



Worldpay - Magento 2 Extension
User Documentation
Ver. 2.0.1 - August 2019

1. Change Log

Release Version	Date	Description
1.2.2	Oct 27, 2017	<ul style="list-style-type: none"> ● Direct Method ● Redirect Method ● MOTO Method ● Alternate Payment Methods ● Client Side Encryption (CSE) ● 3D Secure (3DS) ● Tokenization ● Saved Card ● Order Notification ● Merchant Profile Override ● Custom Payment Pages ● Order Cleanup ● Risk Guardian Data
1.3.0	Mar 6, 2018	<ul style="list-style-type: none"> ● Magento 2.2.2 Support ● PHP 7.1 Support ● 3DS Cookie Issue resolved ● By Default 3DS enabled.
1.4.0	Mar 20, 2018	<ul style="list-style-type: none"> ● Worldpay Instant Purchase ● Worldpay Instant Purchase With 3DS Enabled ● BugFix : Payment Method Title From Admin configuration ● Configurable Payment Order Description
1.5.0	Jun 25, 2018	<ul style="list-style-type: none"> ● Release phase 3 for Klarna
1.5.1	Jul 17, 2018	<ul style="list-style-type: none"> ● Capture for Klarna resolved ● Minor fixes
1.5.2	Aug 20, 2018	<ul style="list-style-type: none"> ● Minor bug fixes
1.5.3	Oct 9, 2018	<ul style="list-style-type: none"> ● Supporting Magento 2.2.5

		<ul style="list-style-type: none"> ● Klarna bug fixes ● Magento EQP validation
1.5.4	Oct 10, 2018	<ul style="list-style-type: none"> ● Magento package validation fixes ● Missed payment method images fixes
1.5.5	Dec 18, 2018	<ul style="list-style-type: none"> ● Auto Invoice generation issue in direct mode for Credit Card ● Checkout blocker issue - if order contains virtual products / no shipping address ● 3DS - empty saved card list issue ● Other minor fixes
2.0	May 14, 2019	<p>Features:</p> <ul style="list-style-type: none"> ● Google Pay ● Payment request API for Chrome Browser (Chrome Pay) ● Support Magento 2.3.0 ● Cron job for updating order status for failed order's <p>Bug Fixes:</p> <ul style="list-style-type: none"> ● Support for debit card listing in Checkout page from Saved card lists ● Auto Invoice generation issue in P24 payment gateway ● Google address conflict issue ● Security issues ● Js issue if CSE (Client Side Encryption) is disabled ● Other minor issues
2.0.1	August 8, 2019	<p>Features:</p> <ul style="list-style-type: none"> ● 3DS2 Support

2. OVERVIEW

Magento is one of the leading Open Source ecommerce platforms in the market. Worldpay is a payment gateway provider that can be integrated with Magento to provide online payment service to end user.

To accept payment from customer using Worldpay payment gateway, Merchants, who are running Magento 2 based online store, would require a payment integration extension installed from Worldpay to integrate their Magento online store with Worldpay payment.

3. Prerequisites

Magento 2 or higher version application should be installed and configured properly.

4. Installation

Worldpay Extension is hosted at <https://github.com/Worldpay/Worldpay-Magento-CG>, To run below installation steps, access to repository is required.

Composer Based Installation

For installation of extension using composer, Please follow below steps:

1. Run below code from command prompt at Magento installation root directory
`composer config repositories.repo-name vcs
git@github.com:Worldpay/Worldpay-Magento2-CG.git
composer require sapient/module-worldpay`
2. Run Setup Upgrade
`php bin/magento setup:upgrade`
3. Run Compilation
`php bin/magento setup:di:compile`
4. Finally clear cache
`php bin/magento cache:clean`

Traditional Installation

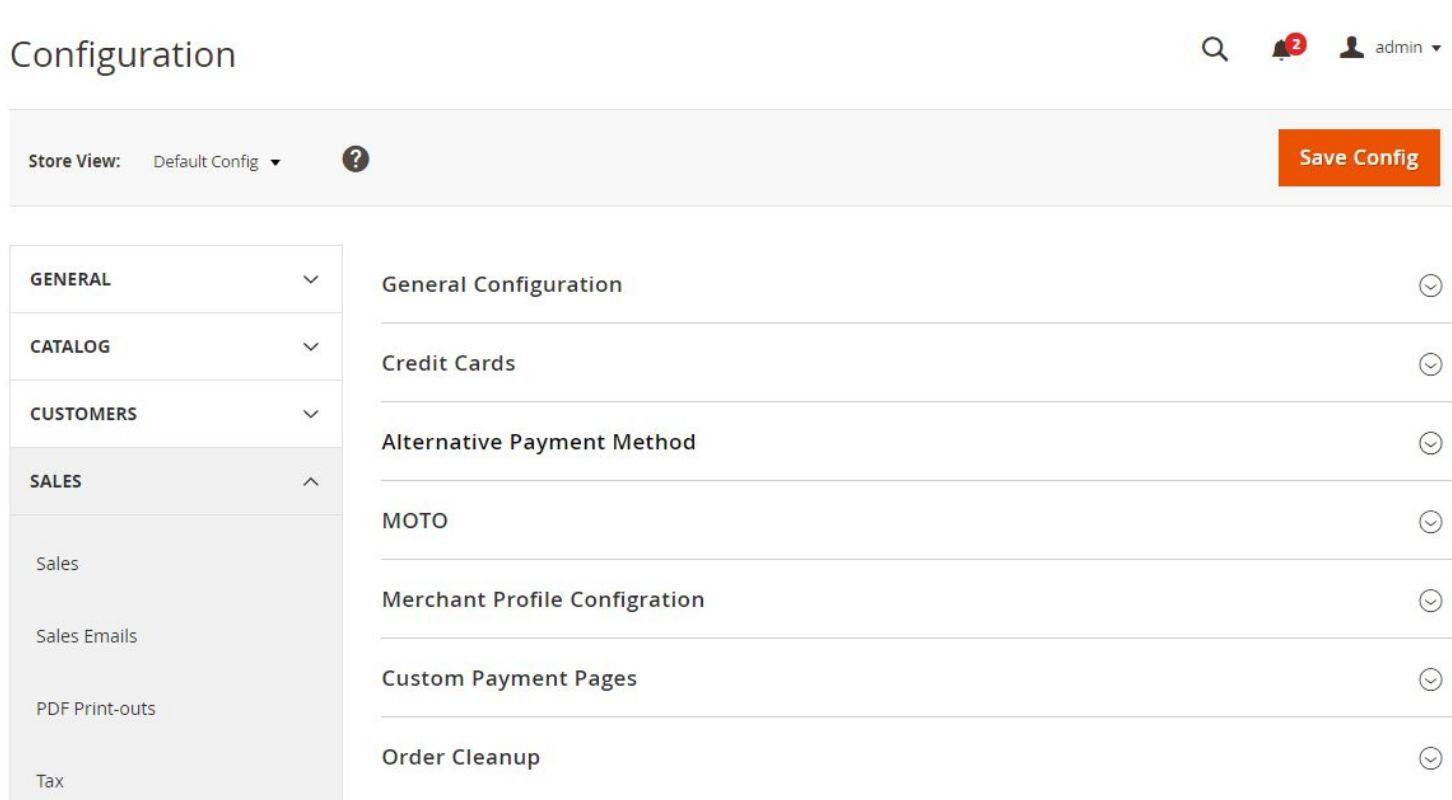
For installation of extension using traditional non-composer way, Please follow below steps:

1. Download the extension zip file from
<https://github.com/Worldpay/Worldpay-Magento-CG>
2. Unzip the file in a temporary directory
3. Please cross check if there is any code folder under app folder path
Magento2Rootfolder/app
 - a. If exist please upload it to your code directory.
 - b. If there is no code folder please copy the extracted folder to
app/code/Sapient/Worldpay folder.
4. Disable the cache under System >> Cache Management
5. Enter the following at the command line: `php f bin/magento2 setup: upgrade`
6. Clear the cache from command line: `php f bin/magento2 cache:clean` Flush the cache
from command line: `php f bin/magento2 cache:flush`

5. Configuration

After successful installation of extension , Please go to below Menu path to configure it.

Stores->Configuration->Sales->Worldpay



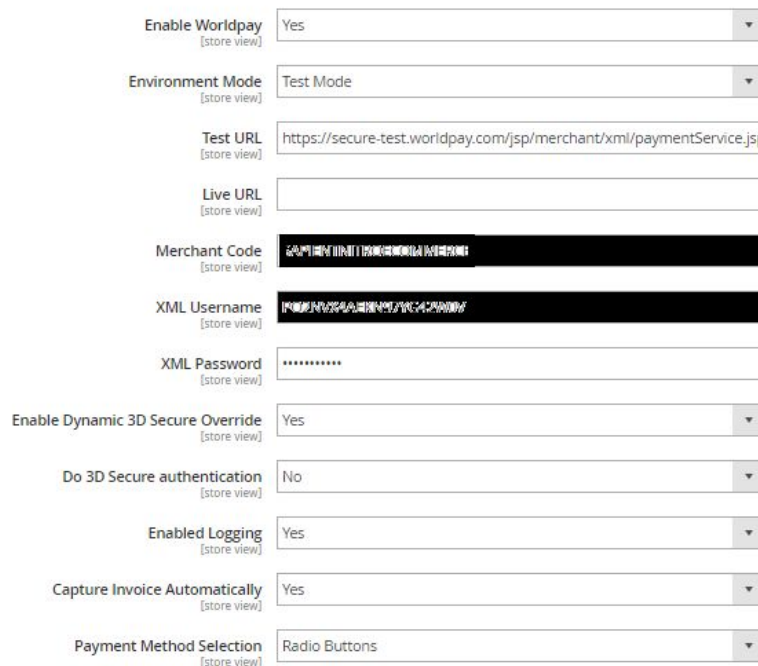
The screenshot displays the Magento 2 Configuration interface. On the left, a vertical sidebar contains navigation icons for Dashboard, Sales, Products, Customers, Marketing, Content, Reports, Stores, and System. The 'Stores' section is currently selected, and the 'SALES' menu item is expanded. The main configuration area is titled 'Configuration' and includes a search icon, a notification bell with a red '2', and a user profile labeled 'admin'. Below the title bar, there is a 'Store View' dropdown set to 'Default Config' and a 'Save Config' button. The configuration options are listed in a table-like structure with expandable sections:

Section	Expandable
GENERAL	General Configuration
CATALOG	Credit Cards
CUSTOMERS	Alternative Payment Method
SALES	MOTO
	Merchant Profile Configuration
	Custom Payment Pages
	Order Cleanup

General configuration

“General Configuration” Section contains global values for plugin. Please check snapshot of General configuration and detail :

General Configuration



The screenshot displays the 'General Configuration' section of the Worldpay plugin interface. It contains the following settings:

- Enable Worldpay** (store view): Yes
- Environment Mode** (store view): Test Mode
- Test URL** (store view): https://secure-test.worldpay.com/jsp/merchant/xml/paymentService.js
- Live URL** (store view):
- Merchant Code** (store view): [REDACTED]
- XML Username** (store view): [REDACTED]
- XML Password** (store view): [REDACTED]
- Enable Dynamic 3D Secure Override** (store view): Yes
- Do 3D Secure authentication** (store view): No
- Enabled Logging** (store view): Yes
- Capture Invoice Automatically** (store view): Yes
- Payment Method Selection** (store view): Radio Buttons

Credit Cards

Configuration	Description
Enable Worldpay	If Set to “Yes” Worldpay payment method will be Available at checkout payment section
Environment Mode	Payment gateway, Test & Live Mode, On Production it should be set to Live mode.

Test URL	Worldpay Payment processing test URL
Live URL	Worldpay Payment processing Live URL
Merchant code	Global merchant code
XML username	Global XML username
XML Password	Global XML password
Enable Dynamic 3D Secure Override	Only applicable for Card payment with Direct Integration mode , If enabled request will be passed to Worldpay with 3D secure parameter
Do 3D Secure authentication	If enabled, 3DS supported card will be validated by card issuer.
Enable Logging	IF enabled , all request & response along with other debug information will be logged at Magento2Root/var/log/worldpay.log file
Capture Invoice Automatically	If Set to YES : Invoice will be automatically created on Authorize response of worldpay and Capture request will be sent from worldpay. If Set to NO: Invoice will not be created, until capture order notification is received.
Payment Method Selection	It has two options : Radio Button : APMs and Card Types will displayed a Radio button at payment section Dropdown : APMs and Card Types will displayed as Dropdown at payment section

Credit Card

This section contains configuration specific to credit card payments. Please check snapshot and detail below:

Credit Cards



Enabled
[store view]

Yes

Payment Methods
[store view]

American Express
 Visa
 MasterCard
 Carte Bancaire
 Carte Bleue
 Dankort
 Diners

Configuration	Description
Enabled	If Set to “Yes” Credit Card payment method will be Available at checkout payment section
Payment Methods	Mutli-Select Credit card type selections. Selected CC types will be available as Radio/Dropdown option to customer at payment method section.
Title	Payment method title to be displayed at checkout payment section.

Client Side encryption	If enabled, all card detail will be securely transferred to Worldpay in encrypted format.
Public Key	Only required if Client side encryption is enabled to encrypt card information securely.
Require CVC	If enabled CVC form field will be displayed to customer at card detail entry form.
Integration Mode	<p>Plugin supports two integration types for Credit Card :</p> <ol style="list-style-type: none"> 1. Direct Integration Mode : Card information will be captured at Magento2 online store and passed to worldpay from server to server transfer in XML format. No card information will be saved by Worldpay plugin. 2. Redirect Integration Mode : User will be redirected to Worldpay payment page and card information will be captured at worldpay end.
Hosted Payment Page Integration	<p>Only Applicable on Redirect Integration mode.</p> <ol style="list-style-type: none"> 1. Full Page : User will be redirected to Worldpay payment page. 2. Iframe : User will remain on Magento2 online store, but worldpay payment page will be open in Iframe where customer can enter card information.

Save Card	If enabled, User will get option to save card detail. All Saved Cards can be managed at user My Account section.
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Alternative Payment Method

This section contains configuration specific to Alternative payment method. Only Redirect integration mode is available for alternative payment method.

Please check snapshot and detail below:

Alternative Payment Method

Enabled
[store view]

Yes

Payment Methods
[store view]

Union Pay
IDEAL
Qiwi
Yandex.Money
PayPal
SoFort EU
GiroPay
Boleto Bancario
AliPay
SEPA (One off transactions)
Klarna (Redirect)
P24
Mistercash/Bancontact

Configuration	Description
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Enabled	If Set to “Yes” Alternative payment method will be Available at checkout payment section
Payment Methods	Mutli-Select APM selections. Selected APMs will be available as Radio/Dropdown option to customer at payment method section.
Title	Payment method title to be displayed at checkout payment section.


MOTO

This section contains configuration specific to MOTO. Worldpay Mail & Telephone Order integration allows Admin user to create order from Admin panel using Worldpay payment method. If enabled MOTO Credit card direct , Redirect & Saved Card payment method integration will be available as in Magento admin create order interface.

Current version does not support integration of CSE, 3DS with Credit card for MOTO orders.

Merchant profile need to have Dynamic interaction type enabled at Worldpay to use MOTO orders.

Please check snapshot and detail below:

MOTO 

Enabled
[store view]

Payment Methods
[store view]

American Express
Visa
MasterCard
Carte Bancaire
Carte Bleue
Dankort
Diners
Discover
Japanese Credit Bank
Solo

Title
[store view]

Configuration	Description
Enabled	If Set to “Yes” MOTO payment method will be Available at payment section of Admin order create
Payment Methods	Mutli-Select Credit Card selections. Selected credit cards will be available as Radio/Dropdown option to admin user at payment method section.
Title	Payment method title to be displayed at payment section.

Merchant Profile Override Configuration

Merchant can override global value set for merchant profile at payment method level. If no override is set for a payment method, global merchant profile will be used for all transactions.

Please check snapshot below

Merchant Profile Override Configuration



AMEX-SSL
[store view]

<input type="text"/>	<input type="text"/>
<input type="text"/>	

Please enter Merchande code, XML Username, XML Password respectively.

VISA-SSL
[store view]

<input type="text"/>	<input type="text"/>
<input type="text"/>	

Custom Payment Page

Custom payment page configuration is used in redirect method to provide merchant specific page installation id while redirecting user to Hosted page of Worldpay.

Custom Payment Pages



Enabled <small>[store view]</small>	Yes
Installation Id <small>[store view]</small>	1074624
Hide address <small>[store view]</small>	No

Order Cleanup

Order cleanup section enables merchant to configure auto cleanup of pending orders. Merchant can configure time for cancellation of order with specific payment methods. A cron will pick such order and based on configuration, attempts to cancel such orders.

Order Cleanup



Enabled <small>[store view]</small>	Yes
Clean Order With Status <small>[store view]</small>	<div>-- Please Select -- Canceled Closed Complete Suspected Fraud On Hold Payment Review PayPal Canceled Reversal PayPal Reversed Pending</div>
Union pay <small>[global]</small>	24
Ideal <small>[global]</small>	24
Paypal express <small>[global]</small>	24

Configuration	Description
Enabled	If Set to "Yes" And Cron is correctly configured at server. Order cleanup will auto cancel orders as per configurations.
Clean Order with Status	Mutli-Select Order status selections. Selected Orders will be fetched by order cleanup cron for cancellation.
Cancellation Time per payment method	Time in hour.

6. Invoice & Refund

Worldpay Magento 2 plugin allows invoice and refund with real time data synchronization with Worldpay payment gateway from Magento order manager.

Invoice

If Auto Create Invoice is set to "Yes" in configuration, Invoice will be generated as soon as Worldpay authorize response is received by Magento. Upon invoice creation, Order will be moved to processing status.

If Auto Create Invoice is set to “No” in configuration, No invoice will be created until ‘Capture’ Order notification is received. Order will remain in pending status until capture notification.

On capture notification received by Magento, Invoice will be generated and order will be moved to processing status, regardless of Auto create invoice setting.

Refund

Merchant can initiate full or partial refund from Magento2 Order manager by creating credit memo for invoice generated orders.

If invoice is generated and transaction status of order is in ‘Captured’ State. Online refund option will be available in credit memo create interface of Magento.

On click of “Refund” button, Credit memo will be generated and refund request will be initiated to Worldpay.

7. Order Notification

Plugin needs order notification to be setup to work properly. Order notification are transaction status updates pushed by worldpay to Magento2 store.

To receive Order notification , Below Order notification url is to be set in Worldpay merchant profile :

<https://<brand>url/worldpay/notification/index>

Where transactions are processed Asynchronously you may notice a detail of the transaction details being presented within Magento Order Details. Shortly after Magento receives the notification from Worldpay it will update the details to reflect the content.

8. Customisations

Change Order Code Format

The order code is created by the plugin and must be unique. It is possible to change the Order Code format by following these steps:

- Order code format can be changed by editing
:sapien\module-worldpay\Model\PaymentMethods\AbstractMethod.php.
- In this file there is a function called `_generateOrderCode($quote)`.
- Currently the order code format is Magento reserved order id - current time (ex: 000001030-1515391128).

Error Code messaging

Error code message are added in code and It is possible to change them by adding magento default translation CSV functionality.

- To add translation csv file in magento2, add a folder named: "i18n" inside module's folder

Then create a csv file with name of language code.

for example:

for english (United state) => en_US.csv

french (canada)=>fr_CA.csv

- Inside csv file you just need to add words which you want to translate, in following manner: "<word in english language>","<word in language to convert>"

for example:

"Add New Template","Ajouter un nouveau modèle"

"Transactional Emails","Emails transactionnels"

Back,Arrière

Reset,Réinitialiser

How to add a new payment method

It is possible to add a new payment method by...

- First, need to update etc/config.xml file, add required payment method information.
- Update etc/paymentmethods.xml file and mention the country which new payment method supports.

- Update etc/adminhtml/system.xml file to add new payment method settings to display/accessible it for admin configuration part.
- Add the new payment method front end code to display it in payment methods section of checkout process.
- Create new payment method file in Model/PaymentMethods/ folder to call the payment functionalities (refer: CreditCards.php, Moto.php, AlternativePaymentMethods.php).
- Create a authorisation service file in Model/Authorisation/ folder based on payment method type.
- Authorisation service is responsible for collecting payment data, Worldpay payment request and handling Worldpay payment response.

How to display Images/Icons as the payment method

Payment method image/Icons are displayed according to the image stored in \sapient\module-worldpay\view\frontend\web\images\cc. to add/update icons need to paste the required icon/image file in this folder by naming it exactly as payment type code.

For example: to update Mastercard icon add image file and name it as "ecmc-ssl".

9. Reporting a bug

Please do this via github.

10. Instant Purchase

Instant Purchase feature is one click checkout button placed on product detail pages. On click of this button, Magento places order using the default shipping, billing address, and last stored payment method from logged in user. Once the order is placed, an order confirmation message appears in the notification area.

Worldpay extension for Magento 2 supports Instant purchase if logged in customer has a default billing, shipping and saved card.

Prerequisites To display Instant Purchase Button:

- Instant purchase enabled for a store at Store / Configurations / Sales / Sales / Instant Purchase
- Customer is logged in
- Customer has default shipping and billing address defined.

- Customer has valid stored Credit Card with Worldpay Payment.

How Instant Purchase Work with Worldpay

- Instant purchase works as a new payment method from backend called worldpay_cc_vault.
- config.xml contains new worldpay_cc_vault payment method and its title, payment_action, instant purchase availability, token formatter and additional information.
- Once customer place order with “Save This Card” option, Card details will be saved in Magento vault by Worldpay extension.
- After saving the card details in Vault, Customer session data loaded with saved card details for Instant Purchase.
- On product details page Instant Purchase Button displayed by checking the default shipping, billing address and cheapest shipping methods availability.
- On clicking of “Instant Purchase” button, Order is placed with Magento 2.2 Instant purchase module and uses Worldpay payment method (worldpay_cc_vault) as payment gateway.

Please note Instant Purchase Integration is not enabled by default. If the payment method meets all the requirements listed, you can enable Instant Purchase

Stores->Settings->configuration->Sales->sales->Instant Purchase.

Above setting Enable Instant purchase globally, for Worldpay module specific you need to enable from **Stores->Settings->configuration->Sales->Worldpay->Credit Cards->Enable Instant Purchase.**

Instant purchase with 3DS

Worldpay support for Instant purchase checkout even with 3ds is enabled for a card, It is possible by suppressing 3ds for only IPC transactions.

11. Google Pay - β (Beta Version)

Google Pay lets your customers pay with the press of a button — using payment methods saved to their Google Account.

How to Enable?

In admin, configurations are available to enable/disable this feature.

Admin → Stores → Configuration → Sales → Worldpay → Mobile Wallets
Here, enable the Google Pay option.

Mobile Wallets

Title [store view] Wallets

Google Pay

Enabled [store view] Yes

Payment Methods [store view]

- American Express
- Visa
- Discover
- Japanese Credit Bank
- Master Card

☐ Use system value

Below are the configuration needs to saved,

Merchant name: worldpay

Merchant Id: Merchant id that google will provide.

Auth Methods [store view]

Pan Only

Cryptogram 3ds

☐ Use system value

Merchant Name [store view]

MerchantId [store view]

You can find the option to change the environment i.e. *Test / Production* in the General Configuration Section.

General Configuration

Enable Worldpay [store view]

Environment Mode [store view]

Test URL [store view]

Live URL [store view]

How it will work?

You can see the Google Pay option in checkout page like below, once it is enabled,

Payment Method

☐ Check / Money order

☐ Credit Cards

☐ All APM

☒ Wallets

☒ Google Pay

☒ My billing and shipping address are the same

[Redacted]

[Redacted]

Newcity, Alaska 232323

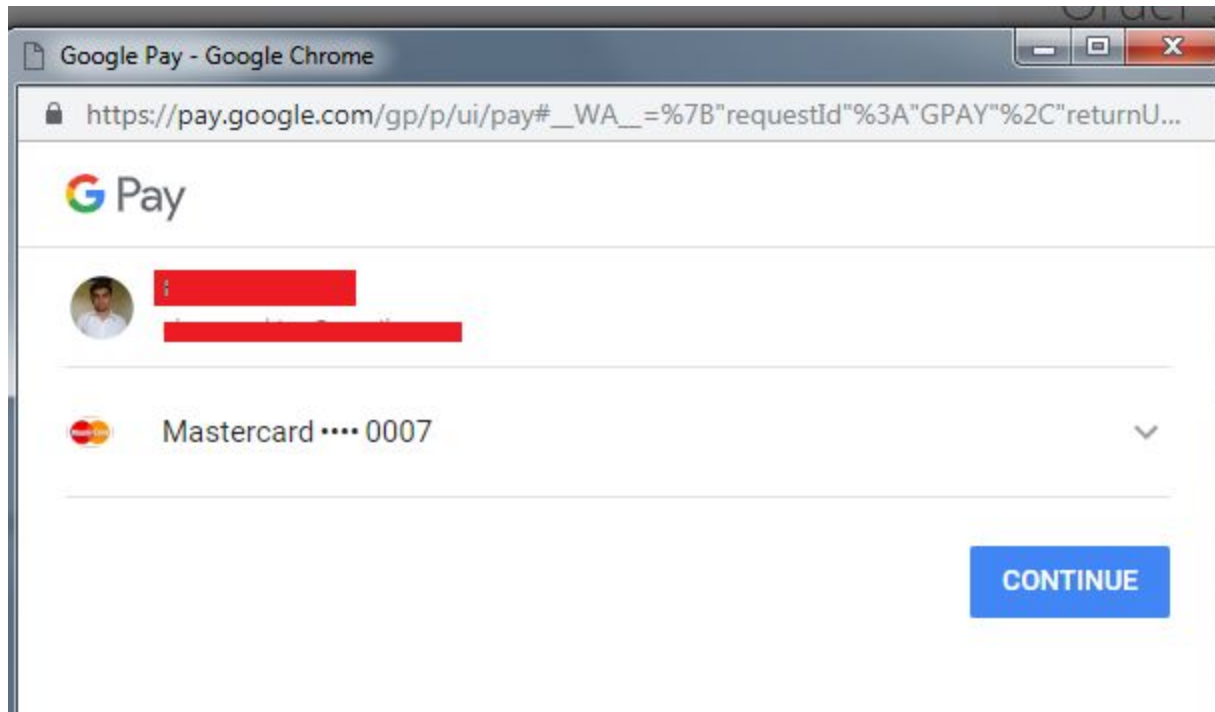
United States

2323232

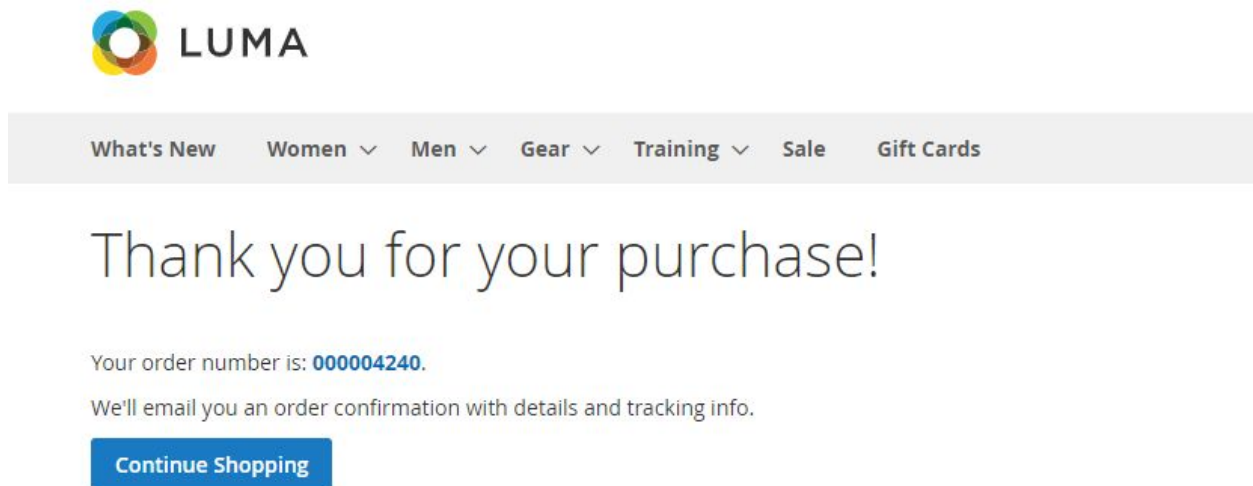
Place Order

Once you clicked the Place order button you can see the saved card details from Google account if you already signed in Google account. If not then, Google will ask to sign in.

If you don't have any saved card from your google account, then you have to enter debit / credit card details.

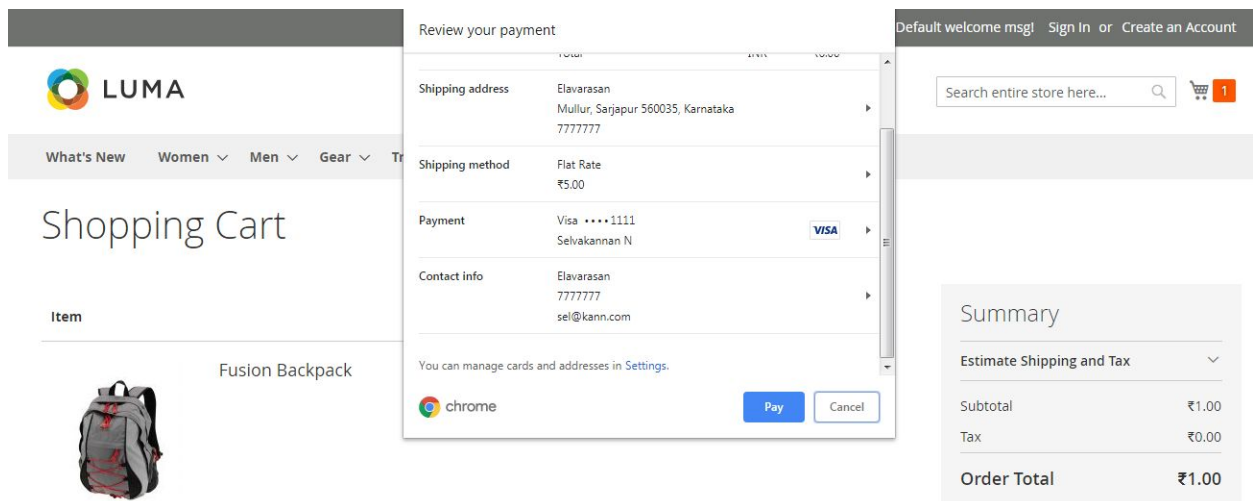
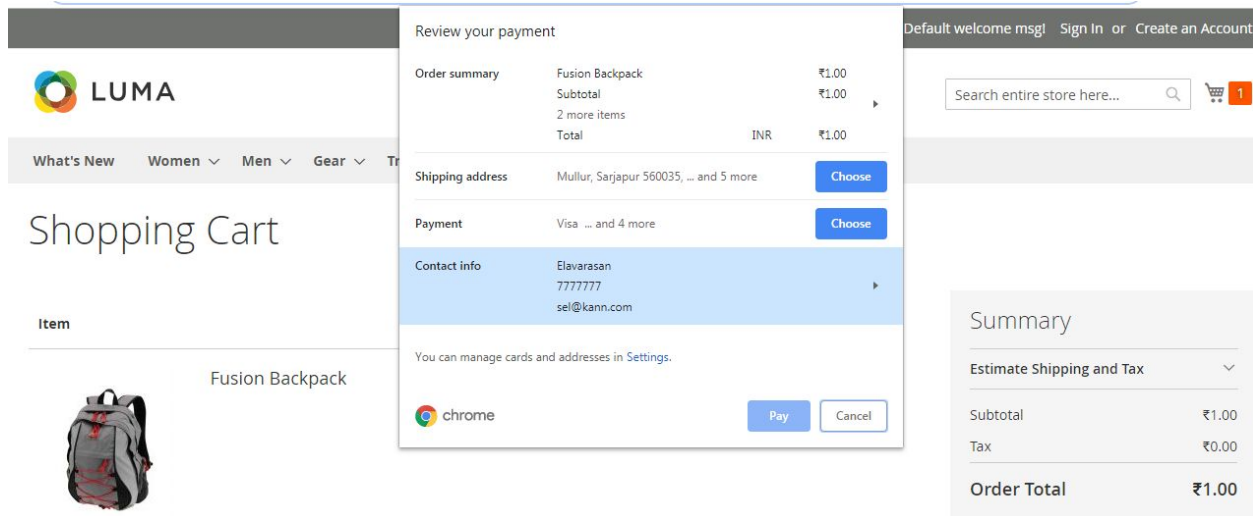


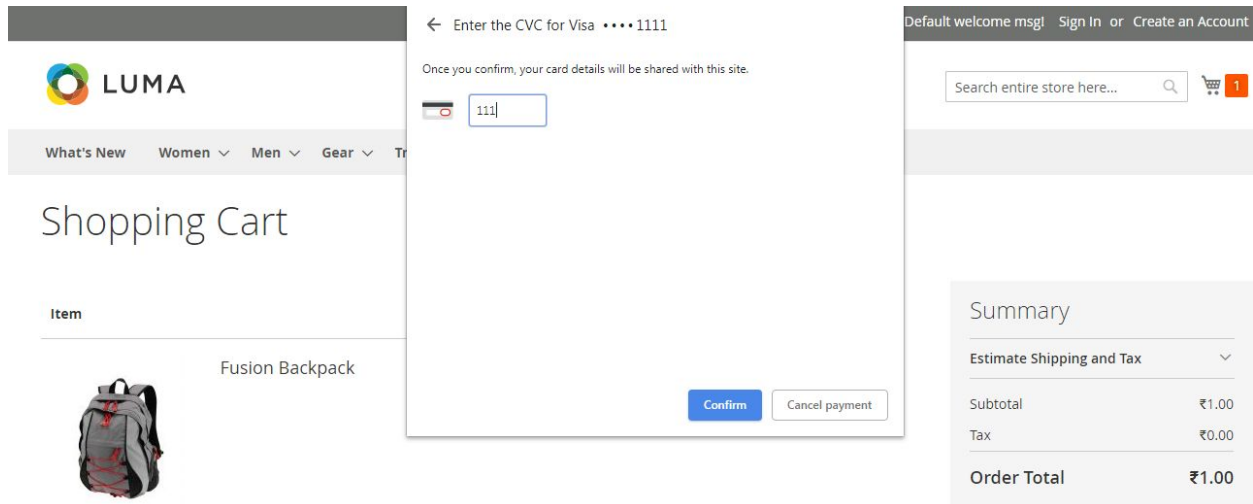
If the payment is approved by Google and Worldpay then success page will be showed up.



12. Payment Request Api for Chrome Browser (Chrome Pay)

The purpose of this feature is fast up the checkout process. It will collect saved data from the browser (only for Chrome now) and it will show in the checkout forms i.e. Shipping and billing address, Saved debit / credit card details. Every actions will happen in one popup window. i.e. One-page checkout





How to Enable?

In admin, configurations are available to enable/disable this feature.

Admin → Stores → Configuration → Sales → Worldpay

Require CVC [store view] Yes

Integration Mode [store view] Direct

Hosted Payment page Integration [store view] Full page

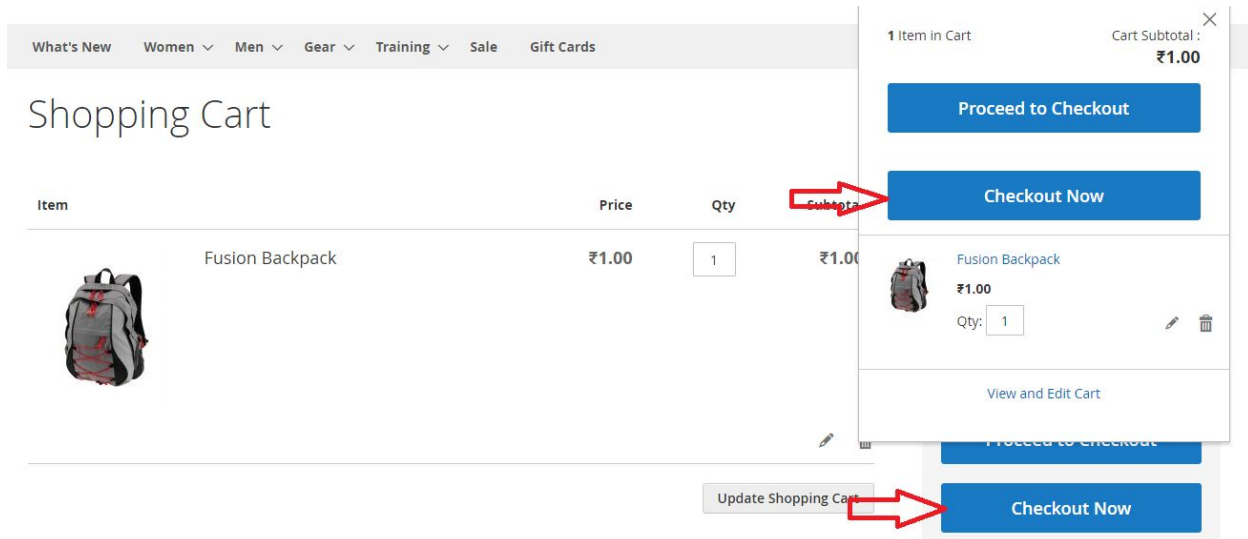
Save Card [store view] Yes

Enable Instant Purchase [store view] No

Enable Chrome Pay [store view] Yes

Chrome Pay Button Name [store view] Checkout Now

Enable the Chrome pay option in above path. Chrome pay will work on only with **Direct mode**. And the button name is configurable from admin. i.e. Checkout Now. Once it is enabled then the button will be available in mini-cart and cart page (Magento cache needs to be cleared)



That button will initiate the Chrome Pay functionality (the pop up).

13. Cron jobs

Some orders are not getting updated as expected in Magento admin **occasionally**. So setting up a cron will help to update those orders. It will take all orders i.e. Direct, Redirect, APM & MOTO which is placed from last 24 hrs. and will sync with Worldpay server. It will not take cancelled orders.

a. How to setup?

By default, Magento has lot of default cron groups. We can run all cron groups and we can able to run single group as well. To avoid run the all groups we have created separate group i.e. **worldpay_orders** to update worldpay orders.

Run the below command to execute the script to update the orders,

```
php bin/magento cron:run --group="worldpay_orders"
```

Once the execution is done you can see the results in the CLI screen.

```
magento@ip-172-31-28-8:/var/www/html/webroot$ php bin/magento cron:run --group="worldpay_orders"
Ran jobs by schedule.
magento@ip-172-31-28-8:/var/www/html/webroot$
```

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
100	2678	100	2355	100	323	2029	278
0:00:01	0:00:01	--:--:--	2030				
100	1636	100	1313	100	323	2035	500
--:--:--	--:--:--	--:--:--	--:--:--	2035			
100	929	100	465	100	464	752	750
--:--:--	--:--:--	--:--:--	--:--:--	751			

b. Configure cron in periodic time

To schedule this cron job in periodic time, you need to setup cron in your server. There are multiple ways to setup cron in server. Below is the one example.

Below is the command line to configure cron,

Crontab -e

Add the following lines to your cron file (add your php.ini file path inside)

```
*/1 * * * * php -c {php.ini_path} {magento_path}/bin/magento cron:run  
--group="worldpay_orders"
```

Above line will execute the script at every 1 min. You can adjust as per your requirement.

14. 3DS2 Configuration

3DS Flex is the most advanced product on the market for 3-D Secure (3DS). It combines the new standard of 3DS2 with traditional 3DS allowing for a single integration.

To make use of the benefits of 3DS Flex you must enable and configure 3DS2. This guide will provide steps on how to achieve this,

Login to Magento Admin → Stores → Configuration → Sales → Worldpay

Under General Configuration you can see 3DS2 configuration like below,

Worldpay	Enable Dynamic 3DS2 Secure Override <small>[store view]</small>	Yes
Fraud Protection	JWT Issuer <small>[store view]</small>	5bd9e0e4444dce153428c940
Gift Cards	Organisational Unit Id <small>[store view]</small>	5bd9b55e4444761ac0af1c80
DOTMAILER ▼	Risk Data <small>[store view]</small>	Yes
SERVICES ▼	Authentication Method <small>[store view]</small>	ThirdParty Authentication
ADVANCED ▼	Test DDC URL <small>[store view]</small>	https://secure-test.worldpay.com/shopper/3ds/ddc.ht
	Production DDC URL <small>[store view]</small>	https://secure.worldpay.com/shopper/3ds/ddc.html
	Test Challenge URL <small>[store view]</small>	https://secure-test.worldpay.com/shopper/3ds/challe
	Production Challenge URL <small>[store view]</small>	https://secure.worldpay.com/shopper/3ds/challenge.l
	Challenge Preference <small>[store view]</small>	Challenge Requested
	Challenge Window Size <small>[store view]</small>	250x400

Above image has the sample value for the required parameter to configure 3DS2 feature. Please clear the Magento cache once configuration is updated.

15. References

<http://support.worldpay.com/support/xmlapi/content/home.htm>

<https://github.com/Worldpay/Worldpay-Magento2-CG/releases>

<http://support.worldpay.com/support/kb/gg/corporate-gateway-guide/content/mobilewallets/googlepay.htm>

<https://beta.developer.worldpay.com/docs/wpg/directintegration/3ds2>