

CoinPayments APIs

The best place to start is our Step-By-Step Integration Guide, which helps you through setting up your CoinPayments account, integration, setting up additional features and testing your integration.

Step-By-Step Integration Guide

<https://blog.coinpayments.net/tutorials/integration/coinpayments-ecommerce-integration-guide>

PROCESS OVERVIEW

- 1) A transaction is initiated by vendor. There are two main types of transactions:
 - a. **Specific Amount:** These transactions are typically created during the checkout process when shopping online, through invoice links, etc. There is a set amount of time (varies by coin) for the customer to make payment, during which the rate is locked. See 'create_transaction' below
 - b. **Any Amount:** These transactions are typical for customers loading/funding accounts such as for online gaming sites, trading sites, exchanges, etc. The deposit address is continually monitored and the rate is determined at the time the payment is received. See 'get_callback_address' below
- 2) CoinPayments defines the receiving address to be used for payment by customer
- 3) The receiving address is continually monitored for any incoming payments
- 4) When an incoming payment is detected on the receiving address, CoinPayments sends an Instant Payment Notification (IPN) to vendor
- 5) IPNs contain various information about the payment including the customer details, amount, status, etc. Different IPN types (containing different information) are returned depending on how the transaction was created (ie. shopping cart checkout, donation button, invoice link, etc...)

INSTANT PAYMENT NOTIFICATIONS (IPNs)

The IPN system will notify your server when you receive a payment and when the payment status changes. IPNs provide an easy and useful way to integrate our payment gateway into your software to automate order completion, digital downloads, accounting, or any process you want to initiate after receiving payment.

PAYMENT STATUS

IPNs will be returned with a 'status' field, here are the currently defined values:

- 2= PayPal Refund or Reversal
- 1 = Cancelled / Timed Out
- 0 = Waiting for buyer funds
- 1 = We have confirmed coin reception from the buyer
- 2 = Queued for nightly payout (if you have the Payout Mode for this coin set to Nightly)
- 3 = PayPal Pending (eChecks or other types of holds)
- 100 = Payment Complete. We have sent your coins to your payment address or 3rd party payment system reports the payment complete

Full IPN Documentation

<https://www.coinpayments.net/merchant-tools-ipn>

PAYMENTS

For custom integrations we have a variety of API calls available to suit many different situations. Typically used for making your own custom checkout page keeping customers on your site, instead of using the CoinPayments hosted checkout page.

Full API List

<https://www.coinpayments.net/apidoc-intro>

There are various methods of accepting payments via the CoinPayments API and each method typically returns a different IPN type with different information contained within the IPN.

- 1) 'create_transaction' – Fixed-price Payments (Specific Amount): You specify a price in fiat or cryptocurrency and what type of coin to receive. The buyer must send the amount of coin returned by the API in order for the transaction to go through; if you want to receive for example \$100 USD worth of Bitcoin for a client's order this is the choice for you. Fixed-price payments also have a multitude of payout options from storing in your CoinPayments Wallet, forwarding to another crypto wallet, converting to another coin, or settling in fiat currency.

Full Documentation for 'create_transaction'

<https://www.coinpayments.net/apidoc-create-transaction>

IPN returned is type = "API"

- 2) 'get_callback_address' – Variable Payments (Any Amount): Gives you an address, any coins received by it are deposited into your CoinPayments Wallet and if you have an IPN URL set will notify your server of the payment. The buyer can send any amount of coins as many times as they want; if you want to assign a client an address they can use to "top up" any time this is the choice for you.

Full Documentation for 'get_callback_address'

<https://www.coinpayments.net/apidoc-get-callback-address>

IPN returned is type="deposit"

- 3) 'create_transfer' – Creates a withdrawal to send coins to a specified address or \$PayByName tag by broadcasting the transaction over the coin networks. Optionally, this will send an IPN when complete. If you are creating a withdrawal to another CoinPayments user and you have their \$PayByName tag or merchant ID you can instead use 'create_transfer' for faster sends that don't go over the coin networks when possible.

Full Documentation for 'create_transfer'

<https://www.coinpayments.net/apidoc-create-withdrawal>

IPN returned is type = "withdrawal"

- 4) 'get_deposit_address' – Addresses returned by this API are for personal use deposits and reuse the same personal address(es) in your wallet. Deposits to these addresses **don't send IPNs**. For commercial-use addresses and/or ones that send IPNs see 'get_callback_address'.

Full Documentation for 'get_deposit_address'

NO IPN RETURNED

<https://www.coinpayments.net/apidoc-get-deposit-address>

- 5) Prebuilt Plugins - Integrate CoinPayments into your online store by using one or our prebuilt plugins or integrations for the major ecommerce platforms, such as Shopify, WooCommerce, Magento and many more.

Full Plugin List

<https://www.coinpayments.net/merchant-tools-plugins>

IPN returned is type = "API"

- 6) Invoice Links – Complete the details on the form to get a link that you can send to customers for payment. When the customer clicks the link, the exchange rate is pegged at that time and the customer has a set amount of time to complete the payment.

Invoice Links

<https://www.coinpayments.net/merchant-tools-request>

IPN returned is type = "button"

- 7) Donation Buttons – Complete the details on the form to get some code you can use as a donation button to receive payments when users click the button. When the user clicks the link,

the exchange rate is pegged at that time and the user has a set amount of time to complete the payment.

Donation Buttons

<https://www.coinpayments.net/merchant-tools-donation-maker>

IPN returned is type = "donation"

INTEGRATION TESTING

Testing is done in a live environment using a free cryptocurrency called Litecoin Testnet (LTCT). You can enable receiving payments in LTCT in the Coin Settings within your CoinPayments account and you can request some free LTCT to test your integration on the Wallets page of your CoinPayments account.

Learn More About Testing With Litecoin Testnet

<https://www.coinpayments.net/help-testnet>

SAMPLE CODE

List of various types of sample code

<https://www.coinpayments.net/apidoc-code>

Some code samples on how to use `get_callback_address` and IPN:

<https://github.com/CoinPaymentsNet/coinpayments-php>

INSTANT PAYMENT NOTIFICATIONS

A complete example of an IPN Handler can be found in:

<https://www.coinpayments.net/downloads/cpipn.phps>

Example building Ripple transactions in response to IPNs with Quick Gateway Kit:

<https://github.com/whotookwarden/rippled-sign-submit>

Handling IPNs for deposits with Quick Gateway Kit:

<https://github.com/whotookwarden/QuickGatewayKit>