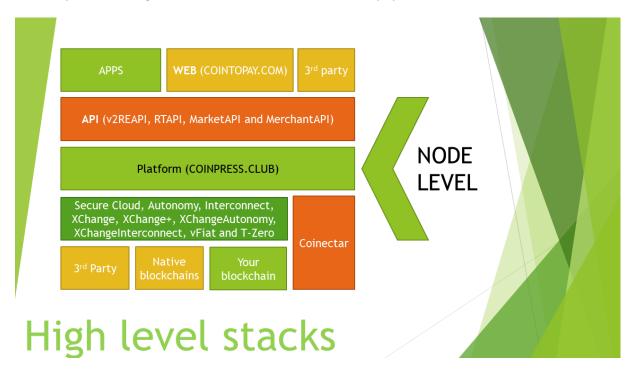
# V2REAPI – Cointopay API documentation

This guide is a consolidated effort to update various API documents and bring them together in one, so that there can be no confusion on the latest status of the API inputs and response outputs. This will be a living document, whereby new feature requests from customers will be added as we move along.

Cointopay exposes API's like: REAPI, v2REAPI, RTAPI, MarketAPI and the MerchantAPI are bolted on top of the Coinpress.club core platform, which fulfils a consumer/merchant payment integrator gateway function to various blockchains utilizing it's stacked technology approach, as can be seen in the image below. Your apps, web- and other 3<sup>rd</sup> parties are connecting to the coinpress platform via the API's. The middle three layers will be released as a standalone installer and can be run by anyone. Further down the line the Cointopay.com WEB component will be split up into a standalone client side web-application called coinpress frontside. More updates on developments as we progress ahead.

Cointopay.com is converting from a vertical to a horizontal, what that means is that you will be able to run a Coinpress frontside (CPF) standalone web-application that is connecting to Cointopay.com (CBP3) or another franchise backend platform payment provider (FBP3). The CBP3/FBP3 components are themselves blockchain based platforms interconnected to different technologies, think of RPC based and ERC20 accessible blockchains and other CBP3/FBP3's and provide core financial services. In this way we achieve several objectives: 1) decentralization and 2) stack integration to achieve greater levels of service for the goal of mass adoption.

Longer term the focus will be on convergence and abstraction to support multiple use cases, not clearly defined yet at this stage. Until that is defined the focus is on payments.



### **Shopping cart plugins**

The shopping cart plugins that we have made all interact with the same API's as are described in this document, same as for the Android app. In many cases its easiest to just use once of the ready made ones for e.g. Magento / WordPress WooCommerce etc. You can find them here:

https://github.com/Cointopay

## **Pay buttons**

You can generate pay buttons, donation forms and pay links under Account > Generated HTML scripts on the website Cointopay.com.

## **API Design guidelines**

When designing apps we prefer that you use push instead of polling techniques to create a better customer experience. Security with clearly defined rationale, customer experience is equally important, anonymity and encryption when possible, focus on privacy without compromising ability to audit.

The standard API's are considered entry level API's, if you consider your requirement to be level up, then we prefer to engage in a discussion, we also would like to get notified on go-live dates and test scenarios.

## V2REAPI - v2 Really Easy API

Endpoint: v2REAPI

#### **Required fields**

Name	
Call	Indication of function call to be used
MerchantID	MerchantID for which API interaction is taking
	place
APIKey	API Key of MerchantID – API Key changes when
	the Account section is updated
AltCoinID	Will result in 0 if not provided
output	json or jsonp

#### **Call Transactions**

Will provide an overview of the transaction details in json or jsonp format.

Call	Output
Create an account via API, the item	If the ownernickname exists it will inform so with a
Sticky will automatically login as well.	different response. The username you make the call with
Removing the Sticky parameter will	is the one that will be eligible for referral fees!
return different variables.	
Create Account	Response for the new account:

https://cointopay.com/v2REAPI?
MerchantID=1&
Call=CreateAccount&
APIKey=APIKEY\_OF\_MERCHANTID1&
output=json&
shoptitle=test&
ownernickname=1222331111blaaa&
ownerpassword=blaaa&
email=email@email.com&
selectedaltcoins=1&
Sticky=1

{"Status":"Success","SessionID":"1818A32CC3E5289A41D 0D98064CB57","APIKey":"IK0K-XCFZTBXOJ8K7OQ01NL23MZOMX6PGJRESKKS","Security Code":"2006710","ID":"14668"}

(variables are altered)

#### **Create Account**

without Sticky:

https://cointopay.com/v2REAPI?

MerchantID=1&

Call=CreateAccount&

APIKey=apikey\_of\_merchant1&

output=json&

shoptitle=test&

ownernickname=129922331blaaa& ownerpassword=blaaa&

email=email@gmail.com&selectedaltc
oins=1

Please note that you can enable 2FA via the website, however this makes it harder for the end user to login, usually only tech savvy users use it. We don't enforce it, it is optional! Output

MerchantID, Security Code, APIKey, 2FAcode, test checkout link, apilogin link:

order:

[14691,-231650442,"HAWBF4\_4C-LFMEZYE9VLKYGQGWORBWP90G-

ZDXXEU","dtviq7xf4luug2ugrv6gh4npzfkx3a37","https://cointopay.com/MerchantAPI?Checkout=true&MerchantID=14691&Amount=0.00000001&AltCoinID=1&CustomerReferenceNr=test-invoice&SecurityCode=-

231650442&output=json","https://cointopay.com/Login? User=129922331111blaaa&Password=blaaa&api&output =json"]

#### Standard Checkout:

https://cointopay.com/MerchantAPI? Checkout=true&MerchantID=1&Amou nt=100&AltCoinID=666&CustomerRef erenceNr=buy&SecurityCode=1&outp ut=json {"MerchantID":1,"AltCoinID":666,"TransactionID":229712,"coin Address": "d9ecf932-80df-4317-9887-77bee5fff0fa-b506b441e8f2-438a-92de-29cf5da811d9","CustomerReferenceNr":"buy me", "SecurityCode":something from 20188, "inputCurrency": "PKR", "Security": "A XFOLJVZ0OLFQ8X QGXUEUKVPTSKCGUEU7HLD9YPK", "Amount": "101.02000", "Co inName":"vpakistanirupee","QRCodeURL":"https://chart.googl eapis.com/chart?chs=300&cht=qr&chl=vpakistanirupee:d9ecf9 32-80df-4317-9887-77bee5fff0fa-b506b441-e8f2-438a-92de-29cf5da811d9?amount=101.02000","RedirectURL":"https://coi ntopay.com/Invoice.jsp?ConfirmCode=A XFOLJVZ0OLFQ5J8XU EUKVPTSKCGUEU7HLD9YPK&MerchantID=1&AltCoinID=666&T ransactionID=229712&coinAddress=d9ecf932-80df-4317-9887-77bee5fff0fa-b506b441-e8f2-438a-92de-

29cf5da811d9&CustomerReferenceNr=buy+something+from+me&SecurityCode=-

2018817909&inputCurrency=PKR","shortURL":"https://tinyurl.com/y7ufb2wz","MinerFee":"0.0","ExpiryTime":60,"TZERO":"TZERO----229712----101.02000-----vpakistanirupee----

A\_XFOLJVZ0OLFQ5J8XQGXUEUKVPTSKCGUEU7HLD9YPK----PIN0281----

666", "SupportedCoins":null, "Transactions":null, "error":null, "success":0, "result":null}

	Or "Invalid Merchant or SecurityCode. You can check the Merchant
	account section. Please correct."
QA: Details about existing transaction: https://cointopay.com/v2REAPI?Merc hantID=14351&Call=QA&APIKey=_&o utput=json&TransactionID=230196&C onfirmCode=YGBMWCNW0QSJVSPQB CHWEMV7BGBOUIDQCXGUAXK6PUA	{"MerchantID":14351,"AltCoinID":1,"TransactionID":230196,"c oinAddress":"3BpxsL4JyAkjeex5wnC52mhXXvd61pzzWy","Cust omerReferenceNr":"13","SecurityCode":-903575721,"inputCurrency":"USD","Security":"YGBMWCNW0 QSJVSPQBCHWEMV7BGBOUIDQCXGUAXK6PUA","Amount":"0.00868135","CoinName":"bitcoin","QRCodeURL":"https://chart.googleapis.com/chart?chs=300&cht=qr&chl=bitcoin:3BpxsL4Jy Akjeex5wnC52mhXXvd61pzzWy?amount=0.00868135","Redire ctURL":"https://cointopay.com/Invoice.jsp?ConfirmCode=YGB MWCNW0QSJVSPQBCHWEMV7BGBOUIDQCXGUAXK6PUA&Me rchantID=14351&AltCoinID=1&TransactionID=230196&coinAd dress=3BpxsL4JyAkjeex5wnC52mhXXvd61pzzWy&CustomerRef erenceNr=13&SecurityCode=YGBMWCNW0QSJVSPQBCHWEM V7BGBOUIDQCXGUAXK6PUAYGBMWCNW0QSJVSPQBCHWEM V7BGBOUIDQCXGUAXK6PUAYGBMWCNW0QSJVSPQBCHWEM V7BGBOUIDQCXGUAXK6PUAY,"shortURL":"https://tinyurl.com/ybdqwjvf","MinerFee":"0.00190000","ExpiryTime":7200,"TZE RO":"0","Status":"waiting","SupportedCoins":null,"Transaction s":null,"error":null,"success":0,"result":null}
GetSendToAddress (Normal method) https://cointopay.com/GetSendToAdd ress?MerchantID=1&coinAddress=1& AltCoinID=666&Amount=1&Charging Method=fixed- fee&PayoutMonth=8&TransactionTot al=100&output=json	"Payment Confirmation Required"  When you want to disable email based confirmations you need to use your APIKey, for security reasons we only enable it on request.
add Schedule=1 to Schedule the transaction instead of sending straight away.	
Using inputCurrency will convert the amount to the right crypto currency amount.	
GetSendToAddress (TZERO method)  (if valid API key is provided it will send)	https://cointopay.com/GetSendToAddress?MerchantID=13659 &APIKey=key&coinAddress=test123&AltCoinID=666&TZERO=T ZERO227829101.02000vpakistanirupee AX8CYUKP1N_Q4CJJMDIOKKRHIQ1XL3L6PDA_YLB0R4K PIN0557 666&TZEROID=227829&SendAmount=101.02000&pin=0557&C hargingMethod=fixedfee&PayoutMonth=8&Amount=101.0200 0&TransactionTotal=1&output=json  "Transaction status for 227829 is PAID, will not continue"
Call=Transactions	This needs MerchantID APIKey and output, optional AltCoinID to limit the json dataset.  {"data": [

	That B.v. Crypto rayment rovider you can trust
	{"ID":"T0002319","CreatedOn":"2018-08-16 22:25:44","OriginalAmount":"0.00000001","Amount":"0.10112 103","Status":"expired","CustomerReferenceNr":"Social donation","CoinAddressUsed":"XXXX","TransactionConfirmedO n":"NA","Name":"BlackCoin","InputCurrency":"BLK","ConfirmC ode":"FWXQTRL5OV7P15- P7UOPVFQ9IIDC5KFBDW_CT2GTPHW","ExpiredOn":"2018-08- 17 03:25:44"}]} Status can be: expired, paid, awaiting-fiat, waiting, underpaid, vtoken-claimed, vtoken-open
Call=Balance	MerchantID, APIKey and AltCoinID will result in balance for that AltCoin
Call=BalanceOverview	If no inputCurrency is provided then we select EUR and show all AltCoins that you have enabled in your account.
	MerchantID, APIKey and inputCurrency(optional)
	[{"id":1,"name":"Bitcoin","shortname":"BTC","longname":"BTC ","balance":"0.0","fiat":"EUR","fiatvalue":"0.00"},{"id":2,"name ":"Litecoin","shortname":"LTC","longname":"LTC","balance":"0 .0","fiat":"EUR","fiatvalue":"0.00"}]
Call=Timesnapshot	Shows date and time of the last Transaction created for that AltCoinID
	Input needed: MerchantID, APIKey and AltCoinID
	e.g. 2018-12-31 08:00:00.0
LTR stands for Long Term Retention, it is defined as an address that follows the normal transaction process, only difference is that it will remain open until the moment the consolidate command is called or if the expiry date has passed	Call=LTRNewAddress (needs MerchantID, APIKey and AltCoinID) Call=LTRAddressOverview (needs MerchantID, APIKey and AltCoinID) Call=LTRConsolidate (needs MerchantID, APIKey and AltCoinID)
Call=ReflexTradeView	Needs MerchantID, APIKey, AltCoinID
	Is used as an internal web call to fill the Reflextrader wallet view
	Shows ID of AltCoinID, Coin (Name), LongName (Coin Abbreviation), Offers Buys and Sells for that Coin on the market) and Balance for that Coin belonging to this MerchantID
Call=Thrashit, FiatPayout, Payout,	Thrashit will remove the balance from this Merchant
SWAP and CreateTransaction	FiatPayout will convert the balance to e.g. Euro ready for payout to bank or PayPal.
	Payout will remove the Balance and set it to Payout, used for internal purposes

	SWAP does just that swap from one balance to the other
	CreateTransaction is used for buying currency, it will show the amount of fiat that needs to get paid in order to get that specific amount of crypto currency
Call=GenerateSecurityID	Generates a random totp security string to be used for TOTP purposes
Call=GenerateTOTP	You need to have the TOTPSecurity parameter to generate a valid 6 digit pin
InvoiceScheduler	Schedules an invoice, you need to provide ScheduleID (1=Hourly, 2=Daily, 3=Weekly, 4=Monthly, 5=Yearly)
	Also needs an Amount and a CustomerReferenceNr as well as an inputCurrency and an EmailReceiver parameter
	If you set the DeleteSchedule parameter with the ID of the schedule it will disable the schedule. You cannot enable it back again.
Call=Interconnect	Post data to this endpoint, this endpoint is compatible with the
dan intersormest	bitcoin rpc api e.g. getnewaddress
	Getreceivedbyaddress
	Getinfo
	Getaccountaddress
	Backupwallet Getbalance
	Sendtoaddress
	Sendfrom
Call=Fiatlookup	This call needs:
	Amount up to 8 decimal points
	FiatMoney e.g. EUR
	FiatLookup true/false
	Also it needs the usual MerchantID, APIKey does not have to be filled in correctly and AltCoinID
Call=Ticker	It needs the usual MerchantID, APIKey does not have to be filled in correctly and AltCoinID
	inputCurrency is optional then it will default to EUR
Call= inputCurrencyList	Get an overview of all supported currencies and their properties
Call=VTOKEN	Direction=1 = VTokenOUT otherwise it's VTokenIN
	MerchantID
	Amount
	AltCoinID
	It will make a tokenstring from the amount balance provided, and reduce it from the account or add it to the account.
	This needs a session

-
Provide a list of all supported coins and their status and properties
Enable or Disable a crypto currency for your account
Interface towards Coinectar
All currencies that use this endpoint interact with Coinectar (internal Coinpress blockchain) it exposes the following rpc functionality: getnewaddress Getreceivedbyaddress Getinfo Backupwallet Getaccountaddress
Following is not supported:  Getbalance
<del>Sendtoaddress</del>
Sendfrom

#### **RTAPI**

**Endpoint: RTAPI** 

Please read the full RTAPI details here:

https://s3-eu-west-1.amazonaws.com/cointopay/files/Reflextraderv1.10.pdf

#### **MerchantAPI**

**Endpoint: MerchantAPI** 

#### Checkout=true

Our really easy API (REAPI)© functionality allows you to further integrates into your backend system. Generate and Integrate donation and fundraiser buttons with your online activities.

The secure Cointopay.com/MerchantAPI?Checkout=true is the main shopping cart checkout system.It is able to generate invoices dynamically. The Invoice is shown afterwards.

Explanation of the fields required for the HTML POST (or URL parameters):

#### Mandatory

Checkout: set to true is always required in the URL, since that is the functionality we provide! MerchantID: Register an account on Cointopay.com, the MerchantID is automatically generated and

can found in your account (after login).

SecurityCode: The unique code is to identify the Merchant. It can be found in your account (after login).

Amount: The amount for the crypto currency selected that needs to be transferred to you the Merchant.

AltCoinID: 1 for BitCoin, 2 for LiteCoin, 8 for Dash, 9 for DogeCoin, 10 for BlackCoin etc. Check the full list via Call=COIN-LIST

CustomerReferenceNr: Your shopping cart order reference number. It will be sent back to the TransactionConfirmURL as mentioned in your account details.

inputCurrency: Check out Amount in EUR, USD, GBP, CAD or RUR, the AltCoinID specifies the target currency. Please note that the actual list of inputCurrencies can be found here Call= inputCurrencyList and it includes different types, if you are missing one please let us know.

ADDRESS EXTENSION can be used to collect customer data, and is visible on the form and in the email:

hasaddress: is set to 1 if you want to provide billing details like:

billingfirstname,billinglastname,billingorg,billingphone,billingskype,billingemail,billingaddress,billingpostalcode,billingcity and billingcounty. You may also add shippinginformation. output:can be set to json or jsonp if required. Otherwise leave empty.

#### Generated

TransactionID: Generated by the MerchantAPI. It is the reference point from the Cointopay transaction system.

coinAddress: Generated by the MerchantAPI, no need to set it. It will constantly change for security reasons.

ConfirmCode: Strictly speaking not required, this is for the absolute paranoia, the input you generated for your orders can be verified using the ConfirmCode. Let us know and we send you the work instruction.

#### In json:

{"MerchantID":1,"AltCoinID":666,"TransactionID":229712,"coinAddress":"d9ecf932-80df-4317-9887-77bee5fff0fa-b506b441-e8f2-438a-92de-29cf5da811d9","CustomerReferenceNr":"buy something from me","SecurityCode":-

 $20188, "inputCurrency": "PKR", "Security": "A\_XFOLIVZ0OLFQ8XQGXUEUKVPTSKCGUEU7HLD9YPK", "Amount": "101.02000", "CoinName": "vpakistanirupee", "QRCodeURL": "https://chart.googleapis.com/chart?chs=300&cht=qr&chl=vpakistanirupee: d9ecf932-80df-4317-9887-77bee5fff0fa-b506b441-e8f2-438a-92de-$ 

29cf5da811d9?amount=101.02000","RedirectURL":"https://cointopay.com/Invoice.jsp?ConfirmCode=A\_XFOLJ VZ0OLFQ5J8XUEUKVPTSKCGUEU7HLD9YPK&MerchantID=1&AltCoinID=666&TransactionID=229712&coinAddre ss=d9ecf932-80df-4317-9887-77bee5fff0fa-b506b441-e8f2-438a-92de-

29cf5da811d9&CustomerReferenceNr=buy+something+from+me&SecurityCode=-

2018817909&inputCurrency=PKR","shortURL":"https://tinyurl.com/y7ufb2wz","MinerFee":"0.0","ExpiryTime": 60,"TZERO":"TZERO----229712----101.02000----vpakistanirupee----

A XFOLJVZ0OLFQ5J8XQGXUEUKVPTSKCGUEU7HLD9YPK----PIN0281----

666", "SupportedCoins":null, "Transactions":null, "error":null, "success":0, "result":null}

Or

"Invalid Merchant or SecurityCode. You can check the Merchant account section. Please correct."

Furthermore, you may use post or get, the end result is the same: an end customer INVOICE page. All data in transit/at rest goes via SSL/HTTPS/AES Encryption to/from the Cointopay back office.

MerchantIBANIZER functionality is not being advertised any longer.

#### Confirm=true

This option checks the payment status of the transaction, if it is paid it will set it to paid

#### **MarketAPI**

del parameter will delete a product

rating parameter with author, merchantid, productid, email, title, comment will create a product review

POSDATA parameter with: MerchantID and APIKey

Call=INSERT, UPDATE, DELETE, SHOW based on: KeyData parameter

INSERT AND UPDATE can have ValueData which will SHOW as a application/json file when retrieved

**POSBLOB** with file upload parameter files123 and result in <url>/M\_Images?POS=1&ID=<id> only accepted are images.

#### Otherwise:

listadd will add it there

listdel will delete from the Merchants shortlist

if both not existent then we add product to market:

ProductName

ProductDescription

CategoryID

PriceCurrency

Address

Price

MerchantID

(optional) edited of the product, when that is provided the existing product will get updated

Up to 5 picture file uploads (jpeg, gif and png)

### **PUSH API**

The need for real time updates is clear, we are providing several end points:

wss://wss.cointopay.com/transactions (updates on transaction status)

it is not only for TZERO but also regular transactions, a notification will be sent to this, so you can act accordingly.

When a transaction is confirmed/COMPLETE

Transaction <ID> set to Confirmed

"TZERO:" + transactionid + ":COMPLETE"

you also have "TZERO:" + transactionid + ":COMPLETE:NOTENOUGH"

and "TZERO:" + transactionid + ":FAILED"

wss://wss.cointopay.com/echo (user chat and droid1337 trade market update information)

wss://wss.cointopay.com/trade

Different notification events:

TRADE: + AltCoinID

**BUY: + AltCoinID** 

SELL: + AltCoinID

For any questions, please contact <a href="mailto:support@cointopay.com">support@cointopay.com</a>

## **Cointopay Support team**

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