salesforce commerce cloud

Table of Contents

1 Summary..4

2 Component Overview 4

2.1 Supported Features 4

2.1.1 Smart Payment Button 4

2.1.2 Billing Agreement and Reference Transactions (Deprecated)................ 4

2.1.3 Alternative Payment Methods... 4

2.1.4 PayPal Credit Card Payment Processing... 5

2.1.5 Limit of saved credit cards 6

2.1.6 Transactions post processing.. 6

2.1.7 PayPal-provided Billing Address and Phone Number 6

2.1.8 Connect with PayPal 6

2.1.9 Webhook Support... 6

2.1.10 PayPal Vault Flow.. 6

2.2 Privacy and Payment 7

3 Implementation Guide 7

3.1 Overview... 7

3.2 Installation 7

3.2.1 Import metadata archive 7

3.2.2 Add cartridge to cartridge path... 8

3.2.3 Adding API Credentials 8

3.2.4 PayPal Transaction and PayPal Styles Configuration Business Manager modules installation 10

3.2.5 Custom cache configuration..11

3.3 Configuration...11

3.3.1 Updating Cartridge Custom Site Preferences..................................11

3.3.2 Job configuration for removal of outdated transaction 15

3.3.3 Static values configuration 15

3.3.4 PayPal Credit Card Configuration..15

3.3.5 Limit of saved Credit Cards...16

3.3.6 Limit of saved PayPal accounts 17

3.3.7 Alternative Payment Methods Configuration 17

3.3.8 Service Profile Configuration...18

3.3.9 SendFailedTransactionEmail Job Configuration 18

3.3.10 PayPalMigrateBillingAgreementIDsToVaultTokens Job Configuration .20

3.3.11 Apple Pay Configurations..21

3.3.12 Apple Pay Address fields validation 21

3.3.13 L2 L3 Data Processing...22

3.4 Webhook support...23

3.5 Plugin configuration exports (optional) 25

4 Operations and Maintenance 26

4.1 Data Storage 26

4.2 Logs..27

4.3 HTTP Service Availability 27

4.4 Testing 28

4.5 SFRA core templates overlay list 28

4.6 Support..29

4.7 Plugin service connection testing 29

4.8 Plugin configuration exports (optional) 29

5 User Guide 31

5.1 Business Manager modules 31
5.1.1 PayPal Transactions 31
5.1.2 PayPal Styles Configuration 40
5.1.3 PayPal Disputes 42
5.1.4 PayPal Tracking API 46
5.2 Storefront Functionality 49
5.2.1 Email, Phone, Shipping and Billing Address behavior 49
5.2.2 Connect with PayPal 50
5.2.3 PayPal Digital Goods(Previous Pay Now). 55
5.2.4 One-time checkout (non-vault flow) 58
5.2.5 Checkout with PayPal Vault Flow 61
5.2.6 Checkout using saved PayPal Account 63
5.2.7 Checkout with multiple saved PayPal accounts 64
5.2.8 Alternative Payment Methods 65
5.2.9 Venmo Payment Method 67
5.2.10 Manage Vault flow from My Account 68
5.2.11 Credit Card functionality on the Billing page 69
5.2.12 Credit Card functionality on the My Account page 70
5.2.13 Credit Card 3dSecure Fallback 72
5.2.14 Credit Card Expire Notification 73
5.2.15 Credit Messaging 74
5.2.16 Button Messages 77

6 Locales and addresses 80
6.1 General info 80

7 Multi-site and multi-credential support 80
7.1 General info 80

8 Gift Certificate Support 81
8.1 General info 81
8.2 Technical info 81

9 Version and SFRA Support Info 81
9.1 JavaScript Files and Cartridge Version Location 81
9.2 SFRA Version Support 82
9.3 Compatibility Mode 82

10 Service Errors Handling 82
10.1 Service Timeout Handle 82
10.2 Fallback/Recovery 82
10.3 Handle Error Response 83

11 Automated Testing 84

12 Recommendations 84

13 Known Issues 87

14 Upgrade Guide 87
14.1 Manual update 87
14.2 Migration from Billing Agreement to Vault flow. 91

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1 Summary

This Implementation Guide describes how to integrate **int_paypal**, **bm_paypal** cartridges version 24.2.0 into Commerce Cloud reference application Store Front Reference Architecture (7.0.0 SFRA).

Cartridges include:

- PayPal Checkout from cart and payment pages
- Apple Pay Checkout from product, cart and payment pages
- Vault flow for Credit Card and PayPal
- Review and post-process PayPal transactions in the Business Manager
- Dynamic Smart Button styling management from the Business Manager
- Configure custom site preferences in the Business Manager

PayPal integration uses PayPal REST Order API for checkout and Payment API for transaction post processing in Business Manager.

For more information, contact your PayPal support manager.

2 Component Overview

2.1 Supported Features

2.1.1 Smart Payment Button

PayPal Checkout with Smart Payment Buttons gives your buyers a simplified and secure checkout experience. PayPal intelligently presents the most relevant payment types to your shoppers, automatically, making it easier for them to complete their purchase using methods like Pay with Venmo, PayPal Credit, credit card payments.

Button Demo

NOTE: An authorized PayPal user has their own separate session and saves data separately for the domain from which the SDK is loaded (cookies, localStorage). The session is not cleared automatically when the user performs login/logout from their account.

2.1.2 Billing Agreement and Reference Transactions (Deprecated)

From version 24.2.0 Billing Agreement is deprecated and new Vault flow is introduced.

2.1.3 Alternative Payment Methods

Alternative payment methods allow customers across the globe to pay with their bank accounts, wallets, and local payment methods. Relevant alternative payment methods are automatically presented with Smart Payment Buttons.

To learn more, see Alternative Payment Methods overview.
Current solution uses unbranded experience. See an example here:
Unbranded APM

UPDATE: *Now the integration supports alternative payment methods:*

- **Apple Pay**
- **Blik -** for Polish locale.
- **Bancontact** - for Belgian locale.
- **EPS** - for Austrian locale.
- **iDEAL** - for Dutch locale.
- **MyBank** - for Italian locale.
- **P24** - for Polish locale.

2.1.4 PayPal Credit Card Payment Processing

Card Fields is a way to accept credit card payments securely using PayPal JavaScript SDK. PayPal's payment gateway connects your storefront to any processor or bank that it supports.

Important: PayPal Card Fields are applicable for the merchants who enabled advanced credit and debit card payments.

Check: To confirm that Advanced Credit and Debit Card Payments are enabled for you, check your sandbox business account as follows:

1. Log into the PayPal Developer Dashboard, go to Apps & Credentials. In the REST API apps, select the name of your app.

2. Go to Features > Accept payments.

3. Select the Advanced Credit and Debit Card Payments checkbox and select Save Changes.

Important: If the advanced credit and debit card payment status for the account is disabled, the merchant needs to ask for permission from PayPal.

NOTE: If you as a merchant are making any changes in Credit/Debit cards settings (Merchant tools > Payment methods > Manage Credit/Debit Cards), to go smoothly with checkout, make sure the type of credit card matches one of the following below:

- Visa
- MasterCard
- American Express
- Diners Club*
- Discover
- JCB
- UnionPay*
- Maestro
- Elo
- Hiper
- Hipercard

2.1.5 Limit of saved credit cards

Allows setting the limit for saving credit cards to the buyer's wallet. The value of the property is equal to the number of credit cards which a logged-in user is allowed to save. By default, it is Unlimited.

NOTE: If you decrease the value, already saved credit cards will not be deleted.

2.1.6 Transactions post processing

Orders paid with integration can be post-processed from a separate Business Manager module. Post-processing includes transaction capture, refund, and void. Captured orders can be connected to PayPal Tracking API. Also, you can create a new transaction.

Check Business Manager chapter for more details.

2.1.7 PayPal-provided Billing Address and Phone Number

To retrieve a buyer's billing address and phone number from the PayPal Checkout flow, please contact your PayPal representative or PayPal Support to enable them.

Important: Retrieving billing address and phone number should be enabled in merchant account before PayPal button will be enabled on a cart page.

2.1.8 Connect with PayPal

‘Connect with PayPal’ enables users to create an account for your website and log in using their PayPal credentials.

NOTE: In case user logs in via Connect with PayPal for the first time they will also receive the credentials for login via a Single Authentication (Demandware standard login).

Also, the user can access their pre-existing user's account (if it exists) via Connect with PayPal if the email of the pre-existing user account matches with the PayPal email.

When a customer links or unlinks their PayPal account, they will receive an email notification.

NOTE: we do not recommend using Login with PayPal functionality if you have custom options, namely the possibility of changing customers' emails.

2.1.9 Webhook Support

The purpose of the webhooks is to reflect changes which were done manually or automatically on PayPal console level.

For now, only the following hooks are supported: **Payment authorization voided**, **Payment capture refunded**, and **Payment capture completed, Vault payment-token created, Vault payment-token deleted, Customer dispute created, Customer dispute resolved, Customer dispute updated**.

2.1.10 PayPal Vault Flow

Starting from 24.2.0 plugin version, Billing Agreement is deprecated, and new Vault flow is introduced.

To Enable Vault flow "Store PayPal account in Vault" Site Preference has to be set to "Enabled".

In order to migrate from Billing Agreement to Vault flow the 'PayPalMigrateBillingAgreementIDsToVaultTokens' job should be run. This job converts saved PayPal accounts, namely Billing Agreement IDs to Vault tokens. If the job was not run and user open My Account page or login from Checkout page with saved BA accounts, they will be automatically converted to the Vault tokens in real time.

NOTE: we strongly recommend to run 'PayPalMigrateBillingAgreementIDsToVaultTokens' job before the migration.

2.2 Privacy and Payment

This integration requires access to the following customer data elements: Shipping Address, Order Details, Customer Profile.

3 Implementation Guide

3.1 Overview

Two cartridges support this integration:

1. int_paypal – Commerce Cloud storefront extension
2. bm_paypal – Business Manager extension "Transactions", "Disputes", "Preference Configuration" and "Styles Configuration"

NOTE: Starting from 23.4.0 release cartridge paypal_credit_financing_options is removed and no longer supported as deprecated.

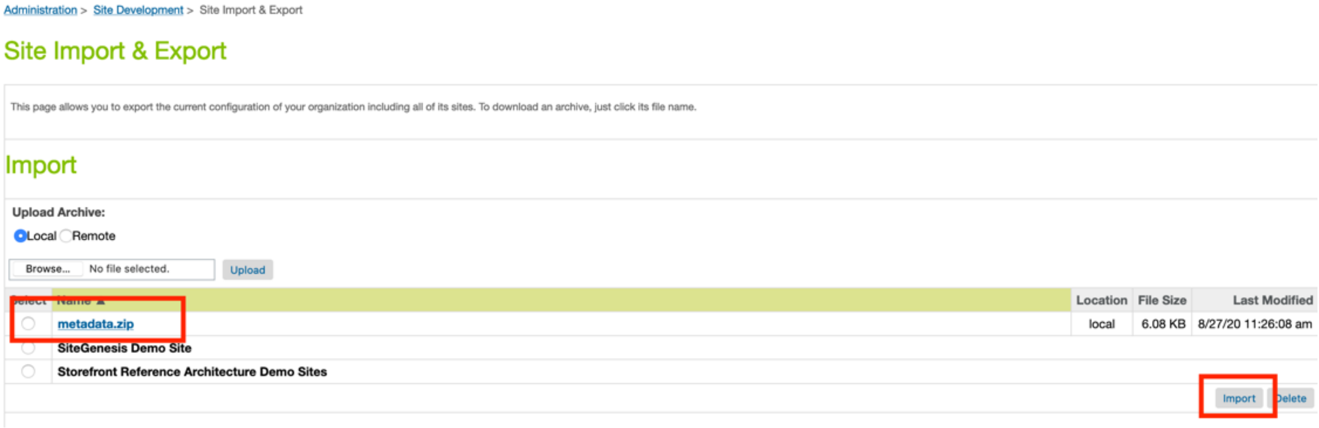
NOTE: Latest supported OCAPI (int_paypal_ocapi) is 24.1.0 and it is not maintained starting from 24.2.0

3.2 Installation

3.2.1 Import metadata archive

Before installing the cartridge, make sure that you have a working sandbox with a site based on SFRA installed.

1. Create metadata.zip from the metadata folder then upload and import it. To do so, go to Business Manager > Administration > Site Development > Site Import & Export. Upload the archive using 'Local' option in the Upload Archive section.
2. After uploading choose metadata.zip in the list and click on import button.



Administration > Site Development > Site Import & Export

Site Import & Export

This page allows you to export the current configuration of your organization including all of its sites. To download an archive, just click its file name.

Import

Upload Archive:

● Local ○ Remote

Browse... No file selected. Upload

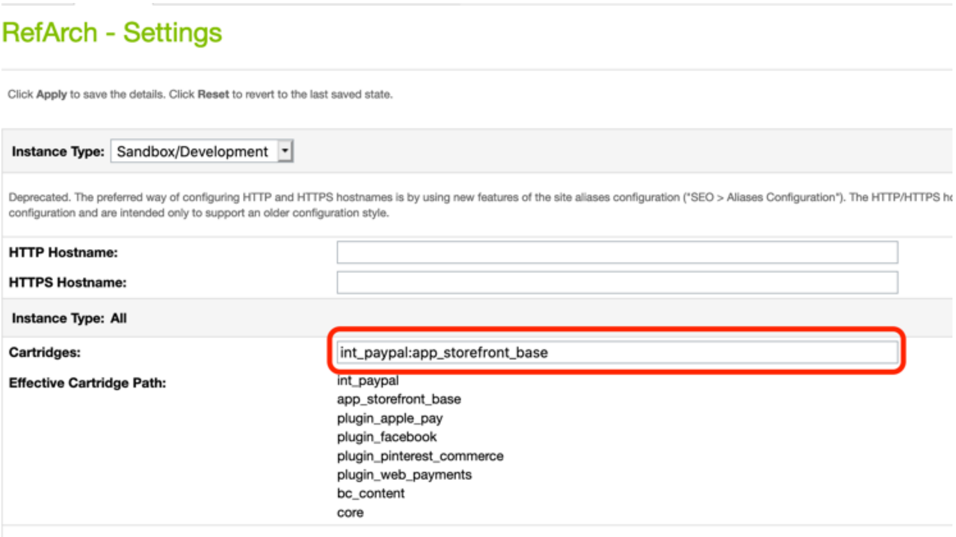
Select	Name ▲	Location	File Size	Last Modified
○	metadata.zip	local	6.08 KB	8/27/20 11:26:08 am
○	SiteGenesis Demo Site			
○	Storefront Reference Architecture Demo Sites			

Import Delete

Figure 3.2.1. metadata.zip archive import

3.2.2 Add cartridge to cartridge path

Add int_paypal into the cartridge path of a target site. To do so, go to Business Manager > Administration > Sites > Manage Sites > Your Target Site > Settings and insert int_paypal before your cartridges record, as shown in Figure 3.2.2.



RefArch - Settings

Click Apply to save the details. Click Reset to revert to the last saved state.

Instance Type: Sandbox/Development

Deprecated. The preferred way of configuring HTTP and HTTPS hostnames is by using new features of the site aliases configuration ("SEO > Aliases Configuration"). The HTTP/HTTPS hc configuration and are intended only to support an older configuration style.

HTTP Hostname:

HTTPS Hostname:

Instance Type: All

Cartridges: int_paypal:app_storefront_base

Effective Cartridge Path:
int_paypal
app_storefront_base
plugin_apple_pay
plugin_facebook
plugin_pinterest_commerce
plugin_web_payments
bc_content
core

Figure 3.2.2. Storefront cartridge path

3.2.3 Adding API Credentials

Services:

- int_paypal.http.rest – is used for the main plugin logic (Smart Button, manipulations with transactions, etc.).

To access credentials, go to Business Manager > Administration > Operations > Services > Credentials.

You need to fill the next credentials with the identical data:

- NAME: Paypal_Sandbox_Credentials
  SB URL: https://api.sandbox.paypal.com/

Prod URL: https://api.paypal.com/
User: Client Id
Pass: Secret

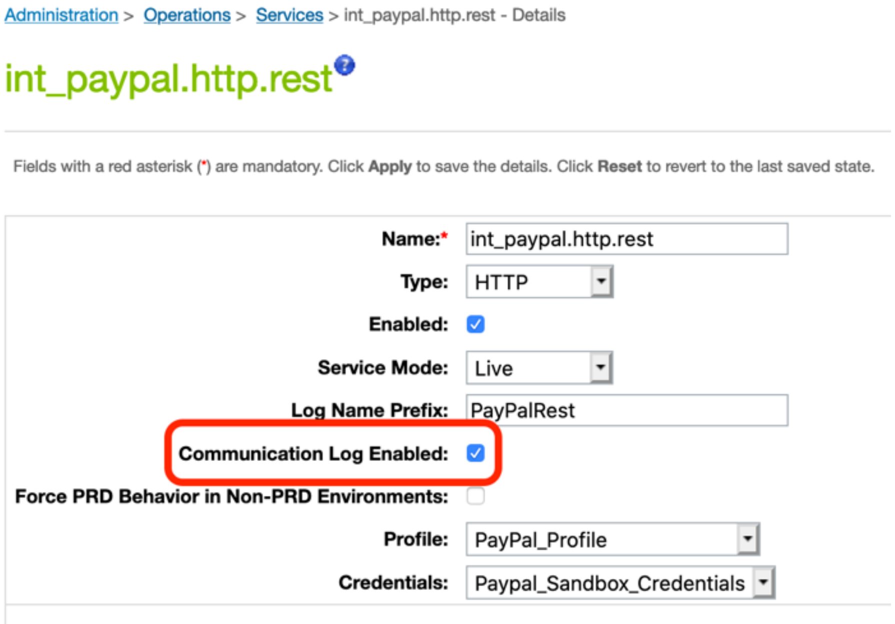
For both credentials use Client Id as **User** and Secret as **Password.** Client Id and Secret can be obtained in the app details at the PayPal developer portal.

For more details about REST apps and credentials please visit Get credentials page at the PayPal Developer Portal.

UPDATE: Current integration supports only one credentials usage at a time. If you wish to use multiple credentials at one sandbox you should customize cartridge at PaypalRestService.js file.

(Optional) For non-production activities we recommend enabling the communication log for the int_paypal.http.rest service. The communication log will log every request and response to the log files. To do this navigate to the Business Manager > Administration > Operations > Services and click on int_paypal.http.rest. Check Communication Log Enabled checkbox (Figure 3.2.3)

PLEASE NOTE: By enabling the communication log, some details such as customer's personal information including address, phone, and email will be logged in cleartext. This should only be used for debugging purposes. We recommend, if possible, to only use this in a sandbox; however, when used in production, ensure you are disabling / unchecking the communication log box immediately after you are done with your debugging. Further, some credentials will also be saved in cleartext.



Administration > Operations > Services > int_paypal.http.rest - Details

int_paypal.http.rest

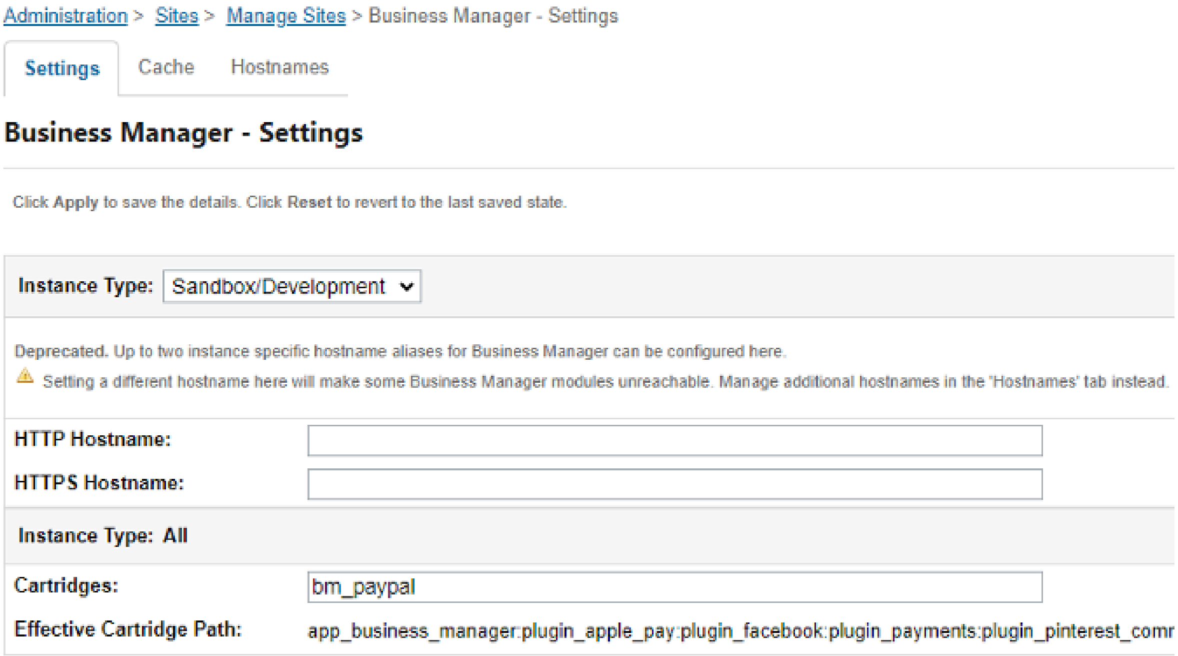
Fields with a red asterisk (*) are mandatory. Click **Apply** to save the details. Click **Reset** to revert to the last saved state.

Name:*	int_paypal.http.rest
Type:	HTTP
Enabled:	☑
Service Mode:	Live
Log Name Prefix:	PayPalRest
Communication Log Enabled:	☑
Force PRD Behavior in Non-PRD Environments:	□
Profile:	PayPal_Profile
Credentials:	Paypal_Sandbox_Credentials

Figure 3.2.3. Service Example

3.2.4 PayPal Transaction and PayPal Styles Configuration Business Manager modules installation

Add **bm_paypal** into the record of the Business Manager cartridge path. Go to **Business Manager > Administration > Sites > Manage Sites > Manage the Business Manager Site > Settings** as shown in Figure 3.2.4.



Administration > Sites > Manage Sites > Business Manager - Settings
Settings
Cache
Hostnames

Business Manager - Settings

Click Apply to save the details. Click Reset to revert to the last saved state.

Instance Type: Sandbox/Development

Deprecated. Up to two instance specific hostname aliases for Business Manager can be configured here.

⚠ Setting a different hostname here will make some Business Manager modules unreachable. Manage additional hostnames in the 'Hostnames' tab instead.

HTTP Hostname:

HTTPS Hostname:

Instance Type: All

Cartridges: bm_paypal

Effective Cartridge Path: app_business_manager:plugin_apple_pay:plugin_facebook:plugin_payments:plugin_pinterest_comr

Figure 3.2.4. Business Manager Cartridge Path

Grant access to Business Manager modules:

a. Go to Business Manager > Administration > Organization > Roles & Permissions and select the target role that needs to have access to PayPal Transaction management (e.g., the Administrator role)

b. Select the Business Manager Modules tab in the drop-down list on top. You must select your target site as the active context.

c. Scroll to the PayPal Plugin module. Grant access to it by selecting the checkbox (Transactions, Styles Configuration, Preference Configuration, Disputes) and clicking Update**.**

NOTE: before granting assets to your Business Manager modules, the bm_paypal cartridge must be uploaded, and the correct cartridge path must be entered.

Once you do this, every Business Manager user with that role will be able to manage PayPal Transactions by selecting Business Manager > Merchant Tools > PayPal Plugin > Transactions, change Smart Button styling under Business Manager > Merchant Tools > PayPal Plugin > **Styles Configuration and** change Custom site preferences under Business Manager > Merchant Tools > PayPal Plugin > **Preference Configuration**, manage PayPal Disputes by selecting Business Manager > Merchant Tools > PayPal Plugin > **Disputes**.

3.2.5 Custom cache configuration

Custom cache required for fast and stable work on the integration. Navigate to Business Manager > Administration > Operations > Custom Caches and ensure that the "Enable Caching" checkbox is selected.

There are 1 custom cache objects used by the integration:

1. paypalRestOauthToken – OAUTH token for communication with PayPal REST API. Out of the box, the integration supports single site usage and the token retrieved from PayPal is cached. For multiple credentials usage we recommend removing the cache definition from caches.json file in the cartridge.

   Access tokens have a finite lifetime. In general, access tokens have a lifespan of 900 seconds (15 minutes) or 32400 seconds (nine hours), depending on the associated scopes. You can find more information about the access token here: Access token

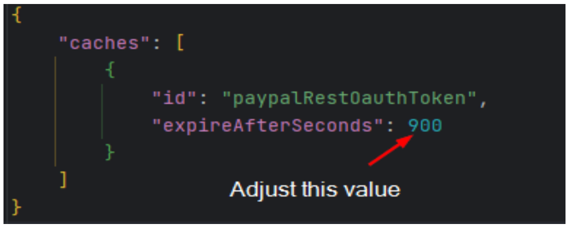
   ‘paypalRestOauthToken’ cache definition has an additional value:

   ‘expireAfterSecond’ – a cache finite lifetime with **900** default value.

   There are cases when ‘expireAfterSecond’ value can be higher than the access token lifetime and it can cause an error during PayPal REST API server usage.

   To avoid such errors, we recommend investigating the access token’s ‘expires_in’ value by following this link: Access token and setting an appropriate value into ‘paypalRestOauthToken’ cache. To do this, follow the next steps:

   1. Go to ‘int_paypal/caches.json’ file in the project repository.
   2. Adjust ‘expireAfterSecond’ value with one you got during investigation



```
{
    "caches": [
        {
            "id": "paypalRestOauthToken",
            "expireAfterSeconds": 900
        }
    ]
}
```

Adjust this value

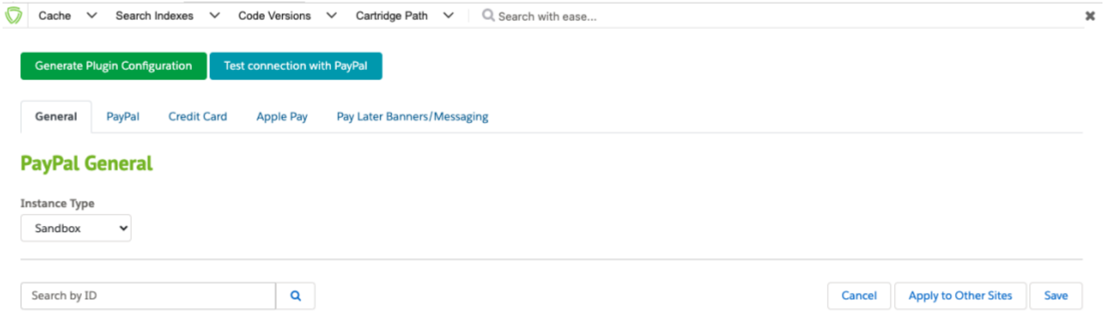
Figure 3.2.5. Caches.json file

UPDATE: Custom Cache could be disabled for developing or testing purposes. we do not recommend disabling it in production and staging ENVIRONMENTS to avoid performance issues and http calls quota violation.

3.3 Configuration

3.3.1 Updating Cartridge Custom Site Preferences

Go to Business Manager > Merchant Tools > PayPal Plugin > Preference Configuration. You will see a list of available tabs (Figure 3.3.1)



PayPal General

Instance Type
Sandbox

Figure 3.3.1 Preference Configuration

The list of plugin site preferences:

PayPal General tab

1. **Payment Model**, which determines whether the funds are captured immediately (Sale) or later (Authorize).
   a. *Authorization* - authorize a payment by placing a hold on the customer's card for the funds.' Capture funds immediately' site pref. should be set to 'no'.
   b. *Sale (capture)* - settling a purchase immediately, it means that authorization and capture occurs at the same time as the sale. Capture funds immediately' site pref. should be set to 'yes'.

   NOTE: Authorization is not supported by Local Payment Methods (LPM).
2. **Authorization and Capture webhook id**, which is Webhook id of payment authorization voided, payment capture refunded, and payment capture completed events.
3. **List of enable funding methods**, which allows setting up a list of additional enable funding methods for SDK URL creation (example: "paylater").
4. **List of disable funding methods**, which allows setting up a list of disable funding methods for SDK URL creation (example: "paylater" or/and "card").
5. **Session Payments Enabled**, which determines whether session payments should be enabled for guest or logged-in users or both or disabled. Does not work with Returning Customer Experience (Change Payment Method button).
6. **Enable Transaction Logs -** enables logging of the requests and responses from PayPal while creating transaction. You can review these requests\responses in the Transaction Details.
7. **Merchant Name,** which display the name of the business or individual receiving the payment in the Apple Pay and PayPal payment modal.

PayPal Configuration tab

1. **PayPal Button Location**, which allows setting up an additional PayPal button location on the website.
2. **PayPal Button messages location**, which shows messaging directly with buttons to promote Pay Later offers and other PayPal value propositions. Messaging is currently

only supported for US merchants and US customers. Merchants must be eligible for Pay Later to display Pay Later offers with buttons.

3. **Store PayPal account in Vault**, regulates buyers ability to manage their vault flow:

   - Enabled - buyers are allowed to save new payment methods and use previously saved ones.

   - Partially Disabled - buyers can use only previously saved payment methods.

   - Disabled - buyers cannot save new payment methods or use previously saved ones.

4. **PayPal Debit Credit Button Enable,** which allows enabling PayPal Debit Credit Button on the storefront which will be displayed next to the PayPal button. Please note that the PayPal Debit Credit Button location will be the same as the location of the PayPal button. Pay attention that PayPal Debit Credit Button will not be rendered when PayPal Credit Card Payment Method is enabled.

5. **Pay Later Button Enable** which allows enabling PayPal Pay Later Button on the storefront which will be rendered next to the PayPal button. Please note that PayPal Pay Later **Button** location will be the same as the location of the PayPal button. Depending on the vault mode and client-id one of the buttons will be rendered.

6. **Digital Goods enabled**, the flow is designed for selling only Digital Goods, which do not require delivery to the shipping address. In case you enable this flow, the shipping options will be hidden on the storefront.

   NOTE: Digital Goods flow does not support Venmo payment method.

7. **PayPal Fraudnet Enabled**, which allows collecting buyer's browser-based data and passing it to PayPal Risk Service to help reduce fraud.

8. **Connect with PayPal button enabled**, which identifies whether the Connect with PayPal (CWPP) button is enabled on the Login and the Checkout pages.

9. **Connect with PayPal button url**, the field for entering a URL which is used for Connect with PayPal feature.

10. **Connect with PayPal agent login**, part of Connect with PayPal functionality that requires agent credentials to perform "Login On Behalf" action.

11. **Connect with PayPal agent password**, part of Connect with PayPal functionality requires agent credentials to perform "Login On Behalf" action.

12. **Account Linking Security Layer enabled**, which enables additional verification step (enter credentials from the pre-existing user account) during the account linking while your buyers use Connect with PayPal for the first time and the user account email matches with the PayPal primary account email.

13. **Automatic payment method adding enabled**, which enables automatic adding of the PayPal account and address to the user account if this site pref. is set to 'yes' and Connect with PayPal button Is enabled.

14. **Account Linking Security Layer enabled,** which enables additional security step where users should enter credentials for the existing account during first login via Connect with PayPal.

15. **Simplified PayPal Dispute Page**, which enables activating of the simplified UI of the PayPal Dispute page.

    NOTE: If Simplified PayPal Dispute Page is enabled, PayPal disputes will not be stored on the Demandware side. In addition, PayPal disputes will be retrieved and updated from PayPal in real-time by using dispute API.

    If Simplified PayPal Dispute Page is disabled, the full functionality of the Dispute page will be activated, i.e., search dispute section and dispute history will be shown. In this case PayPal disputes will be stored in the custom object on the Demandware side and will be retrieved and updated via PayPal Dispute webhooks.

PayPal Credit Card tab

1. **Store Credit Card in Vault**, which regulates vault flow which allows saving credit cards for logged-in buyers:

    - Enabled - buyers are allowed to save new payment methods and use previously saved ones.

    - Partially Disabled - buyers can use only previously saved payment methods.

    - Disabled - buyers cannot save new payment methods or use previously saved ones.

    NOTE: If you disable this site preference and the logged-in user has a saved credit card in the wallet, then they will not be able to use it on the checkout.

2. **Store Credit Card in Vault via My Account.** This site preference regulates vault options of saving Credit Cards only on My Account and becomes active only when "Store Credit Card in Vault" is Enabled. When set to "Yes" value, it allows User to save new Credit Cards from My Account.

3. **Verify Credit Card on My Account**, which enables verification while saving credit cards on the My Account page.

    NOTE: 3DS verification can be requested automatically if it is required.

4. **Limit of saved credit cards,** which allows you to set the maximum number of cards that logged-in user can save.

    NOTE: If you decrease the value, already saved credit cards will not be deleted.

5. **3DS verification for Credit Card**, which allows/disallows triggering 3D Secure flow on the Checkout page.

6. **Credit Card Expire Notification Configuration**, which allows notifying and highlighting (show the respective label) logged-in buyers if their credit cards are expired or are going to expire.

Apple Pay tab

1. **Apple Pay Button Location,** which allows setting up an additional Apple Pay button location on the website.

Pay Later Banners/Messaging tab

1. **Pay Later Messaging Location,** which allows displaying banners/messaging on the PDP, Cart, Categories pages.

2. **Pay Later Cross-Border Messaging Enabled,** which enables Cross-border messages for Pay Later. It means that the text for Pay Later messages can be displayed according to your website location.

3.3.2 Job configuration for removal of outdated transaction

To record a transaction created from Business Manager cartridge use custom object feature. After a year, a transaction becomes outdated and to remove it, use a job with a recurring interval which has been added to the site in the process of importing metadata.

Job has site context and default site id is RefArch. If you have different site id, navigate to Business Manager > Administration > Operations > Jobs > RemoveOutdatedPayPalTransaction > Job Steps and click on RefArch mark near Scope and select new site to run.

By default, this job will run every 2 months. If you do not create transaction from Business Manager or you want to change a job interval, navigate to Business Manager > Administration > Operations > Jobs > RemoveOutdatedPayPalTransaction > Schedule and History. Uncheck Enable checkbox if you want to disable the job or change an interval in the menu below.

3.3.3 Static values configuration

All configuration options are available in `cartridge/config/sdkConfig.js` file. You could change:

1. Allowed currencies. By default, all currencies are allowed. The currency list is available under allowedCurrencies variable. More details Currency (currency section)
2. Disable funds. By default, only alternative payment methods are disabled. More details Disable funding (disable-funding section) and Alternative Payment Methods
3. Also, in `cartridge/config/paypalConstants.js` file you can setup SOFT_DESCRIPTOR variable which will be processed as *`soft_descriptor`* field in transaction's *`purchaseUnit`* object. The soft descriptor is the dynamic text used to construct the statement that appears on a payer's card statement. More info on soft_descriptor can be found on PayPal Order Documentation.

3.3.4 PayPal Credit Card Configuration

To enable Card Fields:

1. Activate **PayPal Credit Card** payment method. Navigate to Business Manager > Merchant Tools > Ordering > Payment Methods and enable **PayPal Credit Card** payment method with payment processor **PAYPAL**

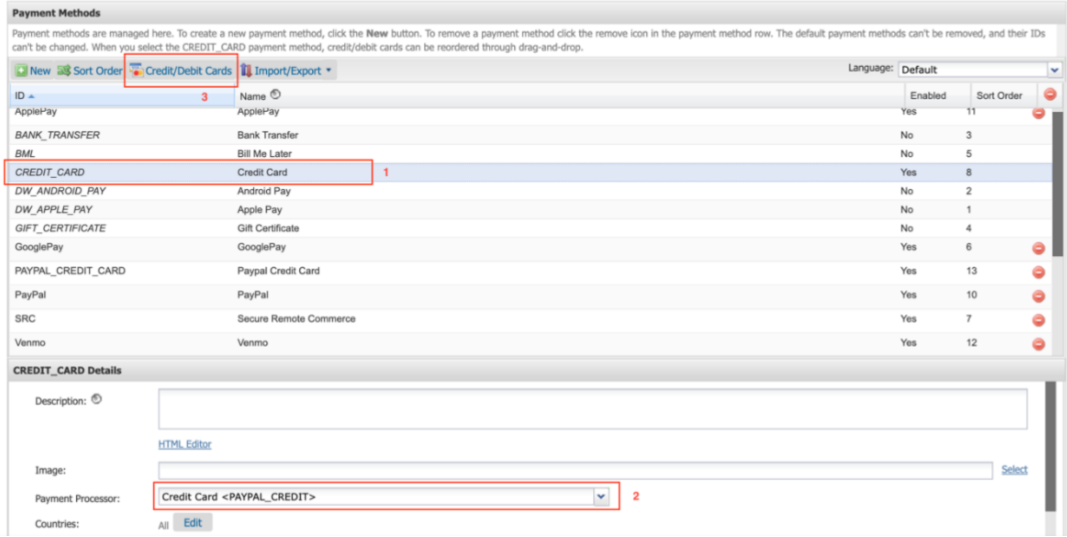
2. Activate **PayPal Debit Credit Button** custom preference. Navigate to Business Manager > Merchant Tools > PayPal Plugin > Preference Configuration > PayPal and set value Yes for **PayPal Debit Credit Button Enable**

NOTE: Card Fields are applicable for **Sale** and **Authorize** flows

To add new credit type:

1. Navigate to Business Manager > Merchant Tools > Ordering > Payment Methods and enable **PayPal Credit Card** payment method with payment processor **Credit Card <PAYPAL_CREDIT>**

2. Go to Credit/Debit Cards tab and add new card with name and Type



Payment Methods

Payment methods are managed here. To create a new payment method, click the **New** button. To remove a payment method click the remove icon in the payment method row. The default payment methods can't be removed, and their IDs can't be changed. When you select the CREDIT_CARD payment method, credit/debit cards can be reordered through drag-and-drop.

Language: Default

ID	Name	Enabled	Sort Order
ApplePay	ApplePay	Yes	11
BANK_TRANSFER	Bank Transfer	No	3
BML	Bill Me Later	No	5
CREDIT_CARD	Credit Card	Yes	8
DW_ANDROID_PAY	Android Pay	No	2
DW_APPLE_PAY	Apple Pay	No	1
GIFT_CERTIFICATE	Gift Certificate	No	4
GooglePay	GooglePay	Yes	6
PAYPAL_CREDIT_CARD	Paypal Credit Card	Yes	13
PayPal	PayPal	Yes	10
SRC	Secure Remote Commerce	Yes	7
Venmo	Venmo	Yes	12

CREDIT_CARD Details

Description:

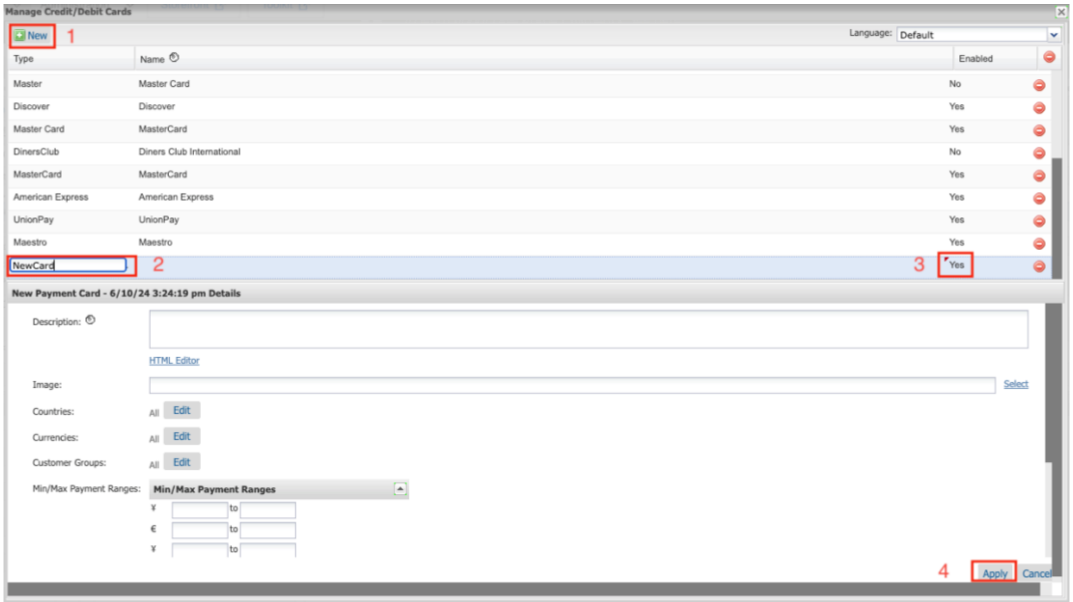
HTML Editor

Image: Select

Payment Processor: Credit Card <PAYPAL_CREDIT>

Countries: All Edit

Figure 3.3.2 Adding new type of Credit Card.



Manage Credit/Debit Cards

Language: Default

Type	Name	Enabled
Master	Master Card	No
Discover	Discover	Yes
Master Card	MasterCard	Yes
DinersClub	Diners Club International	No
MasterCard	MasterCard	Yes
American Express	American Express	Yes
UnionPay	UnionPay	Yes
Maestro	Maestro	Yes
NewCard		Yes

New Payment Card - 6/10/24 3:24:19 pm Details

Description:

HTML Editor

Image: Select

Countries: All Edit

Currencies: All Edit

Customer Groups: All Edit

Min/Max Payment Ranges: **Min/Max Payment Ranges**

¥ to

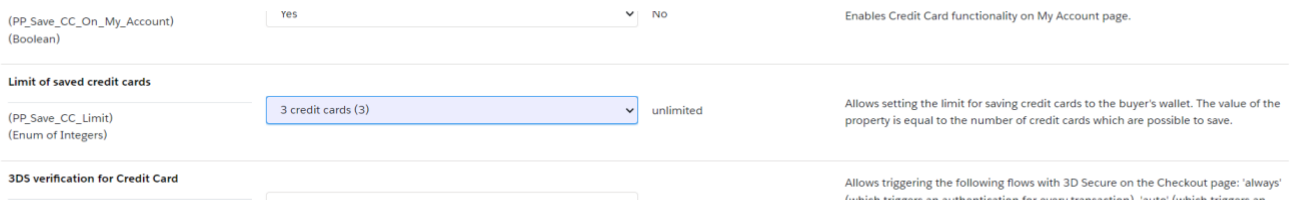
€ to

¥ to

Figure 3.3.3 Adding new type of Credit Card.

3.3.5 Limit of saved Credit Cards

The Limit of Saved Credit Cards option allows to set a limit on the number of credit cards a customer can store in their wallet. The value of the property is equal to the number of credit cards that the logged in user can store.



(PP_Save_CC_On_My_Account) (Boolean)	Yes	No	Enables Credit Card functionality on My Account page.
Limit of saved credit cards (PP_Save_CC_Limit) (Enum of Integers)	3 credit cards (3)	unlimited	Allows setting the limit for saving credit cards to the buyer's wallet. The value of the property is equal to the number of credit cards which are possible to save.
3DS verification for Credit Card			Allows triggering the following flows with 3D Secure on the Checkout page: 'always'

Figure 3.3.4 Credit card limit preference

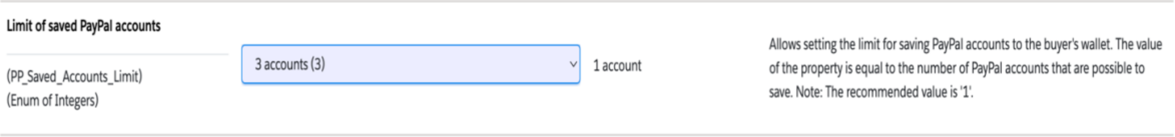
By default, is Unlimited. Other options are also available:

- *1 credit card*
- *2 credit cards*
- *3 credit cards*
- *4 credit cards*
- *5 credit cards*
- *Unlimited*

NOTE: If you decrease the value, already saved credit cards will not be deleted.

3.3.6 Limit of saved PayPal accounts

The Limit of PayPal accounts option allows to set a limit on the number of PayPal accounts a customer can store in their wallet. The value of the property is equal to the number of PayPal accounts that the logged in user can store.



Limit of saved PayPal accounts (PP_Saved_Accounts_Limit) (Enum of Integers)	3 accounts (3)	1 account	Allows setting the limit for saving PayPal accounts to the buyer's wallet. The value of the property is equal to the number of PayPal accounts that are possible to save. Note: The recommended value is '1'.

Figure 3.3.5 PayPal Account limit preference

By default, is 1 account. Other options are also available:

- *1 account*
- *2 accounts*
- *3 accounts*
- *Unlimited*

NOTE: If you decrease the value, already saved PayPal accounts will not be deleted.

3.3.7 Alternative Payment Methods Configuration

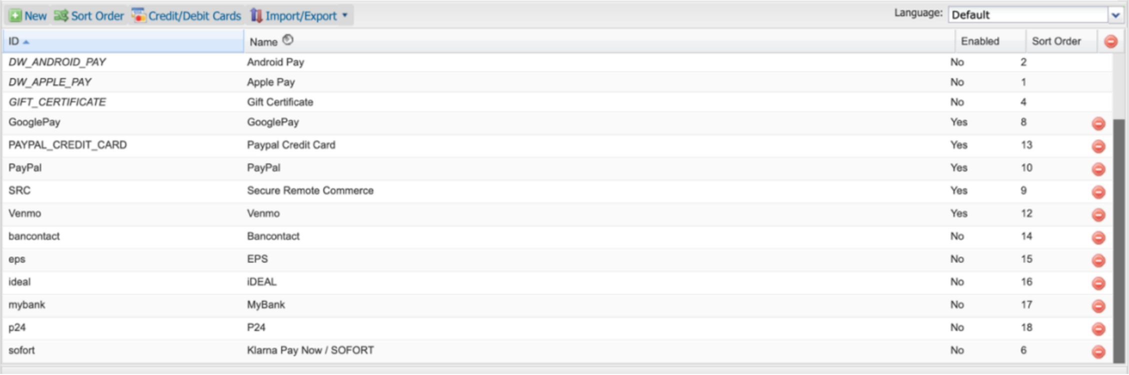
By default, all local? payment methods are disabled. To enable payment method, navigate to Business Manager > Merchant Tools > Ordering > Payment Methods

Choose a payment method and set Enabled to Yes

The following are the IDS of alternative payment methods that are supported by the integration:

- bancontact

- eps
- ideal
- mybank
- p24
- blik
- Apple Pay



ID	Name	Enabled	Sort Order
DW_ANDROID_PAY	Android Pay	No	2
DW_APPLE_PAY	Apple Pay	No	1
GIFT_CERTIFICATE	Gift Certificate	No	4
GooglePay	GooglePay	Yes	8
PAYPAL_CREDIT_CARD	Paypal Credit Card	Yes	13
PayPal	PayPal	Yes	10
SRC	Secure Remote Commerce	Yes	9
Venmo	Venmo	Yes	12
bancontact	Bancontact	No	14
eps	EPS	No	15
ideal	iDEAL	No	16
mybank	MyBank	No	17
p24	P24	No	18
sofort	Klarna Pay Now / SOFORT	No	6

Figure 3.3.6. Payment Methods configuration

UPDATE: Alternative Payment Methods, except for Apple Pay, are available only on the billing page and will appear only if *Capture funds immediately* preference is set to *Sale Flow (Sale)*.

3.3.8 Service Profile Configuration

By default, integration does not have any service profile configuration. We recommend putting limitation and timeout values according to storefront traffic to prevent fraud or potential attack. You can read more about configuration values here.

3.3.9 SendFailedTransactionEmail Job Configuration

SendFailedTransactionEmail job checks transaction statuses for a specified period of time. In case it finds appropriate status, it will send an email to the specified address with the transaction statuses and amounts of these transactions. If there are no such transactions, then email will not be sent, and respective log will be recorded to the job log. The purpose of this job is to give merchants the ability to receive emails regarding the failed transaction in order to be aware of it and quickly make a certain decision.

This job can accept the following job parameters:

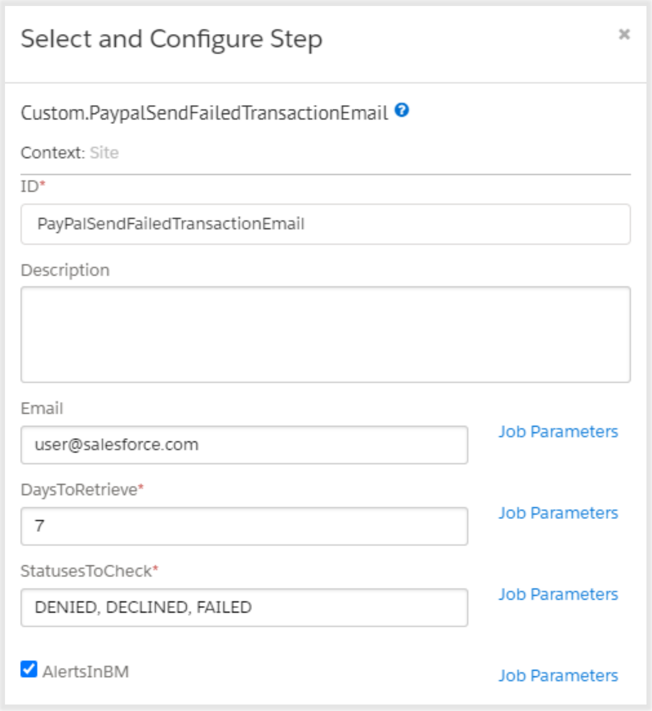
- **Email** – email address that is used for sending alerts.
- **DaysToRetrieve** – the period for which you need to check transaction statuses (number of days).
- **StatusesToCheck** – the statuses that will be considered to be checked, namely. For example: DENIED, DECLINED, FAILED.
- **AlertsInBM** – activates alerts for failed transactions in Business Manager (default: true)

Possible statuses list:

CREATED, PARTIALLY_CAPTURED, CAPTURED, VOIDED, PENDING, AUTHORIZED, COMPLETED, REFUNDED, PARTIALLY_REFUNDED, CANCELLED, EXPIRED, DENIED, DECLINED, FAILED

NOTE: Statuses in StatusesToCheck parameter must be specified as it is shown in Figure 3.3.7: in uppercase and with commas between the statuses.

NOTE: Parameter settings are not shipped with the job. Only DaysToRetrieve parameter has default value '7' and AlertsInBM value is 'true'. Other parameters must be filled in manually using the Business Manager interface (as shown in Figure 3.3.7).



Select and Configure Step

Custom.PaypalSendFailedTransactionEmail

Context: Site

ID*: PayPalSendFailedTransactionEmail

Description:

Email: user@salesforce.com

DaysToRetrieve*: 7

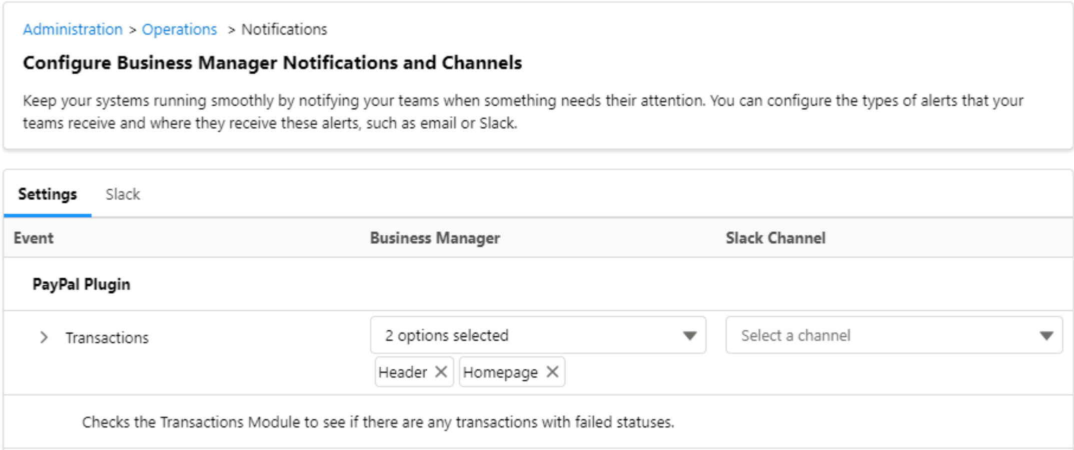
StatusesToCheck*: DENIED, DECLINED, FAILED

☑ AlertsInBM

Figure 3.3.7 sendFailedTransactionEmail parameters

NOTE: In the case of a large number of orders, it is better to run the job more often to prevent a possible sandbox overload and performance decrease.

NOTE: To see alert notifications in BM, you need to configure it. Go to **Administration > Operations > Notification Settings**. Find section **PayPal Plugin > Transactions** and choose where you want your alerts to appear (as shown in Figure 3.3.8).



Administration > Operations > Notifications

Configure Business Manager Notifications and Channels

Keep your systems running smoothly by notifying your teams when something needs their attention. You can configure the types of alerts that your teams receive and where they receive these alerts, such as email or Slack.

Event	Business Manager	Slack Channel
PayPal Plugin		
› Transactions	2 options selected ▼ Header ✕ Homepage ✕	Select a channel ▼

Checks the Transactions Module to see if there are any transactions with failed statuses.

Figure 3.3.8 Notification settings

3.3.10 PayPalMigrateBillingAgreementIDsToVaultTokens Job Configuration

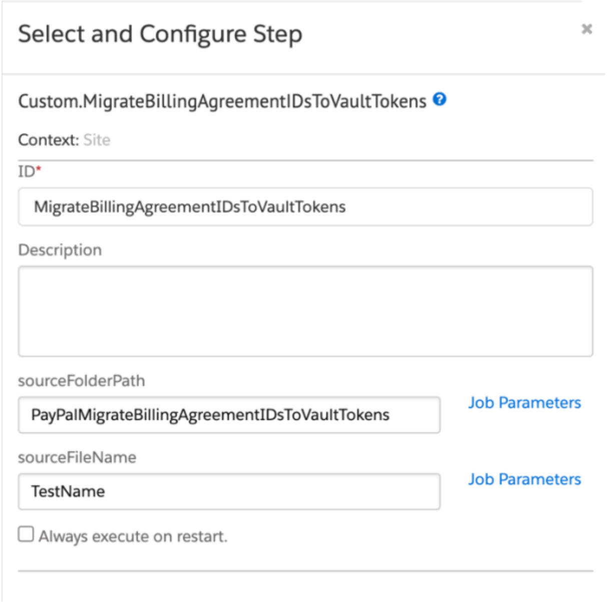
PayPalMigrateBillingAgreementIDsToVaultTokens job convert saved PayPal accounts (Billing Agreement IDs) into Vault tokens, enabling logged-in buyers to use their saved PayPal accounts that were saved via the Billing Agreement flow.

This job can accept the following job parameters:

- **sourceFolderPath:** Target folder path related to IMPEX/src
- **sourceFileName:** Source file name

NOTE: If the merchant does not use the job to convert BA IDs into Vault tokens, the system will perform this conversion in "real-time" when a user successfully logs into their storefront account.

NOTE: By default, value for saving folder is Impex/src/PayPalMigrateBillingAgreementIDsToVaultTokens. To change saving folder or name of the file parameters should be filled in manually using the Business Manager interface (as shown in Figure 3.3.9).



Select and Configure Step

Custom.MigrateBillingAgreementIDsToVaultTokens

Context: Site

ID*: MigrateBillingAgreementIDsToVaultTokens

Description:

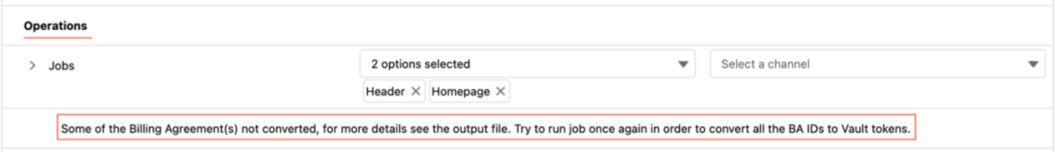
sourceFolderPath: PayPalMigrateBillingAgreementIDsToVaultTokens

sourceFileName: TestName

□ Always execute on restart.

Figure 3.3.9 PayPalMigrateBillingAgreementIDsToVaultTokens parameters

NOTE: To see alert notifications in BM, you need to configure it. Go to **Administration > Operations > Notification Settings**. Find section **Operations > Jobs** and choose where you want your alerts to appear (as shown in Figure 3.3.10).



Some of the Billing Agreement(s) not converted, for more details see the output file. Try to run job once again in order to convert all the BA IDs to Vault tokens.

Figure 3.3.10 Notification settings

3.3.11 Apple Pay Configurations

To enable Apple Pay, perform the following steps:

1) Complete sandbox onboarding steps: https://developer.paypal.com/docs/checkout/apm/apple-pay/#link-setupyoursandboxaccounttoacceptapplepay
2) Complete Go live steps for production: https://developer.paypal.com/docs/checkout/apm/apple-pay/#link-golive
3) Enable Apple Pay Payment Method in BM.
4) Configure Apple Pay Site Preference section to make Apple Pay button visible on pdp/pvp/cart/minicart pages.

NOTE: Apple Pay is available only in Safari on the following platforms:

- iOS 12.1 and later
- macOS 10.14.1 and later

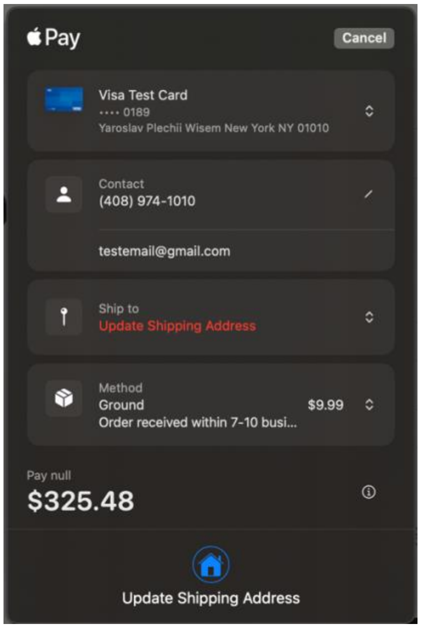
3.3.12 Apple Pay Address fields validation

From Apple Pay API version 3 and later Apple Pay JS API supports customized errors. It gives an ability to create validation rules for Billing and Shipping addresses in Apple Pay payment sheet.

To read about the feature, please follow the link.

The file for the setup validation is located at cartridges/int_paypal/cartridge/scripts/paypal/helpers/applePayAddressValidation.js

This file provides basic US locale validation rules for Apple Pay address fields. Based on those rules, Apple Pay pop-up will throw a customized error:



Visa Test Card
•••• 0189
Yaroslav Plechii Wisem New York NY 01010

Contact
(408) 974-1010

testemail@gmail.com

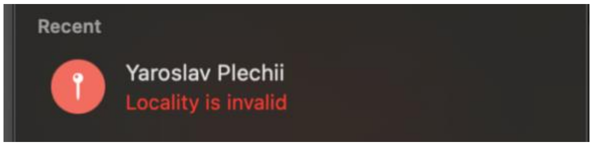
Ship to
Update Shipping Address

Method
Ground $9.99
Order received within 7-10 busi...

Pay null
$325.48

Figure 3.3.11 Apple Pay pop-up window.

These validation rules can be easily adjusted to meet the specific requirements simply by changing the appropriate regular expressions. It is also possible to create detailed errors by passing errorMessage for some specific field mismatch. For example:


Recent

Yaroslav Plechii
Locality is invalid

Figure 3.3.12 Apple Pay pop-up window Error message example.

The validation result can be passed to completePayment or completeShippingContactSelection methods. Some contact fields can be passed only to completePayment method, some can be passed to both. For more detailed information, check Apple Pay documentation.

3.3.13 L2 L3 Data Processing

PayPal cartridge supports Level 2 and Level 3 data for Apple Pay, Credit Cards, PayPal, Venmo and LPM payments.

In Business Manager navigate to Merchant Tools -> PayPal Plugin -> Preference Configuration -> General tab and set Level 2 and 3 Processing preferences to Yes.

Some fields require additional configuration on code-level, and some are supported out of the box.

Level 2 and Level 3 data mapping:

L2 Fields

Invoice ID: Passed

Tax Total: Passed

L3 Fields

Shipping Amount: Passed

Discount Amount: Passed

Ships From Postal Code: Not passed

Shipping Address: Passed

Line Items

- Name: Passed
- Description: Passed
- Quantity: Passed
- Unit Amount: Passed (This value cannot be negative or zero.)
- SKU: Passed
- URL: Passed
- UPC: Passed
- Unit of Measure: Not passed
- Total Amount: Passed
- Tax: Passed
- Discount Amount: Passed
- Commodity Code: Not passed

3.4 Webhook support

The purpose of the webhooks is to reflect changes which were done manually or automatically on PayPal console level.

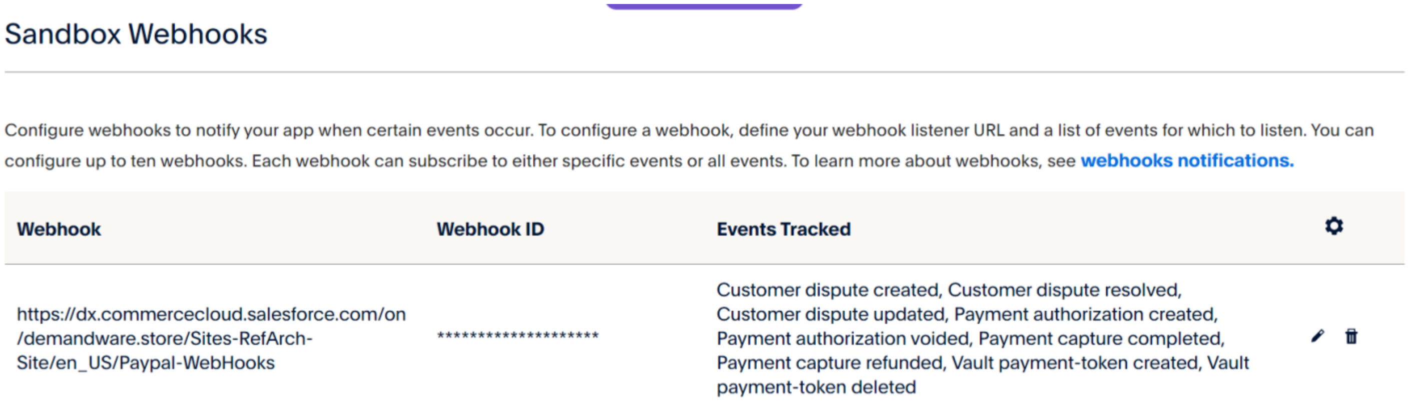
To configure webhook support, follow this PayPal guide.

Steps for configuration:

1. Go to the PayPal Developer and log in to the Dashboard with your account.
2. Navigate to "Apps & Credentials" and select or create your REST API app.
3. Scroll to the Webhooks and add new or select existing.
4. Enter a URL to your site with an endpoint Paypal-WebHooks.
   The general rule for creation URL is:
   {your environment}.
   dx.commercecloud.salesforce.com/on/demandware.store/{your site}/{your local}/{controller}
   (Ex. https://xxxx-

278.dx.commercecloud.salesforce.com/on/demandware.store/Sites-RefArch-Site/en_US/Paypal-WebHooks).

5. Only include events that are needed.
6. Save and copy the **Webhook ID.**
7. Enter it to the Custom Site Preference with ID: PayPal Webhooks ID *(PP_WH_ID)* (which is located inside PayPal Plugins -> Preference Configuration > tab "General").



Sandbox Webhooks

Configure webhooks to notify your app when certain events occur. To configure a webhook, define your webhook listener URL and a list of events for which to listen. You can configure up to ten webhooks. Each webhook can subscribe to either specific events or all events. To learn more about webhooks, see **webhooks notifications.**

Webhook	Webhook ID	Events Tracked
https://dx.commercecloud.salesforce.com/on/demandware.store/Sites-RefArch-Site/en_US/Paypal-WebHooks	********************	Customer dispute created, Customer dispute resolved, Customer dispute updated, Payment authorization created, Payment authorization voided, Payment capture completed, Payment capture refunded, Vault payment-token created, Vault payment-token deleted

Figure 3.4.1 Example of created Webhook in PayPal Developer account

NOTE: It does not have additional notifications regarding changes.

NOTE: you may subscribe only to the events listed below.

No	Webhook name	Description
1	Payment authorization voided	It is triggered when a payment has been voided.
2	Payment capture refunded	It is triggered when a merchant refunds a payment capture.
3	Payment capture completed	It is triggered when a payment capture is completed.
4	Vault payment-token created	It is triggered when a payment method is saved.
5	Vault payment-token deleted	It is triggered when a payment method is deleted from the customer's account.
6	Customer dispute created	It is triggered when a dispute is created
7	Customer dispute resolved	It is triggered when a customer dispute is resolved.
8	Customer dispute updated	It is triggered when a customer dispute is updated.

3.5 Plugin configuration exports (optional)

A feature that allows merchants to download PayPal plugin configurations, such as PayPal custom preferences, PayPal services, enabled payment methods/processors and PayPal plugin logs. Additionally, it tests PayPal service connection. (Read more in chapter 4.8 Plugin configuration exports (optional))

To configure the plugin exports feature:

- first set up **WebDAV and OCAPI access keys** if they weren't set up before. To do so go to your profile and click on Manage Access Keys and generate access keys (double check that keys are enabled)
- then go to **Merchant tools > PayPal plugin > Preference configuration General Tab** and paste WebDAV and OCAPI configurations in JSON format for the **OCAPI Configuration and WebDAV Configuration preferences**, e.g.
    - **OCAPI Configuration preference (BRAINTREE_GENERAL_OCAPI_Config)**:

      ```
      {
          "clientId": "OCAPI client id",
          "clientPassword": "OCAPI client password",
          "apiVersion": "23.2",
          "bmUserLogin": "SFRA Business manager login email",
          "bmUserPassword": "Agent User Login and OCAPI access key"
      }
      ```

    - **WebDAV Configuration preference (BRAINTREE_GENERAL_WebDAV_Config):**

      ```
      {
          "host": "****.dx.commercecloud.salesforce.com",
          "username": "SFRA Business manager login email",
          "password": "WebDAV File Access and UX Studio access key"
      }
      ```

- save and refresh the page. After that go to OCAPI configs, that are in **Administration > Site development > Open Commerce API Settings,** select Data type and add the following JSON (if JSON exists there already, just add the two new resource objects for the jobs):

  ```
  {
      "_v": "23.2",
      "clients": [
        {
            "client_id": "OCAPI client id",
            "resources": [
                {
  ```

```
          "methods": ["post"],
          "read_attributes": "(**)",
          "write_attributes": "(**)",
          "resource_id": "/jobs/*/executions"
        },
        {
          "methods": ["get"],
          "read_attributes": "(**)",
          "write_attributes": "(**)",
          "resource_id": "/jobs/*/executions/*"
        }
      ]
    }
  ]
}
```

4 Operations and Maintenance

4.1 Data Storage

The int_paypal integration requires System Objects Extension to store payment-related information.

OrderPaymentInstrument custom properties:

- **paypalOrderId** – Result of a payment action (Auth, Order, Sale).
- paypalVaultEmail – email address of vaulted PayPal Account
- paypalBillingAddress – paypal billing address that is associated with payment instrument
- **paymentId -** generally is used for collecting Funding source name (paypal, mybank, venmo…).
- **paypalLpmAccountHolderName -** collects an account holder name provided by Local payment method’s response.
- **paypalPaymentStatus -** collects a PayPal payment status.
- **paypalRequest -** collects a PayPal request.
- **paypalResponse -** collects a PayPal response.
- **paypalToken -** collects a PayPal token needed for proper NVP PayPal Transactions.

Profile custom properties:

- **isExternalProfile** - Identifies whether the customer's profile is external (via Connect with PayPal).
- **isDisabledFeatureAPMA** - Identifies whether the Automatic Payment Method Adding feature is disabled.

- **flashMessages** - contains messages to show.
- **isMergedAccount - I**dentifies whether user accounts are merged between PayPal and Single Auth.

Order custom properties:

- **paypalPaymentMethod** – Property to differentiate PayPal-related orders.

4.2 Logs

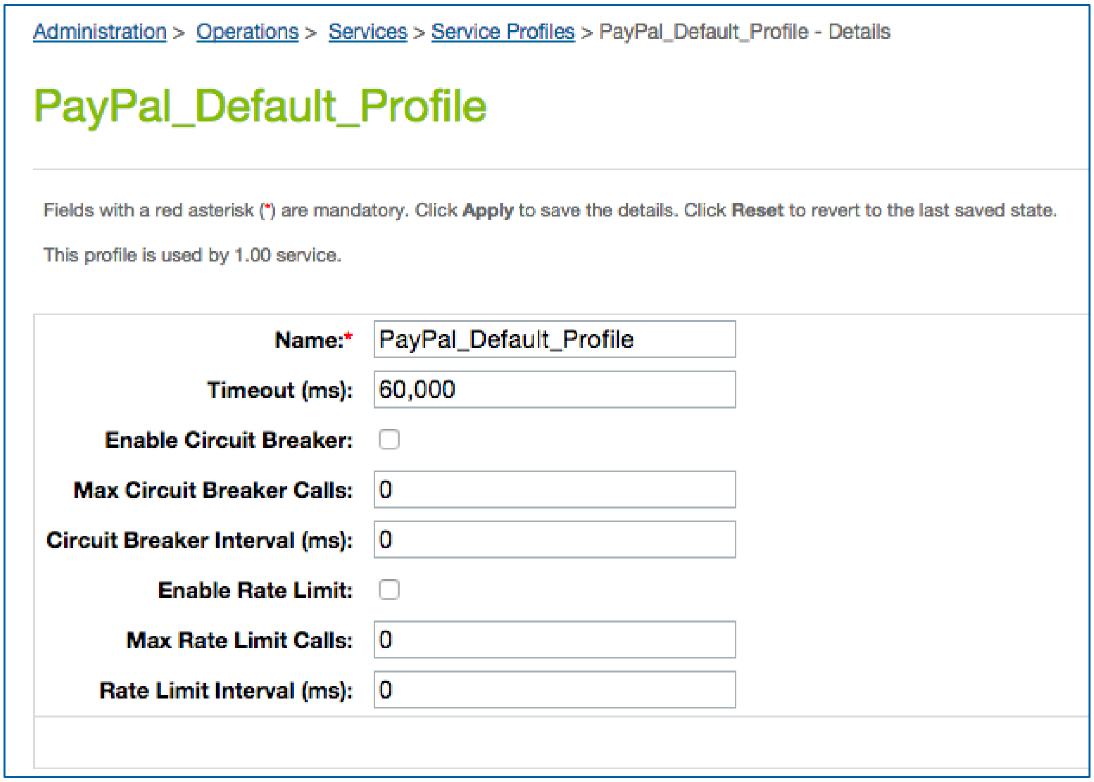
This integration introduces three new custom logs:

1. PayPal Storefront Custom logs – starts with prefix custom-PayPal-blade2-2-appserver-20150722.log. This Log file contains all errors-related information in the int_paypal cartridge.
2. **PayPal Business manager custom logs** – starts with prefix custom- PayPal-BM-blade. This Log file contains all errors-related information in the bm_paypal cartridge.
3. Service communication logs – starts with service-PayPalRest. These logs contain every request and response to the PayPal endpoint. To enable these logs, check Adding API Credentials **Optional** section.

4.3 HTTP Service Availability

You can track availability and downtime by service status in the Commerce Cloud Business Manager. Go to Administration > Operations > Service Status > int_paypal.http.rest.

You can configure options for HTTP calls to REST API related to this PayPal integration via the Commerce Cloud Service Profile Interface. To do this, go to Administration > Operations > Services > Service Profiles -> **PayPal_Default_Profile**. You can set a timeout for all requests, enable the Circuit Breaker mechanism, and adjust the Rate Limit.



Administration > Operations > Services > Service Profiles > PayPal_Default_Profile - Details

PayPal_Default_Profile

Fields with a red asterisk (*) are mandatory. Click **Apply** to save the details. Click **Reset** to revert to the last saved state.

This profile is used by 1.00 service.

Name:*	PayPal_Default_Profile
Timeout (ms):	60,000
Enable Circuit Breaker:	☐
Max Circuit Breaker Calls:	0
Circuit Breaker Interval (ms):	0
Enable Rate Limit:	☐
Max Rate Limit Calls:	0
Rate Limit Interval (ms):	0

Figure 4.3.1. PayPal Service Profile Settings

4.4 Testing

You must obtain your own test account on the PayPal Developer Portal. If you can’t create your own PayPal Sandbox account, contact PayPal support.

4.5 SFRA core templates overlay list

The following templates from app_storefront_base cartridges are changed by int_paypal

cart/cart.isml

account/dashboardProfileCards.isml

account/components/oauth.isml

account/login.isml

account/profileCard.isml

checkout/billing/paymentOptions/paymentOptionsContent.isml

checkout/billing/paymentOptions/paymentOptionsSummary.isml

checkout/billing/paymentOptions/paymentOptionsTabs.isml

checkout/billing/billingSummary.isml

checkout/confirmation/confirmationDetails.isml

checkout/cart/miniCart.isml

checkout/customer/customerOAuthCard.isml

checkout/checkout.isml

common/scripts.isml

components/pageFooter.isml

home/homePage.isml

product/components/addToCartButtonExtension.isml

product/components/addToCartGlobal.isml

product/components/addToCartProduct.isml

search/searchResult.isml

Templates are up to date with SFRA 6.3.0

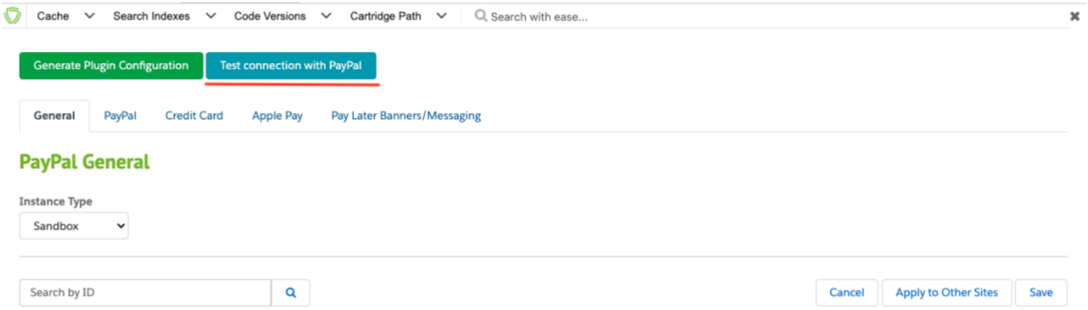
4.6 Support

To get help and support from PayPal:

- PayPal Business support – Go to PayPal's Contact Us and log in to your PayPal account.
- Technical Support – Go to the Merchant Technical Support Help Center.

4.7 Plugin service connection testing

To test whether PayPal service (int_paypal.http.rest) has been configured successfully, go to **Merchant Tools > PayPal plugin > Preference configuration** and click the **Test connection with PayPal** button.



PayPal General

Instance Type: Sandbox

Figure 4.7.1. Test connection with Braintree button

If the service has been configured correctly, you will get a success message, otherwise an error will be shown.

4.8 Plugin configuration exports (optional)

To properly troubleshoot the PayPal plugin, you might need to collect plugin configurations and this feature allows you to do so in a few clicks and have needed data zipped and downloaded to your device.

The downloads will include:

1. List of PayPal custom preferences
2. List of PayPal services
3. Enabled payment methods and payment processors

4. PayPal plugin logs
5. General data like SFRA version, plugin version, PayPal Partner attribution id, instance type and compatibility mode

Additionally, PayPal service connection will be tested to ensure that PayPal service is configured correctly.

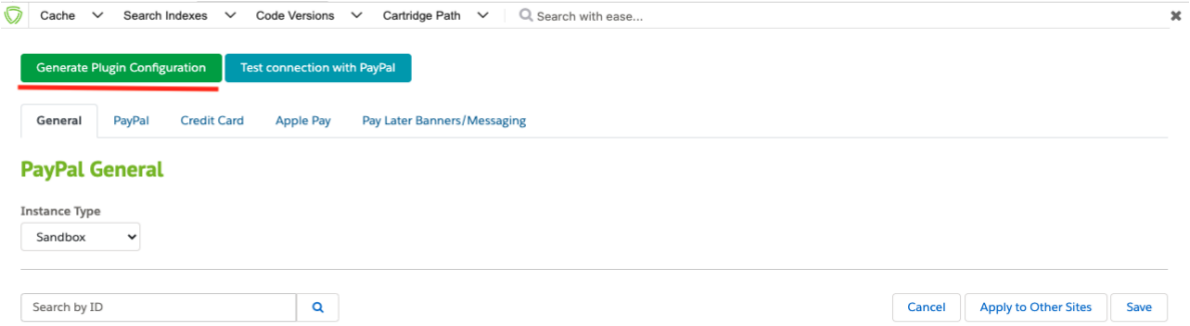
After the feature is set up (details in chapter 3.5 3.5Plugin configuration exports (optional)), click on **Generate Plugin Configuration** button in **Merchant tools > PayPal plugin > Preference configuration**.

In the popup check the items you would like to download. If none is selected, only general data will be generated.

The zip file will be downloaded into the location chosen in your browser downloads settings.

Once everything is downloaded, you will see a success message, otherwise an error will be shown.

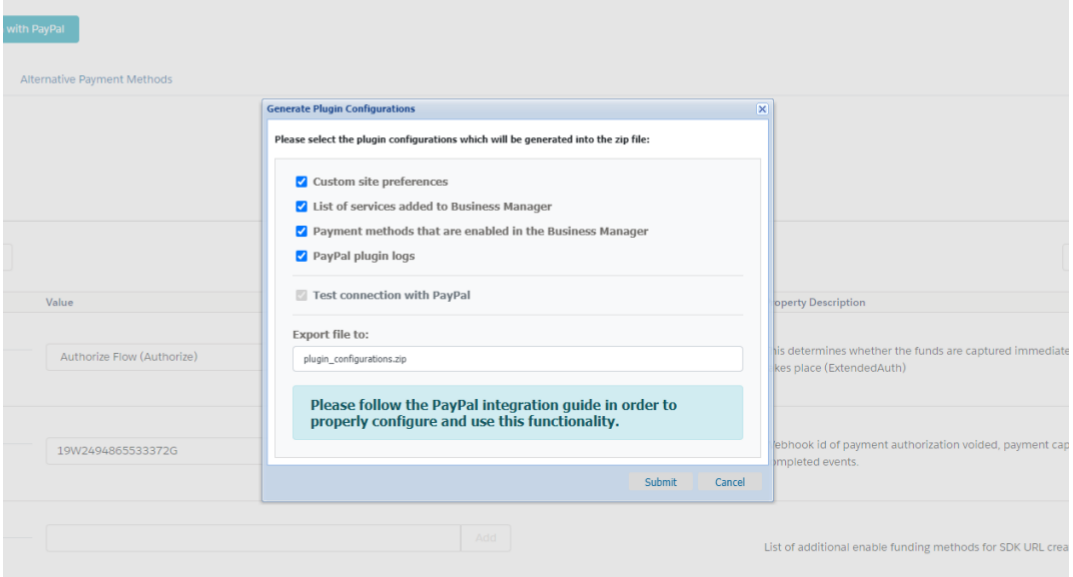
NOTE: Downloaded files might contain sensitive data, thus before sending them to a 3rd party, look through the files.



PayPal General

Instance Type: Sandbox

Figure 4.8.1. Generate Plugin Configuration button


with PayPal
Alternative Payment Methods
Value
operty Description
Authorize Flow (Authorize)
his determines whether the funds are captured immediate
kes place (ExtendedAuth)
19W2494865533372G
ebhook id of payment authorization voided, payment cap
mpleted events.
Add
List of additional enable funding methods for SDK URL crea
Submit
Cancel

Generate Plugin Configurations

Please select the plugin configurations which will be generated into the zip file:

☑ Custom site preferences
☑ List of services added to Business Manager
☑ Payment methods that are enabled in the Business Manager
☑ PayPal plugin logs
☑ Test connection with PayPal

Export file to: plugin_configurations.zip

Please follow the PayPal integration guide in order to properly configure and use this functionality.

Figure 4.8.2. Generate Plugin Configuration popup

5 User Guide

5.1 Business Manager modules

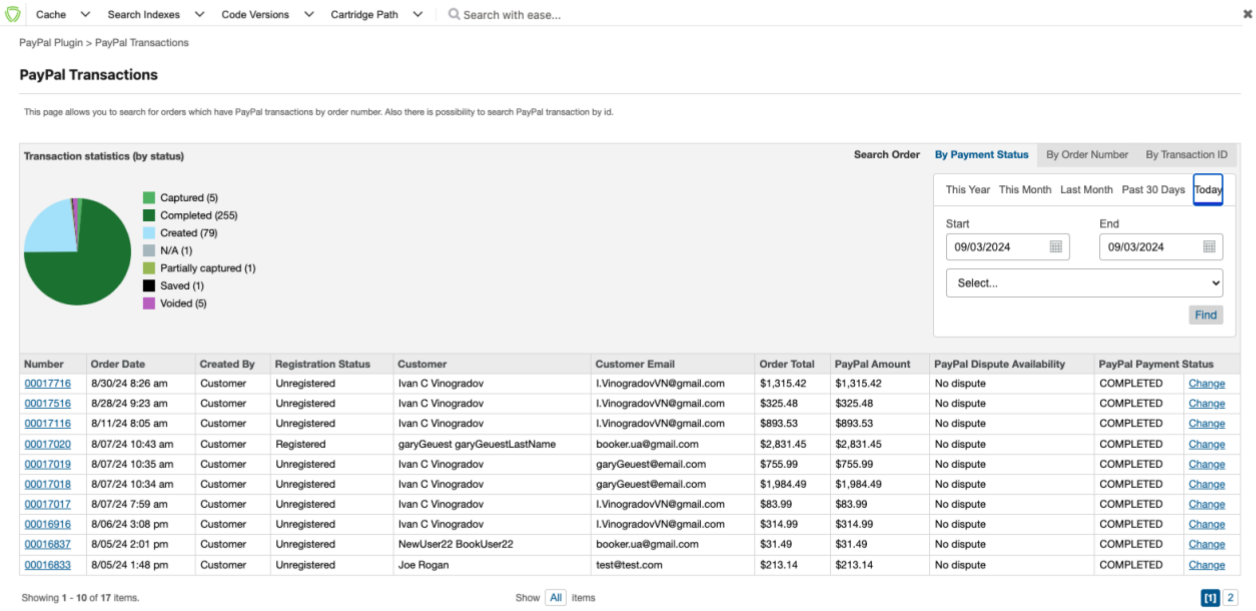
5.1.1 PayPal Transactions

This integration introduces a new Business Manager function, PayPal Transactions. See PayPal Transaction Business Manager module configuration for a detailed description of how to grant access to the PayPal Transactions page.

The PayPal Transactions extension allows you to manage PayPal transactions assigned to Commerce Cloud Orders by the Commerce Cloud Business manager. PayPal Transactions module supports reauthorization (after 3 days), capture and partial capture, void, refund.

The main PayPal Transactions page displays all orders in a site that were paid or partially paid by PayPal. You can access this page in the Ordering menu by selecting Business Manager > Merchant Tools > PayPal Plugin > Transactions.

This page displays various information from the order record:



PayPal Transactions

This page allows you to search for orders which have PayPal transactions by order number. Also there is possibility to search PayPal transaction by id.

Start: 09/03/2024

End: 09/03/2024

Select...

Number	Order Date	Created By	Registration Status	Customer	Customer Email	Order Total	PayPal Amount	PayPal Dispute Availability	PayPal Payment Status	
00017716	8/30/24 8:26 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$1,315.42	$1,315.42	No dispute	COMPLETED	Change
00017516	8/28/24 9:23 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$325.48	$325.48	No dispute	COMPLETED	Change
00017116	8/11/24 8:05 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$893.53	$893.53	No dispute	COMPLETED	Change
00017020	8/07/24 10:43 am	Customer	Registered	garyGeuest garyGeuestLastName	booker.ua@gmail.com	$2,831.45	$2,831.45	No dispute	COMPLETED	Change
00017019	8/07/24 10:35 am	Customer	Unregistered	Ivan C Vinogradov	garyGeuest@email.com	$755.99	$755.99	No dispute	COMPLETED	Change
00017018	8/07/24 10:34 am	Customer	Unregistered	Ivan C Vinogradov	garyGeuest@email.com	$1,984.49	$1,984.49	No dispute	COMPLETED	Change
00017017	8/07/24 7:59 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$83.99	$83.99	No dispute	COMPLETED	Change
00016916	8/06/24 3:08 pm	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$314.99	$314.99	No dispute	COMPLETED	Change
00016837	8/05/24 2:01 pm	Customer	Unregistered	NewUser22 BookUser22	booker.ua@gmail.com	$31.49	$31.49	No dispute	COMPLETED	Change
00016833	8/05/24 1:48 pm	Customer	Unregistered	Joe Rogan	test@test.com	$213.14	$213.14	No dispute	COMPLETED	Change

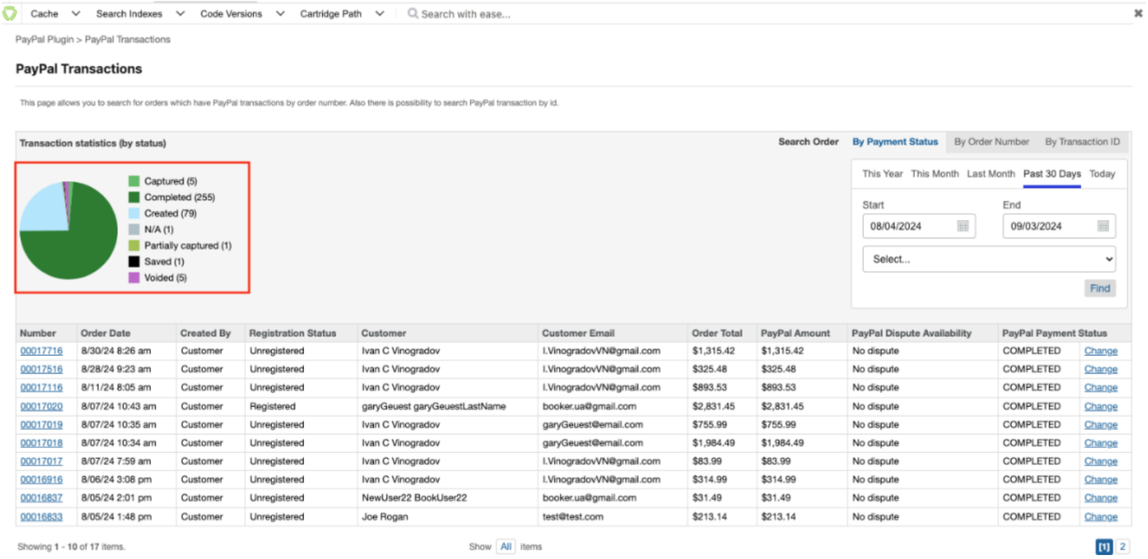
Showing 1 - 10 of 17 items.

Show All items

[1] 2

Figure 5.1.1. PayPal Transactions Business Manager Main Page Interface

The transaction statistics block shows the total number of all transactions sorted by payment status (as shown in Figure 5.1.2).



PayPal Plugin > PayPal Transactions

PayPal Transactions

This page allows you to search for orders which have PayPal transactions by order number. Also there is possibility to search PayPal transaction by id.

Transaction statistics (by status)

Search Order: **By Payment Status** | By Order Number | By Transaction ID

This Year | This Month | Last Month | **Past 30 Days** | Today

Start: 08/04/2024

End: 09/03/2024

Select...

Find

Number	Order Date	Created By	Registration Status	Customer	Customer Email	Order Total	PayPal Amount	PayPal Dispute Availability	PayPal Payment Status	
00017716	8/30/24 8:26 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$1,315.42	$1,315.42	No dispute	COMPLETED	Change
00017516	8/28/24 9:23 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$325.48	$325.48	No dispute	COMPLETED	Change
00017116	8/11/24 8:05 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$893.53	$893.53	No dispute	COMPLETED	Change
00017020	8/07/24 10:43 am	Customer	Registered	garyGeuest garyGeuestLastName	booker.ua@gmail.com	$2,831.45	$2,831.45	No dispute	COMPLETED	Change
00017019	8/07/24 10:35 am	Customer	Unregistered	Ivan C Vinogradov	garyGeuest@email.com	$755.99	$755.99	No dispute	COMPLETED	Change
00017018	8/07/24 10:34 am	Customer	Unregistered	Ivan C Vinogradov	garyGeuest@email.com	$1,984.49	$1,984.49	No dispute	COMPLETED	Change
00017017	8/07/24 7:59 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$83.99	$83.99	No dispute	COMPLETED	Change
00016916	8/06/24 3:08 pm	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$314.99	$314.99	No dispute	COMPLETED	Change
00016837	8/05/24 2:01 pm	Customer	Unregistered	NewUser22 BookUser22	booker.ua@gmail.com	$31.49	$31.49	No dispute	COMPLETED	Change
00016833	8/05/24 1:48 pm	Customer	Unregistered	Joe Rogan	test@test.com	$213.14	$213.14	No dispute	COMPLETED	Change

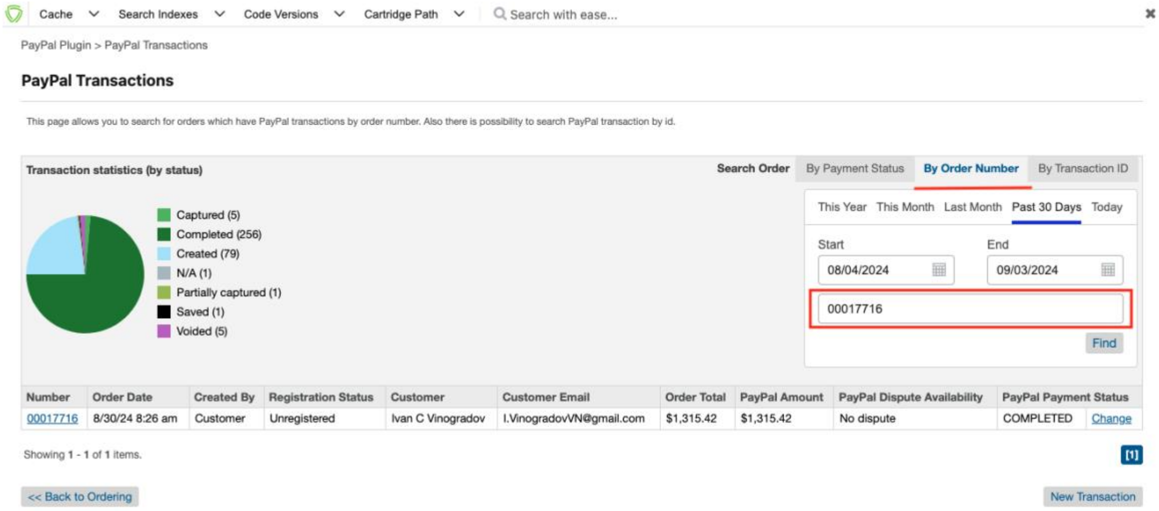
Showing 1 - 10 of 17 items.

Show All items

[1] 2

Figure 5.1.2. PayPal Transactions Business Manager Transactions statistics

You can search Orders placed within PayPal order number (as shown in Figure 5.1.3) or by PayPal Transaction ID (as shown in Figure 5.1.4) or by PayPal Payment Status (as show in Figure 5.1.5).



PayPal Plugin > PayPal Transactions

PayPal Transactions

This page allows you to search for orders which have PayPal transactions by order number. Also there is possibility to search PayPal transaction by id.

Transaction statistics (by status)

Search Order: By Payment Status | **By Order Number** | By Transaction ID

This Year | This Month | Last Month | **Past 30 Days** | Today

Start: 08/04/2024

End: 09/03/2024

00017716

Find

Number	Order Date	Created By	Registration Status	Customer	Customer Email	Order Total	PayPal Amount	PayPal Dispute Availability	PayPal Payment Status	
00017716	8/30/24 8:26 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$1,315.42	$1,315.42	No dispute	COMPLETED	Change

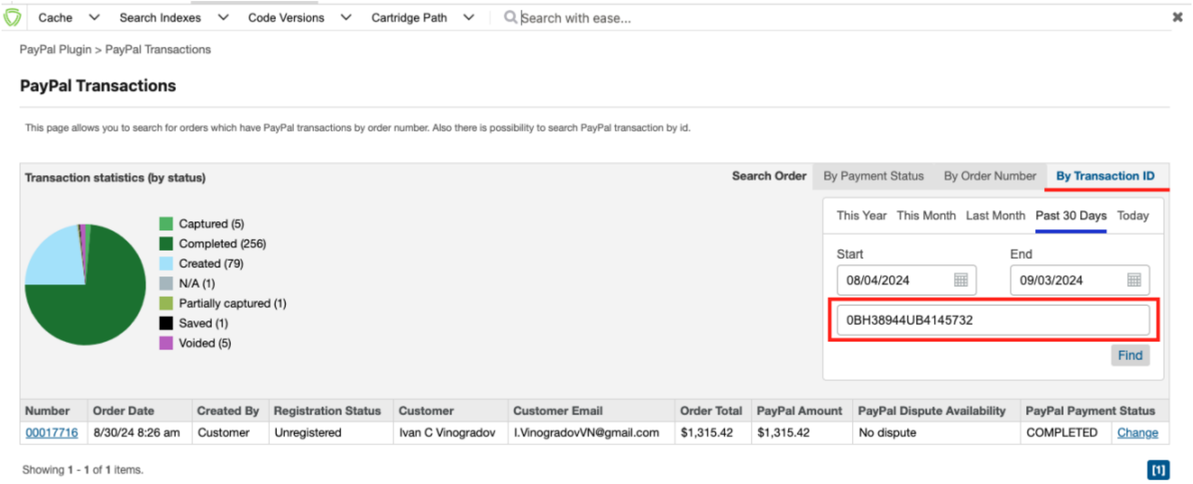
Showing 1 - 1 of 1 items.

[1]

<< Back to Ordering

New Transaction

Figure 5.1.3. Search Orders with PayPal Transaction by Commerce Cloud Order Number



PayPal Plugin > PayPal Transactions

PayPal Transactions

This page allows you to search for orders which have PayPal transactions by order number. Also there is possibility to search PayPal transaction by id.

Transaction statistics (by status)

- 🟩 Captured (5)
- 🟩 Completed (256)
- 🟦 Created (79)
- ⬜ N/A (1)
- 🟩 Partially captured (1)
- ⬛ Saved (1)
- 🟪 Voided (5)

Search Order | By Payment Status | By Order Number | **By Transaction ID**

This Year | This Month | Last Month | **Past 30 Days** | Today

Start: 08/04/2024 End: 09/03/2024

0BH38944UB4145732

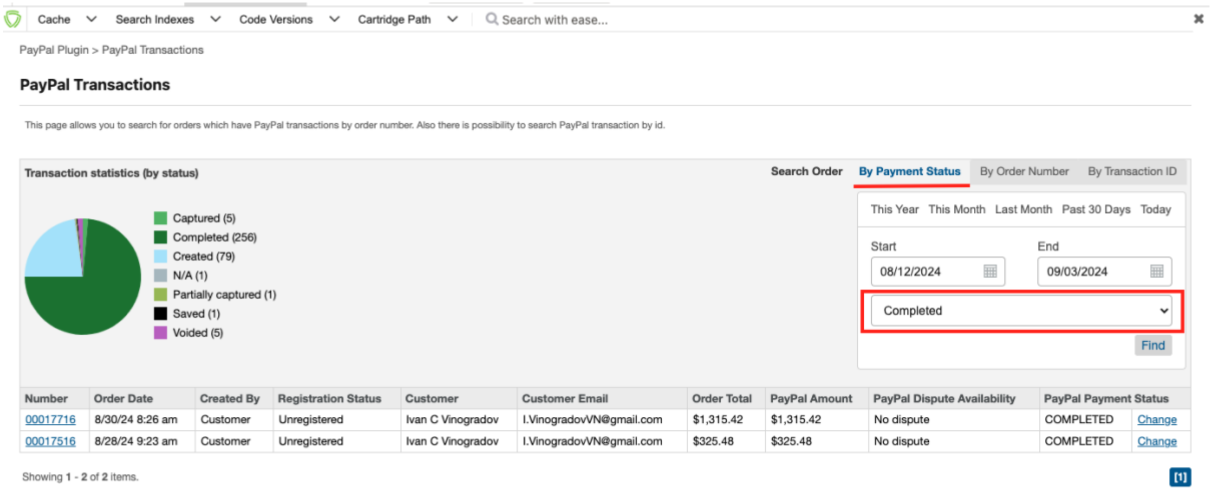
Find

Number	Order Date	Created By	Registration Status	Customer	Customer Email	Order Total	PayPal Amount	PayPal Dispute Availability	PayPal Payment Status	
00017716	8/30/24 8:26 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$1,315.42	$1,315.42	No dispute	COMPLETED	Change

Showing **1** - **1** of **1** items.

[1]

Figure 5.1.4. Search Orders with PayPal Transaction by Transaction ID



PayPal Plugin > PayPal Transactions

PayPal Transactions

This page allows you to search for orders which have PayPal transactions by order number. Also there is possibility to search PayPal transaction by id.

Transaction statistics (by status)

- 🟩 Captured (5)
- 🟩 Completed (256)
- 🟦 Created (79)
- ⬜ N/A (1)
- 🟩 Partially captured (1)
- ⬛ Saved (1)
- 🟪 Voided (5)

Search Order | **By Payment Status** | By Order Number | By Transaction ID

This Year | This Month | Last Month | Past 30 Days | Today

Start: 08/12/2024 End: 09/03/2024

Completed

Find

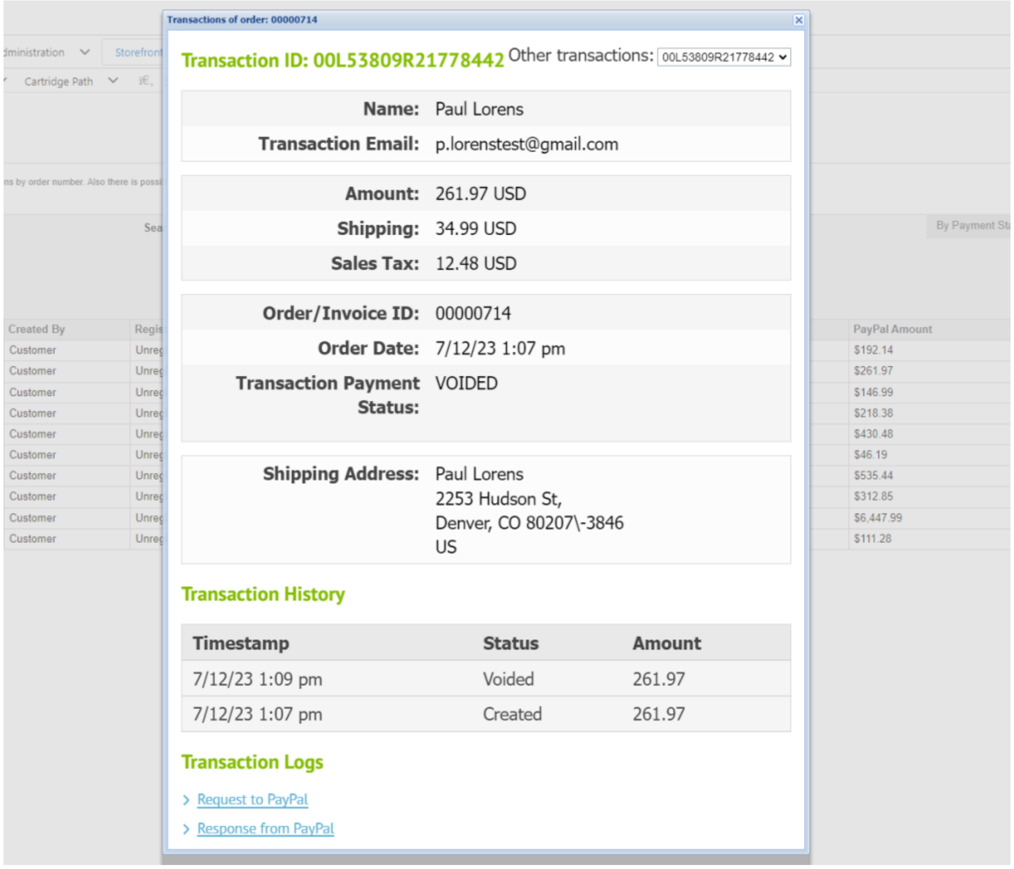
Number	Order Date	Created By	Registration Status	Customer	Customer Email	Order Total	PayPal Amount	PayPal Dispute Availability	PayPal Payment Status	
00017716	8/30/24 8:26 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$1,315.42	$1,315.42	No dispute	COMPLETED	Change
00017516	8/28/24 9:23 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$325.48	$325.48	No dispute	COMPLETED	Change

Showing **1** - **2** of **2** items.

[1]

Figure 5.1.5. Search Orders with PayPal Transaction by Payment Status

You can see Transaction Details from the PayPal Payment Transaction of the actual order by clicking Order Number or the Change link on the right. If an order has more than one related transaction, you will see a selection box with all the transactions that are related to the current order (as shown in Figure 5.1.6).



Transactions of order: 00000714

Transaction ID: 00L53809R21778442 Other transactions: 00L53809R21778442

Name: Paul Lorens
Transaction Email: p.lorenstest@gmail.com

Amount: 261.97 USD
Shipping: 34.99 USD
Sales Tax: 12.48 USD

Order/Invoice ID: 00000714
Order Date: 7/12/23 1:07 pm
Transaction Payment Status: VOIDED

Shipping Address:
Paul Lorens
2253 Hudson St,
Denver, CO 80207\-3846
US

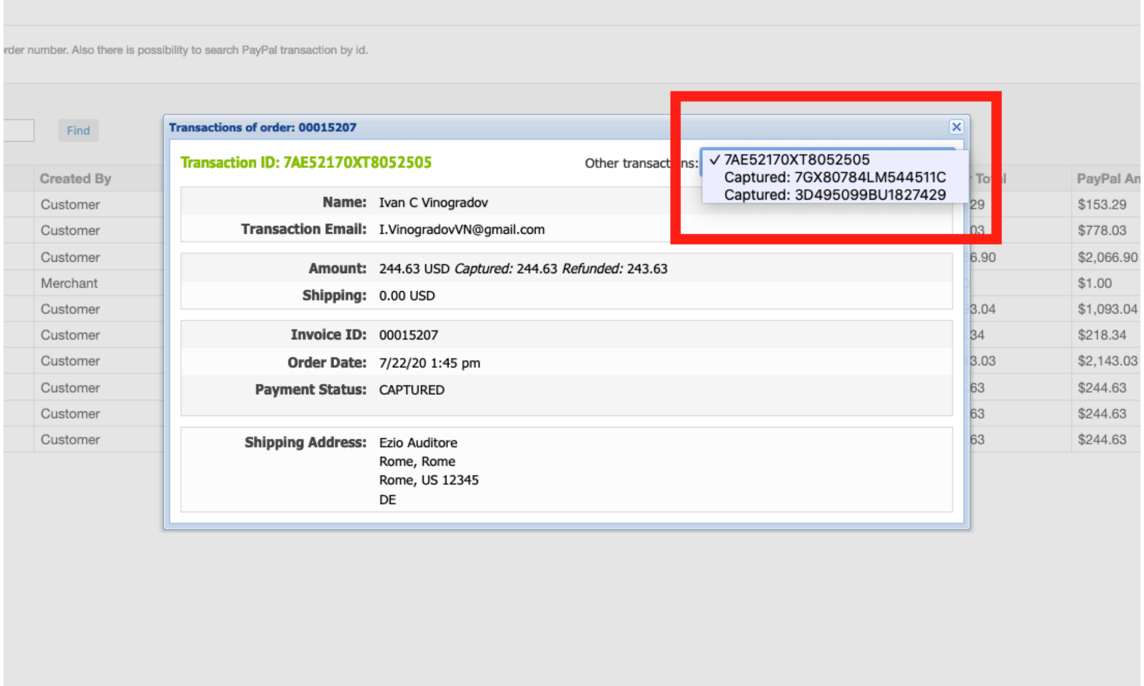
Transaction History

Timestamp	Status	Amount
7/12/23 1:09 pm	Voided	261.97
7/12/23 1:07 pm	Created	261.97

Transaction Logs

› Request to PayPal
› Response from PayPal

Figure 5.1.6. Transaction Details Popup



rder number. Also there is possibility to search PayPal transaction by id.

Transactions of order: 00015207

Transaction ID: 7AE52170XT8052505 Other transactions:
✓ 7AE52170XT8052505
Captured: 7GX80784LM544511C
Captured: 3D495099BU1827429

Name: Ivan C Vinogradov
Transaction Email: I.VinogradovVN@gmail.com

Amount: 244.63 USD *Captured:* 244.63 *Refunded:* 243.63
Shipping: 0.00 USD

Invoice ID: 00015207
Order Date: 7/22/20 1:45 pm
Payment Status: CAPTURED

Shipping Address:
Ezio Auditore
Rome, Rome
Rome, US 12345
DE

Figure 5.1.7. PayPal Transactions Selected for Their Relationships to Commerce Cloud Order Transactions

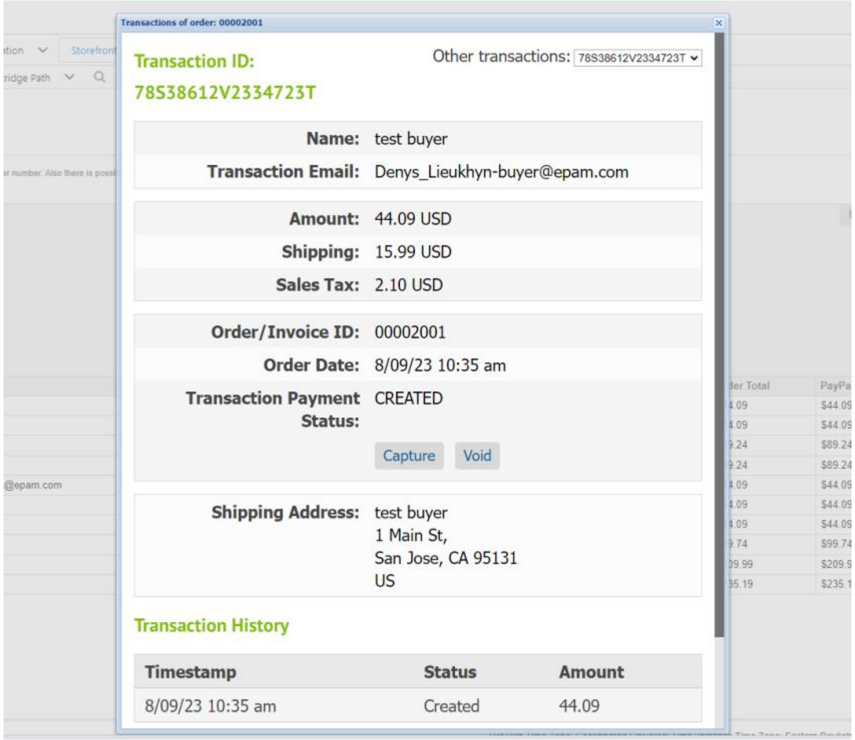
Depending on the transaction type and status, the order may have the following action buttons:

- Capture (Figure 5.1.8)

- Void (Figure 5.1.8 and Figure 5.1.9)
- Issue Refund (Figure 5.1.10)
- Reauthorize (Figure 5.1.9)

After click on a button pop-up with details will appear:

- Void Form (Figure 5.1.11)
- Capture Form (Figure 5.1.12)
- Issue Refund Form (Figure 5.1.13)
- Reauthorize Form (Figure 5.1.14)



Transactions of order: 00002001

Transaction ID: 78S38612V2334723T

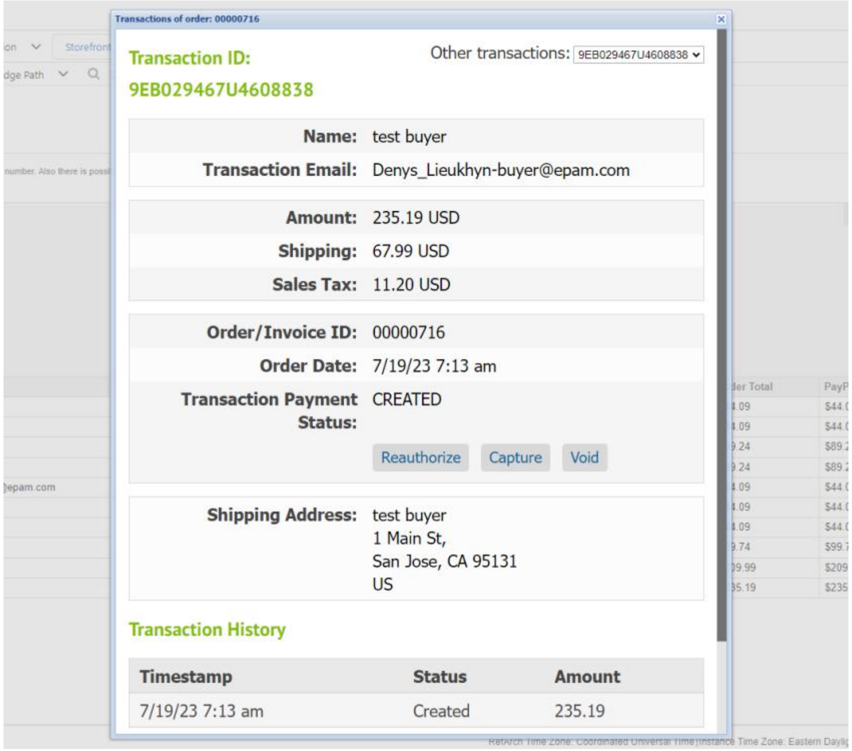
Other transactions: 78S38612V2334723T

Name:	test buyer
Transaction Email:	Denys_Lieukhyn-buyer@epam.com
Amount:	44.09 USD
Shipping:	15.99 USD
Sales Tax:	2.10 USD
Order/Invoice ID:	00002001
Order Date:	8/09/23 10:35 am
Transaction Payment Status:	CREATED
Shipping Address:	test buyer 1 Main St, San Jose, CA 95131 US

Transaction History

Timestamp	Status	Amount
8/09/23 10:35 am	Created	44.09

Figure 5.1.8. Authorized transaction payment actions



Transactions of order: 00000716

Transaction ID: 9EB029467U4608838

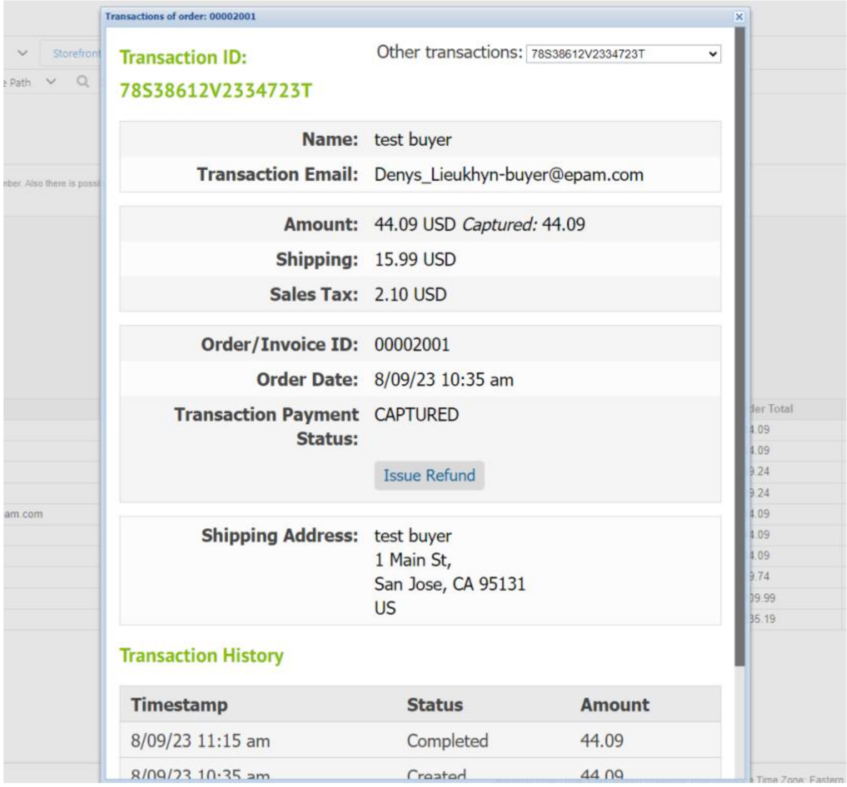
Other transactions: 9EB029467U4608838

Name:	test buyer
Transaction Email:	Denys_Lieukhyn-buyer@epam.com
Amount:	235.19 USD
Shipping:	67.99 USD
Sales Tax:	11.20 USD
Order/Invoice ID:	00000716
Order Date:	7/19/23 7:13 am
Transaction Payment Status:	CREATED
Shipping Address:	test buyer 1 Main St, San Jose, CA 95131 US

Transaction History

Timestamp	Status	Amount
7/19/23 7:13 am	Created	235.19

Figure 5.1.9. Authorized transaction payment actions (after 3 days)



Transactions of order: 00002001

Transaction ID: 78S38612V2334723T

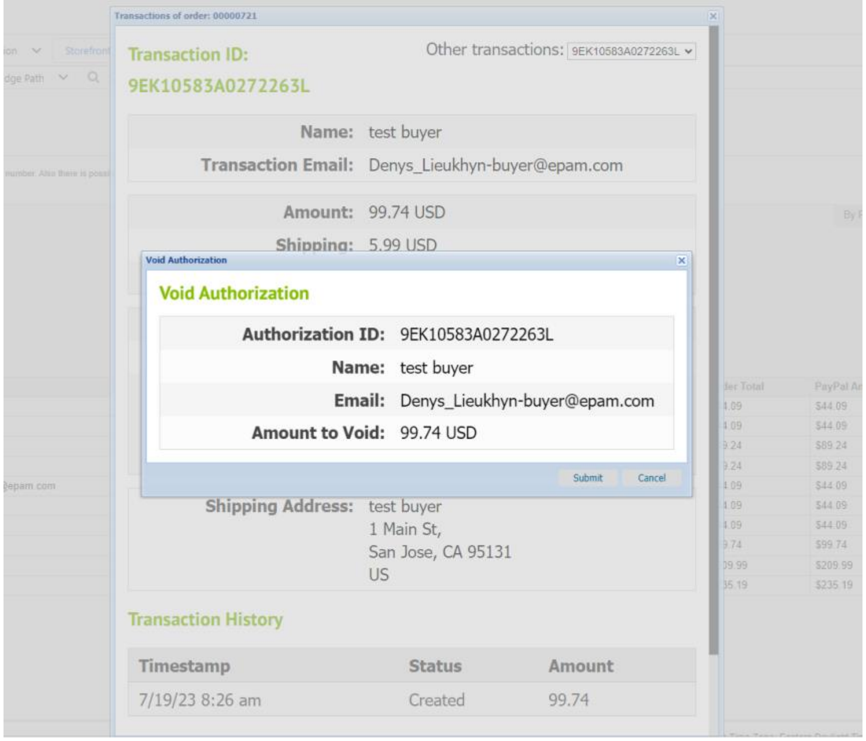
Other transactions: 78S38612V2334723T

Name:	test buyer
Transaction Email:	Denys_Lieukhyn-buyer@epam.com
Amount:	44.09 USD *Captured:* 44.09
Shipping:	15.99 USD
Sales Tax:	2.10 USD
Order/Invoice ID:	00002001
Order Date:	8/09/23 10:35 am
Transaction Payment Status:	CAPTURED
Shipping Address:	test buyer 1 Main St, San Jose, CA 95131 US

Transaction History

Timestamp	Status	Amount
8/09/23 11:15 am	Completed	44.09
8/09/23 10:35 am	Created	44.09

Figure 5.1.10. Captured transaction payment actions



Transactions of order: 00000721

Transaction ID: 9EK10583A0272263L

Other transactions: 9EK10583A0272263L

Name:	test buyer
Transaction Email:	Denys_Lieukhyn-buyer@epam.com
Amount:	99.74 USD
Shipping:	5.99 USD

Void Authorization

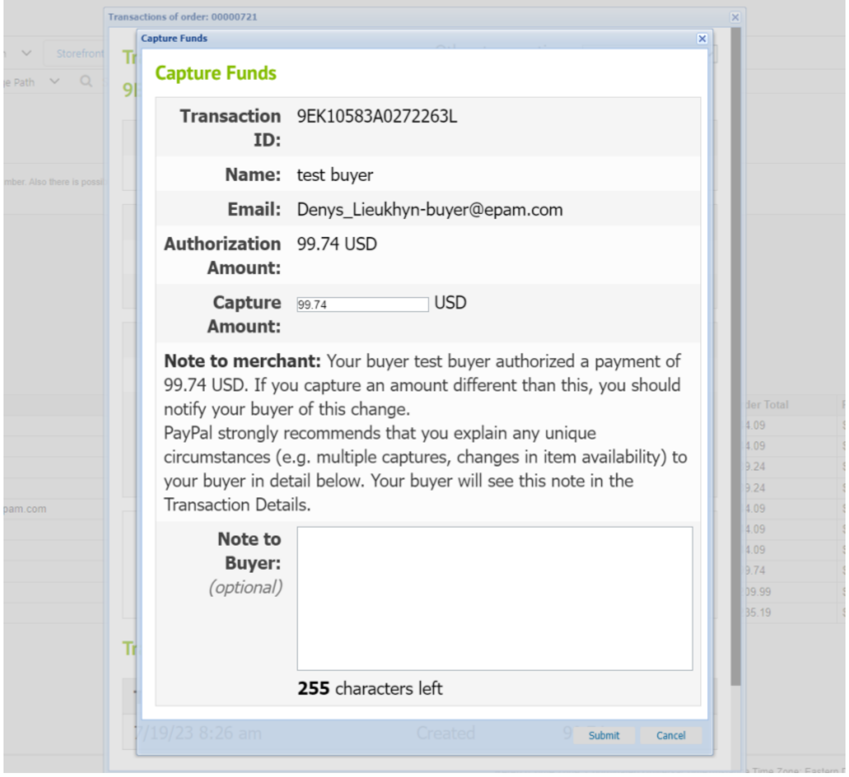
Authorization ID:	9EK10583A0272263L
Name:	test buyer
Email:	Denys_Lieukhyn-buyer@epam.com
Amount to Void:	99.74 USD

Shipping Address:	test buyer 1 Main St, San Jose, CA 95131 US

Transaction History

Timestamp	Status	Amount
7/19/23 8:26 am	Created	99.74

Figure 5.1.11. Void Authorization Form



Transactions of order: 00000721

Capture Funds

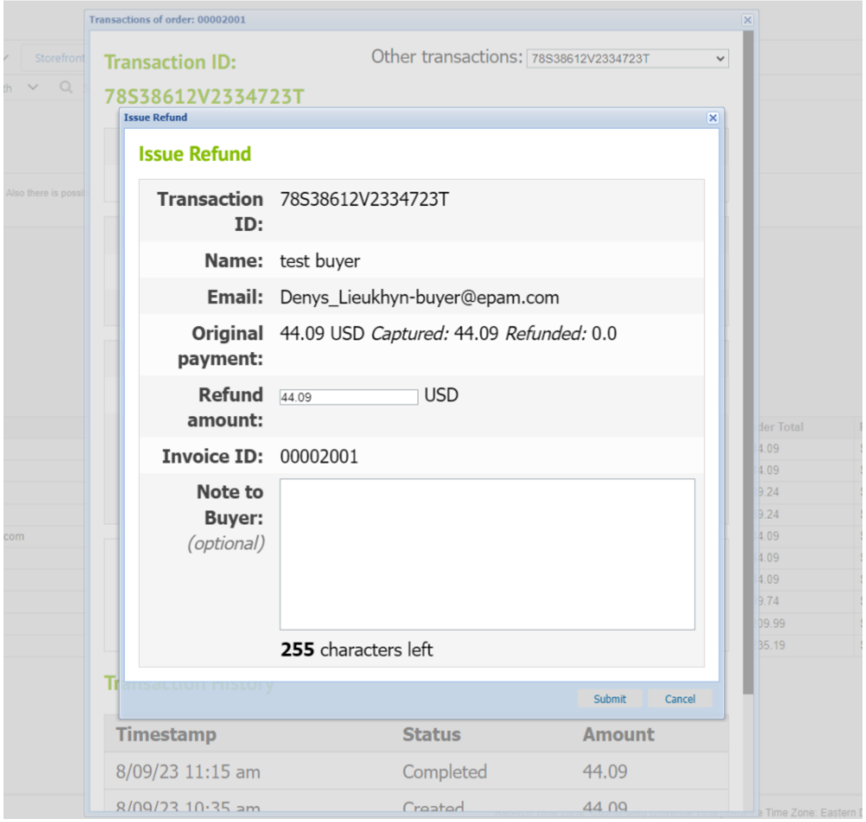
Transaction ID:	9EK10583A0272263L
Name:	test buyer
Email:	Denys_Lieukhyn-buyer@epam.com
Authorization Amount:	99.74 USD
Capture Amount:	99.74 USD

Note to merchant: Your buyer test buyer authorized a payment of 99.74 USD. If you capture an amount different than this, you should notify your buyer of this change.
PayPal strongly recommends that you explain any unique circumstances (e.g. multiple captures, changes in item availability) to your buyer in detail below. Your buyer will see this note in the Transaction Details.

Note to Buyer: *(optional)*

255 characters left

Figure 5.1.12. Capture Form



Transaction ID: 78S38612V2334723T

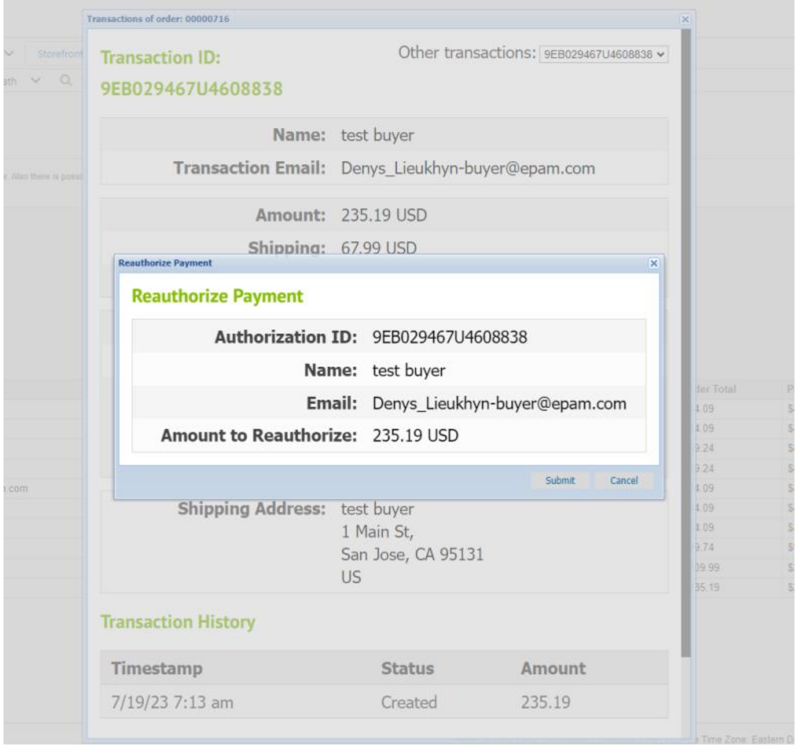
Other transactions: 78S38612V2334723T

Issue Refund

Transaction ID:	78S38612V2334723T
Name:	test buyer
Email:	Denys_Lieukhyn-buyer@epam.com
Original payment:	44.09 USD *Captured:* 44.09 *Refunded:* 0.0
Refund amount:	44.09 USD
Invoice ID:	00002001
Note to Buyer: *(optional)*	**255** characters left

Timestamp	Status	Amount
8/09/23 11:15 am	Completed	44.09
8/09/23 10:35 am	Created	44.09

Figure 5.1.13. Issue Refund Form



Transaction ID: 9EB029467U4608838

Other transactions: 9EB029467U4608838

Name:	test buyer
Transaction Email:	Denys_Lieukhyn-buyer@epam.com
Amount:	235.19 USD
Shipping:	67.99 USD
Shipping Address:	test buyer 1 Main St, San Jose, CA 95131 US

Reauthorize Payment

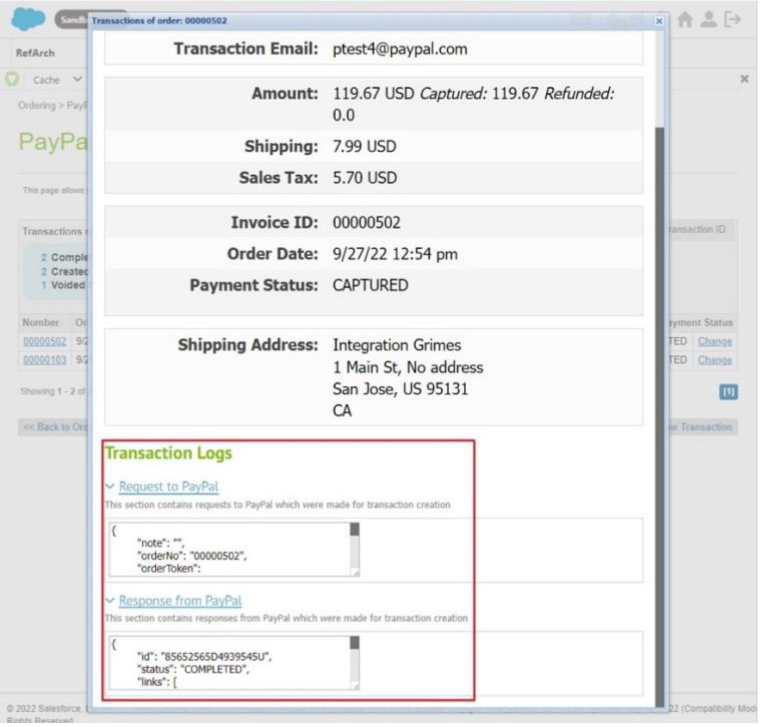
Authorization ID:	9EB029467U4608838
Name:	test buyer
Email:	Denys_Lieukhyn-buyer@epam.com
Amount to Reauthorize:	235.19 USD

Transaction History

Timestamp	Status	Amount
7/19/23 7:13 am	Created	235.19

Figure 5.1.14 Reauthorize Form

To view request and response log data for a particular transaction, use the Transaction Details window and the Transaction Logs section. This will help you analyze the information in more detail (Figure *5.1.15*).



Transaction Email:	ptest4@paypal.com
Amount:	119.67 USD *Captured:* 119.67 *Refunded:* 0.0
Shipping:	7.99 USD
Sales Tax:	5.70 USD
Invoice ID:	00000502
Order Date:	9/27/22 12:54 pm
Payment Status:	CAPTURED
Shipping Address:	Integration Grimes 1 Main St, No address San Jose, US 95131 CA

Transaction Logs

Request to PayPal

This section contains requests to PayPal which were made for transaction creation

```
{
      "note": "",
      "orderNo": "00000502",
      "orderToken":
```

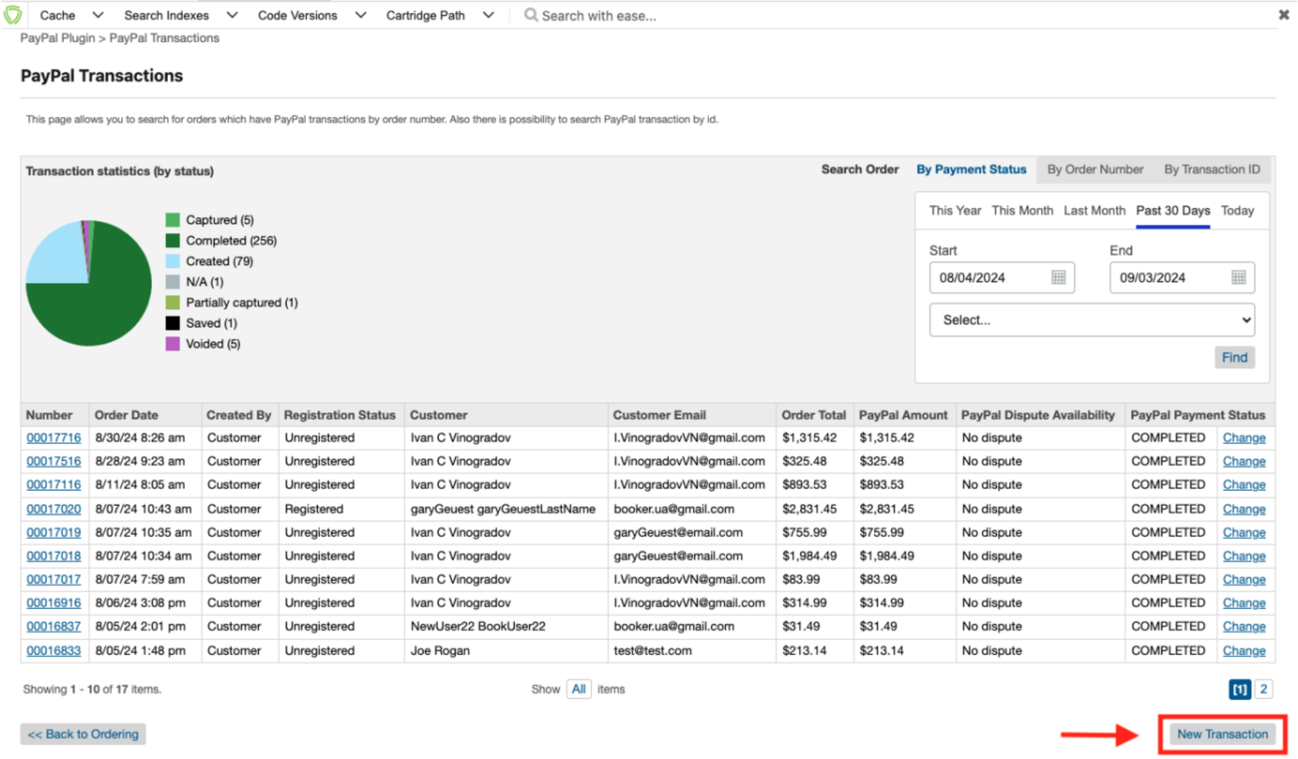
Response from PayPal

This section contains responses from PayPal which were made for transaction creation

```
{
      "id": "85652565D4939545U",
      "status": "COMPLETED",
      "links": [
```

Figure 5.1.15. Reauthorize Form

If you need to create a new transaction - use the New Transaction button (see Figure 5.1.16) and log in to your Paypal account.



PayPal Plugin > PayPal Transactions

PayPal Transactions

This page allows you to search for orders which have PayPal transactions by order number. Also there is possibility to search PayPal transaction by id.

Transaction statistics (by status)

- 🟩 Captured (5)
- 🟩 Completed (256)
- 🟦 Created (79)
- ▨ N/A (1)
- 🟩 Partially captured (1)
- ■ Saved (1)
- 🟪 Voided (5)

Search Order: **By Payment Status** | By Order Number | By Transaction ID

This Year | This Month | Last Month | **Past 30 Days** | Today

Start: 08/04/2024

End: 09/03/2024

Select...

Number	Order Date	Created By	Registration Status	Customer	Customer Email	Order Total	PayPal Amount	PayPal Dispute Availability	PayPal Payment Status	
00017716	8/30/24 8:26 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$1,315.42	$1,315.42	No dispute	COMPLETED	Change
00017516	8/28/24 9:23 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$325.48	$325.48	No dispute	COMPLETED	Change
00017116	8/11/24 8:05 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$893.53	$893.53	No dispute	COMPLETED	Change
00017020	8/07/24 10:43 am	Customer	Registered	garyGeuest garyGeuestLastName	booker.ua@gmail.com	$2,831.45	$2,831.45	No dispute	COMPLETED	Change
00017019	8/07/24 10:35 am	Customer	Unregistered	Ivan C Vinogradov	garyGeuest@email.com	$755.99	$755.99	No dispute	COMPLETED	Change
00017018	8/07/24 10:34 am	Customer	Unregistered	Ivan C Vinogradov	garyGeuest@email.com	$1,984.49	$1,984.49	No dispute	COMPLETED	Change
00017017	8/07/24 7:59 am	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$83.99	$83.99	No dispute	COMPLETED	Change
00016916	8/06/24 3:08 pm	Customer	Unregistered	Ivan C Vinogradov	I.VinogradovVN@gmail.com	$314.99	$314.99	No dispute	COMPLETED	Change
00016837	8/05/24 2:01 pm	Customer	Unregistered	NewUser22 BookUser22	booker.ua@gmail.com	$31.49	$31.49	No dispute	COMPLETED	Change
00016833	8/05/24 1:48 pm	Customer	Unregistered	Joe Rogan	test@test.com	$213.14	$213.14	No dispute	COMPLETED	Change

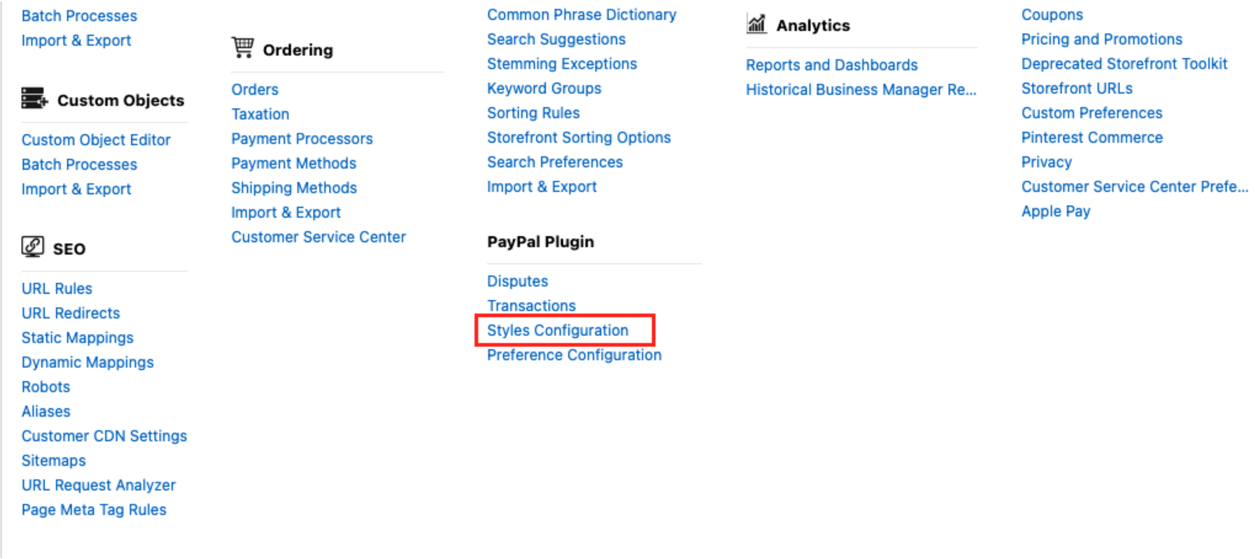
Showing **1** - **10** of **17** items.

Show All items

Figure 5.1.16. "New Transaction" button

5.1.2 PayPal Styles Configuration

Styles Configuration allows to choose styling of the Smart Button from the Business Manager. After installation, a new menu item will appear under PayPal Plugin in the Business Manager (Figure 5.1.17).



Batch Processes
Import & Export

Custom Objects

Custom Object Editor
Batch Processes
Import & Export

SEO

URL Rules
URL Redirects
Static Mappings
Dynamic Mappings
Robots
Aliases
Customer CDN Settings
Sitemaps
URL Request Analyzer
Page Meta Tag Rules

Ordering

Orders
Taxation
Payment Processors
Payment Methods
Shipping Methods
Import & Export
Customer Service Center

Common Phrase Dictionary
Search Suggestions
Stemming Exceptions
Keyword Groups
Sorting Rules
Storefront Sorting Options
Search Preferences
Import & Export

PayPal Plugin

Disputes
Transactions
Styles Configuration
Preference Configuration

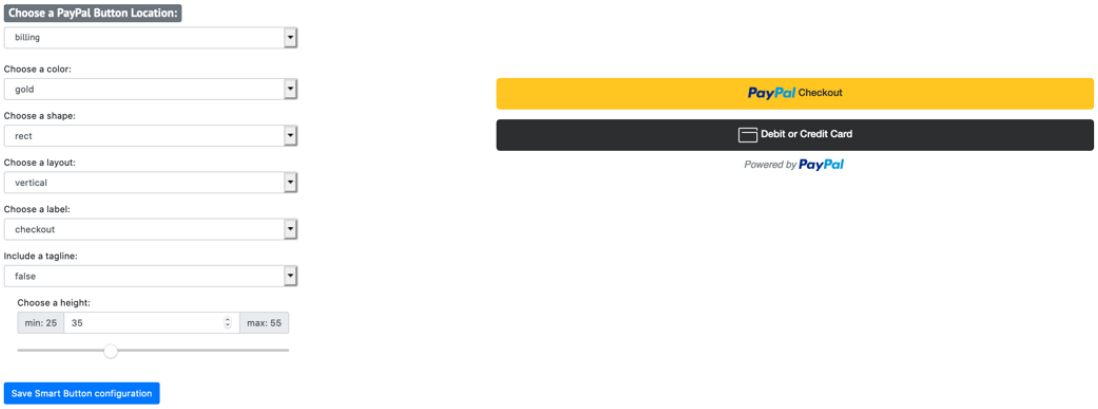
Analytics

Reports and Dashboards
Historical Business Manager Re...

Coupons
Pricing and Promotions
Deprecated Storefront Toolkit
Storefront URLs
Custom Preferences
Pinterest Commerce
Privacy
Customer Service Center Prefe...
Apple Pay

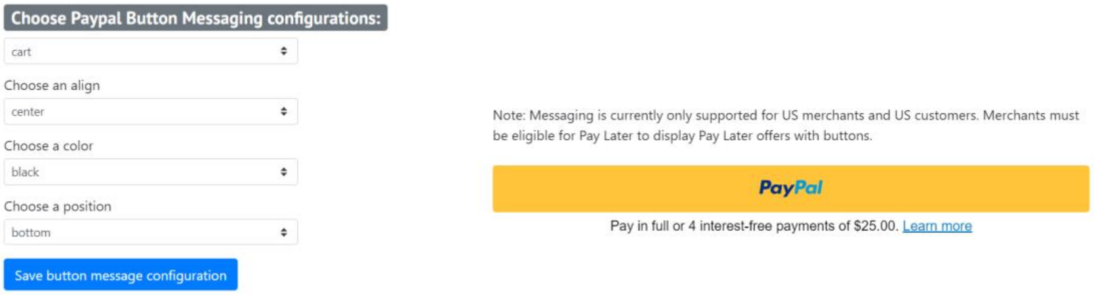
Figure 5.1.17 PayPal Styles Configuration in the Business Manager

If **bm_paypal** cartridge was installed properly you should see styling options for the PayPal Smart Button, Connect with PayPal, and Card Fields. Depends on buttons locations will be for Billing page or for Cart page. To read more about styling options visit [Customize the PayPal Buttons](). After configuration is done click **Save Smart Button Configuration** to update styling.



Choose a PayPal Button Location: billing
Choose a color: gold
Choose a shape: rect
Choose a layout: vertical
Choose a label: checkout
Include a tagline: false
Choose a height: min: 25 35 max: 55

Figure 5.1.18. Smart Button styling options



Choose Paypal Button Messaging configurations:

cart

Choose an align

center

Choose a color

black

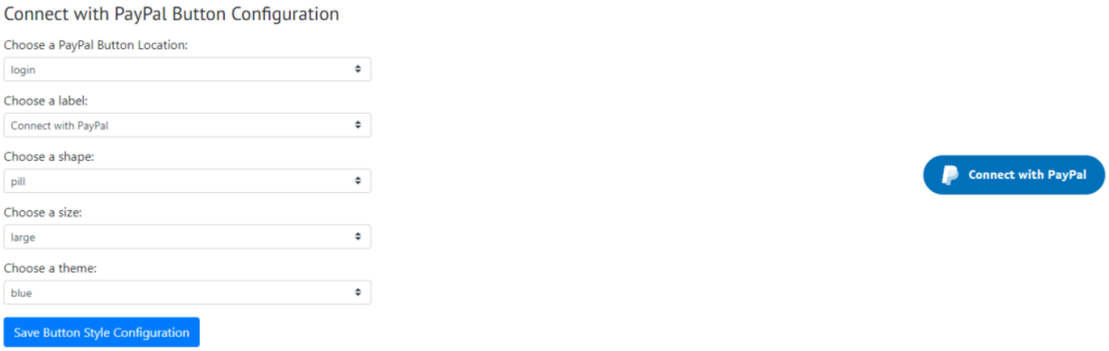
Choose a position

bottom

Note: Messaging is currently only supported for US merchants and US customers. Merchants must be eligible for Pay Later to display Pay Later offers with buttons.

Pay in full or 4 interest-free payments of $25.00. Learn more

Figure 5.1.19 PayPal Button Messaging configurations



Connect with PayPal Button Configuration

Choose a PayPal Button Location:

login

Choose a label:

Connect with PayPal

Choose a shape:

pill

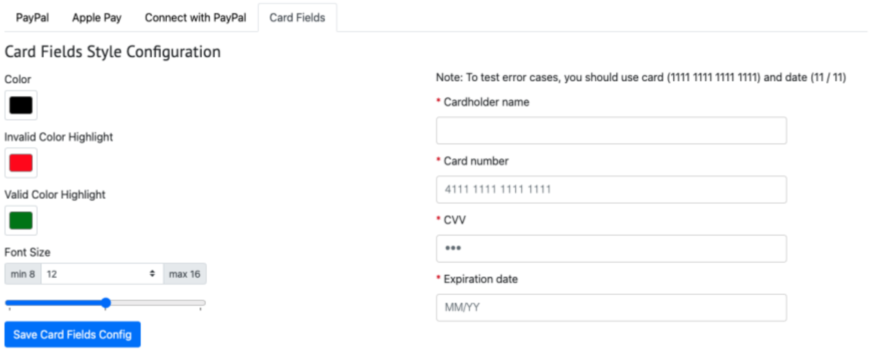
Choose a size:

large

Choose a theme:

blue

Figure 5.1.20. Connect with PayPal Button Configuration



Card Fields Style Configuration

Color

■

Invalid Color Highlight

🟥

Valid Color Highlight

🟩

Font Size

min 8 12 max 16

Note: To test error cases, you should use card (1111 1111 1111 1111) and date (11 / 11)

* Cardholder name

* Card number

4111 1111 1111 1111

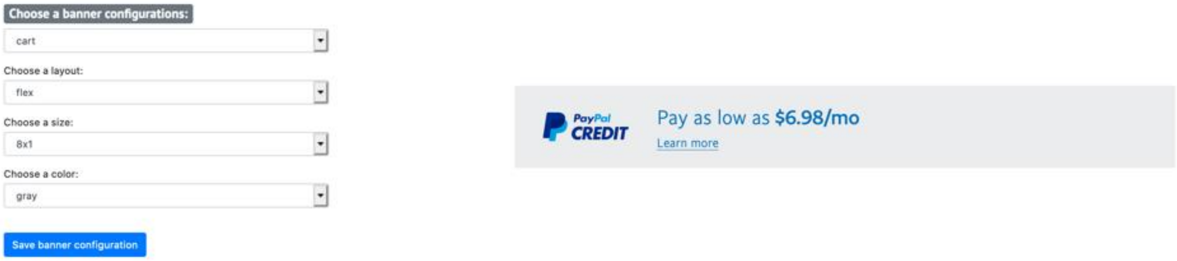
* CVV

•••

* Expiration date

MM/YY

Figure 5.1.21. Card Fields Style Configuration



Choose a banner configurations:

cart

Choose a layout:

flex

Choose a size:

8x1

Choose a color:

gray

Pay as low as $6.98/mo

Learn more

Figure 5.1.22 Credit Banner configuration

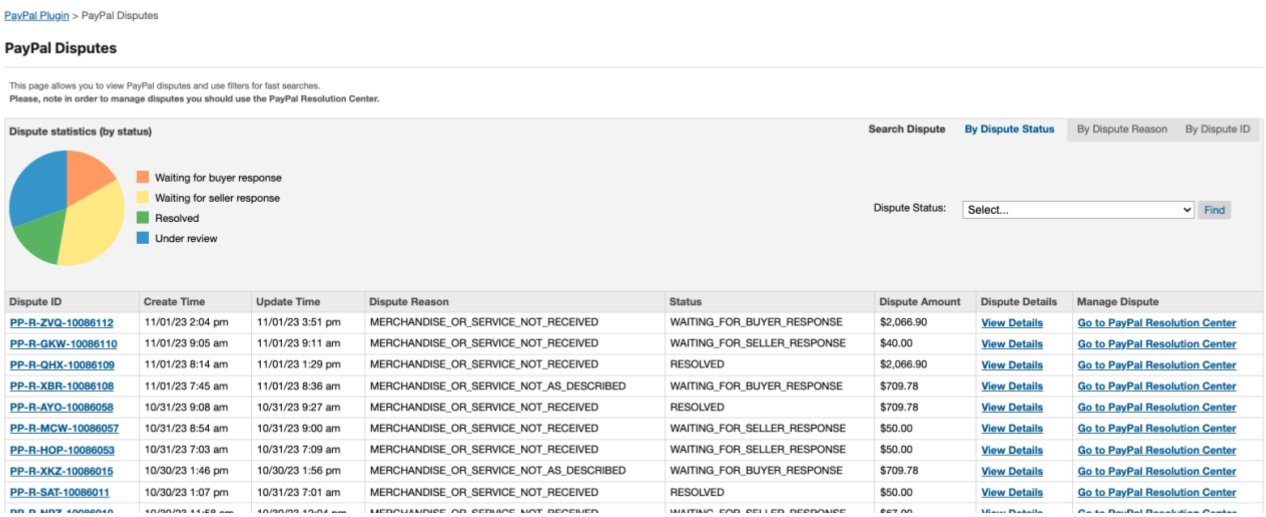
5.1.3 PayPal Disputes

This integration introduces a new Business Manager function, PayPal Disputes. See PayPal Transaction Business Manager module configuration for a detailed description of how to grant access to the PayPal Disputes page.

The PayPal Disputes extension allows you to manage PayPal disputes assigned to Commerce Cloud Orders by the Commerce Cloud Business manager.

The main PayPal Disputes page displays all opened disputes on a site. You can access this page by selecting Business Manager > Merchant Tools > PayPal Plugin > Disputes. (Figure 5.1.23)

This page displays various information from the dispute record:



PayPal Plugin > PayPal Disputes

PayPal Disputes

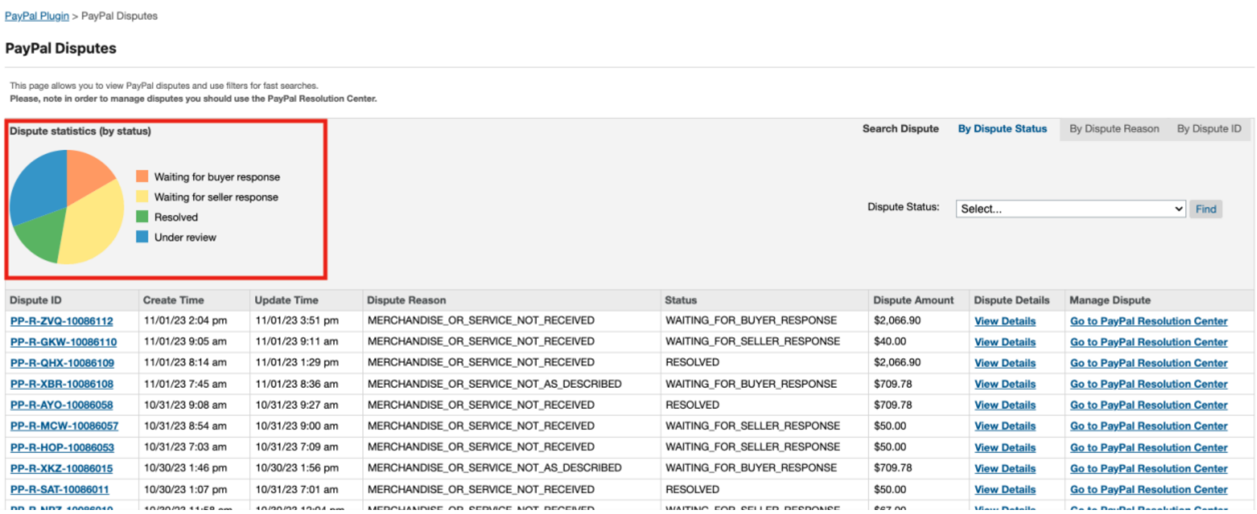
This page allows you to view PayPal disputes and use filters for fast searches.
Please, note in order to manage disputes you should use the PayPal Resolution Center.

Dispute statistics (by status)

Dispute ID	Create Time	Update Time	Dispute Reason	Status	Dispute Amount	Dispute Details	Manage Dispute
PP-R-ZVQ-10086112	11/01/23 2:04 pm	11/01/23 3:51 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_BUYER_RESPONSE	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-GKW-10086110	11/01/23 9:05 am	11/01/23 9:11 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$40.00	View Details	Go to PayPal Resolution Center
PP-R-QHX-10086109	11/01/23 8:14 am	11/01/23 1:29 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-XBR-10086108	11/01/23 7:45 am	11/01/23 8:36 am	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-AYO-10086058	10/31/23 9:08 am	10/31/23 9:27 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$709.78	View Details	Go to PayPal Resolution Center
PP-R-MCW-10086057	10/31/23 8:54 am	10/31/23 9:00 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-HOP-10086053	10/31/23 7:03 am	10/31/23 7:09 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-XKZ-10086015	10/30/23 1:46 pm	10/30/23 1:56 pm	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-SAT-10086011	10/30/23 1:07 pm	10/31/23 7:01 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$50.00	View Details	Go to PayPal Resolution Center

Figure 5.1.23 PayPal Disputes Business Manager Main Page Interface

The disputes statistics block shows number and statutes of all disputes (as shown in Figure 5.1.24).



PayPal Plugin > PayPal Disputes

PayPal Disputes

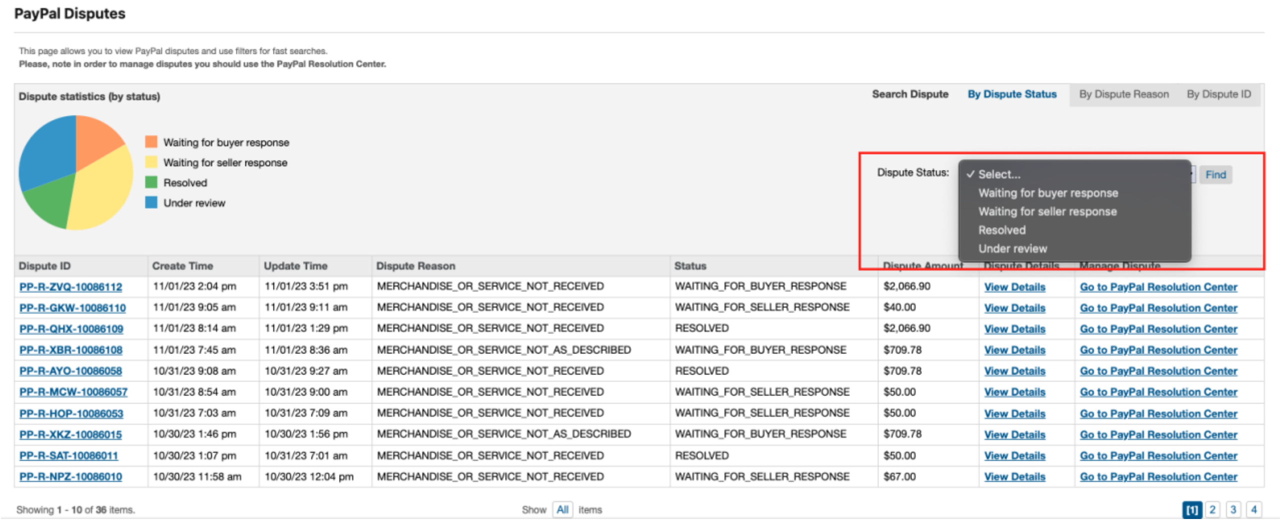
This page allows you to view PayPal disputes and use filters for fast searches.
Please, note in order to manage disputes you should use the PayPal Resolution Center.

Dispute statistics (by status)

Dispute ID	Create Time	Update Time	Dispute Reason	Status	Dispute Amount	Dispute Details	Manage Dispute
PP-R-ZVQ-10086112	11/01/23 2:04 pm	11/01/23 3:51 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_BUYER_RESPONSE	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-GKW-10086110	11/01/23 9:05 am	11/01/23 9:11 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$40.00	View Details	Go to PayPal Resolution Center
PP-R-QHX-10086109	11/01/23 8:14 am	11/01/23 1:29 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-XBR-10086108	11/01/23 7:45 am	11/01/23 8:36 am	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-AYO-10086058	10/31/23 9:08 am	10/31/23 9:27 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$709.78	View Details	Go to PayPal Resolution Center
PP-R-MCW-10086057	10/31/23 8:54 am	10/31/23 9:00 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-HOP-10086053	10/31/23 7:03 am	10/31/23 7:09 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-XKZ-10086015	10/30/23 1:46 pm	10/30/23 1:56 pm	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-SAT-10086011	10/30/23 1:07 pm	10/31/23 7:01 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$50.00	View Details	Go to PayPal Resolution Center

Figure 5.1.24 PayPal Disputes Business Manager Dispute statistics

You can search Disputes placed within PayPal Dispute Status (as shown in Figure 5.1.25) or by PayPal Dispute Reason (as shown in Figure 5.1.26) or by PayPal Dispute ID (as show in Figure 5.1.27).



PayPal Disputes

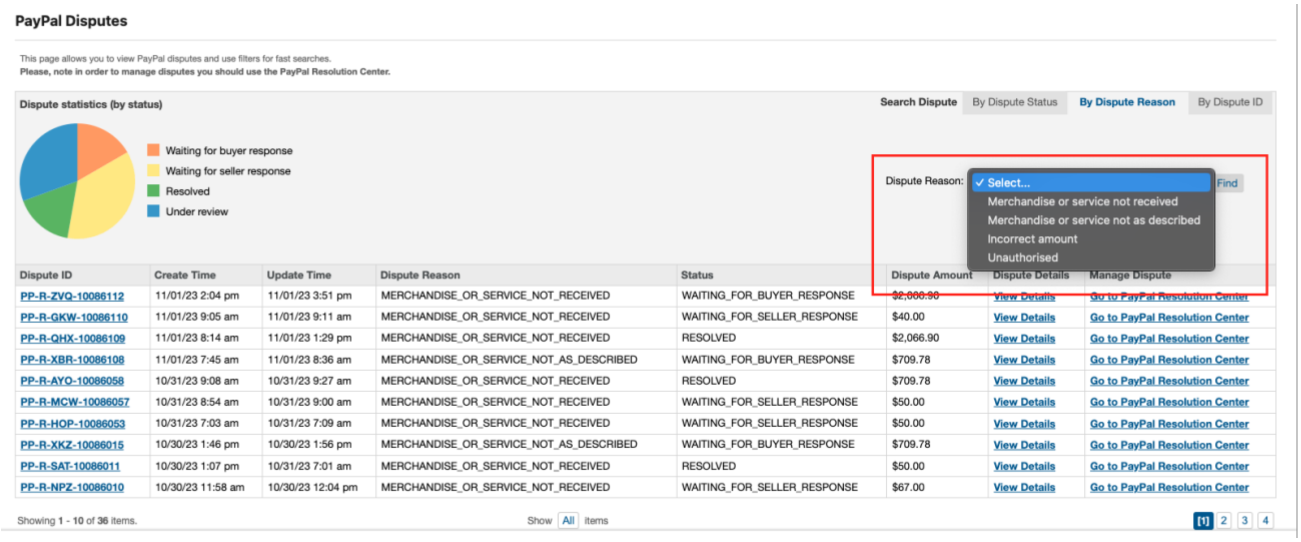
This page allows you to view PayPal disputes and use filters for fast searches.
Please, note in order to manage disputes you should use the PayPal Resolution Center.

Dispute statistics (by status)
Waiting for buyer response
Waiting for seller response
Resolved
Under review
Search Dispute
By Dispute Status
By Dispute Reason
By Dispute ID
Dispute Status:
✓ Select...
Waiting for buyer response
Waiting for seller response
Resolved
Under review
Find

Dispute ID	Create Time	Update Time	Dispute Reason	Status	Dispute Amount	Dispute Details	Manage Dispute
PP-R-ZVQ-10086112	11/01/23 2:04 pm	11/01/23 3:51 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_BUYER_RESPONSE	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-GKW-10086110	11/01/23 9:05 am	11/01/23 9:11 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$40.00	View Details	Go to PayPal Resolution Center
PP-R-QHX-10086109	11/01/23 8:14 am	11/01/23 1:29 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-XBR-10086108	11/01/23 7:45 am	11/01/23 8:36 am	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-AYO-10086058	10/31/23 9:08 am	10/31/23 9:27 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$709.78	View Details	Go to PayPal Resolution Center
PP-R-MCW-10086057	10/31/23 8:54 am	10/31/23 9:00 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-HOP-10086053	10/31/23 7:03 am	10/31/23 7:09 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-XKZ-10086015	10/30/23 1:46 pm	10/30/23 1:56 pm	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-SAT-10086011	10/30/23 1:07 pm	10/31/23 7:01 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$50.00	View Details	Go to PayPal Resolution Center
PP-R-NPZ-10086010	10/30/23 11:58 am	10/30/23 12:04 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$67.00	View Details	Go to PayPal Resolution Center

Showing 1 - 10 of 36 items.

Figure 5.1.25 Search Disputes by Dispute Status



PayPal Disputes

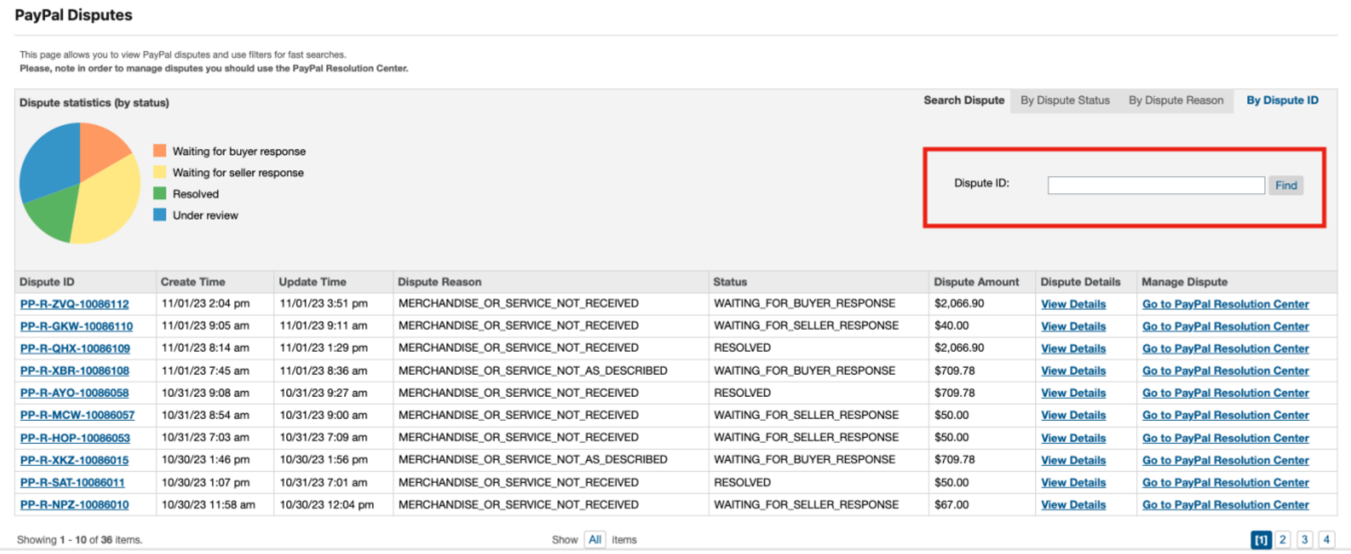
This page allows you to view PayPal disputes and use filters for fast searches.
Please, note in order to manage disputes you should use the PayPal Resolution Center.

Dispute statistics (by status)
Waiting for buyer response
Waiting for seller response
Resolved
Under review
Search Dispute
By Dispute Status
By Dispute Reason
By Dispute ID
Dispute Reason:
✓ Select...
Merchandise or service not received
Merchandise or service not as described
Incorrect amount
Unauthorised
Find

Dispute ID	Create Time	Update Time	Dispute Reason	Status	Dispute Amount	Dispute Details	Manage Dispute
PP-R-ZVQ-10086112	11/01/23 2:04 pm	11/01/23 3:51 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_BUYER_RESPONSE	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-GKW-10086110	11/01/23 9:05 am	11/01/23 9:11 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$40.00	View Details	Go to PayPal Resolution Center
PP-R-QHX-10086109	11/01/23 8:14 am	11/01/23 1:29 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-XBR-10086108	11/01/23 7:45 am	11/01/23 8:36 am	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-AYO-10086058	10/31/23 9:08 am	10/31/23 9:27 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$709.78	View Details	Go to PayPal Resolution Center
PP-R-MCW-10086057	10/31/23 8:54 am	10/31/23 9:00 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-HOP-10086053	10/31/23 7:03 am	10/31/23 7:09 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-XKZ-10086015	10/30/23 1:46 pm	10/30/23 1:56 pm	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-SAT-10086011	10/30/23 1:07 pm	10/31/23 7:01 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$50.00	View Details	Go to PayPal Resolution Center
PP-R-NPZ-10086010	10/30/23 11:58 am	10/30/23 12:04 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$67.00	View Details	Go to PayPal Resolution Center

Showing 1 - 10 of 36 items.

Figure 5.1.26 Search Disputes by Dispute Reason



PayPal Disputes

This page allows you to view PayPal disputes and use filters for fast searches.
Please, note in order to manage disputes you should use the PayPal Resolution Center.

Dispute statistics (by status)

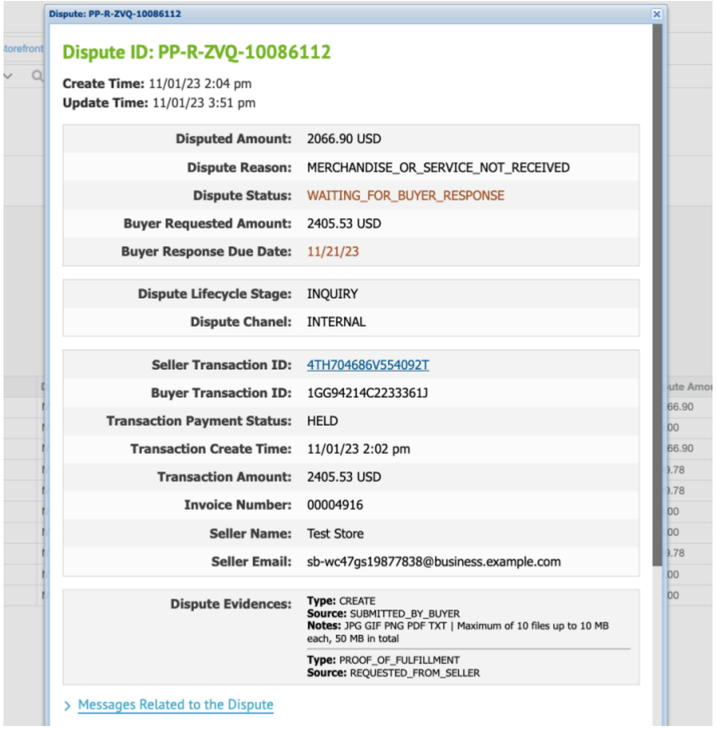
Dispute ID:

Dispute ID	Create Time	Update Time	Dispute Reason	Status	Dispute Amount	Dispute Details	Manage Dispute
PP-R-ZVQ-10086112	11/01/23 2:04 pm	11/01/23 3:51 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_BUYER_RESPONSE	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-GKW-10086110	11/01/23 9:05 am	11/01/23 9:11 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$40.00	View Details	Go to PayPal Resolution Center
PP-R-QHX-10086109	11/01/23 8:14 am	11/01/23 1:29 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$2,066.90	View Details	Go to PayPal Resolution Center
PP-R-XBR-10086108	11/01/23 7:45 am	11/01/23 8:36 am	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-AYO-10086058	10/31/23 9:08 am	10/31/23 9:27 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$709.78	View Details	Go to PayPal Resolution Center
PP-R-MCW-10086057	10/31/23 8:54 am	10/31/23 9:00 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-HOP-10086053	10/31/23 7:03 am	10/31/23 7:09 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$50.00	View Details	Go to PayPal Resolution Center
PP-R-XKZ-10086015	10/30/23 1:46 pm	10/30/23 1:56 pm	MERCHANDISE_OR_SERVICE_NOT_AS_DESCRIBED	WAITING_FOR_BUYER_RESPONSE	$709.78	View Details	Go to PayPal Resolution Center
PP-R-SAT-10086011	10/30/23 1:07 pm	10/31/23 7:01 am	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	RESOLVED	$50.00	View Details	Go to PayPal Resolution Center
PP-R-NPZ-10086010	10/30/23 11:58 am	10/30/23 12:04 pm	MERCHANDISE_OR_SERVICE_NOT_RECEIVED	WAITING_FOR_SELLER_RESPONSE	$67.00	View Details	Go to PayPal Resolution Center

Showing **1** - **10** of **36** items.

Figure 5.1.27 Search Dispute by Dispute ID

You can see Dispute Details from the PayPal Disputes by clicking **View Details** of the actual dispute (as shown in Figure 5.1.28)



Dispute: PP-R-ZVQ-10086112

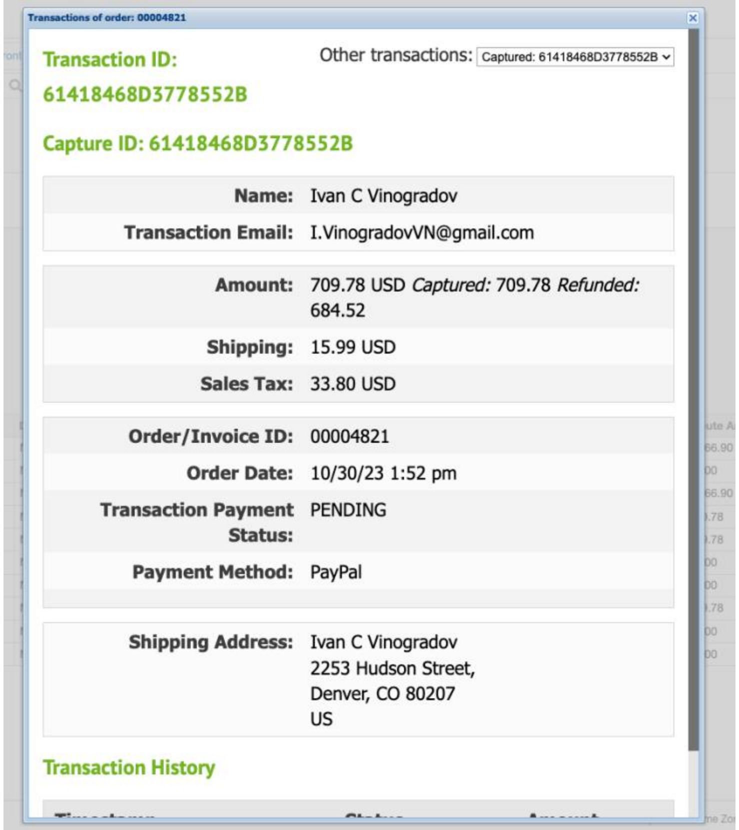
Dispute ID: PP-R-ZVQ-10086112

Create Time: 11/01/23 2:04 pm
Update Time: 11/01/23 3:51 pm

Disputed Amount:	2066.90 USD
Dispute Reason:	MERCHANDISE_OR_SERVICE_NOT_RECEIVED
Dispute Status:	WAITING_FOR_BUYER_RESPONSE
Buyer Requested Amount:	2405.53 USD
Buyer Response Due Date:	11/21/23
Dispute Lifecycle Stage:	INQUIRY
Dispute Chanel:	INTERNAL
Seller Transaction ID:	4TH704686V554092T
Buyer Transaction ID:	1GG94214C2233361J
Transaction Payment Status:	HELD
Transaction Create Time:	11/01/23 2:02 pm
Transaction Amount:	2405.53 USD
Invoice Number:	00004916
Seller Name:	Test Store
Seller Email:	sb-wc47gs19877838@business.example.com
Dispute Evidences:	**Type:** CREATE **Source:** SUBMITTED_BY_BUYER **Notes:** JPG GIF PNG PDF TXT | Maximum of 10 files up to 10 MB each, 50 MB in total **Type:** PROOF_OF_FULFILLMENT **Source:** REQUESTED_FROM_SELLER

Figure 5.1.28 Dispute Details Popup

You can see Transaction details from the Dispute popup by clicking Seller Transaction ID. (as shown in Figure 5.1.29)



Transactions of order: 00004821

Transaction ID: 61418468D3778552B

Other transactions: Captured: 61418468D3778552B

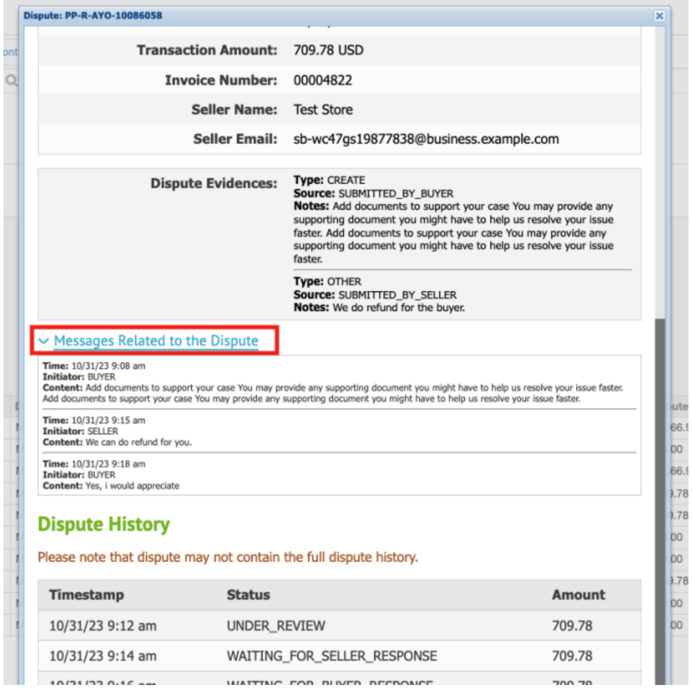
Capture ID: 61418468D3778552B

Name:	Ivan C Vinogradov
Transaction Email:	I.VinogradovVN@gmail.com
Amount:	709.78 USD *Captured:* 709.78 *Refunded:* 684.52
Shipping:	15.99 USD
Sales Tax:	33.80 USD
Order/Invoice ID:	00004821
Order Date:	10/30/23 1:52 pm
Transaction Payment Status:	PENDING
Payment Method:	PayPal
Shipping Address:	Ivan C Vinogradov 2253 Hudson Street, Denver, CO 80207 US

Transaction History

Figure 5.1.29 Transaction details of Dispute

To see Message History of Dispute press to **Messages Related to the Dispute** menu in Dispute details popup (as shown in Figure 5.1.30)



Dispute: PP-R-AYO-10086058

Transaction Amount:	709.78 USD
Invoice Number:	00004822
Seller Name:	Test Store
Seller Email:	sb-wc47gs19877838@business.example.com
Dispute Evidences:	**Type:** CREATE **Source:** SUBMITTED_BY_BUYER **Notes:** Add documents to support your case You may provide any supporting document you might have to help us resolve your issue faster. Add documents to support your case You may provide any supporting document you might have to help us resolve your issue faster. **Type:** OTHER **Source:** SUBMITTED_BY_SELLER **Notes:** We do refund for the buyer.

Messages Related to the Dispute

Time: 10/31/23 9:08 am
Initiator: BUYER
Content: Add documents to support your case You may provide any supporting document you might have to help us resolve your issue faster. Add documents to support your case You may provide any supporting document you might have to help us resolve your issue faster.

Time: 10/31/23 9:15 am
Initiator: SELLER
Content: We can do refund for you.

Time: 10/31/23 9:18 am
Initiator: BUYER
Content: Yes, i would appreciate

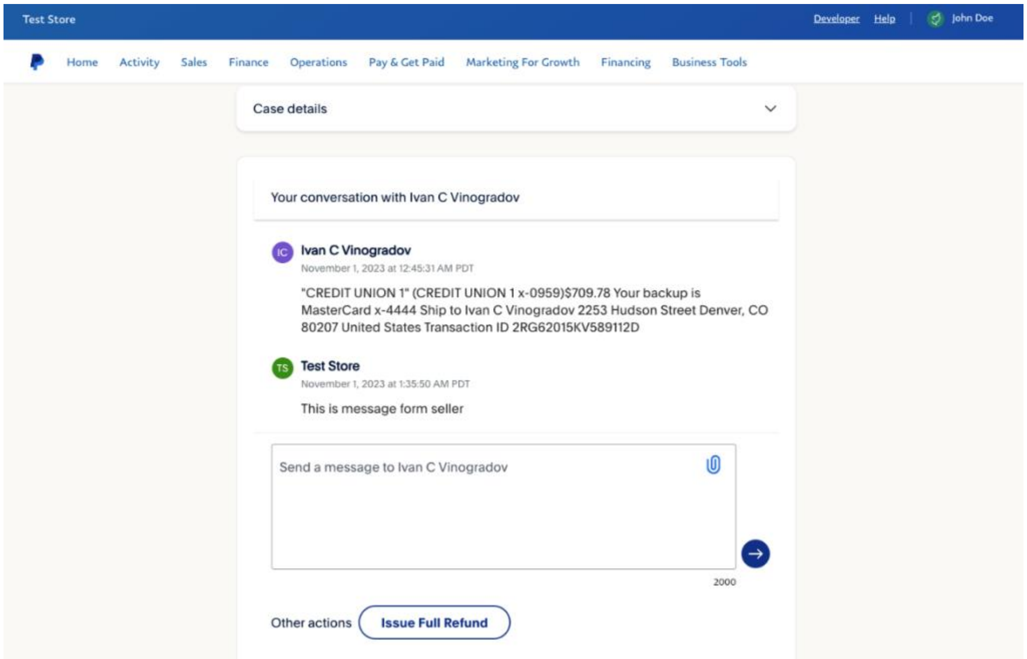
Dispute History

Please note that dispute may not contain the full dispute history.

Timestamp	Status	Amount
10/31/23 9:12 am	UNDER_REVIEW	709.78
10/31/23 9:14 am	WAITING_FOR_SELLER_RESPONSE	709.78
10/31/23 9:16 am	WAITING_FOR_BUYER_RESPONSE	709.78

Figure 5.1.30 Messages Related to the Dispute

You can go to PayPal Resolution Center to manage Dispute by clicking Dispute ID or the Resolution Center on the right (redirect to Resolution Center as shown in Figure 5.1.31).



Your conversation with Ivan C Vinogradov

IC Ivan C Vinogradov
November 1, 2023 at 12:45:31 AM PDT

"CREDIT UNION 1" (CREDIT UNION 1 x-0959)$709.78 Your backup is MasterCard x-4444 Ship to Ivan C Vinogradov 2253 Hudson Street Denver, CO 80207 United States Transaction ID 2RG62015KV589112D

TS Test Store
November 1, 2023 at 1:35:50 AM PDT

This is message form seller

Send a message to Ivan C Vinogradov

2000

Other actions **Issue Full Refund**

Figure 5.1.31 PayPal Resolution Center

5.1.4 PayPal Tracking API

If you sell tangible goods, you should send tracking information to PayPal as soon as you ship items to your customers.

Providing tracking information and item-level details can also help you improve the customer experience and reduce your operational costs. You can achieve it using the following techniques:

- Reduce dispute costs by allowing payers to dispute individual items instead of the entire order.

- Quicker access to money in payment and dispute holds. Adding tracking to an order qualifies holds for the early release.

- Real-time package tracking updates inside the PayPal app, which reduces the need for third-party apps to provide order tracking on PayPal orders.

- Improved seller risk profiles built from shipping and order status, which helps lower reserve requirements.

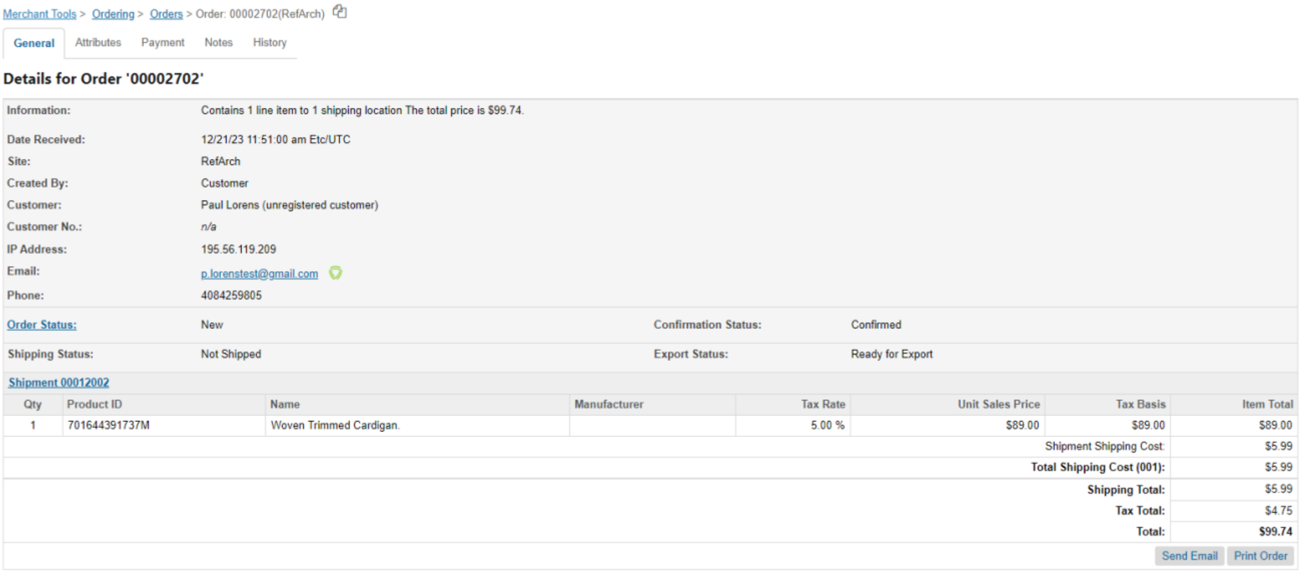
More information

We have created a job for automatically searching for suitable orders and creating connections with Tracking API. Also, you can use the function itself.

How to prepare order:

1. Made full capture for the order transaction. (**PayPal Payment Status** should be COMPLETED)

2. Navigate to the captured order (Merchant Tools > Ordering > Orders > Order: [ID]).



Merchant Tools > Ordering > Orders > Order: 00002702(RefArch)
General
Attributes
Payment
Notes
History

Details for Order '00002702'

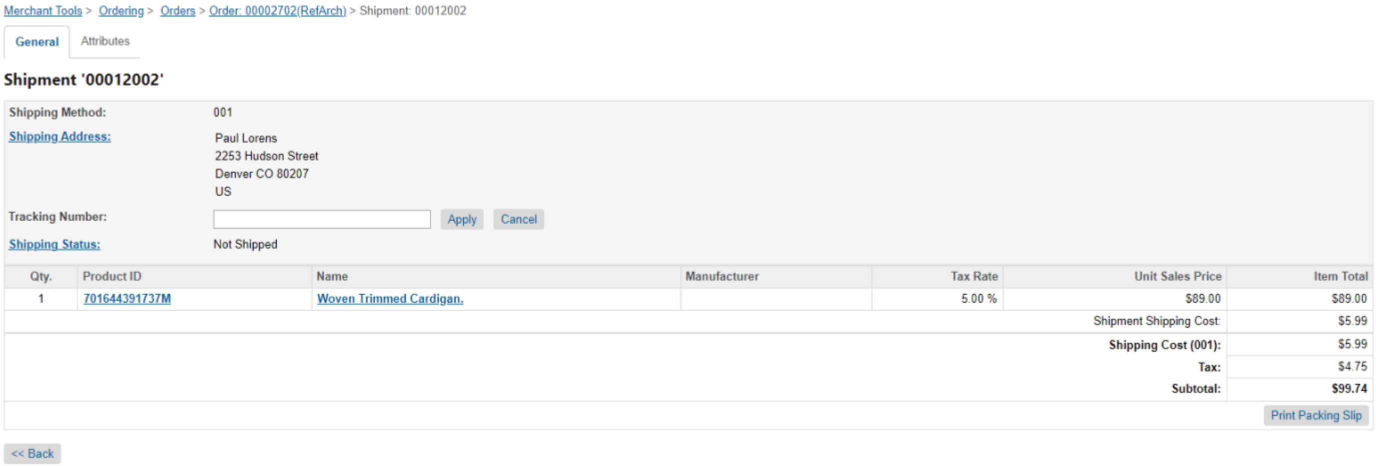
Information:	Contains 1 line item to 1 shipping location The total price is $99.74.		
Date Received:	12/21/23 11:51:00 am Etc/UTC		
Site:	RefArch		
Created By:	Customer		
Customer:	Paul Lorens (unregistered customer)		
Customer No.:	n/a		
IP Address:	195.56.119.209		
Email:	p.lorenstest@gmail.com		
Phone:	4084259805		
Order Status:	New	Confirmation Status:	Confirmed
Shipping Status:	Not Shipped	Export Status:	Ready for Export

Shipment 00012002

Qty	Product ID	Name	Manufacturer	Tax Rate	Unit Sales Price	Tax Basis	Item Total
1	701644391737M	Woven Trimmed Cardigan.		5.00 %	$89.00	$89.00	$89.00
						Shipment Shipping Cost:	$5.99
						Total Shipping Cost (001):	$5.99
						Shipping Total:	$5.99
						Tax Total:	$4.75
						Total:	$99.74

Figure 5.1.32 BM Order Page

3. Open Shipment and enter the Tracking Number



Merchant Tools > Ordering > Orders > Order: 00002702(RefArch) > Shipment: 00012002
General
Attributes

Shipment '00012002'

Shipping Method: 001

Shipping Address:
Paul Lorens
2253 Hudson Street
Denver CO 80207
US

Tracking Number:

Shipping Status: Not Shipped

Qty.	Product ID	Name	Manufacturer	Tax Rate	Unit Sales Price	Item Total
1	701644391737M	Woven Trimmed Cardigan.		5.00 %	$89.00	$89.00
					Shipment Shipping Cost:	$5.99
					Shipping Cost (001):	$5.99
					Tax:	$4.75
					Subtotal:	$99.74

Print Packing Slip
<< Back

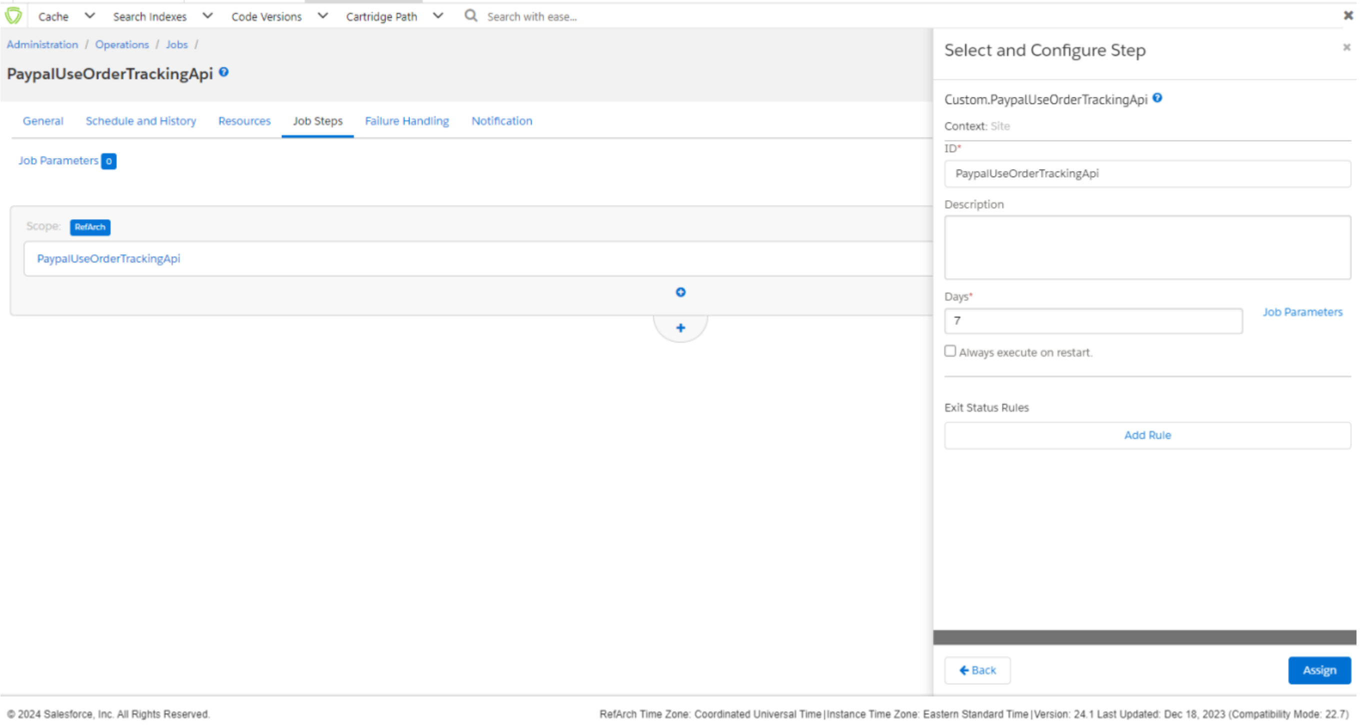
Figure 5.1.33 BM Shipment Page

How to use Tracking API with job:

NOTE: Job is searching for fully captured orders from the previous number of days.

1. Go to Administration > Operations > Jobs and choose **PaypalUseOrderTrackingApi** job.

2. Go to Job Steps to enter needed number of days (default 7)



PaypalUseOrderTrackingApi

PaypalUseOrderTrackingApi

Custom.PaypalUseOrderTrackingApi

Context: Site

ID*: PaypalUseOrderTrackingApi

Description:

Days*: 7

□ Always execute on restart.

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RefArch Time Zone: Coordinated Universal Time | Instance Time Zone: Eastern Standard Time | Version: 24.1 Last Updated: Dec 18, 2023 (Compatibility Mode: 22.7)

Figure 5.1.34 BM Job Steps configuration

3. Run the Job

How to use Tracking API with function:

Use function **addTrackinAPI** (bm_paypal/cartridge/scripts/paypal/paypalApi/bmPaypalApi.js).

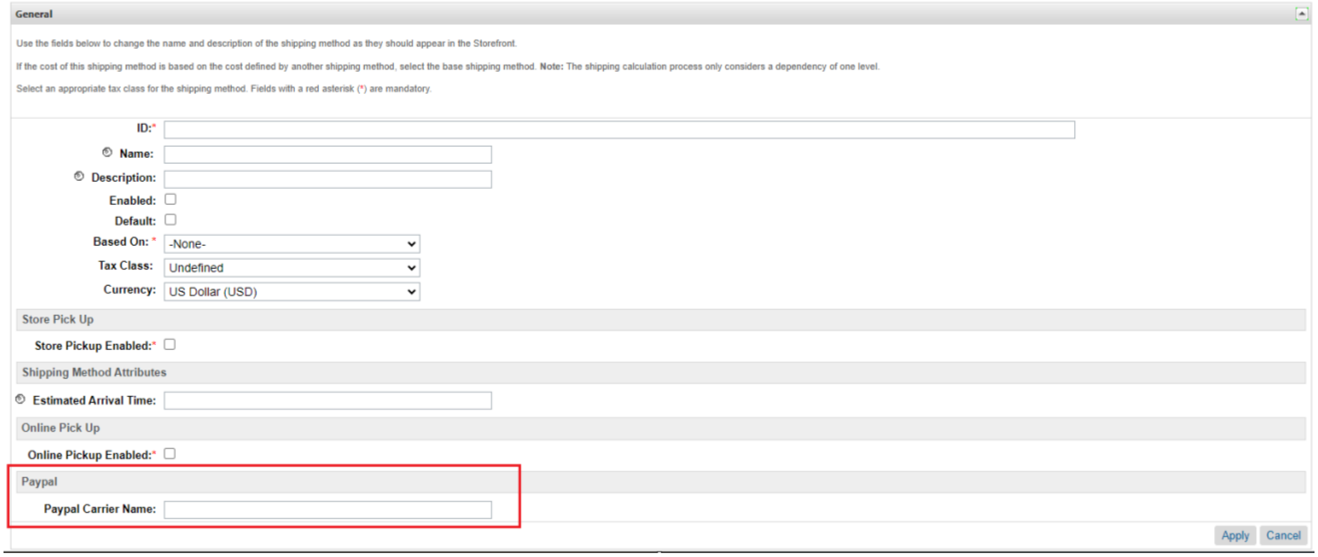
You need to pass an order to create tracking, but make sure that the order is captured.

Important: by default, we pass OTHER as the shipment carrier.

Add a specific shipment carrier:

1. Navigate to the Merchant Tools > Ordering > Shipping Methods and press NEW or edit existed.

2. Enter carrier name Into **PayPal Carrier Name** field (carrier must be supported by PayPal).



General

Use the fields below to change the name and description of the shipping method as they should appear in the Storefront.

If the cost of this shipping method is based on the cost defined by another shipping method, select the base shipping method. **Note:** The shipping calculation process only considers a dependency of one level.

Select an appropriate tax class for the shipping method. Fields with a red asterisk (*) are mandatory.

ID:*	
Name:	
Description:	
Enabled:	□
Default:	□
Based On: *	-None-
Tax Class:	Undefined
Currency:	US Dollar (USD)

Store Pick Up

Store Pickup Enabled:*	□

Shipping Method Attributes

Estimated Arrival Time:	

Online Pick Up

Online Pickup Enabled:*	□

Paypal

Paypal Carrier Name:	

Figure 5.1.35 BM New Shipping Method configuration

Important: PayPal Carrier Name must be taken from carriers list

5.2 Storefront Functionality

Integration has 3 types of checkouts with PayPal. All of them are available from the payment page or cart page.

UPDATE: Checkout from cart requires customer data from PayPal. Review PayPal-provided Billing Address and Phone Number BEFORE ENABLING PAYPAL BUTTON ON A CART PAGE.

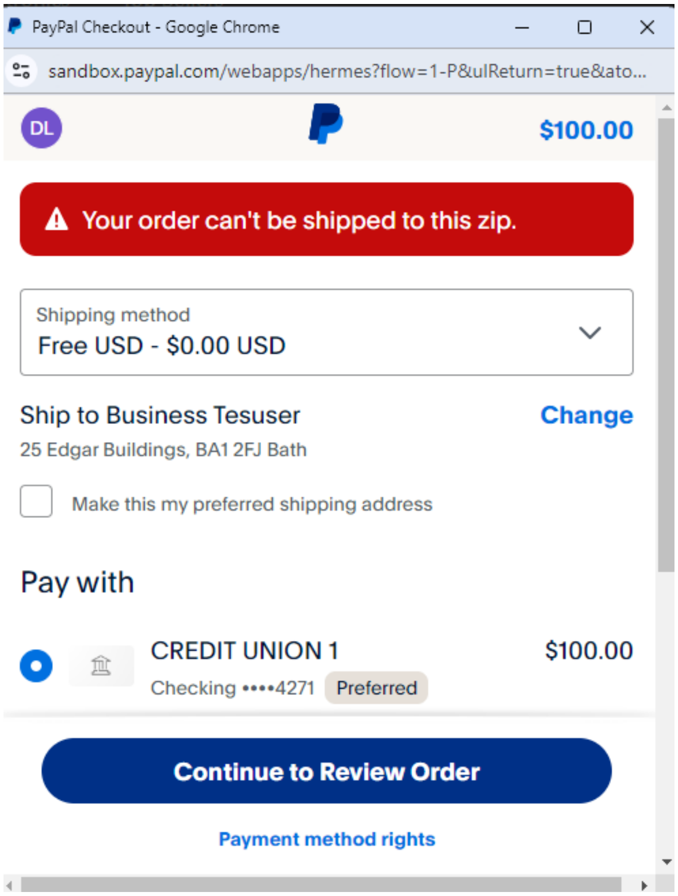
1. One-time checkout. Available for both guest and registered user types.
2. Checkout with vault creation. Available for registered user types if PayPal Vault Flow is enabled in Custom Preferences.
3. Checkout using saved PayPal Account. Available for registered users that already passed checkout with PayPal at least once and saved it.

5.2.1 Email, Phone, Shipping and Billing Address behavior

When a customer proceeds to checkout using PayPal button on the Express Checkout page, their phone, email, shipping and billing address will be taken from customer's PayPal account. During Express Checkout the shipping address validation will be performed to avoid having an order created with non-applicable shipping address (Figure 5.2.1).

To checkout with a saved account, the default account values will be taken as shipping address and phone.

If a customer leaves the email field empty during checkout from payment page, last used email from the session will automatically be set in a form or PayPal account email, in case the session value is empty.


PayPal Checkout - Google Chrome
sandbox.paypal.com/webapps/hermes?flow=1-P&ulReturn=true&ato...
DL
$100.00
Change
Continue to Review Order
Payment method rights

⚠ Your order can't be shipped to this zip.

Shipping method
Free USD - $0.00 USD

Ship to Business Tesuser
25 Edgar Buildings, BA1 2FJ Bath

□ Make this my preferred shipping address

Pay with

● CREDIT UNION 1 $100.00
Checking ••••4271 Preferred

Figure 5.2.1 Error message of failed shipping validation.

5.2.2 Connect with PayPal

Ability for a buyer to create a storefront account by clicking on just one button.

This functionality is available on the following pages: Account Login, Page before Checkout (for guest buyers).

Connect with PayPal provides customers with the option to access your website or app using their PayPal credentials or establish a connection between their PayPal account and your platform, facilitating the exchange of basic information. This solution utilizes only the primary email address obtained from PayPal and grants login access only for the validated email address.

You can read more about this feature on this page.

Enhanced functionality:

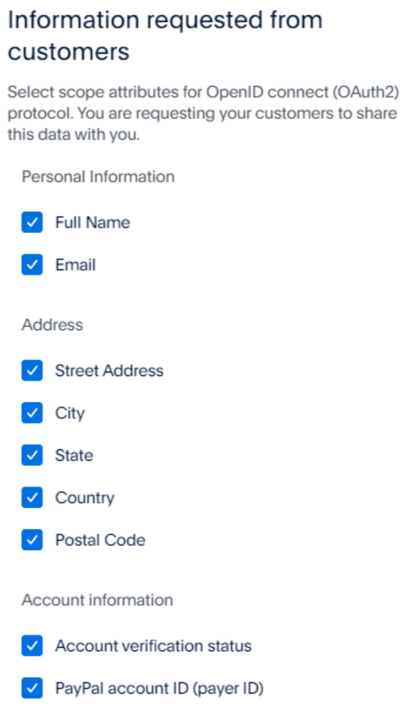
1. Additional security layer - user who is logged in via PayPal for the first time and has a pre-existing SF user account with the same email as the primary email in My PayPal account, will be asked to put in the credentials from pre-existing SF user account before the account linking with PayPal.
2. Email notifications:

- In case a user logs in via Connect with PayPal for the first time, they will also receive an email notification for login via a Single Authentication (Demandware standard login).
- A logged-in user who is linked via PayPal to their pre-existing SF user account, will be notified via email about account linking.

- A logged-in user who is linked via PayPal to their pre-existing SF user account, will be notified via email about account unlinking.

3. Automatic payment adding - adds account and address from PayPal to the user account.

To use this feature, you have to go through these steps. During configuration on PayPal side, select all fields to successfully create an account on storefront:



Information requested from customers

Select scope attributes for OpenID connect (OAuth2) protocol. You are requesting your customers to share this data with you.

Personal Information

☑ Full Name

☑ Email

Address

☑ Street Address

☑ City

☑ State

☑ Country

☑ Postal Code

Account information

☑ Account verification status

☑ PayPal account ID (payer ID)

Figure 5.2.2 Connect with PayPal configurations

After user clicks on the “Connect with PayPal” button and proceeds through PayPal authentication form successfully an account on storefront will be created with the data from PayPal buyer account.

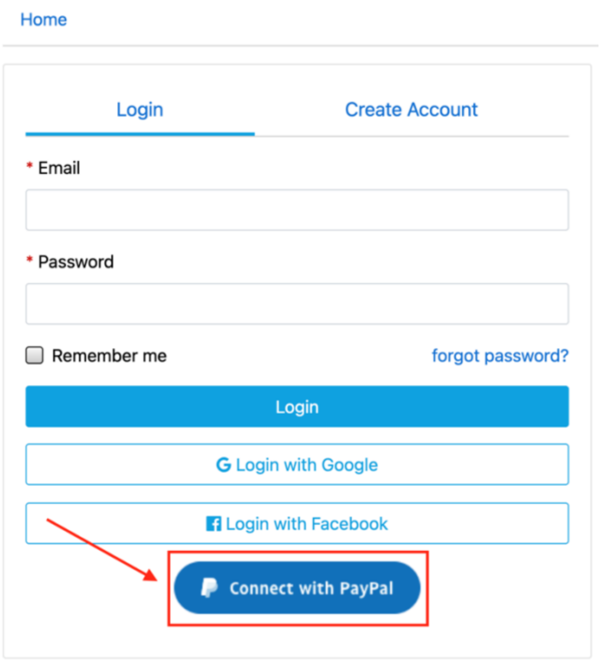
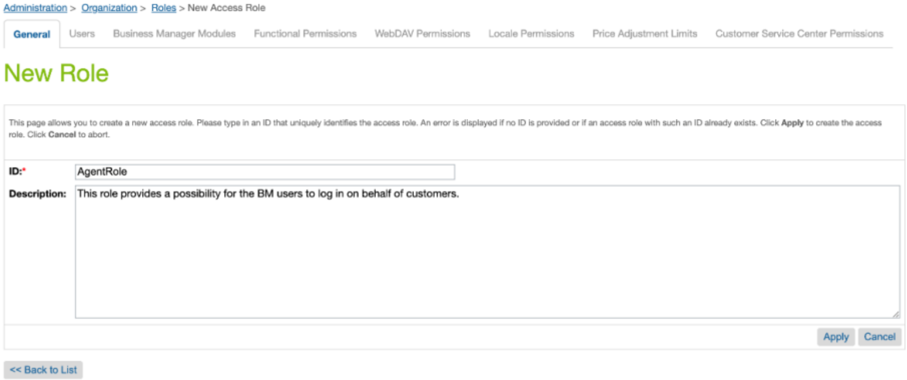


Figure 5.2.3 Connect with PayPal button

When deploying to production, do not forget to change Site Pref with ID: PP_CWPP_Button_Url from *https://www.sandbox.paypal.com/connect?* To *https://www.paypal.com/connect?* (Check site pref description).

Also, you should create and configure an agent user with specified permissions to use the full “Connect with PayPal” functionality:

- go to “Administration > Organization > Roles & Permissions” and choose “New”
- please fill in all the fields according to the example in the screenshot below (Figure 5.2.4) and click “Apply”



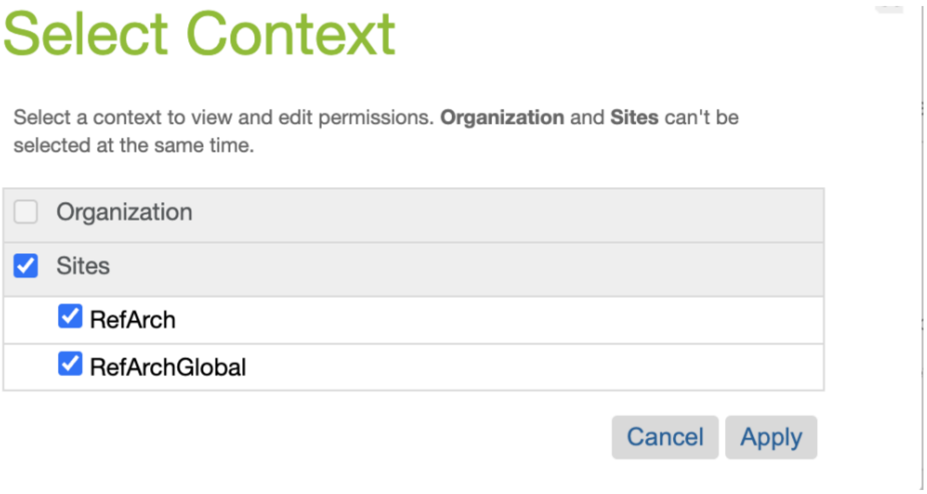
This page allows you to create a new access role. Please type in an ID that uniquely identifies the access role. An error is displayed if no ID is provided or if an access role with such an ID already exists. Click **Apply** to create the access role. Click **Cancel** to abort.

ID:* AgentRole

Description: This role provides a possibility for the BM users to log in on behalf of customers.

Figure 5.2.4. *New role creation*

- choose tab “Functional Permissions” (Administration > Organization > Roles > Agent Role - Functional Permissions). Select necessary site/sites to use your changes (Figure 5.2.5):



Select Context

Select a context to view and edit permissions. **Organization** and **Sites** can't be selected at the same time.

☐ Organization

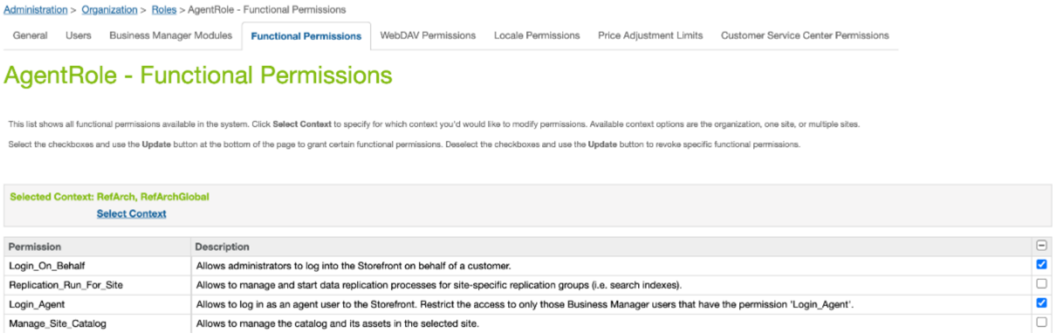
☑ Sites

☑ RefArch

☑ RefArchGlobal

Figure 5.2.5. Select Context

- after “Apply” choose permissions as on screenshot below (Figure 5.2.6):



AgentRole - Functional Permissions

This list shows all functional permissions available in the system. Click **Select Context** to specify for which context you'd would like to modify permissions. Available context options are the organization, one site, or multiple sites.

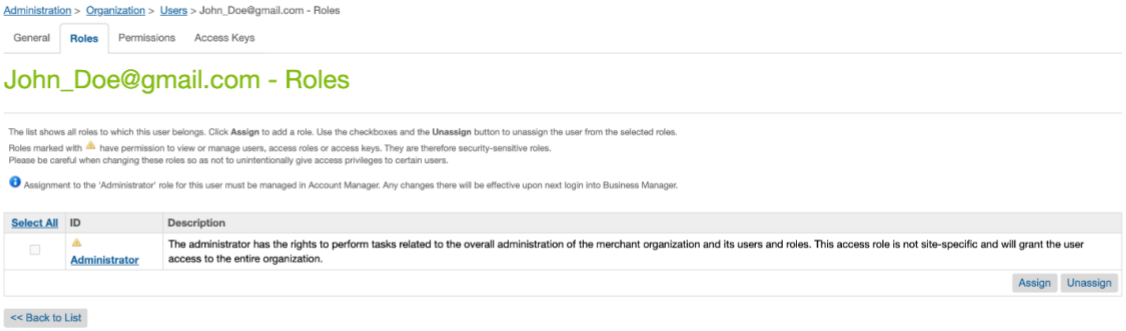
Select the checkboxes and use the **Update** button at the bottom of the page to grant certain functional permissions. Deselect the checkboxes and use the **Update** button to revoke specific functional permissions.

Selected Context: RefArch, RefArchGlobal

Permission	Description	⊟
Login_On_Behalf	Allows administrators to log into the Storefront on behalf of a customer.	☑
Replication_Run_For_Site	Allows to manage and start data replication processes for site-specific replication groups (i.e. search indexes).	☐
Login_Agent	Allows to log in as an agent user to the Storefront. Restrict the access to only those Business Manager users that have the permission 'Login_Agent'.	☑
Manage_Site_Catalog	Allows to manage the catalog and its assets in the selected site.	☐

Figure 5.2.6. *Select Permissions*

- After that, you need to select an existing or create a new user and give him the “AgentRole” created in the previous steps (example Figure 5.2.7):



Administration > Organization > Users > John_Doe@gmail.com - Roles
General
Roles
Permissions
Access Keys

John_Doe@gmail.com - Roles

The list shows all roles to which this user belongs. Click **Assign** to add a role. Use the checkboxes and the **Unassign** button to unassign the user from the selected roles.

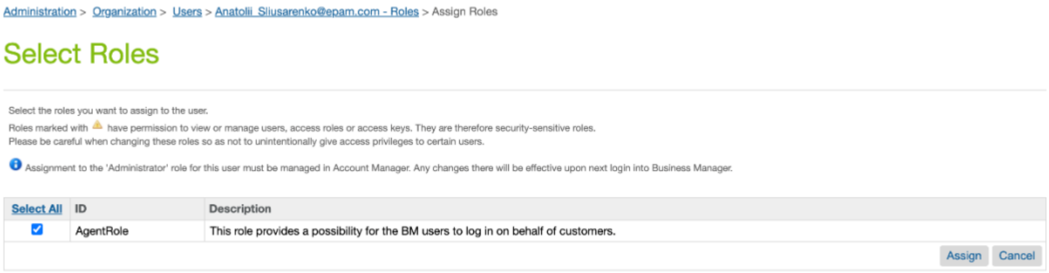
Roles marked with ⚠ have permission to view or manage users, access roles or access keys. They are therefore security-sensitive roles.
Please be careful when changing these roles so as not to unintentionally give access privileges to certain users.

ⓘ Assignment to the 'Administrator' role for this user must be managed in Account Manager. Any changes there will be effective upon next login into Business Manager.

Select All	ID	Description
☐	⚠ Administrator	The administrator has the rights to perform tasks related to the overall administration of the merchant organization and its users and roles. This access role is not site-specific and will grant the user access to the entire organization.

Figure 5.2.7. *User Role assigning*

- click “Assign” on your user, choose “AgentRole” and click “Assign” one more time (Figure 5.2.8):



Administration > Organization > Users > Anatolii_Sliusarenko@epam.com - Roles > Assign Roles

Select Roles

Select the roles you want to assign to the user.
Roles marked with ⚠ have permission to view or manage users, access roles or access keys. They are therefore security-sensitive roles.
Please be careful when changing these roles so as not to unintentionally give access privileges to certain users.

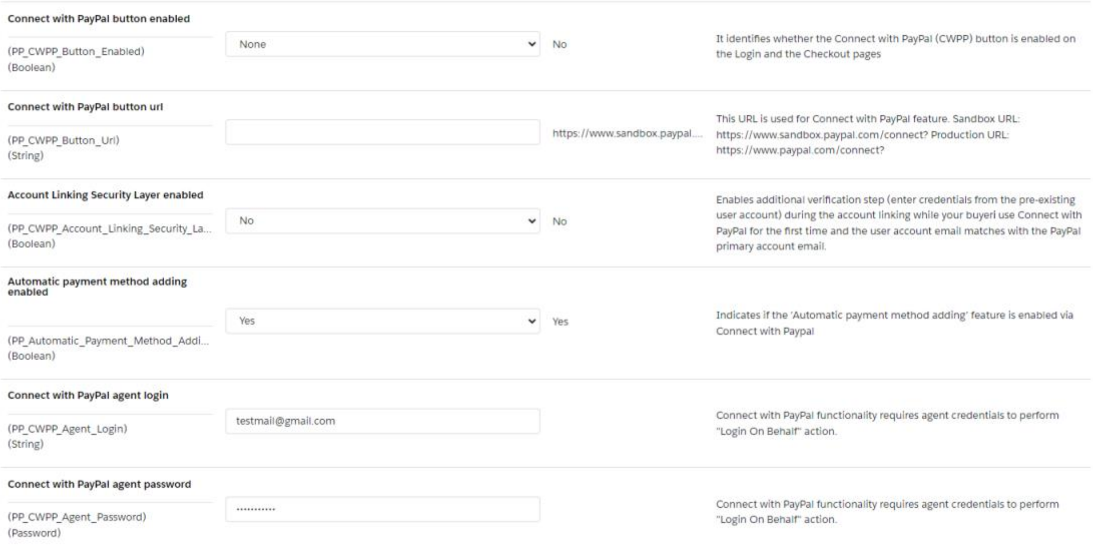
ℹ Assignment to the 'Administrator' role for this user must be managed in Account Manager. Any changes there will be effective upon next login into Business Manager.

Select All	ID	Description
☑	AgentRole	This role provides a possibility for the BM users to log in on behalf of customers.

Figure 5.2.8. *User Role selecting*

- after that fill all necessary Preference Configuration settings in Merchant Tools > PayPal Plugin > Preference Configuration > tab PayPal (Figure 5.2.9) enable feature, enter URL for feature and enter your User Login and Password:

  PLEASE NOTE: In case an "Agent User Login and OCAPI" access key was created, you should fill the "PP_CWPP_Agent_Password" preference using this key instead of a password, as it takes precedence over the base password approach.



Connect with PayPal button enabled (PP_CWPP_Button_Enabled) (Boolean)	None	No	It identifies whether the Connect with PayPal (CWPP) button is enabled on the Login and the Checkout pages
Connect with PayPal button url (PP_CWPP_Button_Url) (String)		https://www.sandbox.paypal....	This URL is used for Connect with PayPal feature. Sandbox URL: https://www.sandbox.paypal.com/connect? Production URL: https://www.paypal.com/connect?
Account Linking Security Layer enabled (PP_CWPP_Account_Linking_Security_La... (Boolean)	No	No	Enables additional verification step (enter credentials from the pre-existing user account) during the account linking while your buyerl use Connect with PayPal for the first time and the user account email matches with the PayPal primary account email.
Automatic payment method adding enabled (PP_Automatic_Payment_Method_Addi... (Boolean)	Yes	Yes	Indicates if the 'Automatic payment method adding' feature is enabled via Connect with Paypal
Connect with PayPal agent login (PP_CWPP_Agent_Login) (String)	testmail@gmail.com		Connect with PayPal functionality requires agent credentials to perform "Login On Behalf" action.
Connect with PayPal agent password (PP_CWPP_Agent_Password) (Password)	···········		Connect with PayPal functionality requires agent credentials to perform "Login On Behalf" action.

Figure 5.2.9. *Custom Preferences filling*

Recommendations which should be followed before moving to production:

1. Go to PayPal Sandbox configuration:
   - Enter your credentials for accessing PayPal Dev Console.
   - Go to the My Apps & Credentials.
   - Select your application.
   - Go to SANDBOX APP SETTINGS.

- Click Advanced on (bellow Log in with PayPal checkbox).
- Unselect the **‘Enable customers who have not yet confirmed their email with PayPal to log in to your app’** checkbox.

2. Ensure that you have configured email confirmation for user account registration and MFA.

5.2.3 PayPal Digital Goods(Previous Pay Now).

PayPal ‘Digital Goods’ button helps to simplify buyer’s checkout by shortening the user journey in the PayPal checkout window.

‘Digital Goods’ is applicable to PayPal, Apple Pay, Alternative payment methods and PayPal Credit Card (Card Fields).

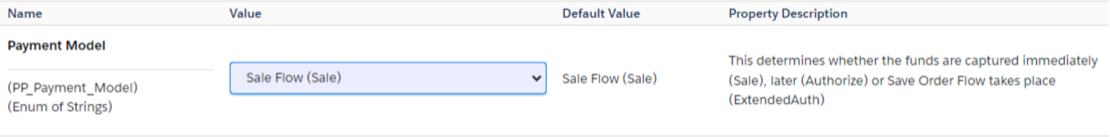
This functionality is available on the following pages: PDP (Product), Mini Cart, Cart, Billing pages (for both guests and logged-in users who have their PayPal accounts.).

NOTE: Digital Goods for Alternative payment methods and PayPal Credit Card (Card Fields) is available only on the Billing page.

You can find more details by following the link: PayPal Checkout

To apply this feature, go to **Merchant Tools > PayPal Plugin > Preference Configuration > tab General, tab PayPal, tab Credit Card** and make sure the following site preferences are set to:

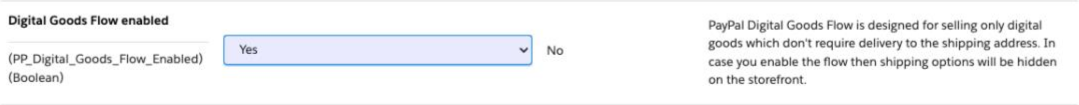
- Payment Model (PP_Payment_Model) – Sale Flow (Sale)



Name	Value	Default Value	Property Description
Payment Model (PP_Payment_Model) (Enum of Strings)	Sale Flow (Sale)	Sale Flow (Sale)	This determines whether the funds are captured immediately (Sale), later (Authorize) or Save Order Flow takes place (ExtendedAuth)

Figure 5.2.10. Payment Model site preference

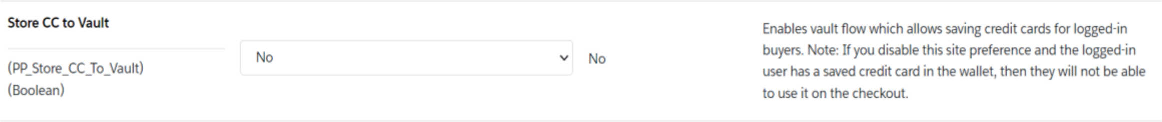
- Digital Goods enabled (PP_Digital_Goods_Flow_Enabled) – Yes (By default is set to No)



Digital Goods Flow enabled (PP_Digital_Goods_Flow_Enabled) (Boolean)	Yes	No	PayPal Digital Goods Flow is designed for selling only digital goods which don't require delivery to the shipping address. In case you enable the flow then shipping options will be hidden on the storefront.

Figure 5.2.11. Digital Goods enabled site preference

- Store Credit Card in Vault (PP_Store_CC_To_Vault) – No (By default is set to No)

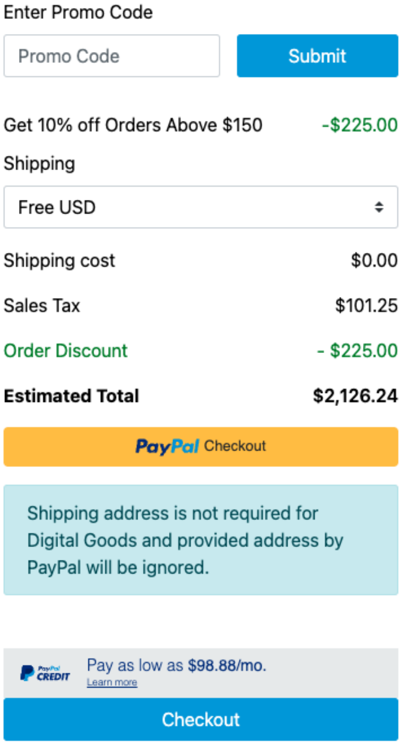


Store CC to Vault (PP_Store_CC_To_Vault) (Boolean)	No	No	Enables vault flow which allows saving credit cards for logged-in buyers. Note: If you disable this site preference and the logged-in user has a saved credit card in the wallet, then they will not be able to use it on the checkout.

Figure 5.2.12 Store Credit Card in Vault site preference

When everything is set correctly and the ‘Digital Goods’ is enabled, the PayPal button will activate the following flow:

1. PayPal ‘Digital Goods’ button is rendered, and the following alert message is rendered on the Cart page: ‘*Shipping address is not required for Digital Goods and provided address by PayPal will be ignored.*’.



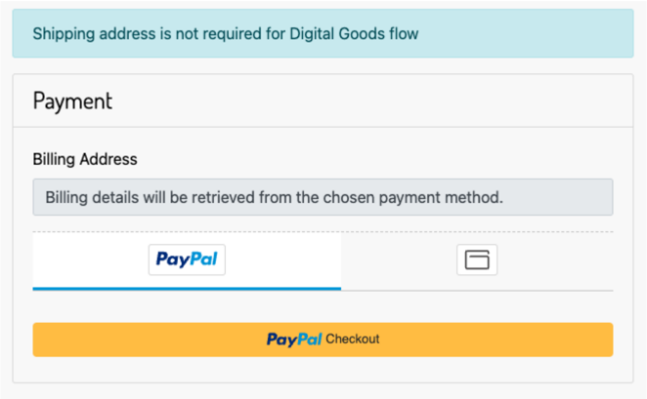
Get 10% off Orders Above $150	-$225.00
Shipping	
Free USD	
Shipping cost	$0.00
Sales Tax	$101.25
Order Discount	- $225.00
Estimated Total	**$2,126.24**

Shipping address is not required for Digital Goods and provided address by PayPal will be ignored.

Pay as low as **$98.88/mo.**
Learn more

Figure 5.2.13. PayPal button on the Cart page during 'Digital Goods' flow

The following alert message is rendered on the Billing page: ‘*Shipping address is not required for Digital Goods flow*’:



Shipping address is not required for Digital Goods flow

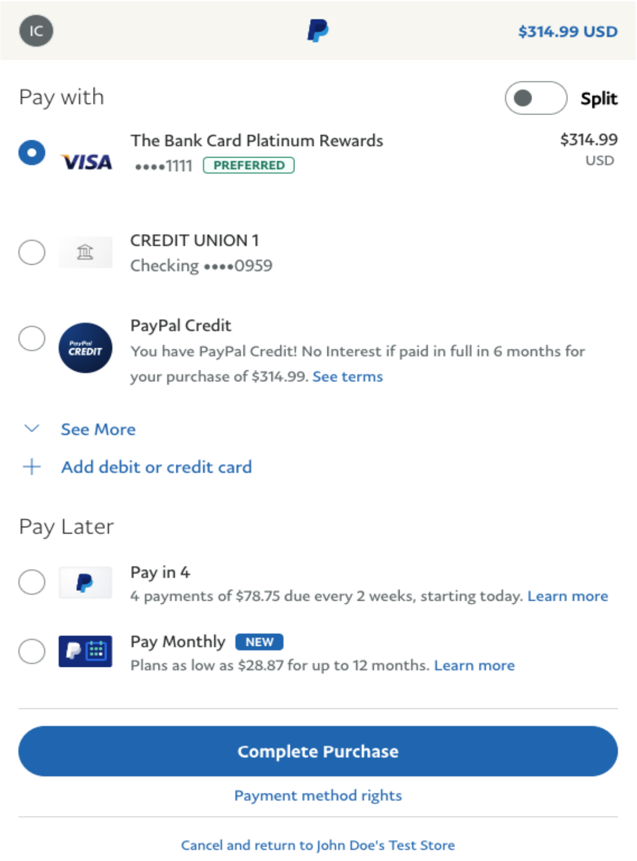
Payment

Billing Address

Billing details will be retrieved from the chosen payment method.

Figure 5.2.14. PayPal button on the Billing page during Digital Goods flow

2. When buyer clicks on the 'Buy Now' button, the following window is shown:



IC $314.99 USD

Pay with — Split

● VISA The Bank Card Platinum Rewards ••••1111 PREFERRED — $314.99 USD

○ CREDIT UNION 1
Checking ••••0959

○ PayPal Credit
You have PayPal Credit! No Interest if paid in full in 6 months for your purchase of $314.99. See terms

See More

+ Add debit or credit card

Pay Later

○ Pay in 4
4 payments of $78.75 due every 2 weeks, starting today. Learn more

○ Pay Monthly NEW
Plans as low as $28.87 for up to 12 months. Learn more

Complete Purchase

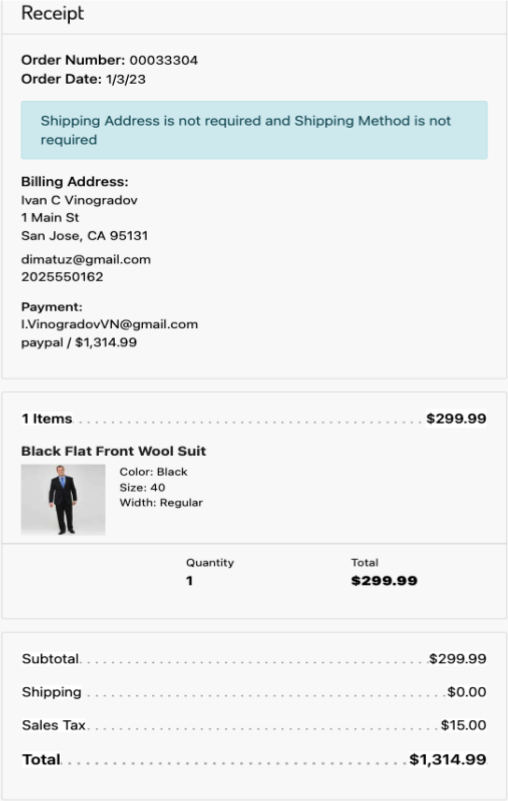
Payment method rights

Cancel and return to John Doe's Test Store

Figure 5.2.15. PayPal window during 'Digital Goods' flow

NOTE: Shipping section does not appear since ‘Digital Goods’ is used only for Digital Goods that do not require shipping.

3. After clicking on the ‘Complete Purchase’ button, the buyer will be redirected to the Order review page. The following alert message is rendered on the Order confirmation page: ‘*Shipping address is not required and Shipping Method is not required*’.



Receipt

Order Number: 00033304
Order Date: 1/3/23

Shipping Address is not required and Shipping Method is not required

Billing Address:
Ivan C Vinogradov
1 Main St
San Jose, CA 95131

dimatuz@gmail.com
2025550162

Payment:
I.VinogradovVN@gmail.com
paypal / $1,314.99

1 Items **$299.99**

Black Flat Front Wool Suit

Color: Black
Size: 40
Width: Regular

Quantity	Total
1	**$299.99**

Subtotal	$299.99
Shipping	$0.00
Sales Tax	$15.00
Total	**$1,314.99**

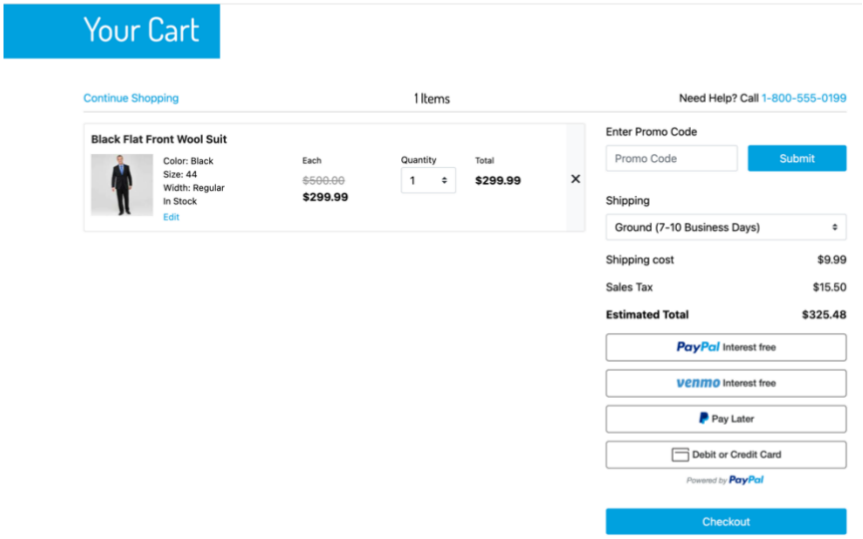
Figure 5.2.16. The Order confirmation page view after ‘Digital Goods’ flow is successfully processed

In case when ‘Digital Goods’ flow is disabled due site preferences, the general PayPal button flow is applied.

5.2.4 One-time checkout (non-vault flow)

One-time checkout is available from payment page (Figure 5.2.19) and from cart page (Figure 5.2.17), if custom preferences value of **Show PayPal button on the cart page** is set to 'Yes'.

After clicking on the available payment method from Smart Payment Button the customer proceeds through checkout on PayPal side (Figure 5.2.18) and returns to the storefront to the order review page (Figure 5.2.21).



Your Cart

Continue Shopping | 1 Items | Need Help? Call 1-800-555-0199

Black Flat Front Wool Suit

Color: Black
Size: 44
Width: Regular
In Stock
Edit

Each	Quantity	Total
~~$500.00~~ $299.99	1	$299.99

Enter Promo Code

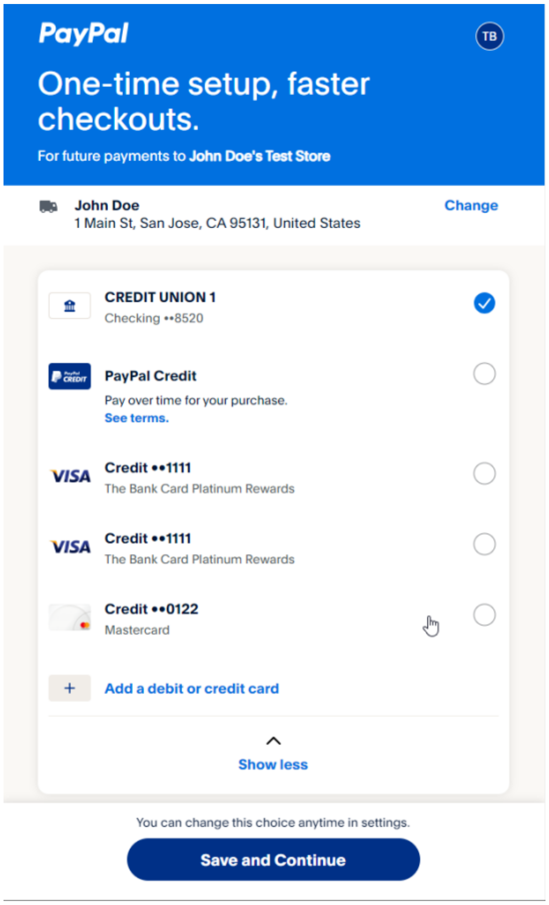
Promo Code | Submit

Shipping

Ground (7-10 Business Days)

Shipping cost	$9.99
Sales Tax	$15.50
Estimated Total	**$325.48**

Figure 5.2.17 Checkout from the cart page using Smart Button



PayPal

One-time setup, faster checkouts.

For future payments to **John Doe's Test Store**

John Doe
1 Main St, San Jose, CA 95131, United States

Change

CREDIT UNION 1
Checking ••8520 ●

PayPal Credit
Pay over time for your purchase.
See terms. ○

Credit ••1111
The Bank Card Platinum Rewards ○

Credit ••1111
The Bank Card Platinum Rewards ○

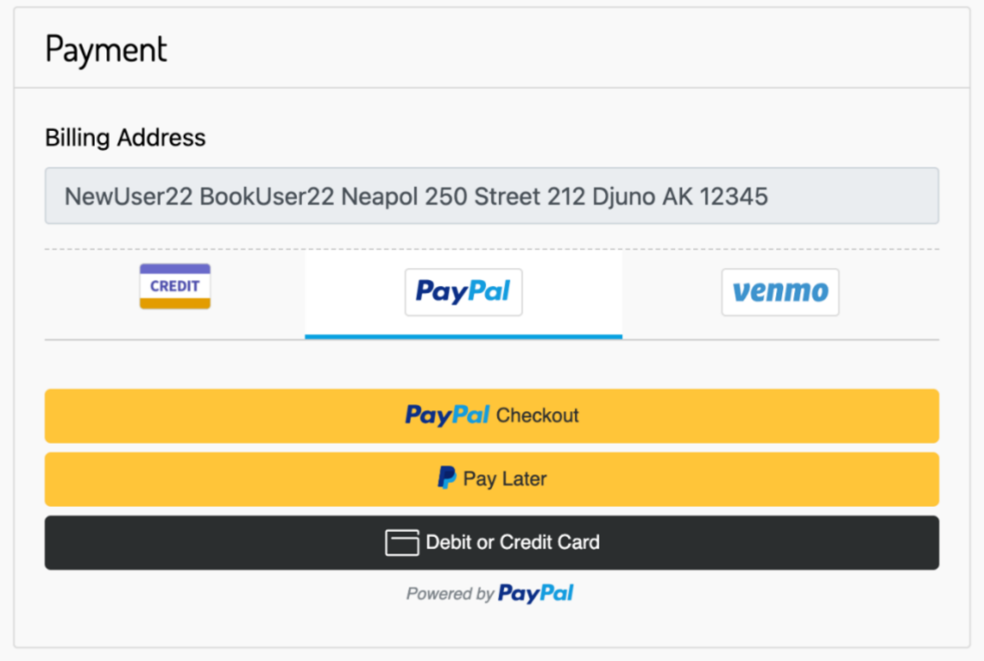
Credit ••0122
Mastercard ○

Add a debit or credit card

Show less

You can change this choice anytime in settings.

Figure 5.2.18. Basic checkout pop-up example

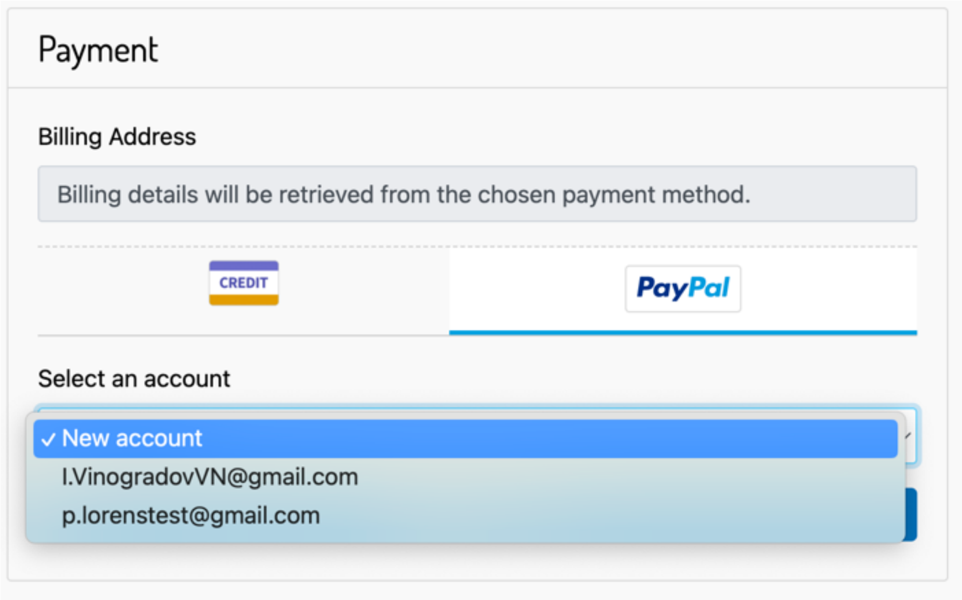


Payment

Billing Address

NewUser22 BookUser22 Neapol 250 Street 212 Djuno AK 12345

Figure 5.2.19. Checkout from the payment page using Smart Button



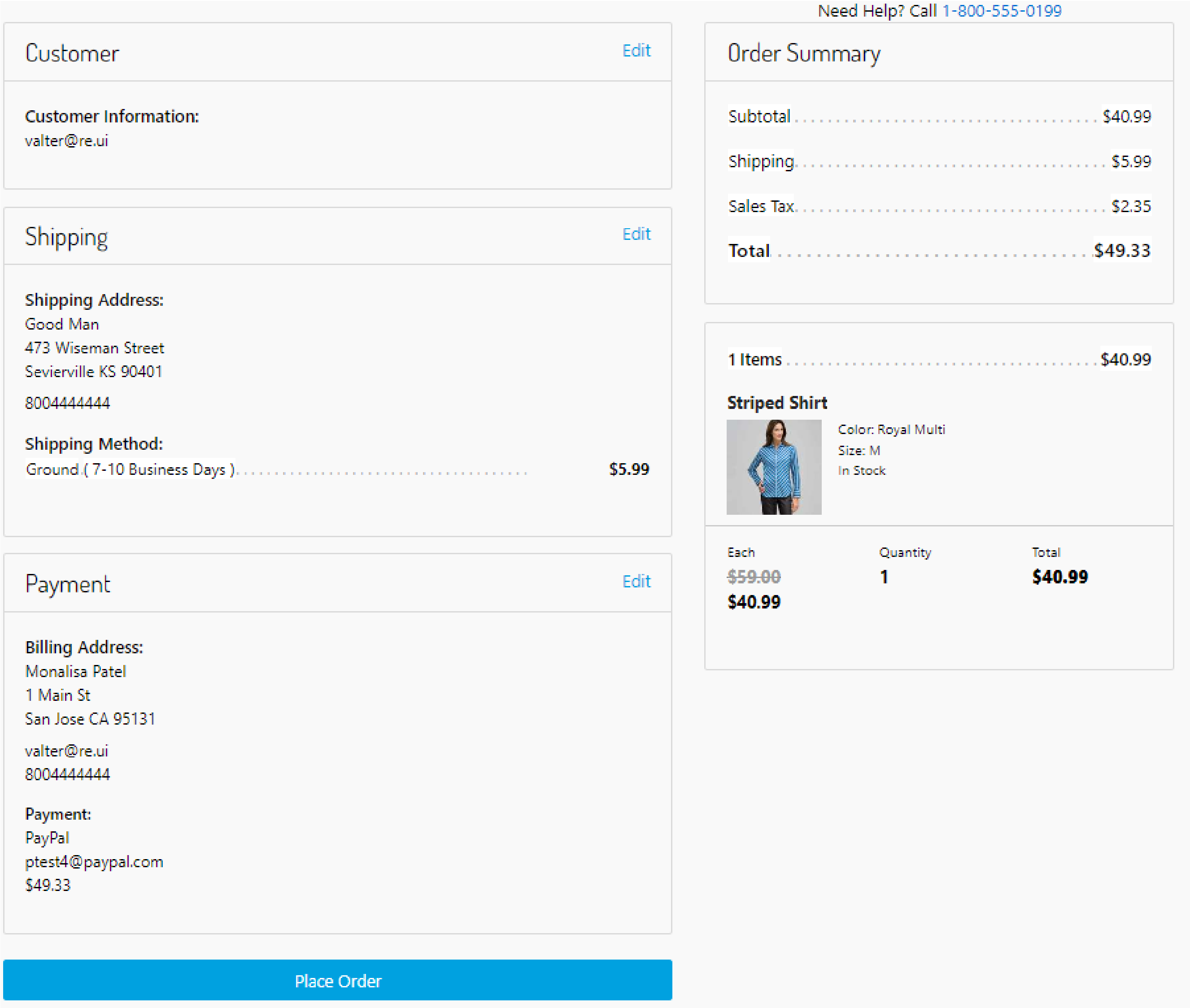
Payment

Billing Address

Billing details will be retrieved from the chosen payment method.

Select an account

Figure 5.2.20. Checkout from the payment page with already chosen account



Need Help? Call 1-800-555-0199

Customer Edit

Customer Information:
valter@re.ui

Shipping Edit

Shipping Address:
Good Man
473 Wiseman Street
Sevierville KS 90401
8004444444

Shipping Method:
Ground (7-10 Business Days) $5.99

Payment Edit

Billing Address:
Monalisa Patel
1 Main St
San Jose CA 95131
valter@re.ui
8004444444

Payment:
PayPal
ptest4@paypal.com
$49.33

Order Summary

Subtotal	$40.99
Shipping	$5.99
Sales Tax	$2.35
Total	**$49.33**

1 Items	$40.99

Striped Shirt
Color: Royal Multi
Size: M
In Stock

Each	Quantity	Total
~~$59.00~~ **$40.99**	**1**	**$40.99**

Figure 5.2.21. Order review page

5.2.5 Checkout with PayPal Vault Flow

For registered user, the integration provides an ability to save PayPal Account to vault as payment method in a storefront. This allows them to proceed through checkout with PayPal faster next time.

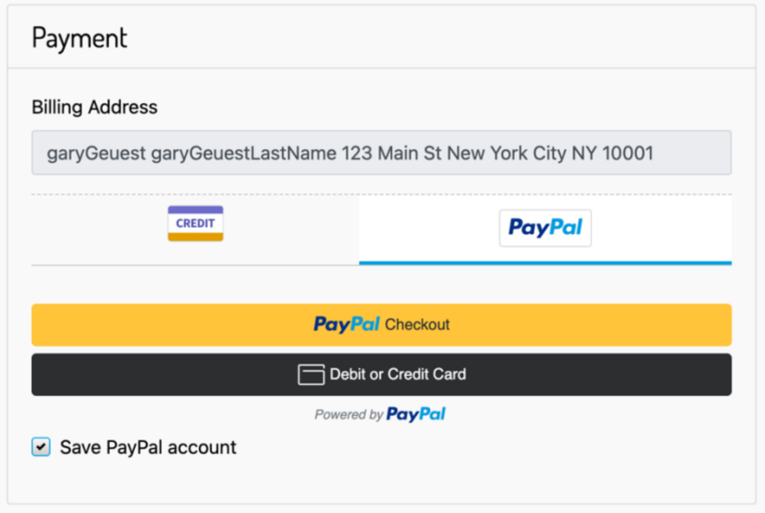
To enable vault flow in Business Manager, navigate to **Merchant Tools -> PayPal Plugin > Preference Configuration > tab PayPal** and set Store PayPal account in Vault preference value to **Enabled**

Visually checkout with vault is similar to Basic checkout (non-vault flow) with 2 major differences:

1) On the payment page the registered customer has an additional checkbox **Save PayPal account** (Figure 5.2.22).

2) On PayPal side after login the customer will see **Save and Continue** instead of Save and no shipping address option (Figure 5.2.23). Check Email, Phone, Shipping and Billing Address behavior for more details.

If the registered customer had **Save PayPal account** checkbox checked after order was placed successfully, they can review saved PayPal account in **My Account** section. (Figure 5.2.24).



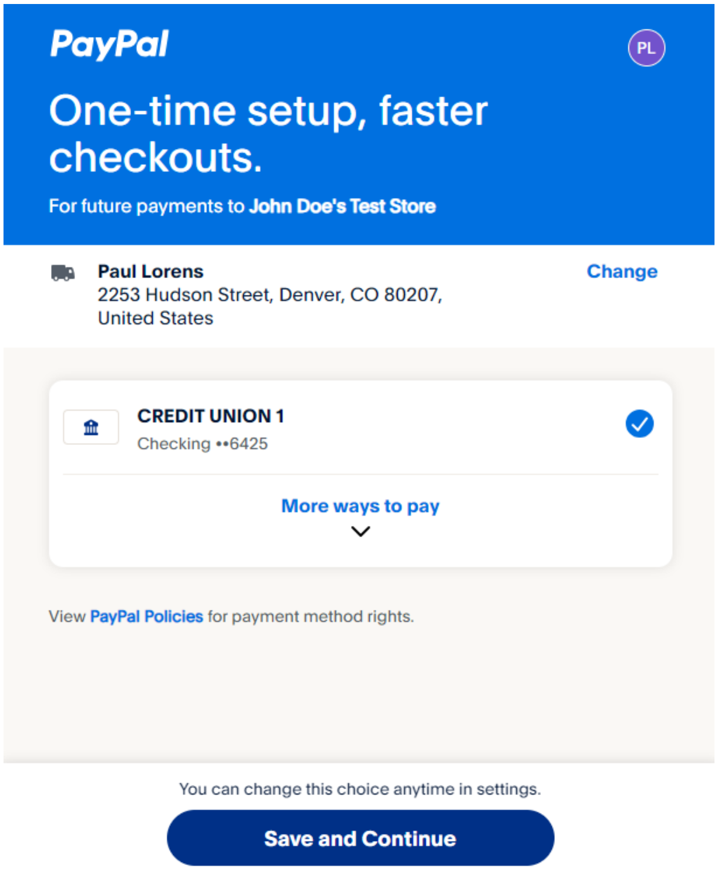
Payment

Billing Address

garyGeuest garyGeuestLastName 123 Main St New York City NY 10001

☑ Save PayPal account

Figure 5.2.22. Smart Button for registered user with vault enabled on the payment page



One-time setup, faster checkouts.

For future payments to **John Doe's Test Store**

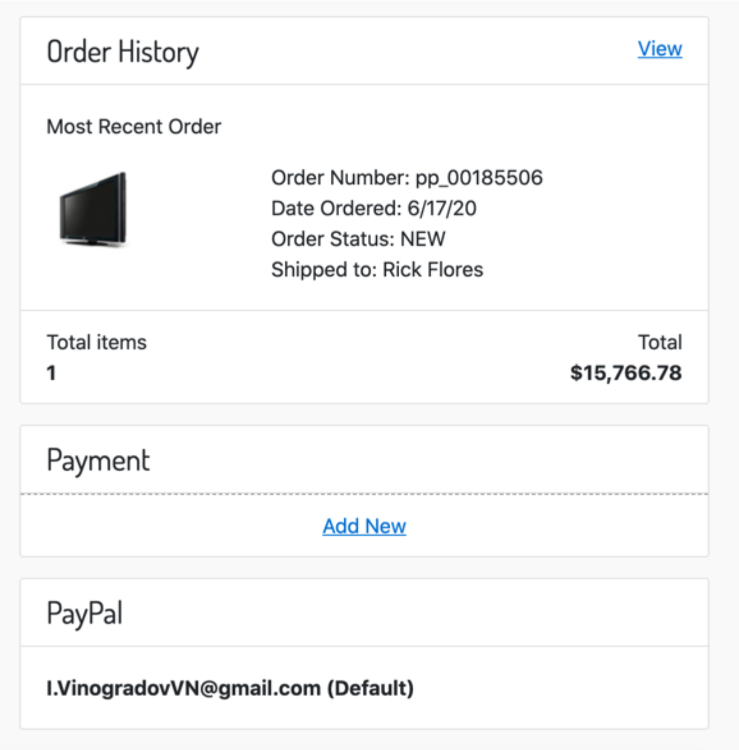
Paul Lorens
2253 Hudson Street, Denver, CO 80207,
United States

CREDIT UNION 1
Checking ••6425

View PayPal Policies for payment method rights.

You can change this choice anytime in settings.

Figure 5.2.23. Saving to vault on the PayPal page



Order History

Most Recent Order

Order Number: pp_00185506
Date Ordered: 6/17/20
Order Status: NEW
Shipped to: Rick Flores

Total items
1

Total
$15,766.78

Payment

PayPal

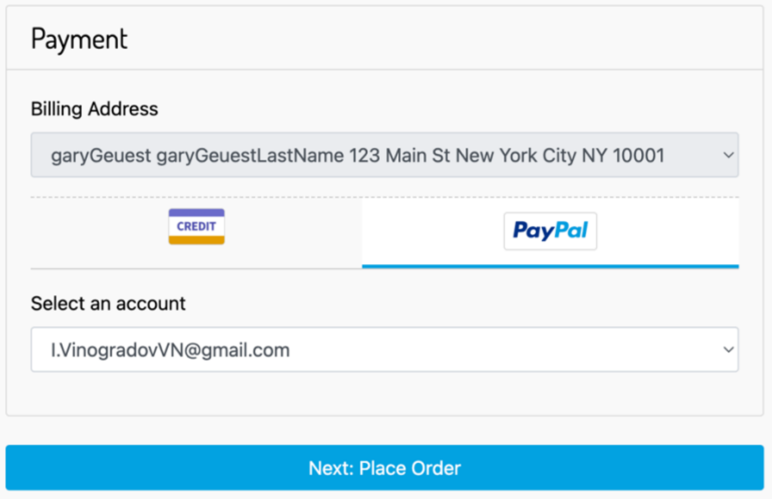
I.VinogradovVN@gmail.com (Default)

Figure 5.2.24. My Account section with saved PayPal account

5.2.6 Checkout using saved PayPal Account

After the registered customer saves PayPal account to vault (Figure 5.2.24), they can pay for an order using vaulted payment method and proceed through the checkout without Smart Button loading.

Review Email, Phone, Shipping and Billing Address behavior for more information about addresses behavior for saved account.



Payment

Billing Address

garyGeuest garyGeuestLastName 123 Main St New York City NY 10001

Select an account

I.VinogradovVN@gmail.com

Figure 5.2.25. Saved PayPal account on the payment page

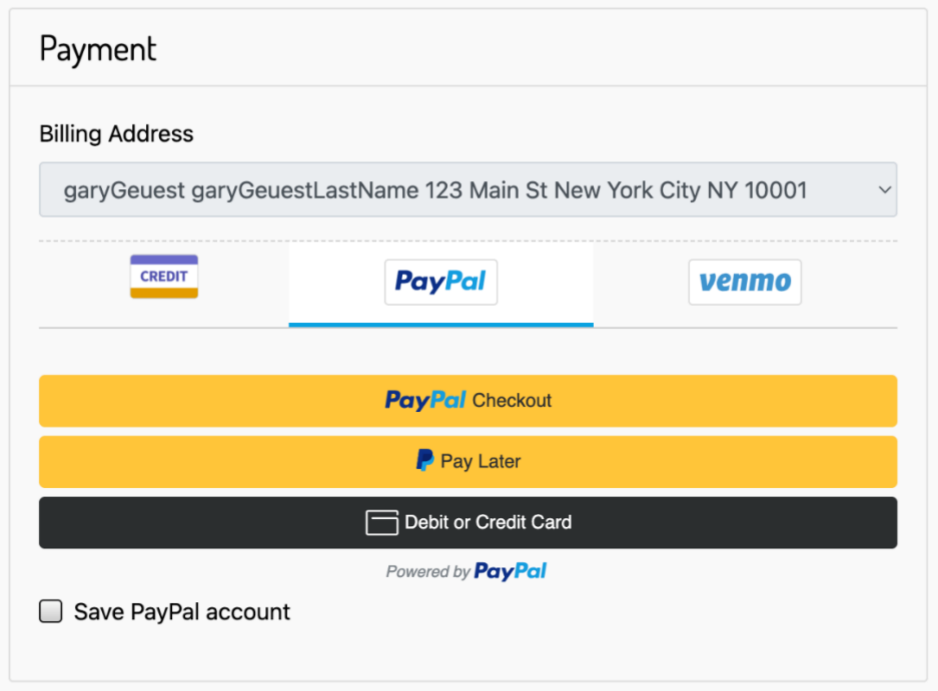
5.2.7 Checkout with multiple saved PayPal accounts

User can save new PayPal accounts till they reach the limit. Site preference “Limit of saved PayPal accounts” regulates the number of accounts that can be saved. Default value is “1”.

Customer can add new account from billing page. In a dropdown with saved account customer must choose **New PayPal** account option and load Smart Button (Figure 5.2.26).

After an order is placed, the customer can observe the new account in **My Account** section (Figure 5.2.27) and in the dropdown on the payment page (Figure 5.2.28).

Logged-in users can save a PayPal account via the Checkout page (Payment step) to the wallet only once. It means in case the user doesn't have a saved PayPal account in the buyer's wallet/PayPal Vault, then the Save my PayPal account to the wallet checkbox is shown. If the user has a saved PayPal account in his buyer's wallet/PayPal vault then the Checkbox is hidden on the UI level and as a result, the buyer cannot save a new PayPal account via the Checkout.



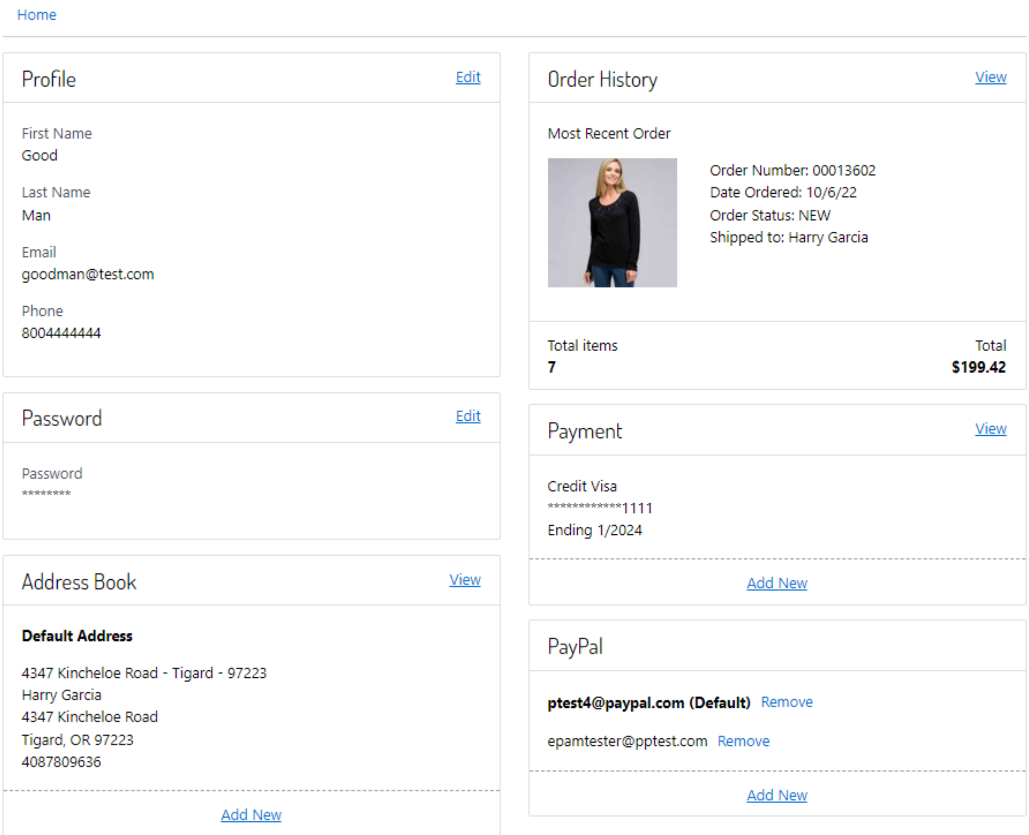
Payment

Billing Address

garyGeuest garyGeuestLastName 123 Main St New York City NY 10001

□ Save PayPal account

Figure 5.2.26. New PayPal account option on payment page



Profile

First Name
Good

Last Name
Man

Email
goodman@test.com

Phone
8004444444

Password

Password
****

Address Book

Default Address

4347 Kincheloe Road - Tigard - 97223
Harry Garcia
4347 Kincheloe Road
Tigard, OR 97223
4087809636

Order History

Most Recent Order

Order Number: 00013602
Date Ordered: 10/6/22
Order Status: NEW
Shipped to: Harry Garcia

Total items
7

Total
$199.42

Payment

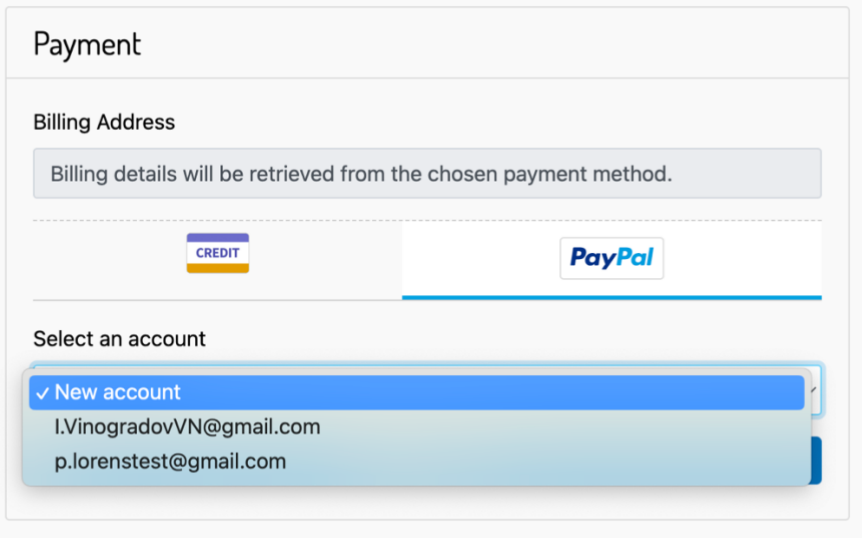
Credit Visa
************1111
Ending 1/2024

PayPal

ptest4@paypal.com (Default)

epamtester@pptest.com

Figure 5.2.27. Multiple saved accounts in My Account section



Payment

Billing Address

Billing details will be retrieved from the chosen payment method.

Select an account

✓ New account
I.VinogradovVN@gmail.com
p.lorenstest@gmail.com

Figure 5.2.28. Multiple account view on payment page

5.2.8 Alternative Payment Methods

Alternative payment methods allow customers across the globe to pay with their bank accounts, wallets, and other local payment methods. The Relevant alternative payment method is automatically presented in a separate tab by using unbranded flow. See an example here: Unbranded APM

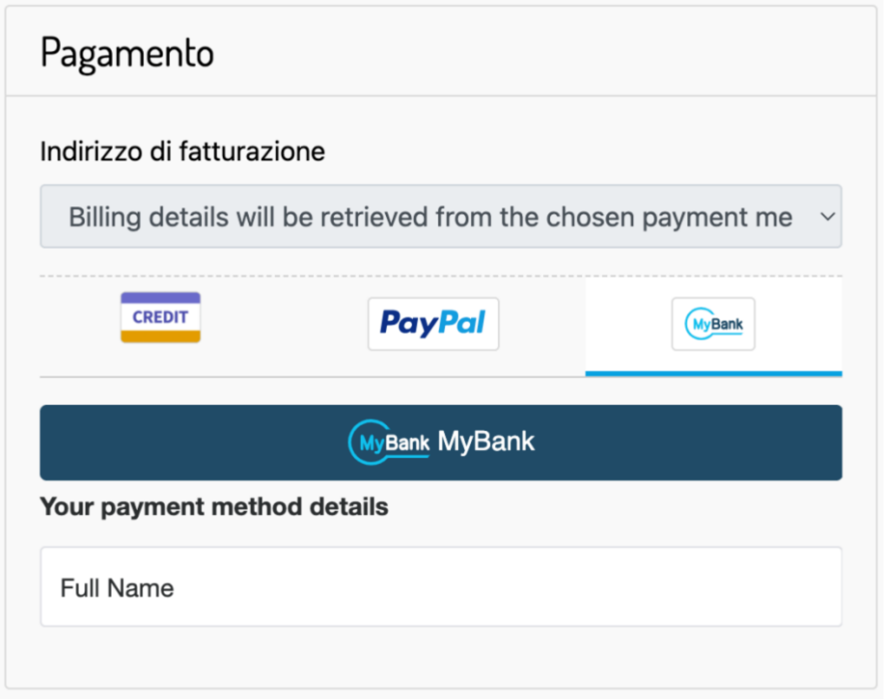
For example, a customer in the Netherlands might want to pay using iDEAL, which is used by more than half of consumers in the Netherlands for online purchases, whereas a customer in Belgium on the same website might want to pay using Bancontact, a popular payment method there.

Alternative Payment Methods are available on the billing page only. Shipping address and phone number are always provided by the customer. Email will be pulled from the billing page.

The transaction will be completed only when the customer returns to the storefront. If a transaction was not confirmed or the customer did not finish checkout on the PayPal side, the customer’s basket still will be available.

Important: after the customer confirms the transaction and returns to the storefront, the order is placed immediately, skipping the Order Review page.

UPDATE: Alternative Payment Methods appearances based on storefront locale, not on customer’s locale.



Pagamento

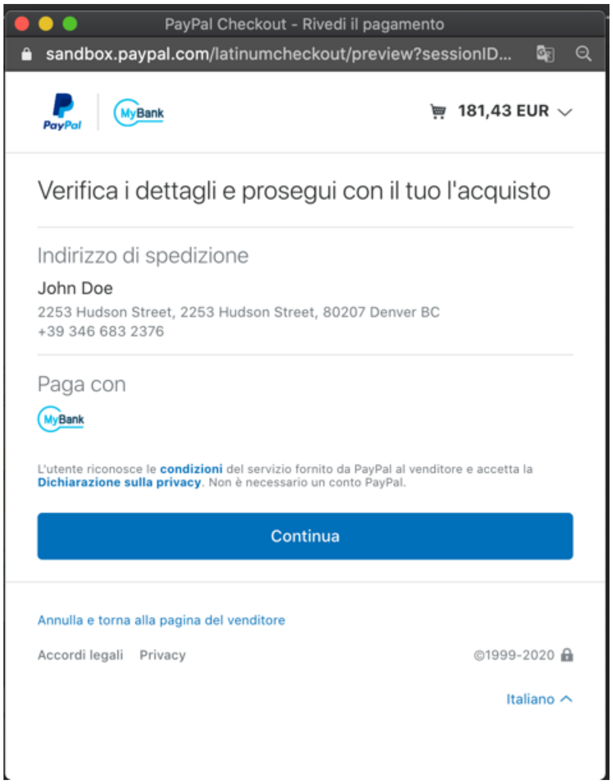
Indirizzo di fatturazione

Billing details will be retrieved from the chosen payment me

Your payment method details

Full Name

Figure 5.2.29. Alternative Payment Methods appearances on the billing page



PayPal Checkout - Rivedi il pagamento

sandbox.paypal.com/latinumcheckout/preview?sessionID...

181,43 EUR

Verifica i dettagli e prosegui con il tuo l'acquisto

Indirizzo di spedizione

John Doe
2253 Hudson Street, 2253 Hudson Street, 80207 Denver BC
+39 346 683 2376

Paga con

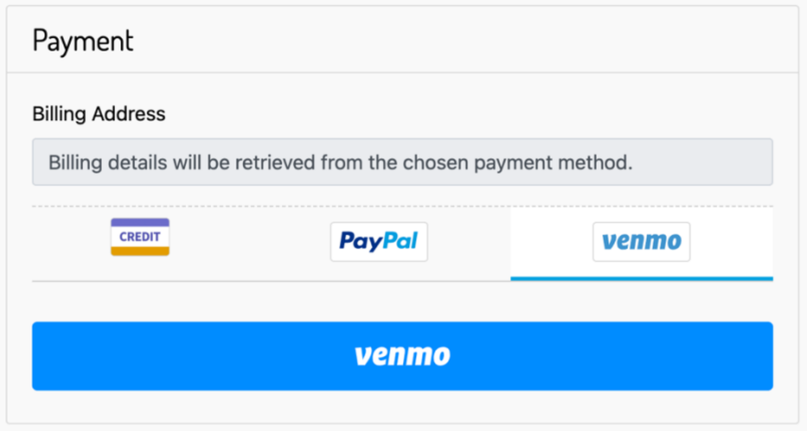
MyBank

L'utente riconosce le **condizioni** del servizio fornito da PayPal al venditore e accetta la **Dichiarazione sulla privacy**. Non è necessario un conto PayPal.

Figure 5.2.30. Alternative Payment Method transaction confirmation

5.2.9 Venmo Payment Method

It appears on the ‘*Product*’, ‘*Cart*’, ‘*Mini-Cart*’, ‘*Billing*’ pages in case if ‘*Venmo*’ payment method is available.

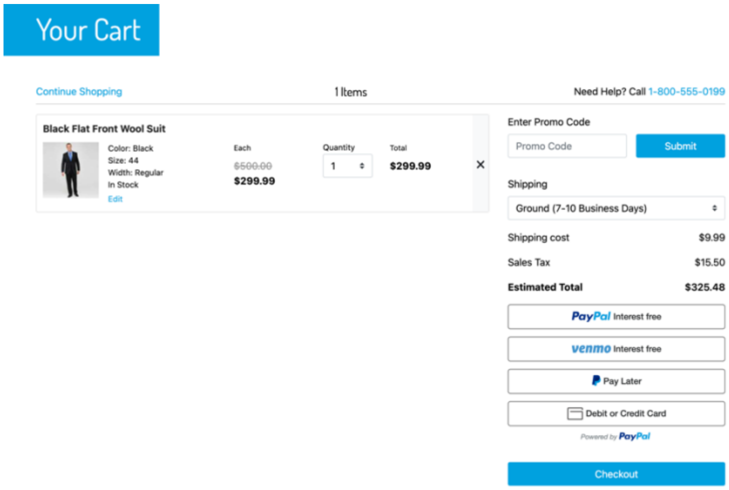


Payment

Billing Address

Billing details will be retrieved from the chosen payment method.

Figure 5.2.31. Venmo payment method on the Billing page



Your Cart

Continue Shopping   1 Items   Need Help? Call 1-800-555-0199

Black Flat Front Wool Suit

Color: Black
Size: 44
Width: Regular
In Stock

Each	Quantity	Total
~~$500.00~~ $299.99	1	$299.99

Enter Promo Code

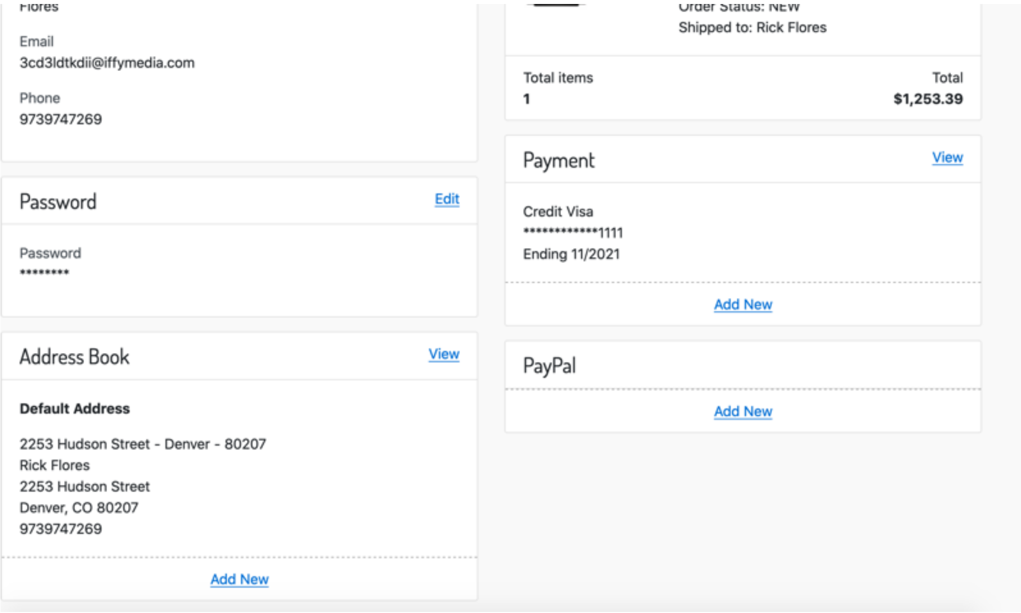
Shipping: Ground (7-10 Business Days)

Shipping cost	$9.99
Sales Tax	$15.50
Estimated Total	**$325.48**

Figure 5.2.32. Venmo payment method on the express checkout page (Product, Cart, Mini-cart)

5.2.10 Manage Vault flow from My Account

If Vault flow was enabled in the Custom Preferences, the customer can save PayPal Account as payment method for faster checkout or remove saved account from My Account section at a storefront (Figure 5.2.33).



Flores

Email
3cd3ldtkdii@iffymedia.com

Phone
9739747269

Password

Password
****

Address Book

Default Address

2253 Hudson Street - Denver - 80207
Rick Flores
2253 Hudson Street
Denver, CO 80207
9739747269

Order Status: NEW
Shipped to: Rick Flores

Total items	Total
1	**$1,253.39**

Payment

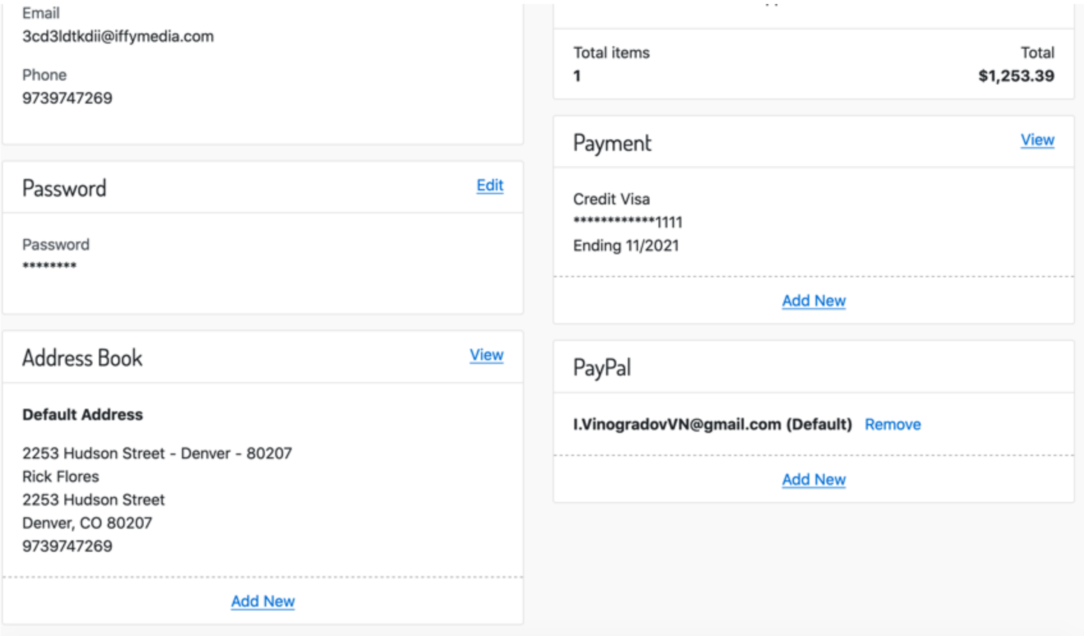
Credit Visa
************1111
Ending 11/2021

PayPal

Figure 5.2.33. PayPal section in My Account

After customer clicks **Add New** button, PayPal Smart Button appears and customer must click on it to run through Vault flow. Once customer approves saving PayPal Account, the page will be reloaded and a new PayPal account email will appear under PayPal section (Figure 5.2.34).

Customer can delete PayPal account on remove button or from PayPal side. If customer deletes PayPal vault form PayPal it will be automatically removed from My Account.



Email
3cd3ldtkdii@iffymedia.com

Phone
9739747269

Password — Edit

Password
****

Address Book — View

Default Address

2253 Hudson Street - Denver - 80207
Rick Flores
2253 Hudson Street
Denver, CO 80207
9739747269

Add New

Total items	Total
1	**$1,253.39**

Payment — View

Credit Visa
************1111
Ending 11/2021

Add New

PayPal

I.VinogradovVN@gmail.com (Default) Remove

Add New

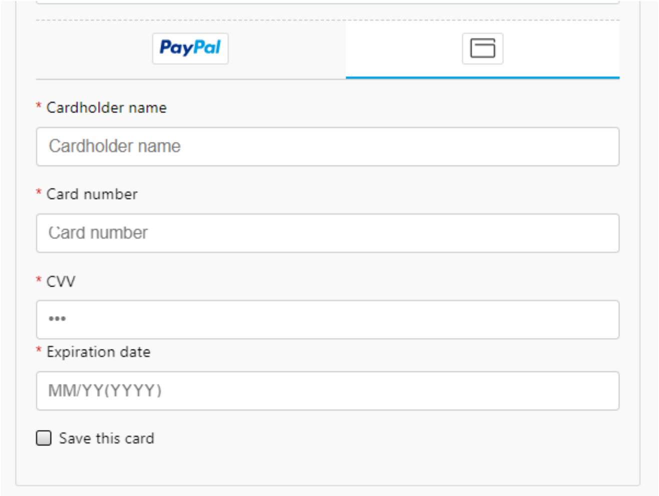
Figure 5.2.34. Saved PayPal Account view in My Account

5.2.11 Credit Card functionality on the Billing page

Card fields are rendered instead of the default credit card fields on the billing page.

Available options:

- **Pay with Credit Card**



* Cardholder name
Cardholder name

* Card number
Card number

* CVV
•••

* Expiration date
MM/YY(YYYY)

☐ Save this card

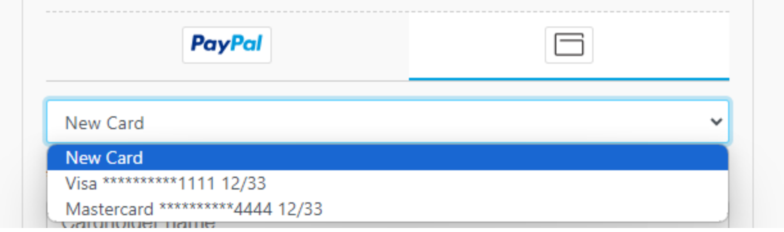
Figure 5.2.35. Card Fields form

- **Save Credit Card**

To configure Save Credit Card go to Business Manager > Merchant Tools > PayPal Plugin > Preference Configuration > Credit Card and enable Store Credit Card in Vault **(PP_Store_CC_To_Vault)**

NOTE: Save Credit Card on the Billing page via Card Fields works using separate from the My Account page API

- **Pay with saved Credit Card**



New Card

New Card
Visa **********1111 12/33
Mastercard **********4444 12/33

Figure 5.2.36. List of saved Credit Cards

NOTE: Save Credit Card and Pay with saved Credit Card applicable only for registered users.

5.2.12 Credit Card functionality on the My Account page

Credit Card on the My Account page gives customers the ability to manage credit card payment methods.

Available options:

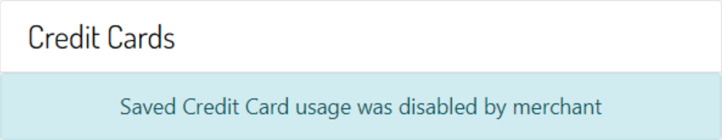
- **Save Credit Card**

NOTE: Save Credit Card on the My Account works using separate from card fields API

NOTE: Enable Store Credit Card in Vault and Store Credit Card in Vault via My Account Custom Preferences to be able to save Credit Card via Card Fields on the Account Page

NOTE: The number of stored credit cards may be limited by preference

Business Manager > Merchant Tools > PayPal Plugin > Preference Configuration > Credit Card

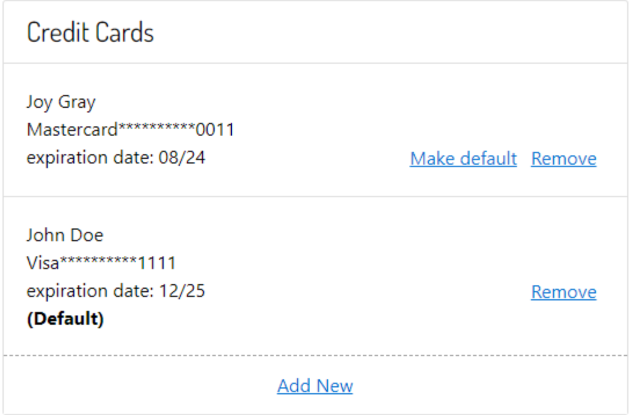


Credit Cards

Saved Credit Card usage was disabled by merchant

Figure 5.2.37. Credit Card section If vaulting Is not active

- Delete Credit Card
- Make default Credit Card

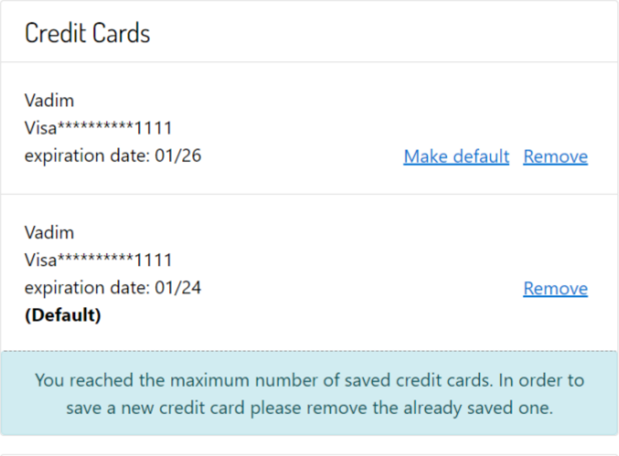


Credit Cards

Joy Gray
Mastercard**********0011
expiration date: 08/24

John Doe
Visa**********1111
expiration date: 12/25
(Default)

Figure 5.2.38. Credit Card section



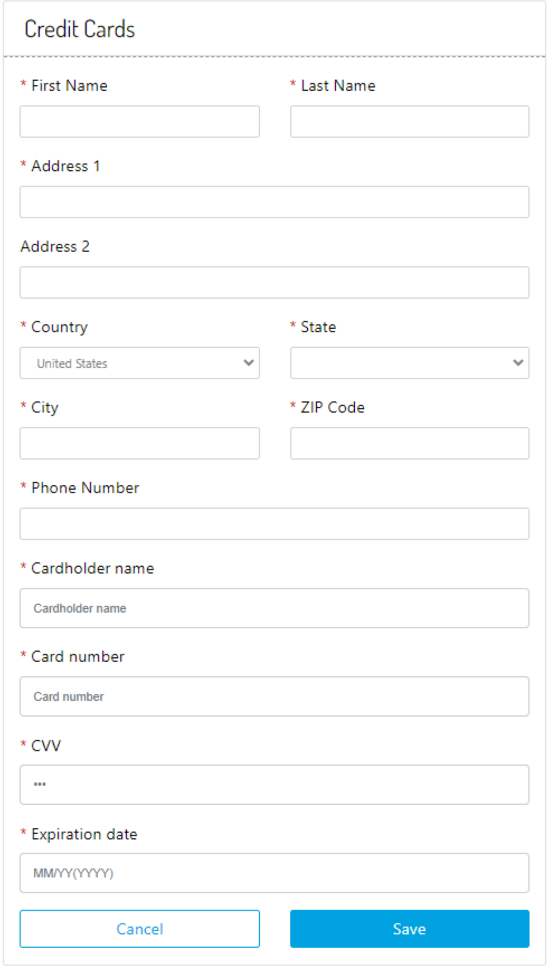
Credit Cards

Vadim
Visa**********1111
expiration date: 01/26

Vadim
Visa**********1111
expiration date: 01/24
(Default)

You reached the maximum number of saved credit cards. In order to save a new credit card please remove the already saved one.

Figure 5.2.39 Limited Credit Cards



Credit Cards

* First Name

* Last Name

* Address 1

Address 2

* Country

United States

* State

* City

* ZIP Code

* Phone Number

* Cardholder name

Cardholder name

* Card number

Card number

* CVV

•••

* Expiration date

MM/YY(YYYY)

Figure 5.2.40. Credit Card form

5.2.13 Credit Card 3dSecure Fallback

The system will decide if the activation of the 3DSecure flow is mandatory for the customer's credit card after verification. Verification is based on requirements which include Strong Customer Authentication (SCA) - an authentication process that validates the identity of the user or a payment service or a payment transaction. The additional context, or *payment indicator*, ensures that buyer authentication and card on file, among other factors, are appropriately handled. In our plugin we cover some scenarios based on '***payment_initiator***', '***payment_type***' and '***usage***' indicators. Failure to pass these payment indicators might result in rejected transactions. You can find more info on SCA and payment indicator on [PayPal Developer portal.]

Applicable to the following payment methods - saved and non-saved credit cards.

To enable go to: Merchant Tools > PayPal Plugin > Preference Configuration > Credit Card tab and set **3DS verification for Credit Card**.

NOTE: Even though SCA payment indicators are passed for saved credit cards, the 3DSecure verification popup will not be triggered on the Billing page. It shows up on My

Account page when credit card is being saved, if Store Credit Card in Vault via My Account site preference is enabled.

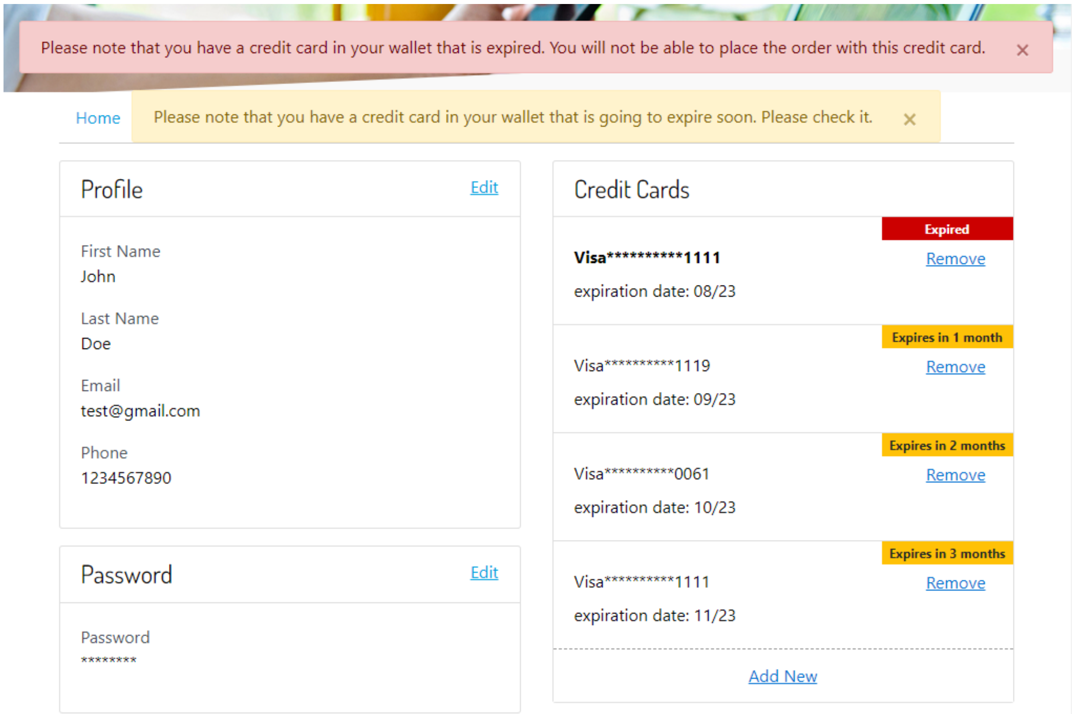
5.2.14 Credit Card Expire Notification

This functionality will notify the customer about the expiration of a credit card which is already expiring or has already expired. By default, this functionality is disabled. Other options are also available:

- **Notify when expired only** - will notify and highlight only if CC is expired
- **Notify 1 month before expiration** - will notify and highlight CC's which are going to expire in 1 month
- **Notify 2 months before expiration** - will notify and highlight CC's which are going to expire in 2 months
- **Notify 3 months before expiration** - will notify and highlight CC's which are going to expire in 3 months

To enable go to: Merchant Tools > PayPal Plugin > Preference Configuration > Credit Card tab and set **PP_Credit_Card_Expire_Notification**

An example of notifications can be seen below (Account, Checkout page):



Please note that you have a credit card in your wallet that is expired. You will not be able to place the order with this credit card. ×

Home

Please note that you have a credit card in your wallet that is going to expire soon. Please check it. ×

Profile Edit

First Name
John

Last Name
Doe

Email
test@gmail.com

Phone
1234567890

Password Edit

Password
****

Credit Cards

Expired
Visa********1111** Remove
expiration date: 08/23

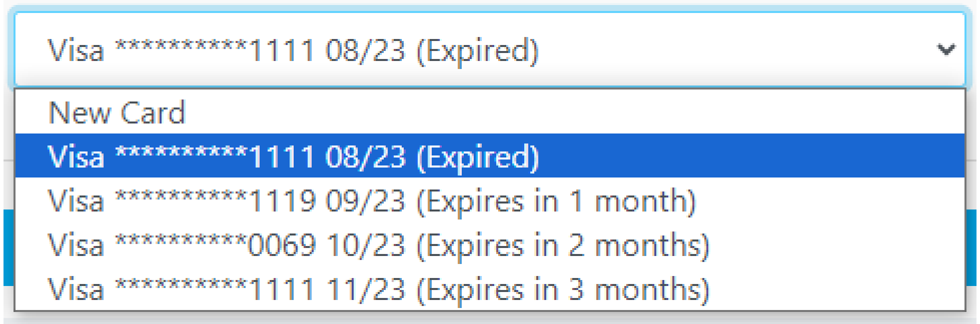
Expires in 1 month
Visa**********1119 Remove
expiration date: 09/23

Expires in 2 months
Visa**********0061 Remove
expiration date: 10/23

Expires in 3 months
Visa**********1111 Remove
expiration date: 11/23

Add New

Figure 5.2.41 Credit Card Expire Notification (Account page)



Visa ***********1111 08/23 (Expired)

New Card
Visa ***********1111 08/23 (Expired)
Visa ***********1119 09/23 (Expires in 1 month)
Visa ***********0069 10/23 (Expires in 2 months)
Visa ***********1111 11/23 (Expires in 3 months)

Figure 5.2.42 Credit Card Expire Notification (Checkout page)

5.2.15 Credit Messaging

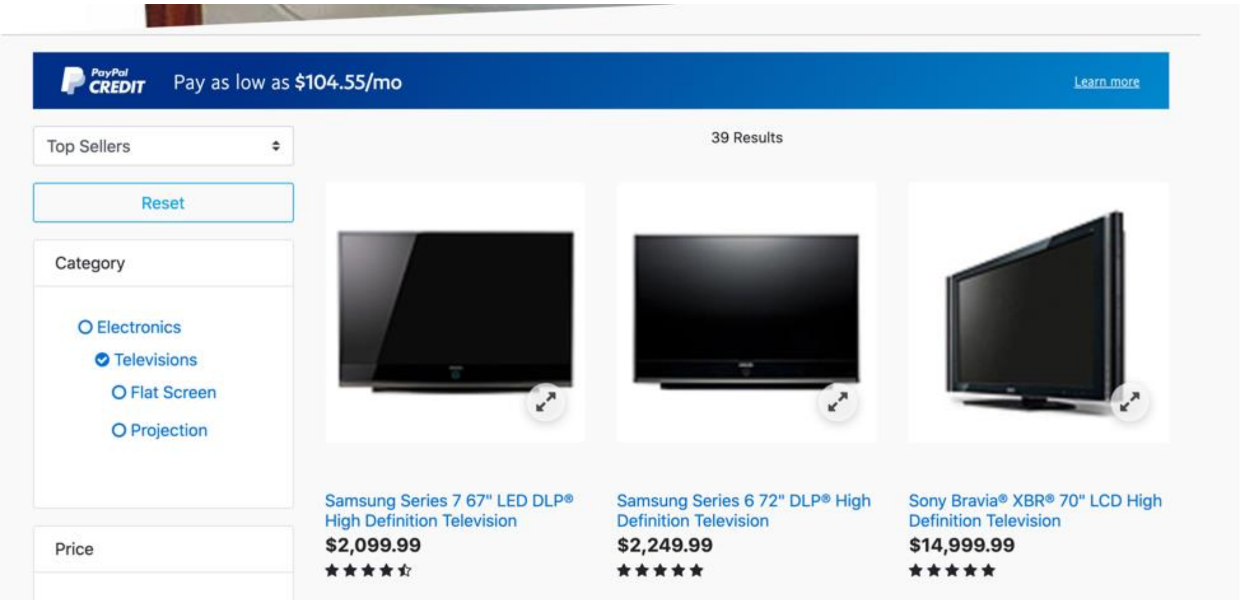
Credit Messaging is present on:

- Category page - Figure 5.2.43
- Product detail page - Figure 5.2.44 and Figure 5.2.45
- Cart page - Figure 5.2.46

The visibility of each message can be changed in Custom Preferences at the Business Manager. Check Updating Cartridge Custom Site Preferences for details.

Credit option for cart and category page is calculated based on current cart total. If the cart total is lower than 150, credit messages will notify customer about it. (Figure 5.2.45)

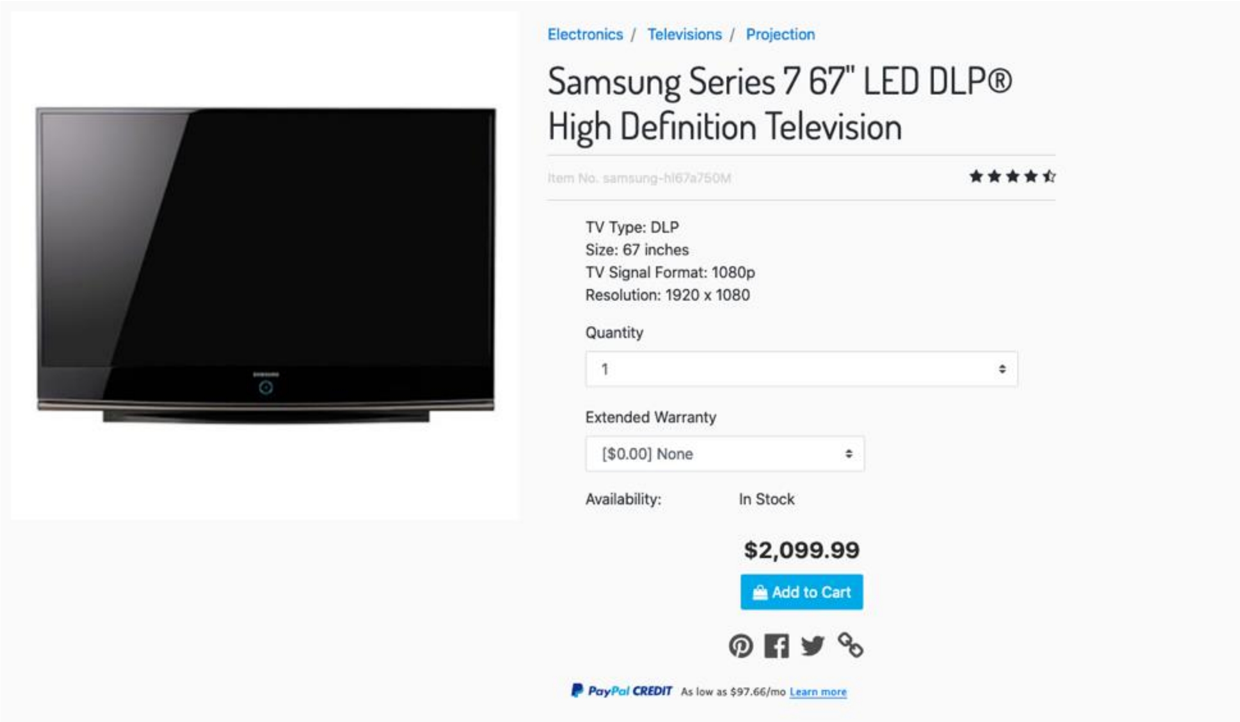
For PDP page the product price will be used as a value for credit options. For product sets the message appears for each option and for set total.



Pay as low as $104.55/mo

PayPal CREDIT
Learn more
Top Sellers
39 Results
Reset
Category
Electronics
Televisions
Flat Screen
Projection
Price
Samsung Series 7 67" LED DLP® High Definition Television
$2,099.99
Samsung Series 6 72" DLP® High Definition Television
$2,249.99
Sony Bravia® XBR® 70" LCD High Definition Television
$14,999.99

Figure 5.2.43 Credit message on category page



Electronics / Televisions / Projection

Samsung Series 7 67" LED DLP® High Definition Television

Item No. samsung-hl67a750M ★★★★⯪

TV Type: DLP
Size: 67 inches
TV Signal Format: 1080p
Resolution: 1920 x 1080

Quantity: 1

Extended Warranty: [$0.00] None

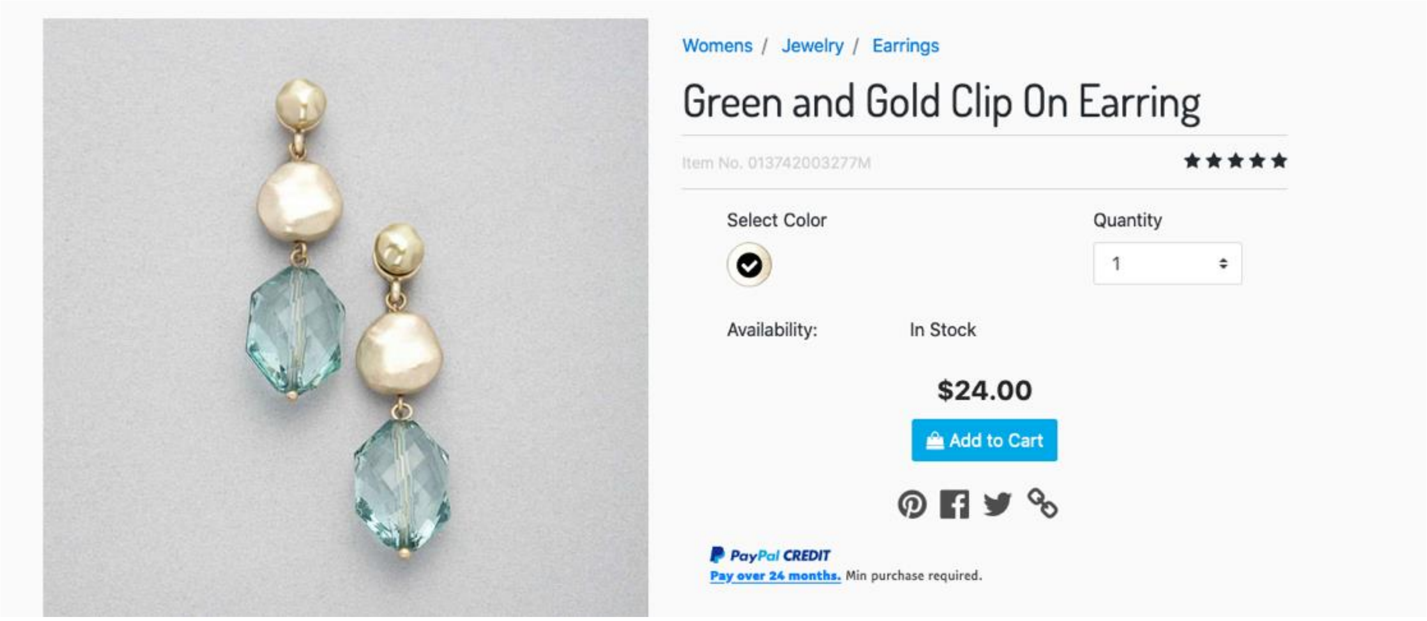
Availability: In Stock

$2,099.99

Add to Cart

PayPal CREDIT As low as $97.66/mo Learn more

Figure 5.2.44. Credit message on PDP page



Womens / Jewelry / Earrings

Green and Gold Clip On Earring

Item No. 013742003277M ★★★★★

Select Color

Quantity: 1

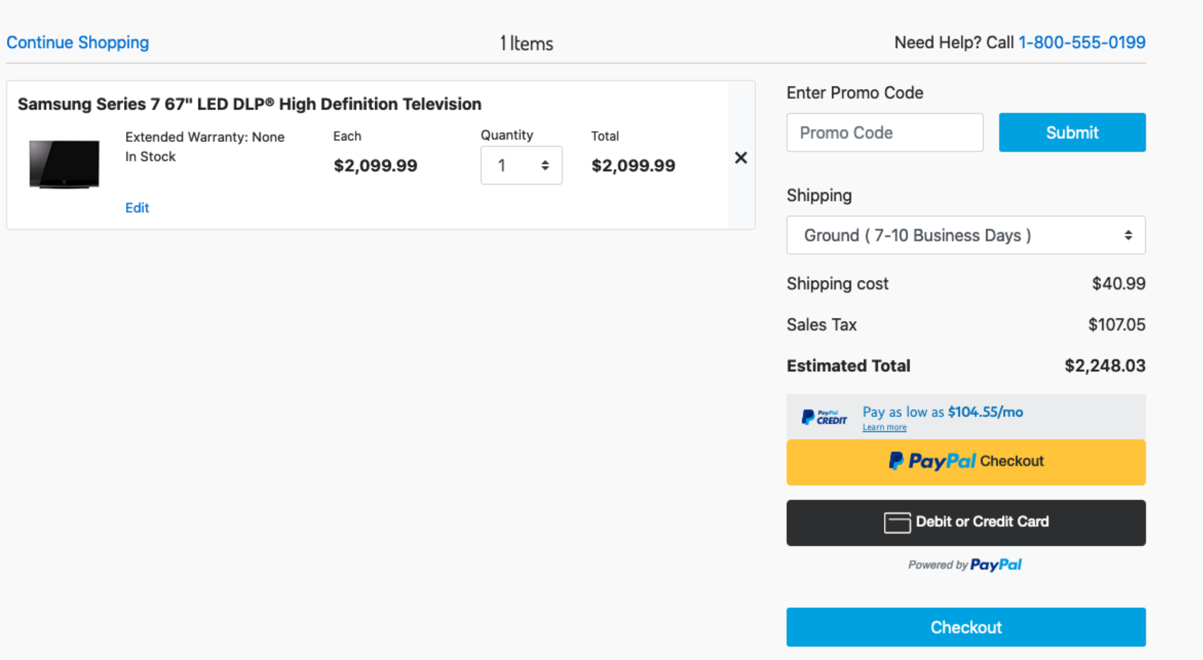
Availability: In Stock

$24.00

Add to Cart

PayPal CREDIT
Pay over 24 months. Min purchase required.

Figure 5.2.45.Credit message for product with small price



Samsung Series 7 67" LED DLP® High Definition Television

Extended Warranty: None
In Stock

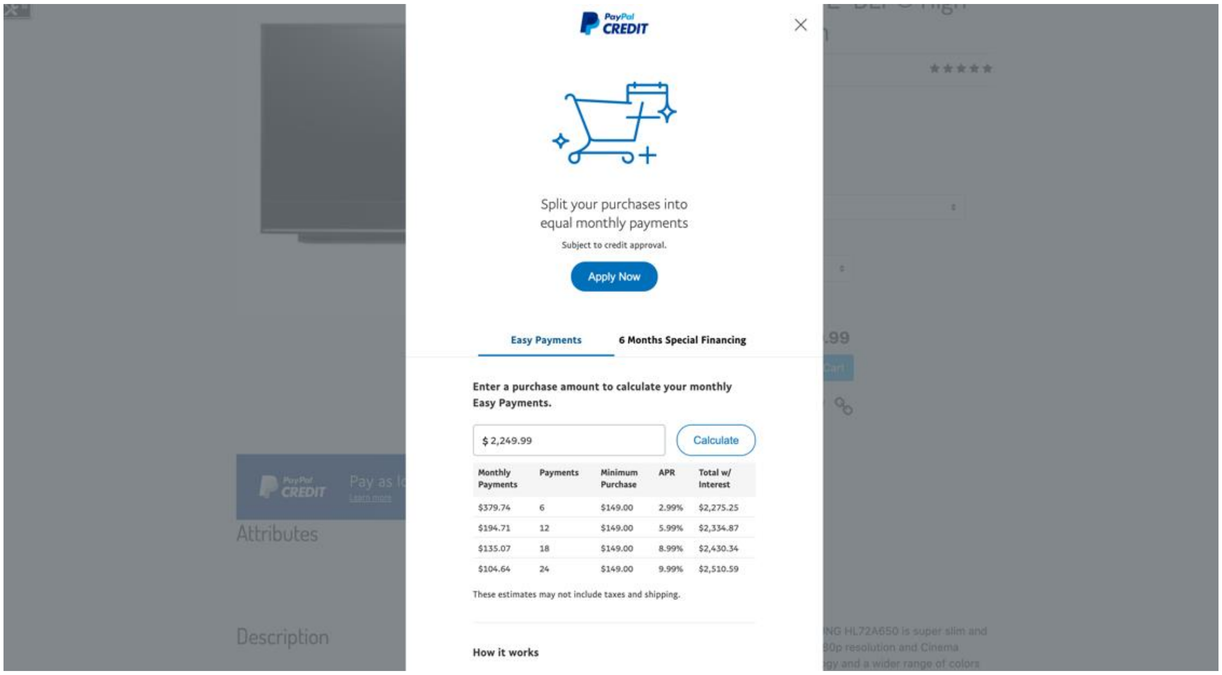
Each	Quantity	Total
$2,099.99	1	$2,099.99

Shipping: Ground (7-10 Business Days)

Shipping cost	$40.99
Sales Tax	$107.05
Estimated Total	**$2,248.03**

Pay as low as $104.55/mo

Figure 5.2.46. Credit message on cart page



Split your purchases into equal monthly payments

Subject to credit approval.

Enter a purchase amount to calculate your monthly Easy Payments.

$ 2,249.99

Monthly Payments	Payments	Minimum Purchase	APR	Total w/ Interest
$379.74	6	$149.00	2.99%	$2,275.25
$194.71	12	$149.00	5.99%	$2,334.87
$135.07	18	$149.00	8.99%	$2,430.34
$104.64	24	$149.00	9.99%	$2,510.59

These estimates may not include taxes and shipping.

How it works

Figure 5.2.47.Credit message pop-up

You can change the location of the credit message by moving templates according to storefront design.

PDP message is represented by two templates: `bundleDetailCreditMessage.isml` and `productDetailCreditMessage.isml` which are located at `cartridges/paypal_credit_messaging/cartridge/templates/default/product/components/socialIcons.isml` template.

Cart message Is represented by `cartCreditMessage.isml` which is located at `cartridges/paypal_credit_messaging/cartridge/templates/default/cart/cart.isml`

Category message is represented by `categoryCreditMessage.isml` which is located at `cartridges/paypal_credit_messaging/cartridge/templates/default/search/searchResultsNoDecorator.isml`

5.2.16 Button Messages

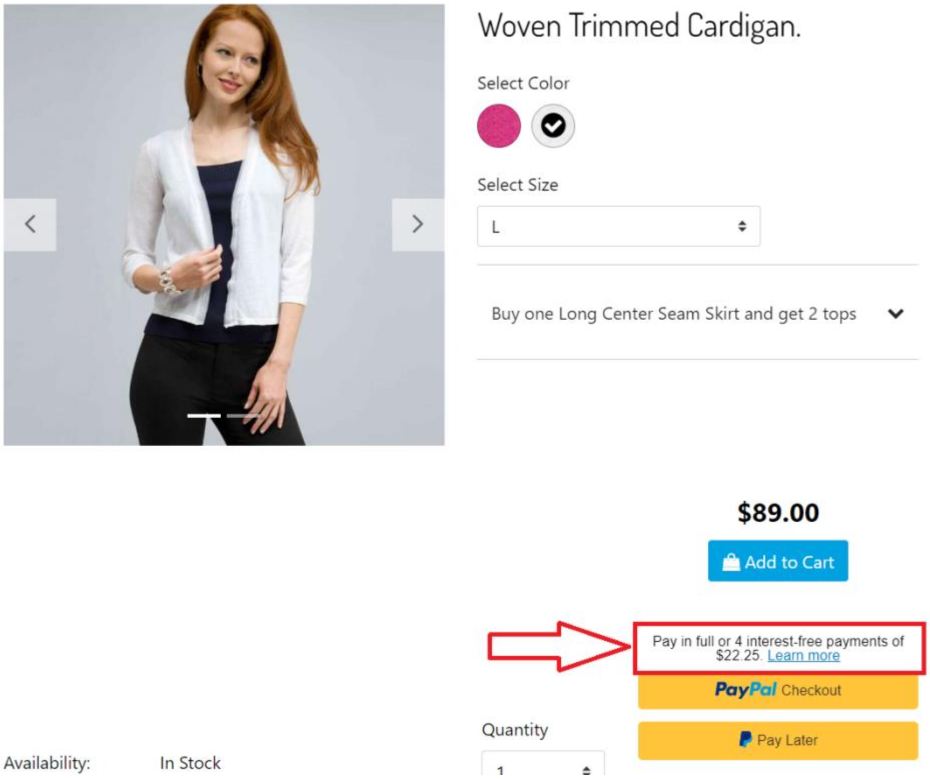
Button Messages is present on:

- Product view page - *Figure* 5.2.48
- Product detail page - Figure 5.2.50
- Mini Cart page - Figure 5.2.51
- Cart page - Figure 5.2.52Figure 5.2.52Figure 5.2.46
- Billing page - Figure 5.2.53

The visibility of each message can be changed in Custom Preferences at the Business Manager. Check Updating Cartridge Custom Site Preferences for details.

Credit option for cart and category page is calculated based on current cart total. If the cart total is lower than 150, credit messages will notify customer about it. (Figure 5.2.49)

For PDP and PVP page the product price will be used as a value for credit options. For product sets the message appears for each option and for set total.



Pay in full or 4 interest-free payments of $22.25. Learn more

Figure 5.2.48 Button Message on Product view page

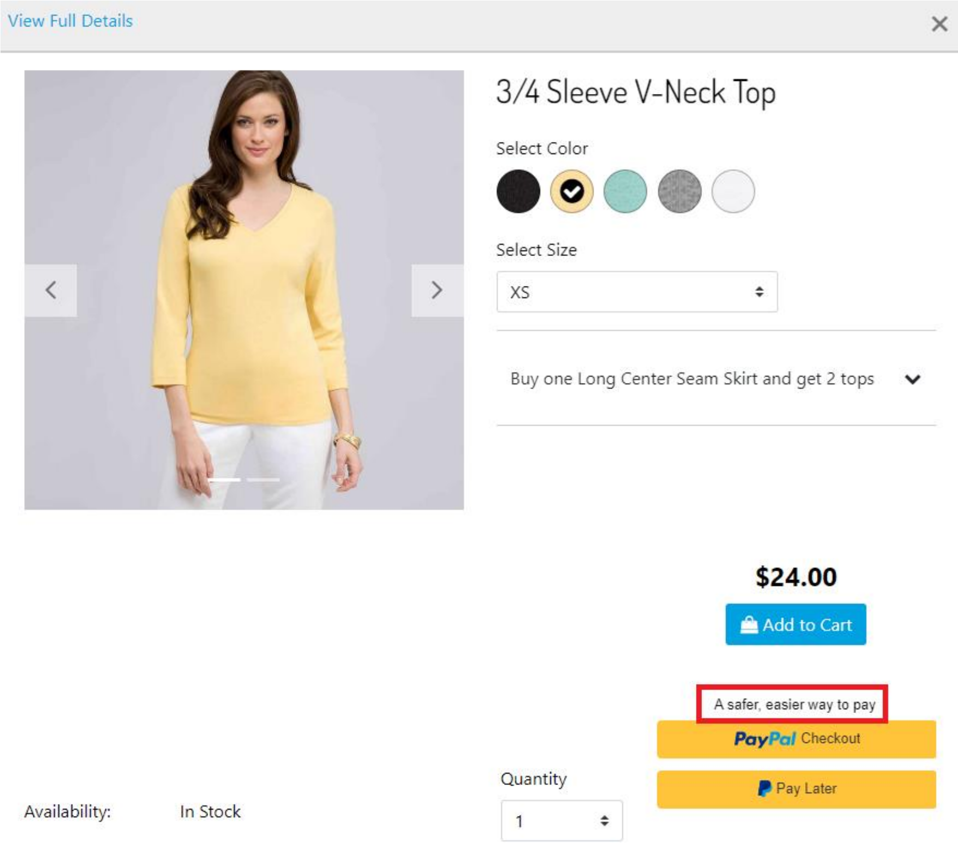


Figure 5.2.49 Button message for product with small price

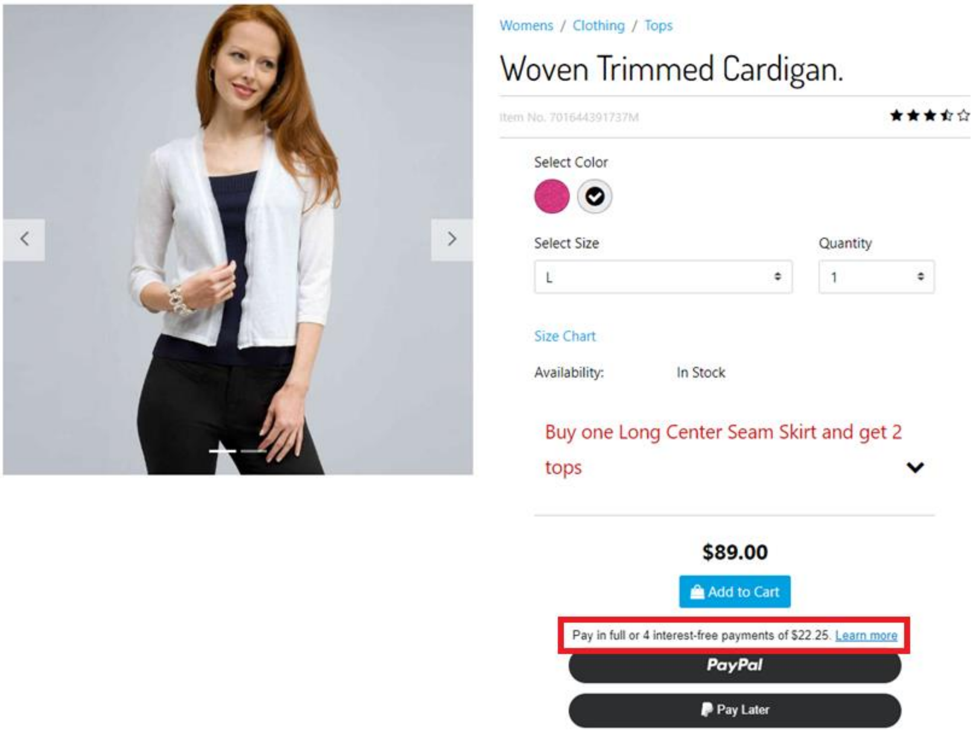
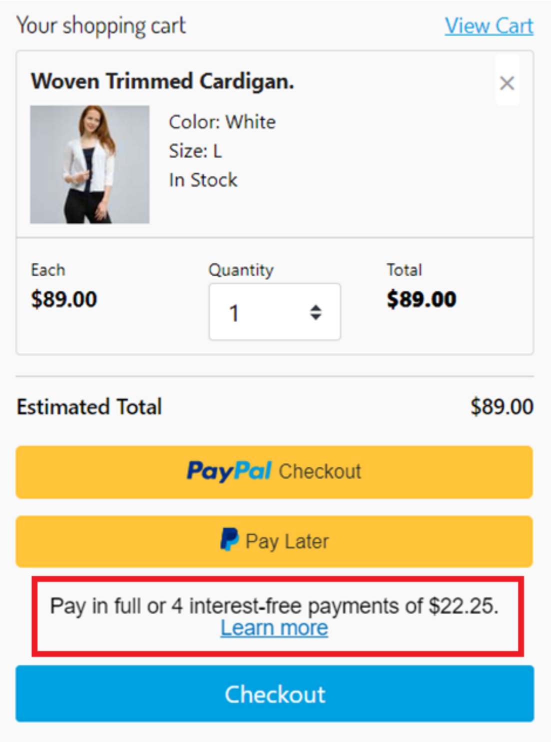


Figure 5.2.50 Button Message on Product description page



Your shopping cart View Cart

Woven Trimmed Cardigan.

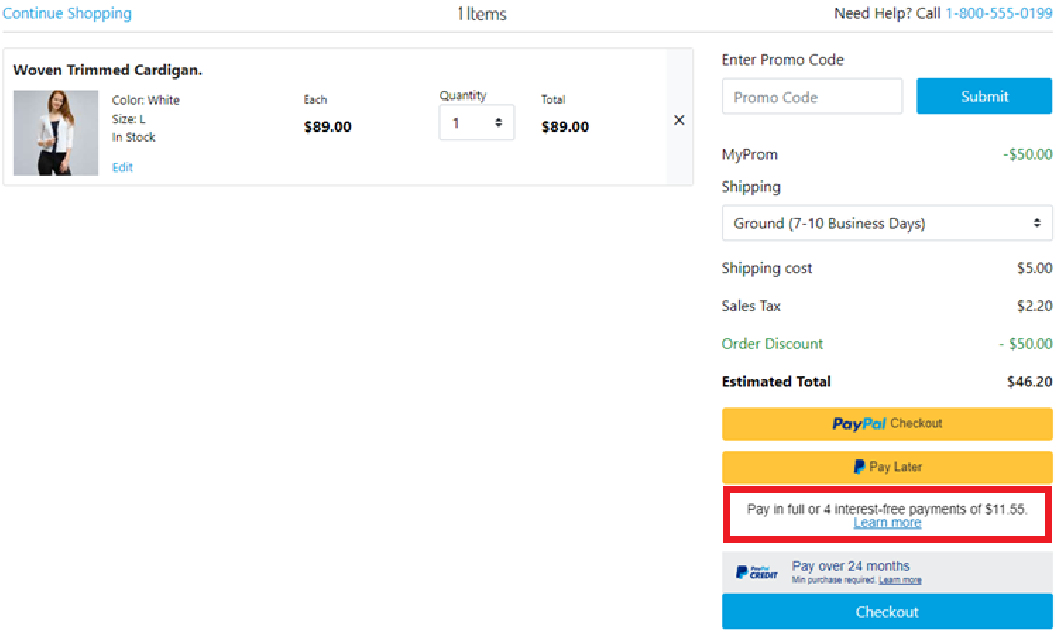
Color: White
Size: L
In Stock

Each	Quantity	Total
$89.00	1	$89.00

Estimated Total $89.00

Pay in full or 4 interest-free payments of $22.25.
Learn more

Figure 5.2.51 Button Message on Mini cart page



Continue Shopping 1 Items Need Help? Call 1-800-555-0199

Woven Trimmed Cardigan.

Color: White
Size: L
In Stock
Edit

Each	Quantity	Total
$89.00	1	$89.00

Enter Promo Code

Promo Code

MyProm	-$50.00
Shipping	
Ground (7-10 Business Days)	
Shipping cost	$5.00
Sales Tax	$2.20
Order Discount	- $50.00
Estimated Total	$46.20

Pay in full or 4 interest-free payments of $11.55.
Learn more

Pay over 24 months
Min purchase required. Learn more

Figure 5.2.52 Button Message on Cart page

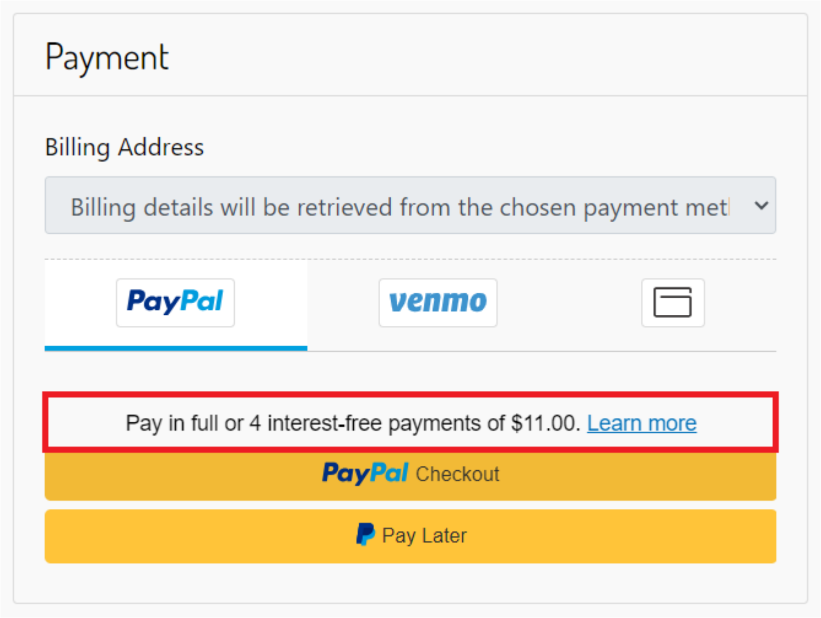

Payment
Billing Address
Billing details will be retrieved from the chosen payment met
PayPal
venmo
Pay in full or 4 interest-free payments of $11.00. Learn more
PayPal Checkout
Pay Later

Figure 5.2.53 Button Message on Billing page

6 Locales and addresses

6.1 General info

Out of the box PayPal is using built-in SFRA locations for checkout from billing or cart page.

Checkout is available only with one locale, multi shipping and multi locales are not supported.

7 Multi-site and multi-credential support

7.1 General info

PayPal cartridges do not come with multi-site or multi-credential support out of the box.

On the service level built-in logic will use only int_paypal.http.rest service and credentials attached to the service to communicate PayPal REST API.

8 Gift Certificate Support

8.1 General info

PayPal cartridges do not provide the ability to add a gift certificate to a basket or redeem gift certificates during checkout.

The Customer can pay for a gift certificate using PayPal. If a gift certificate is the only item in the basket, the shipping address will not be requested from a customer and the billing address will be set as the shipping address.

If the customer adds a gift certificate as a payment option and it partially covers the order total, the customer can pay the rest using PayPal. In this case the gift certificate amount will be treated as a discount and subtracted from the order total.

8.2 Technical info

Integration supports only gift certificates from B2C Commerce API. Gift certificate as product should be present as `GiftCertificateLineItem` in a basket. Gift Certificate as payment method should be applied as `OrderPaymentInstrument` using `createGiftCertificateLineItem` function.

For more information, contact your PayPal support manager.

9 Version and SFRA Support Info

9.1 JavaScript Files and Cartridge Version Location

The JavaScript files to be added to your page are located at:

`cartridges/int_paypal/cartridge/templates/default/home/homePage.isml`

`cartridges/int_paypal/cartridge/templates/default/account/dashboardProfileCards.isml`

`cartridges/int_paypal/cartridge/templates/default/account/login.isml`

`cartridges/int_paypal/cartridge/templates/default/checkout/billing/paymentOptions/paymentOptionsContent.isml`

`cartridges/int_paypal/cartridge/templates/default/checkout/checkout.isml`

`cartridges/int_paypal/cartridge/templates/default/search/searchResults.isml`

`cartridges/int_paypal/cartridge/templates/default/paypal/cart/paypalCartContent.isml`

`cartridges/int_paypal/cartridge/templates/default/paypal/cart/applePayCartContent.isml`

```
cartridges/int_paypal/cartridge/templates/default/paypal/pdp/apple
PayPdpContent.isml
```

The file with the current version of the PayPal cartridge is located at:

```
cartridges/int_paypal/cartridge/templates/resources/paypalVersion.
properties
```

The file with the current version of the SFRA cartridge is located at:

```
cartridges/app_storefront_base/cartridge/templates/resources/versi
on.properties
```

9.2 SFRA Version Support

PayPal cartridge version 24.2.0 supports SFRA 7.0.0.

9.3 Compatibility Mode

Cartridge tested with Compatibility Mode 21.2.

10 Service Errors Handling

10.1 Service Timeout Handle

If a PayPal service becomes unavailable, the error details can be found in the following logs:

- Error details can be found in the log with the custom-PayPal prefix.
- Service request/response details can be found in the log with the service-**PayPalRest** prefix.

On the storefront, the customer will see a PayPal button, but the pop-up will close instantly.

For more details about logs, see Logs section.

For more information about how to track service downtime and about possible options for configuration in situations when PayPal API is unavailable or throws an error, review HTTP Service Availability section.

10.2 Fallback/Recovery

If you continue to see issues where the PayPal button and/or experience is not rendering, or if you are seeing 500 or 400 errors in the logs, please contact your PayPal representative or create a request to the Merchant Technical Support so that we may investigate this further. These orders will not be processable with the PayPal payment option, and you may need to temporarily disable PayPal until the issue is resolved.

Please be aware that when contacting PayPal, we will ask for the details that may need to be extracted from the logs as well as for assistance with reproducing the issue step by step.

10.3 Handle Error Response

Error handling in the integration is based on the SFRA built-in error logic. If it is possible detailed error will be shown to a customer (Figure 10.3.1). In cases where customization is not possible, the customer will see SFRA system error (Figure 10.3.2). In this case, a detailed error from PayPal can be found at custom-PayPal log. Review Logs section for more details.

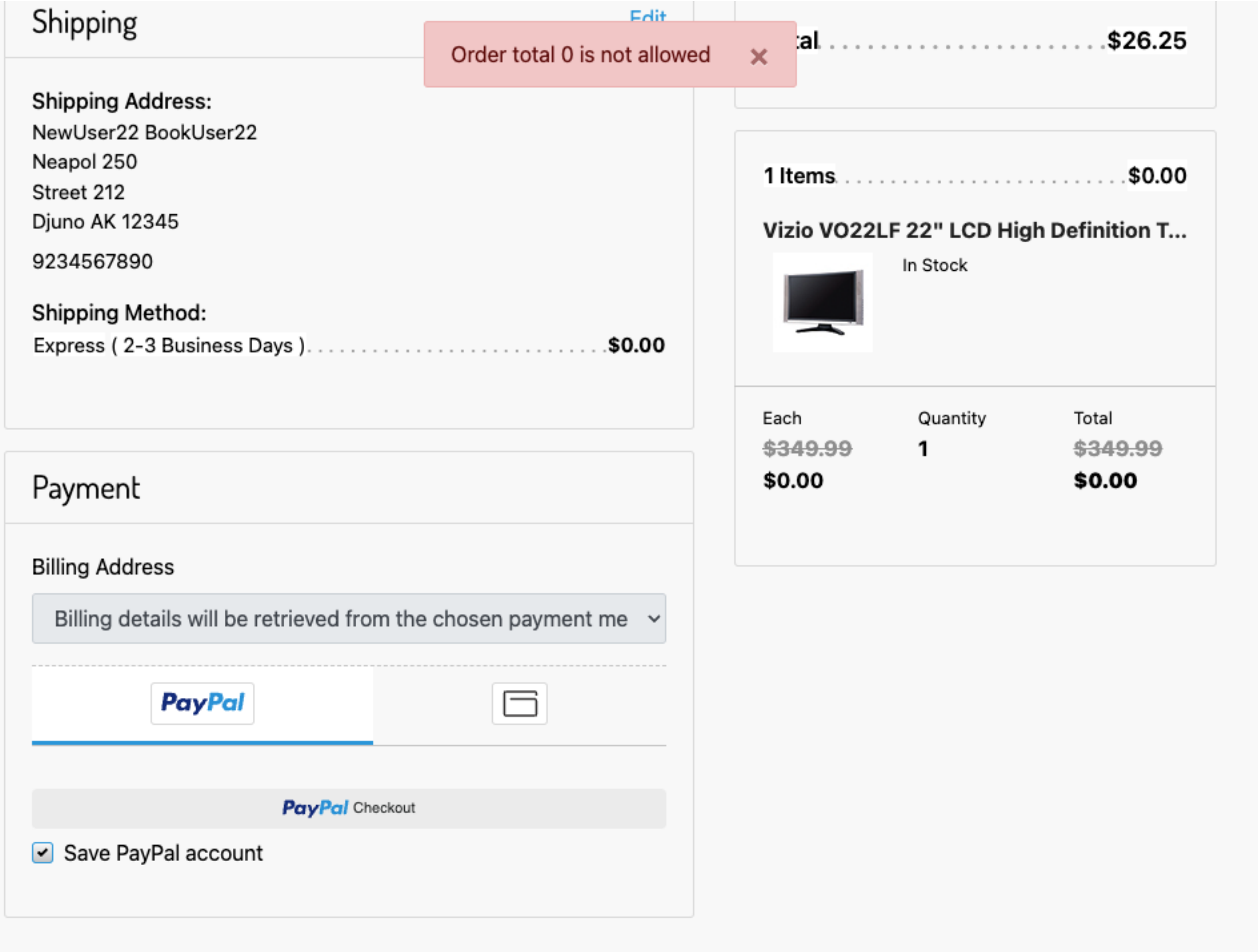
All errors text located at
`int_paypal/cartridge/templates/resources/paypalerrors.properties.`

You can add your own text for errors from REST API, using format: paypal.error + error code from paypal or error name in lower case. For example:

```
paypal.error.transaction_refused=Transaction was refused by
merchant
```

```
paypal.error.unprocessable_entity=Please check billing address
```

UPDATE: Custom errors text will not appear on the order review page due to built-in SFRA logic. A System message will always appear (Figure 10.3.2).



Shipping

Edit

Order total 0 is not allowed ×

…tal $26.25

Shipping Address:
NewUser22 BookUser22
Neapol 250
Street 212
Djuno AK 12345

9234567890

Shipping Method:
Express (2-3 Business Days) **$0.00**

1 Items **$0.00**

Vizio VO22LF 22" LCD High Definition T...

In Stock

Each	Quantity	Total
~~$349.99~~ **$0.00**	1	~~$349.99~~ **$0.00**

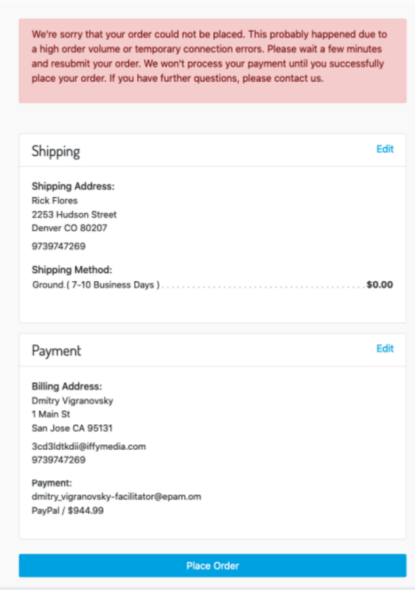
Payment

Billing Address

Billing details will be retrieved from the chosen payment me

☑ Save PayPal account

Figure 10.3.1. Custom error message example



We're sorry that your order could not be placed. This probably happened due to a high order volume or temporary connection errors. Please wait a few minutes and resubmit your order. We won't process your payment until you successfully place your order. If you have further questions, please contact us.

Shipping Address:
Rick Flores
2253 Hudson Street
Denver CO 80207
9739747269

Shipping Method:
Ground (7-10 Business Days) **$0.00**

Billing Address:
Dmitry Vigranovsky
1 Main St
San Jose CA 95131
3cd3ldtkdii@iffymedia.com
9739747269

Payment:
dmitry_vigranovsky-facilitator@epam.om
PayPal / $944.99

Figure 10.3.2. SFRA standard error message example

11 Automated Testing

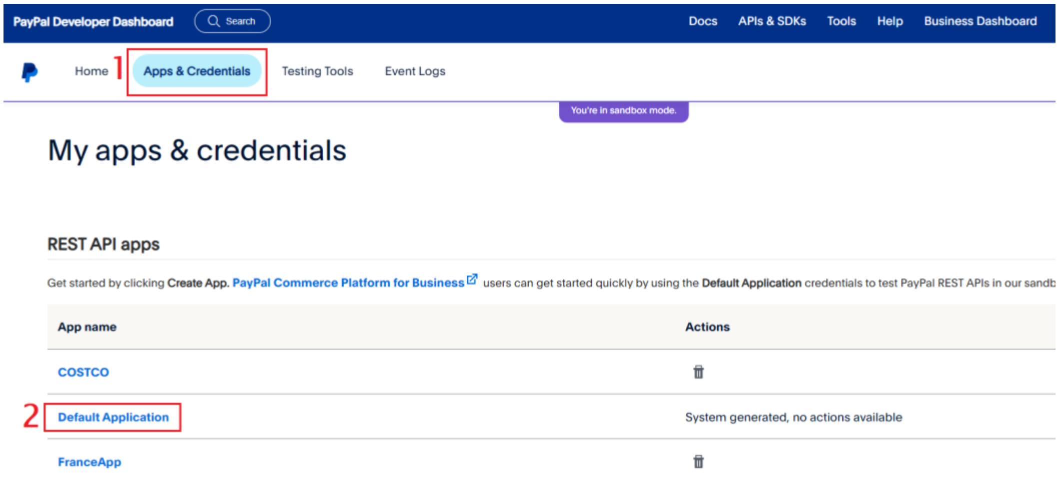
The cartridge has unit tests included in the repository.

Please use the instructions described in the `test/unit/README.md`, `test/integration/README.md`, and `test/acceptance/README.md` files in the repository to configure and run tests.

12 Recommendations

Since it is possible to create a PayPal account via a verified mobile phone but with an unverified email address, it is best to unselect the **'Enable customers who have not yet confirmed their email with PayPal to log in to your app'** checkbox to reduce the possibility of security risks.

To do so, you as a merchant should access your PayPal Sandbox account at https://developer.paypal.com/home/, then go to **App & Credentials** and choose your app. Under **Sandbox App Settings** scroll down to **Log in with PayPal &** click **Advanced Settings**. In the opened form uncheck 'Enable customers who have not yet confirmed their email with PayPal to log in to your app' checkbox.



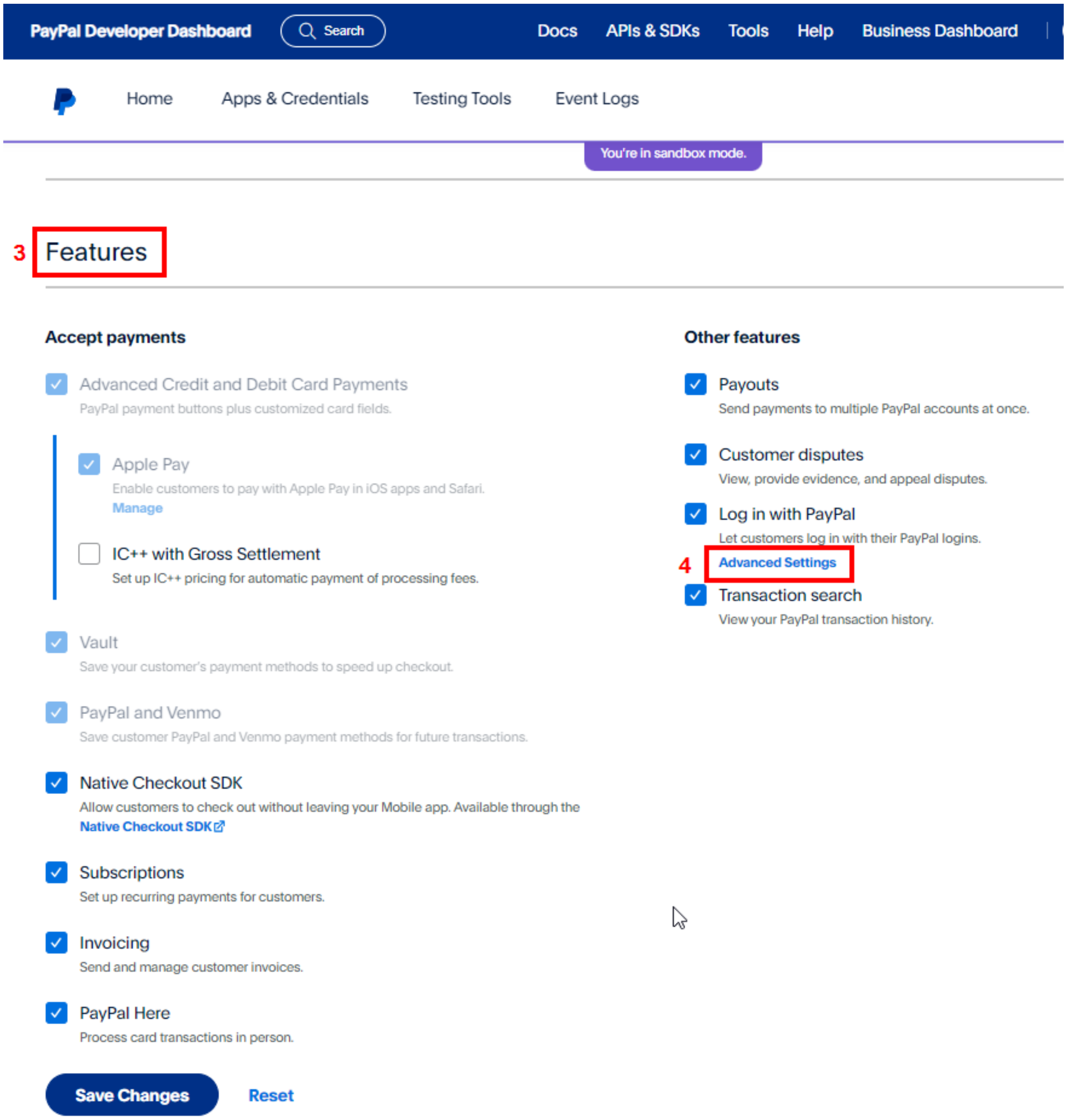
My apps & credentials

REST API apps

Get started by clicking **Create App.** **PayPal Commerce Platform for Business** users can get started quickly by using the **Default Application** credentials to test PayPal REST APIs in our sandb

App name	Actions
COSTCO	🗑
2 Default Application	System generated, no actions available
FranceApp	🗑

Figure 12.1. Unselecting 'Enable customers who have not yet confirmed their email with PayPal to log in to your app' checkbox Step 1 Step 2



Features

Accept payments

☑ Advanced Credit and Debit Card Payments
PayPal payment buttons plus customized card fields.

☑ Apple Pay
Enable customers to pay with Apple Pay in iOS apps and Safari.
Manage

□ IC++ with Gross Settlement
Set up IC++ pricing for automatic payment of processing fees.

☑ Vault
Save your customer's payment methods to speed up checkout.

☑ PayPal and Venmo
Save customer PayPal and Venmo payment methods for future transactions.

☑ Native Checkout SDK
Allow customers to check out without leaving your Mobile app. Available through the **Native Checkout SDK**

☑ Subscriptions
Set up recurring payments for customers.

☑ Invoicing
Send and manage customer invoices.

☑ PayPal Here
Process card transactions in person.

Other features

☑ Payouts
Send payments to multiple PayPal accounts at once.

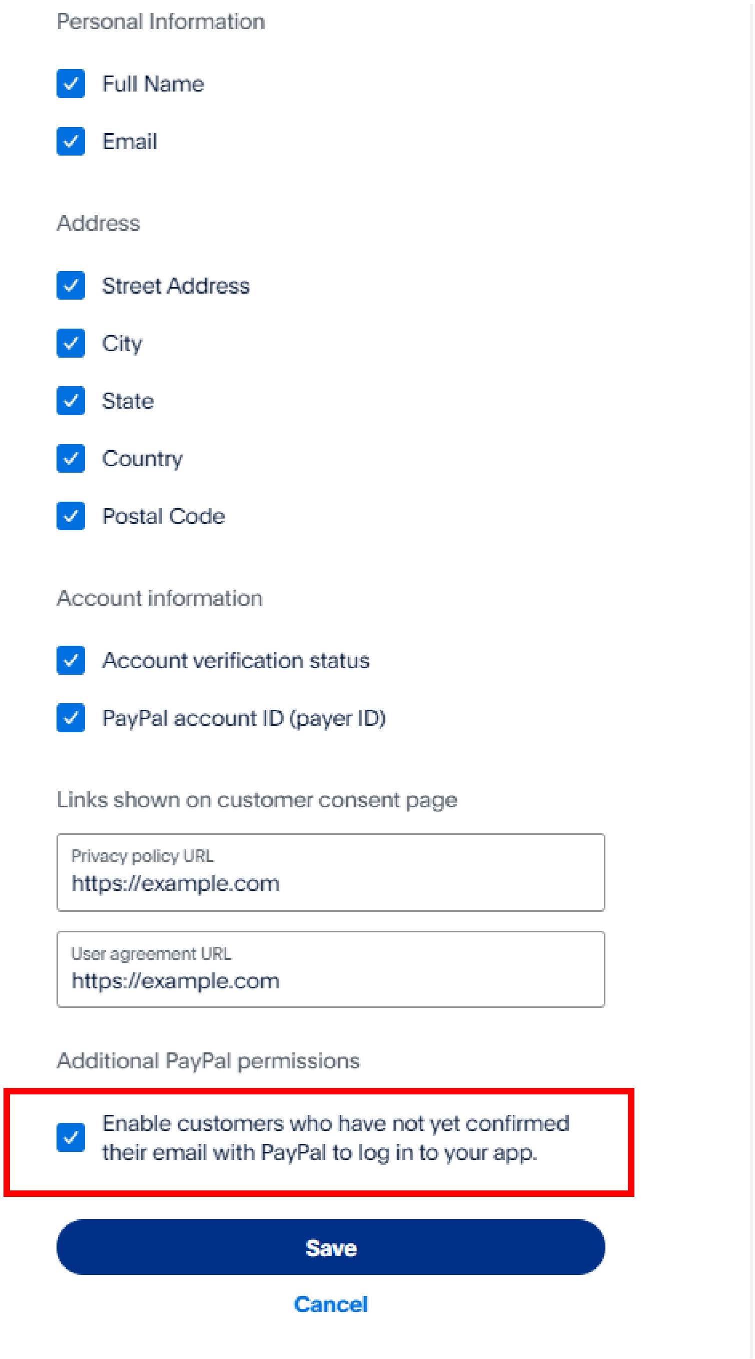
☑ Customer disputes
View, provide evidence, and appeal disputes.

☑ Log in with PayPal
Let customers log in with their PayPal logins.
Advanced Settings

☑ Transaction search
View your PayPal transaction history.

Save Changes Reset

Figure 12.2. Unselecting 'Enable customers who have not yet confirmed their email with PayPal to log in to your app' checkbox Step 3 & Step 4



Personal Information

☑ Full Name

☑ Email

Address

☑ Street Address

☑ City

☑ State

☑ Country

☑ Postal Code

Account information

☑ Account verification status

☑ PayPal account ID (payer ID)

Links shown on customer consent page

Privacy policy URL
https://example.com

User agreement URL
https://example.com

Additional PayPal permissions

☑ Enable customers who have not yet confirmed their email with PayPal to log in to your app.

Figure 12.3. Unselecting 'Enable customers who have not yet confirmed their email with PayPal to log in to your app' checkbox Step 5

13 Known Issues

No reported issues so far.

14 Upgrade Guide

Upgrading to 23.3.0 or newer from 23.2.0 or earlier

14.1 Manual update

List of custom attributes (should be removed)

Old attribute ID	**New attribute ID**
PP_API_PaymentAction	PP_Payment_Model
PP_API_APM_methods	PP_Alternative_Payment_Methods
PP_API_Button_Location	PP_Button_Location
PP_API_BA_Enabled	PP_BA_Enabled
PP_API_BA_Description	PP_BA_Description
PP_Automatic_PM_adding_enabled	PP_Automatic_Payment_Method_Adding_Enabled
PP_API_PAY_NOW_ENABLED	PP_Digital_Goods_Flow_Enabled
PP_FRAUDNET_ENABLED	PP_FraudNet_Enabled

List of attribute groups (should be removed)

Old group ID	New group ID
Paypal_Credit_Messaging	PAYPAL_PAY_LATER_BANNERS_MESSAGING
Paypal_Checkout	PAYPAL_CHECKOUT
Missing	PAYPAL_GENERAL
Missing	PAYPAL_CREDIT_CARD
Missing	removed

There are two ways to remove old attributes.

First approach:

- Remove old attributes:
  - Go to Business Manager > Administration > Site Development > System Object Types > Site Preferences - Attribute Definitions
  - Select a checkbox for the required IDs.

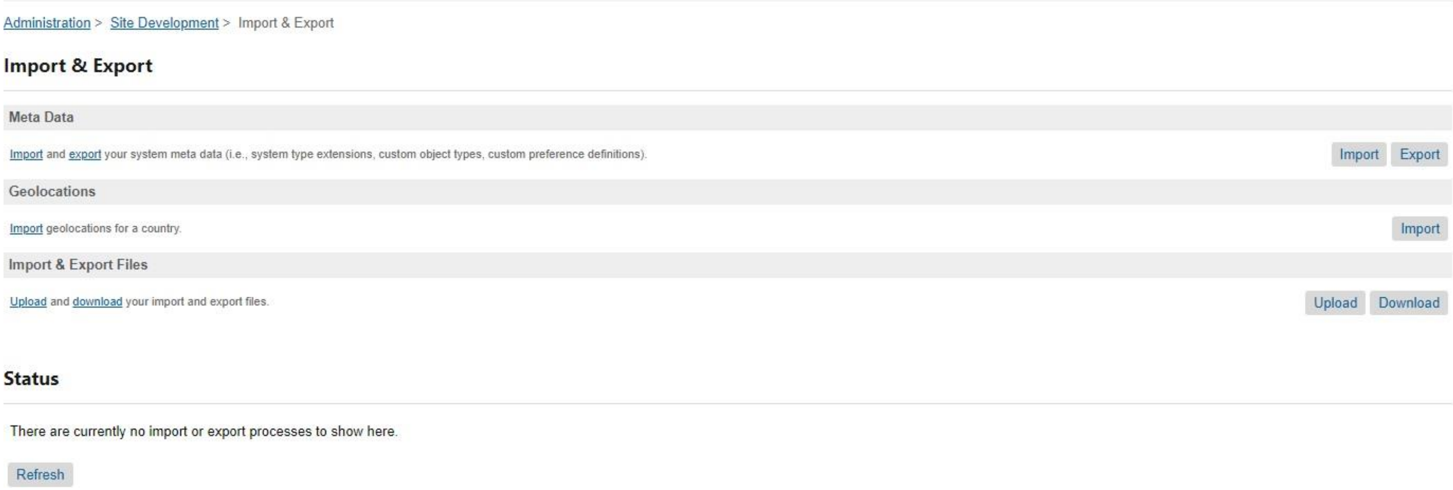
  - Click on Delete button and you will see a message (Are you sure that you want to execute the following action for these items: delete?)
  - Click on *Delete* button.

- Remove old groups:
  - Go to Business Manager > Administration > Site Development > System Object Types > Site Preferences - Attribute Groups
  - Select a checkbox for the required IDs.
  - Click on Delete button and you will see a message (Are you sure that you want to execute the following action for these items: delete?)
  - Click on *Delete* button.

Second approach:

PLEASE NOTE: When using this approach, you may affect the metadata from the other cartridges. We recommend using the first way to remove old attributes.

- Remove old attributes and groups:
  - Go to Business Manager > Administration > Site Development > Import & Export



Administration > Site Development > Import & Export

Import & Export

Meta Data

Import and export your system meta data (i.e., system type extensions, custom object types, custom preference definitions).

Geolocations

Import geolocations for a country.

Import & Export Files

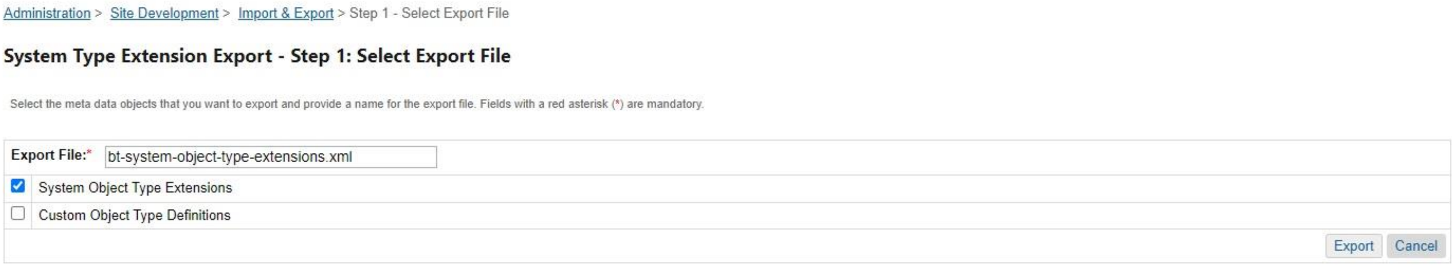
Upload and download your import and export files.

Status

There are currently no import or export processes to show here.

Figure 14.1.1. Import & Export

- Meta data > Click on *Export* button.
- Select the checkbox *System Object Type Extensions*
- Specify the file name for export (for example: bt-system-object-type-extensions.xml)



Administration > Site Development > Import & Export > Step 1 - Select Export File

System Type Extension Export - Step 1: Select Export File

Select the meta data objects that you want to export and provide a name for the export file. Fields with a red asterisk (*) are mandatory.

Export File:* bt-system-object-type-extensions.xml

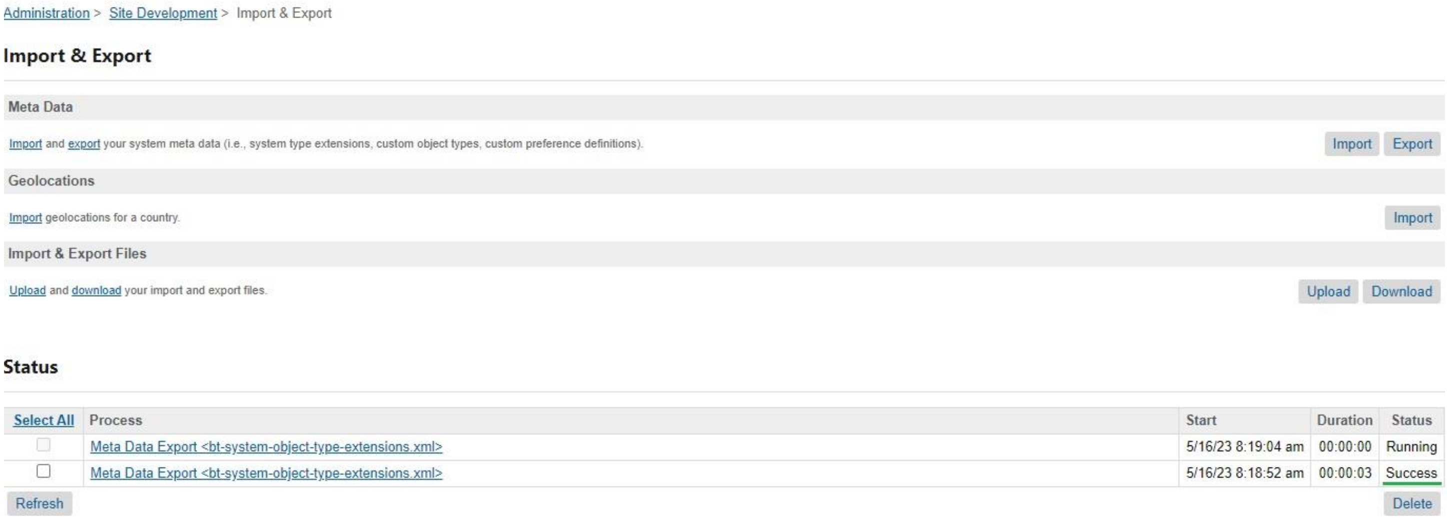
☑ System Object Type Extensions

☐ Custom Object Type Definitions

Figure 14.1.2. Export System Object Type Extensions

- Click on *Export* button.

- Wait until the export status is *Success*.



Administration > Site Development > Import & Export

Import & Export

Meta Data

Import and export your system meta data (i.e., system type extensions, custom object types, custom preference definitions).

Geolocations

Import geolocations for a country.

Import & Export Files

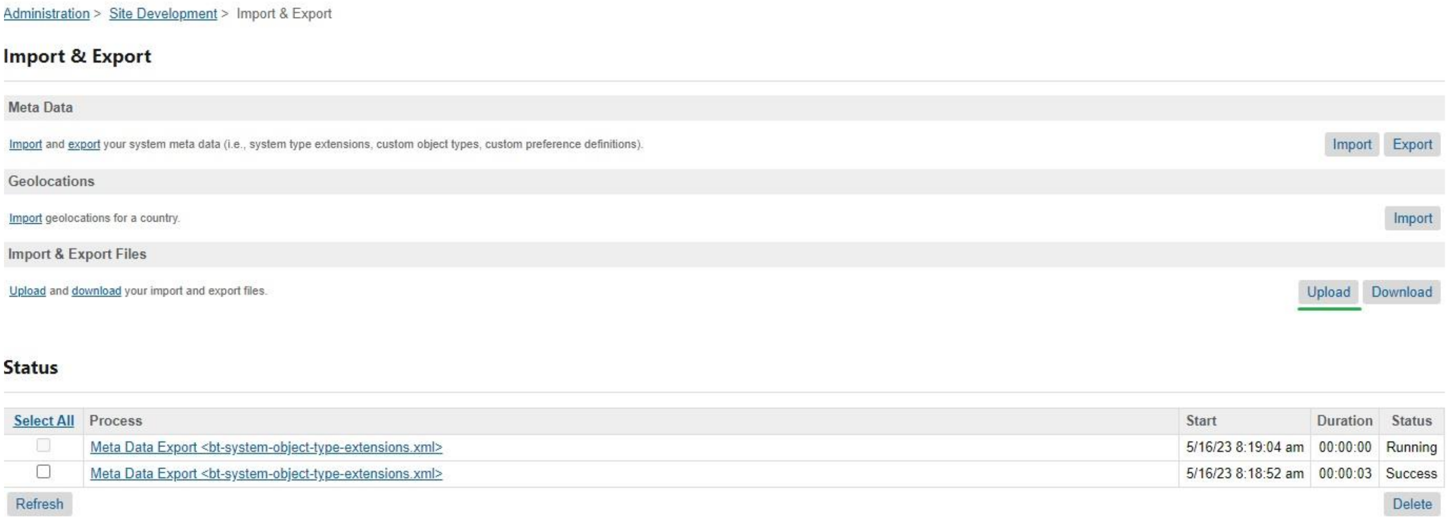
Upload and download your import and export files.

Status

Select All	Process	Start	Duration	Status
□	Meta Data Export <bt-system-object-type-extensions.xml>	5/16/23 8:19:04 am	00:00:00	Running
□	Meta Data Export <bt-system-object-type-extensions.xml>	5/16/23 8:18:52 am	00:00:03	Success

Figure 14.1.3. Successful export of meta data

- Download the exported file and delete the old attributes and groups. Be attentive.
- Upload the modified file for import. Click on *Upload* button.



Administration > Site Development > Import & Export

Import & Export

Meta Data

Import and export your system meta data (i.e., system type extensions, custom object types, custom preference definitions).

Geolocations

Import geolocations for a country.

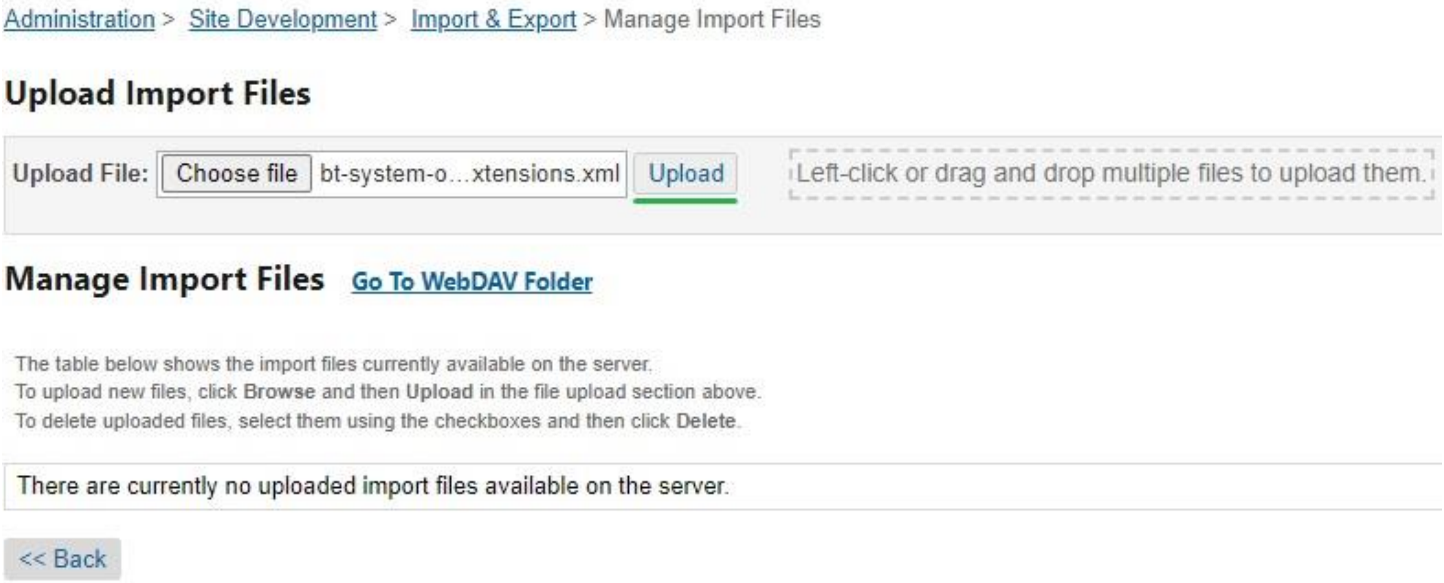
Import & Export Files

Upload and download your import and export files.

Status

Select All	Process	Start	Duration	Status
□	Meta Data Export <bt-system-object-type-extensions.xml>	5/16/23 8:19:04 am	00:00:00	Running
□	Meta Data Export <bt-system-object-type-extensions.xml>	5/16/23 8:18:52 am	00:00:03	Success

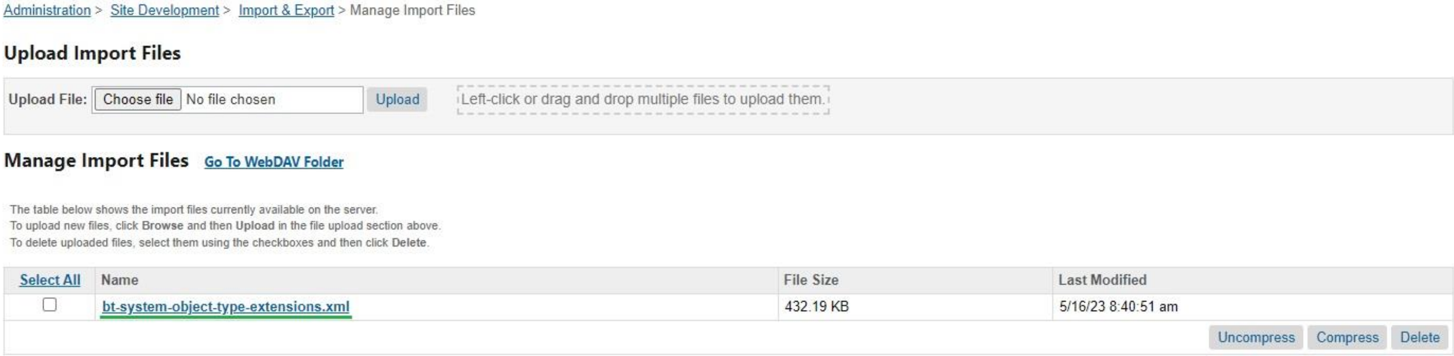
- Click on *Choose file* button and select modified file. Click on *Upload* button.


Administration > Site Development > Import & Export > Manage Import Files
Upload Import Files
Upload File: Choose file bt-system-o…xtensions.xml Upload
Left-click or drag and drop multiple files to upload them.
Manage Import Files Go To WebDAV Folder
<< Back

The table below shows the import files currently available on the server.
To upload new files, click **Browse** and then **Upload** in the file upload section above.
To delete uploaded files, select them using the checkboxes and then click **Delete**.

There are currently no uploaded import files available on the server.

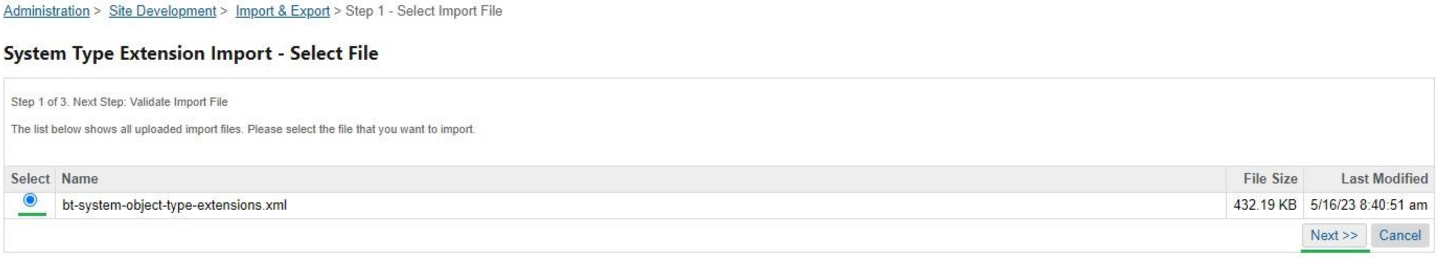
Figure 14.1.4. Upload import file


Administration > Site Development > Import & Export > Manage Import Files
Upload Import Files
Upload File: Choose file No file chosen Upload
Left-click or drag and drop multiple files to upload them.
Manage Import Files Go To WebDAV Folder
Uncompress
Compress
Delete

The table below shows the import files currently available on the server.
To upload new files, click **Browse** and then **Upload** in the file upload section above.
To delete uploaded files, select them using the checkboxes and then click **Delete**.

Select All	Name	File Size	Last Modified
□	bt-system-object-type-extensions.xml	432.19 KB	5/16/23 8:40:51 am

- Go to Business Manager > Administration > Site Development > Import & Export
- Meta data > Click on Export button.
- Mark file that you want to import and click *Next* button.

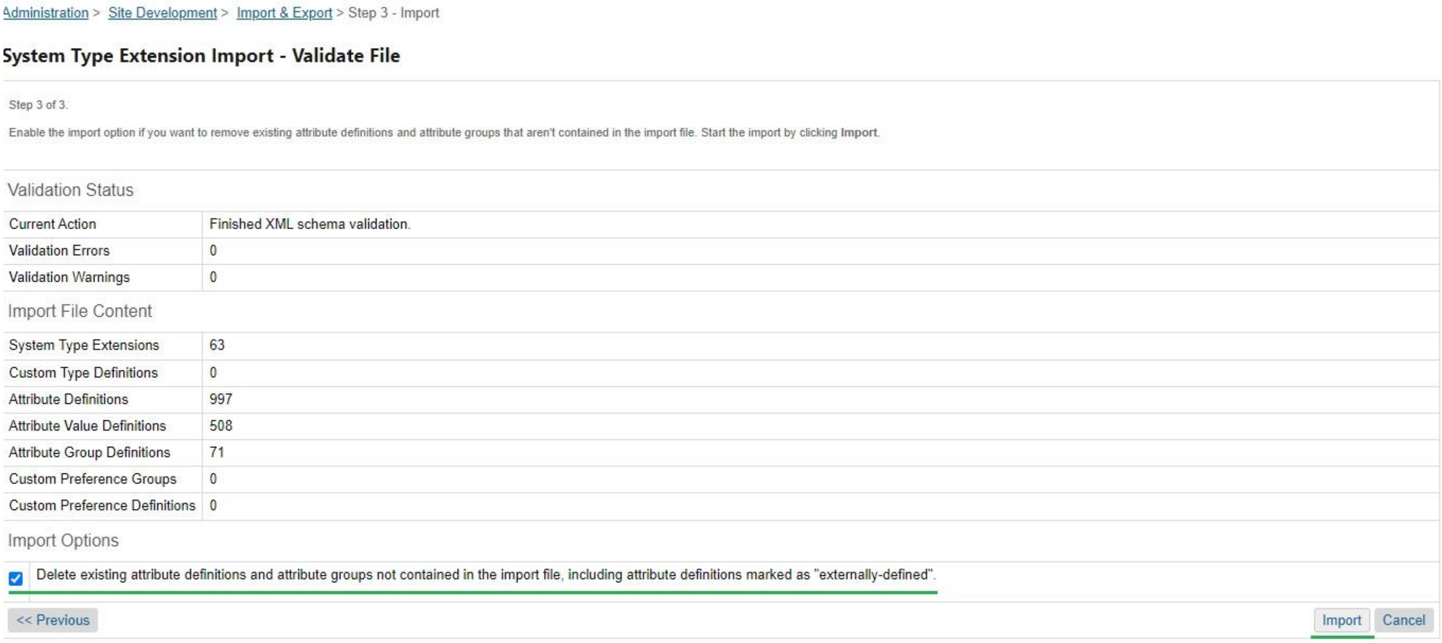

Administration > Site Development > Import & Export > Step 1 - Select Import File
System Type Extension Import - Select File
Next >>
Cancel

Step 1 of 3. Next Step: Validate Import File

The list below shows all uploaded import files. Please select the file that you want to import.

Select	Name	File Size	Last Modified
●	bt-system-object-type-extensions.xml	432.19 KB	5/16/23 8:40:51 am

- Mark checkbox in Import Options section and click *Import* button.



Administration > Site Development > Import & Export > Step 3 - Import

System Type Extension Import - Validate File

Step 3 of 3.

Enable the import option if you want to remove existing attribute definitions and attribute groups that aren't contained in the import file. Start the import by clicking **Import**.

Validation Status

Current Action	Finished XML schema validation.
Validation Errors	0
Validation Warnings	0

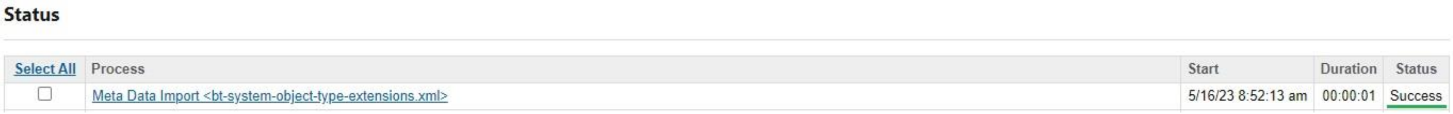
Import File Content

System Type Extensions	63
Custom Type Definitions	0
Attribute Definitions	997
Attribute Value Definitions	508
Attribute Group Definitions	71
Custom Preference Groups	0
Custom Preference Definitions	0

Import Options

☑ Delete existing attribute definitions and attribute groups not contained in the import file, including attribute definitions marked as "externally-defined".

- Confirm the action, click *OK* button.
- Wait until the Import status is *Success*.



Status

Select All	Process	Start	Duration	Status
□	Meta Data Import <bt-system-object-type-extensions.xml>	5/16/23 8:52:13 am	00:00:01	Success

14.2 Migration from Billing Agreement to Vault flow.

Starting from version 24.2.0 Billing Agreement is deprecated and new Vault flow is introduced. In order to migrate, see PayPal Vault Flow.