicated to this requirement. All your dematerialized products must have this custom attribute value set to “Yes”.

To find this new attribute, go to: **Merchant Tools > Products and Catalogs > Products**. Open the product of your choice and scroll to the bottom of the page.



The attribute has 3 possible values:

* “**-None-**”: The default value, when it is not defined yet. Acts as “No” value.
* “**No**”: The product is not dematerialized. It needs to be physically delivered to the customer, generally in days.
* “**Yes**”: The product is dematerialized. It could be electronically delivered to the customer, generally in minutes.

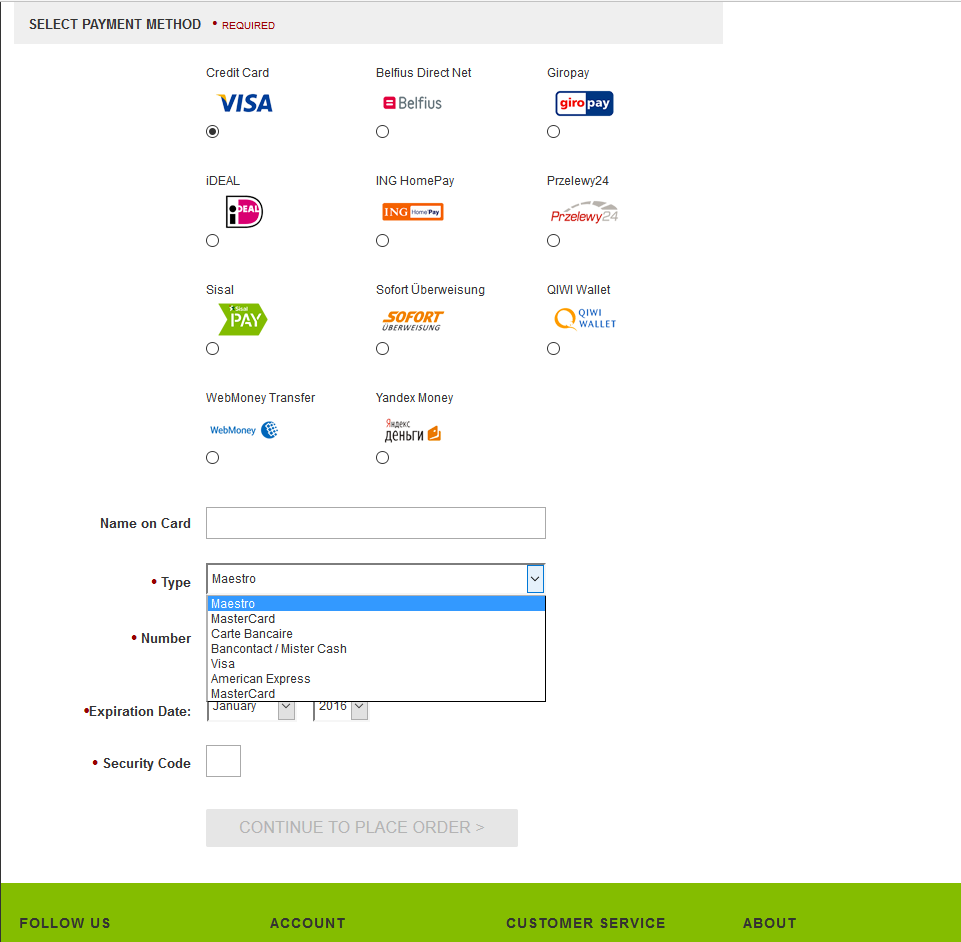
In order to set the value, Lock your product for edition. Then, at the right of “**Product Dematerialized**”, click the select list and choose the correct value. Then, click “Apply” button at the bottom of the screen. Do not forget to Unlock your product for other BM users.

## Storefront Functionality

Storefront functionality is fully described in section Use Cases.

### Merchant Payment API - Credit Cards

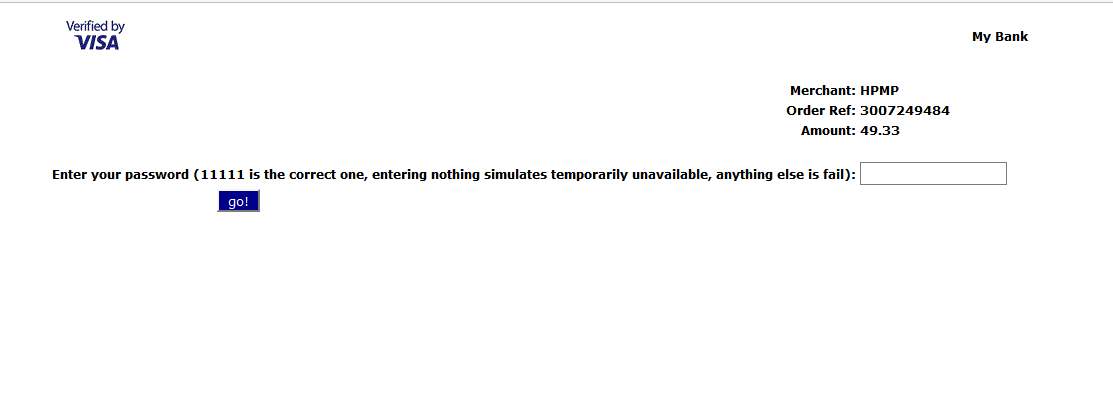
When using this method, the storefront functionality will be the same as the standard one for credit cards in Site Genesis. The card is authorized inline during checkout directly on the merchant's website.



### Payment API - Merchant Link Credit Cards (with 3DSecure)

When using this method, the customer still selects what type of card they wish to use on the Billing page.

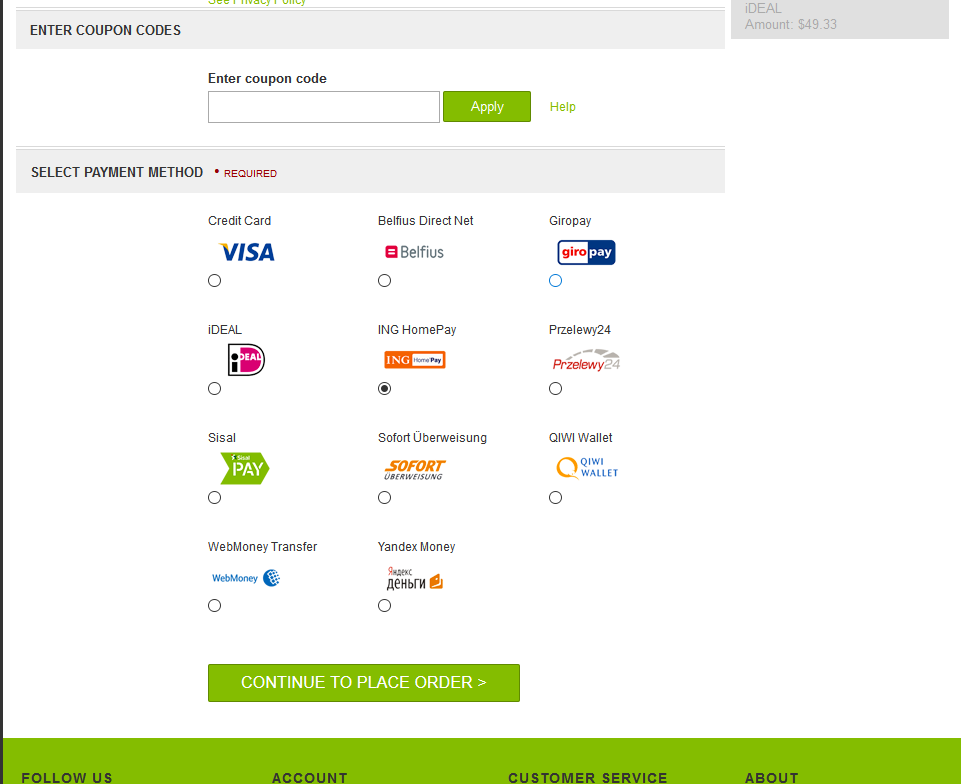
After Submitting the order from the summary page, if card is applicable by the customer’s bank to 3D Secure, they will be directed to the 3DSecure page.



When payment is complete, the customer is redirected to the confirmation page as per the normal flow.

### Hosted Merchant Link

When using these methods, if the currency is applicable with one of these methods, the bank payment option will be shown (each one of them work only in specific currencies).

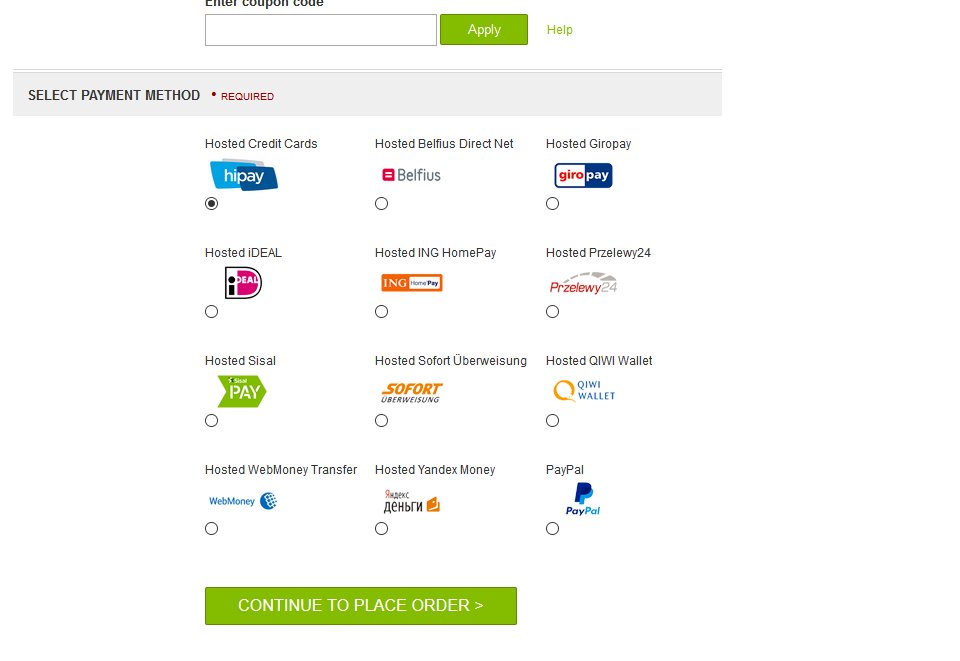


After Submitting the order from the summary page, the customer is redirected to the 3rd party website.

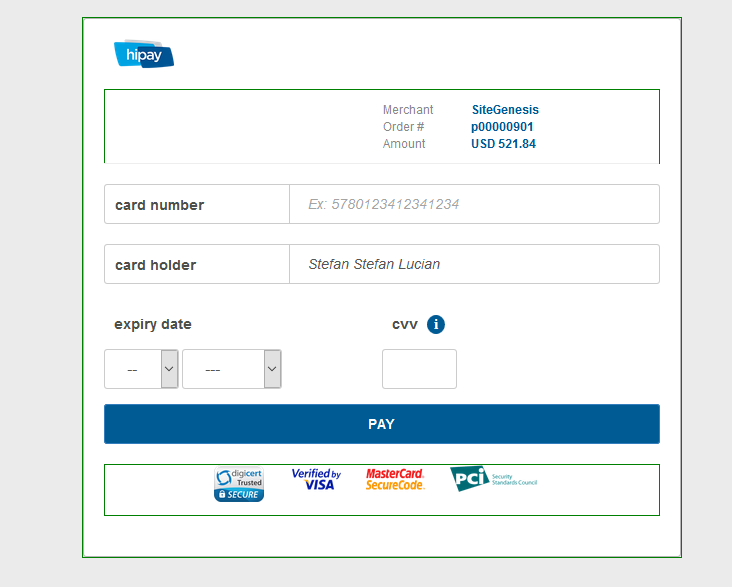
After completing payment with the 3rd party, the customer is redirected back to the storefront. If the payment is successful or unknown, the customer is taken to the confirmation page. If the payment was unsuccessful, the customer is given an error message on the summary page and asked to select a different payment method.

### Hosted Merchant Link Credit Cards

On the billing page, the customer selects Hosted Credit Cards.



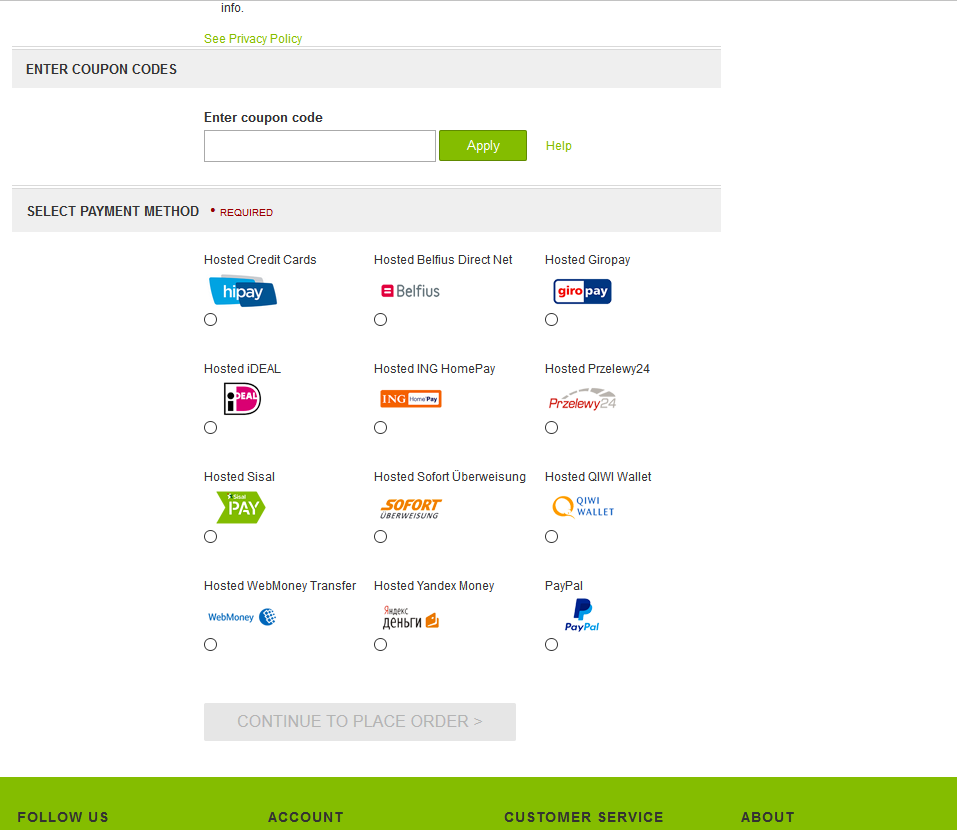
After the customer submits the order is redirected to a Payment page hosted and provided by HiPay, where the credit card form appears where the end-customer can enter the payment details:



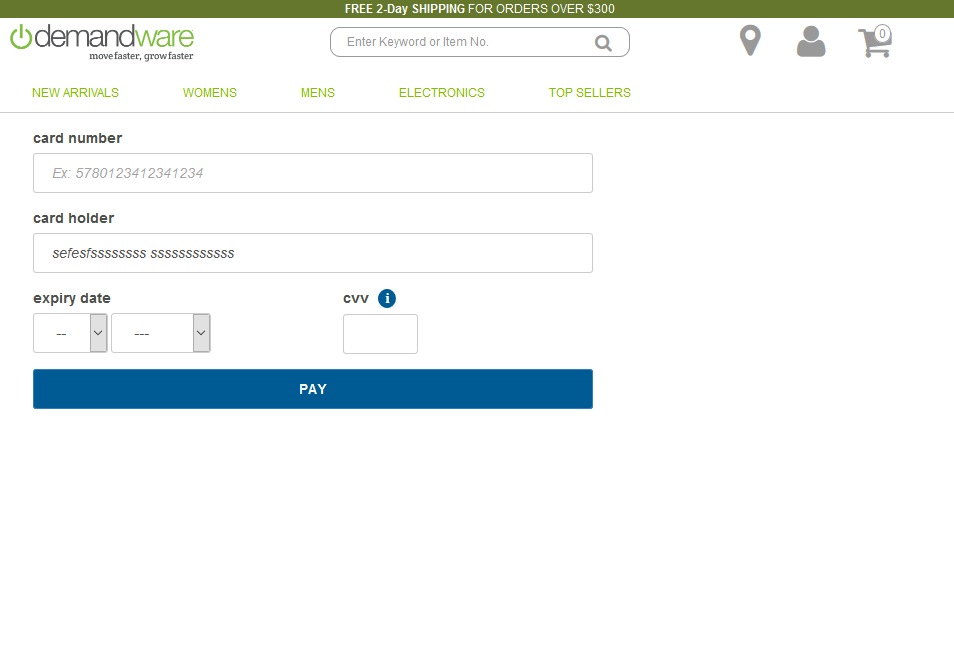
After completing payment with the HiPay, the customer is redirected back to the storefront. If the payment is successful or unknown, the customer is taken to the confirmation page.

### Hosted Merchant iFrame

On the billing page, the customer selects Hosted Credit Cards or other payment method.



After Submitting the order from the summary page, the customer is then taken to a Payment page, where the HiPay credit card form appears inside an iFrame:



When payment is complete, the customer is directed to the confirmation page as usual. If the payment is successful or unknown, the customer is taken to the confirmation page. If the payment was unsuccessful, the customer is given an error message on the summary page and asked to select a different payment method.

# Known Issues

The cartridge and its documentation will be in English only.

The HiPay integration cartridge is compatible with the latest SFCC API version (currently 19.10) and SG version (currently 104.1.3). It might require updates and reviews for future versions and releases of Site Genesis.

# Release History

|  |  |  |
| --- | --- | --- |
| **Version** | **Date** | **Changes** |
| 1.0.0 | 02/11/2015 | Initial release. |
| 1.0.1 | 7/29/2016 | HiPay Multi-account integration. |
| 16.1.0 | 8/8/2016 | Updated compatibility with SG 16.7. |
| 18.1.0 | 29/1/2018 | Add HiPay One-Click payment setting (Api integration). Controller Version. |
| 19.1.0 | 10/1/2019 | Add Oney payment methods and required BM modules for configuration. |
| 20.1.0 | 01/14/2020 | Add compliance with PSD2 and Strong Customer Authentication – 3D Secure 2. |