

BTCPAY SERVER

Windows Deployment

Crypto InterBanking Project

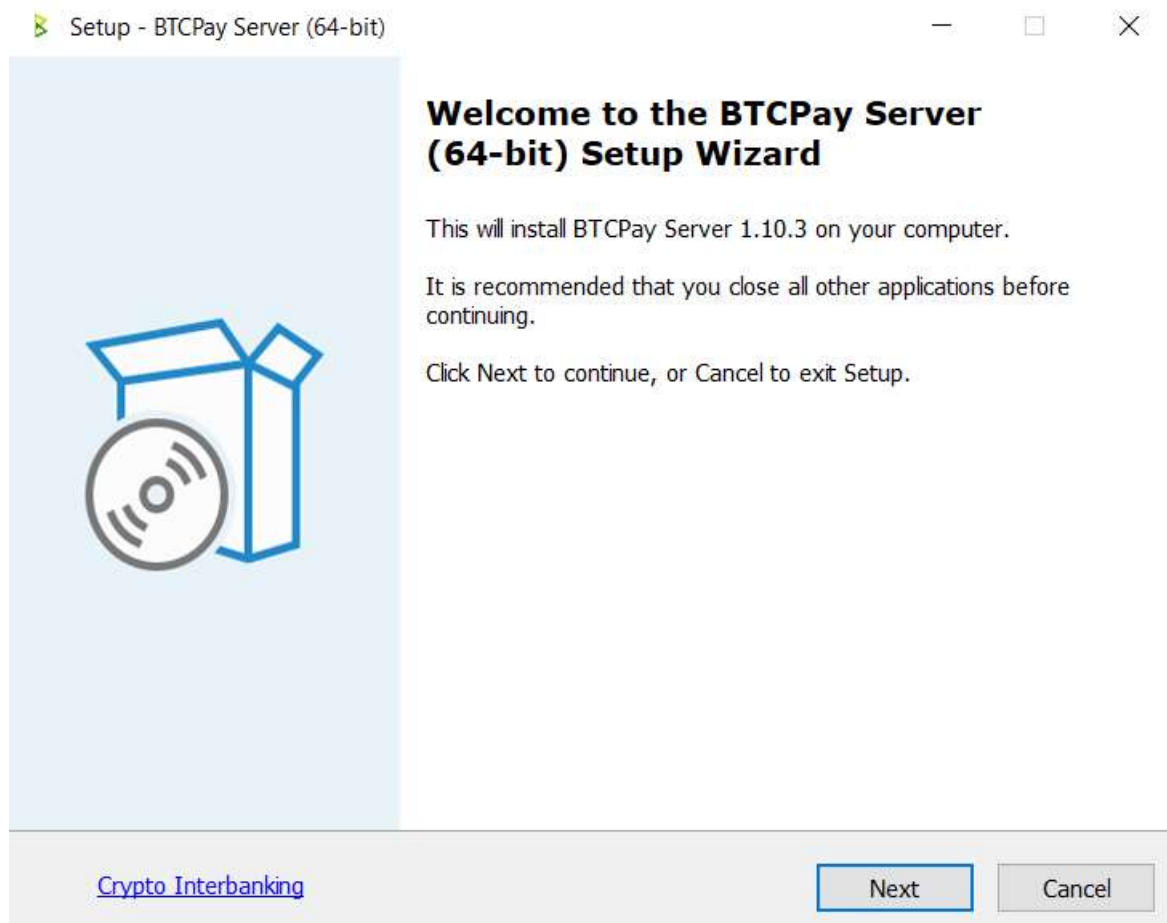


BTCPay Server Deployment

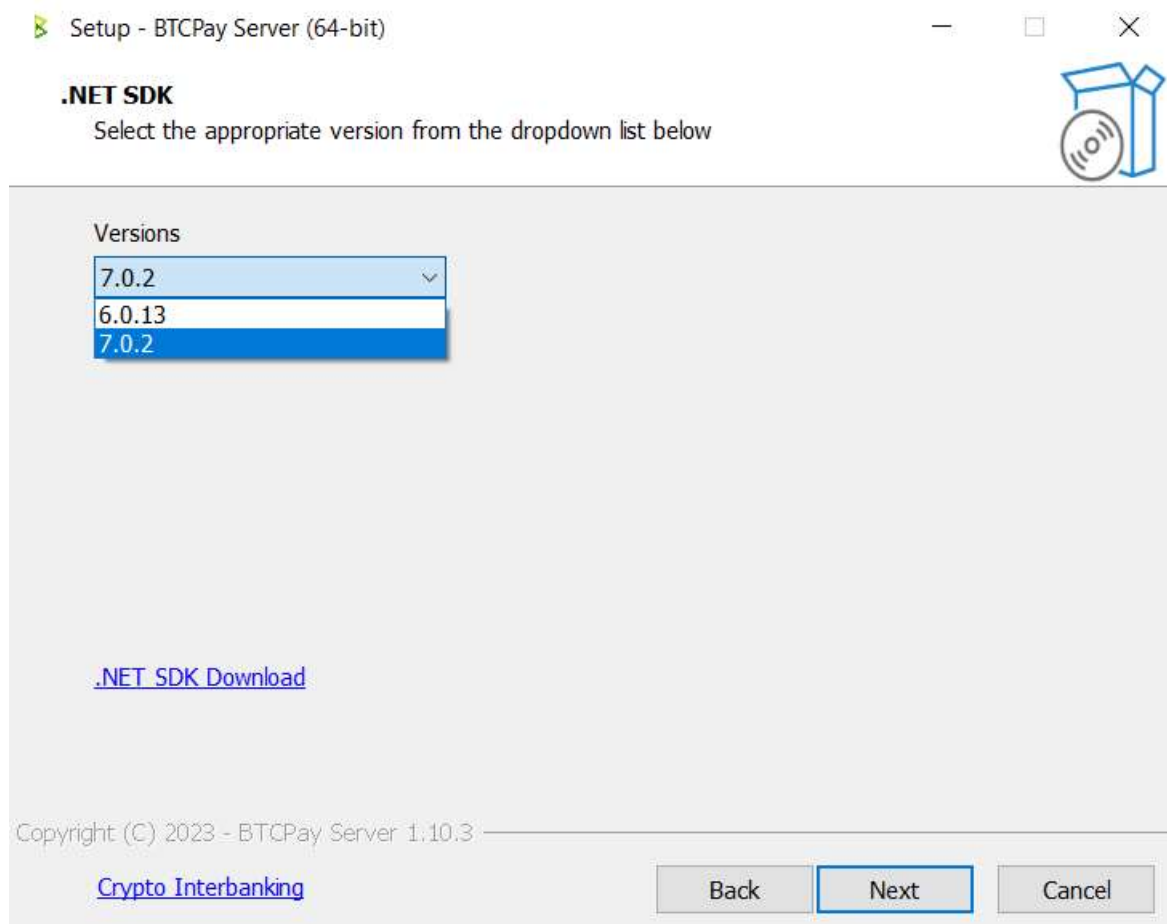
Regtest Chain // Locally

Installation

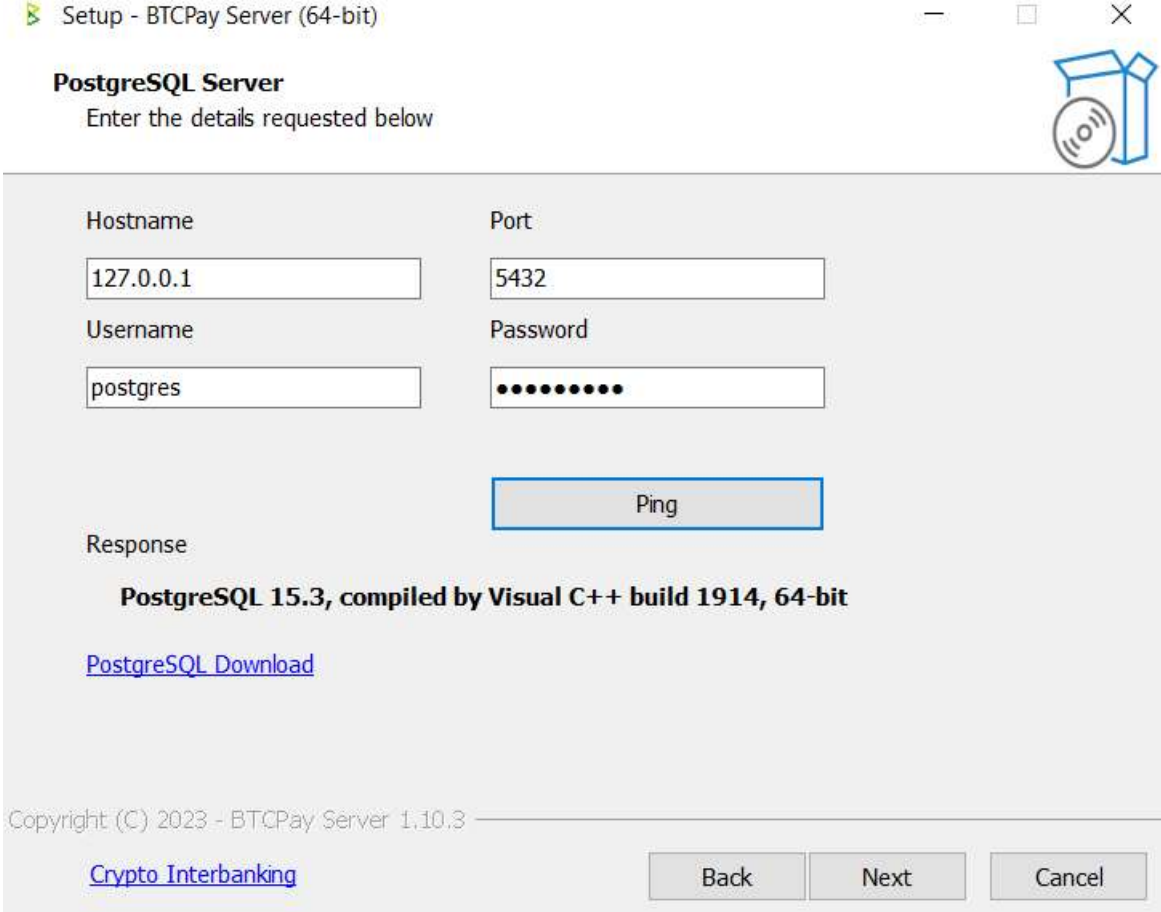
Double click on the installer file and follow the steps.



There are **two** dependencies which should be met before proceeding.



Enter the details required (e.g. hostname, username, etc.) and the click on 'Ping' button.



The screenshot shows a window titled "Setup - BTCPay Server (64-bit)". Inside, the "PostgreSQL Server" section prompts the user to "Enter the details requested below". There are four input fields: "Hostname" with the value "127.0.0.1", "Port" with the value "5432", "Username" with the value "postgres", and "Password" which is masked with dots. A "Ping" button is located below the password field. The "Response" section displays the text "PostgreSQL 15.3, compiled by Visual C++ build 1914, 64-bit" and a link to "PostgreSQL Download". The footer contains the copyright notice "Copyright (C) 2023 - BTCPay Server 1.10.3", a link to "Crypto Interbanking", and three buttons: "Back", "Next", and "Cancel". A Bitcoin icon is visible in the top right corner of the window.

Setup - BTCPay Server (64-bit)

PostgreSQL Server
Enter the details requested below

Hostname: 127.0.0.1
Port: 5432
Username: postgres
Password:

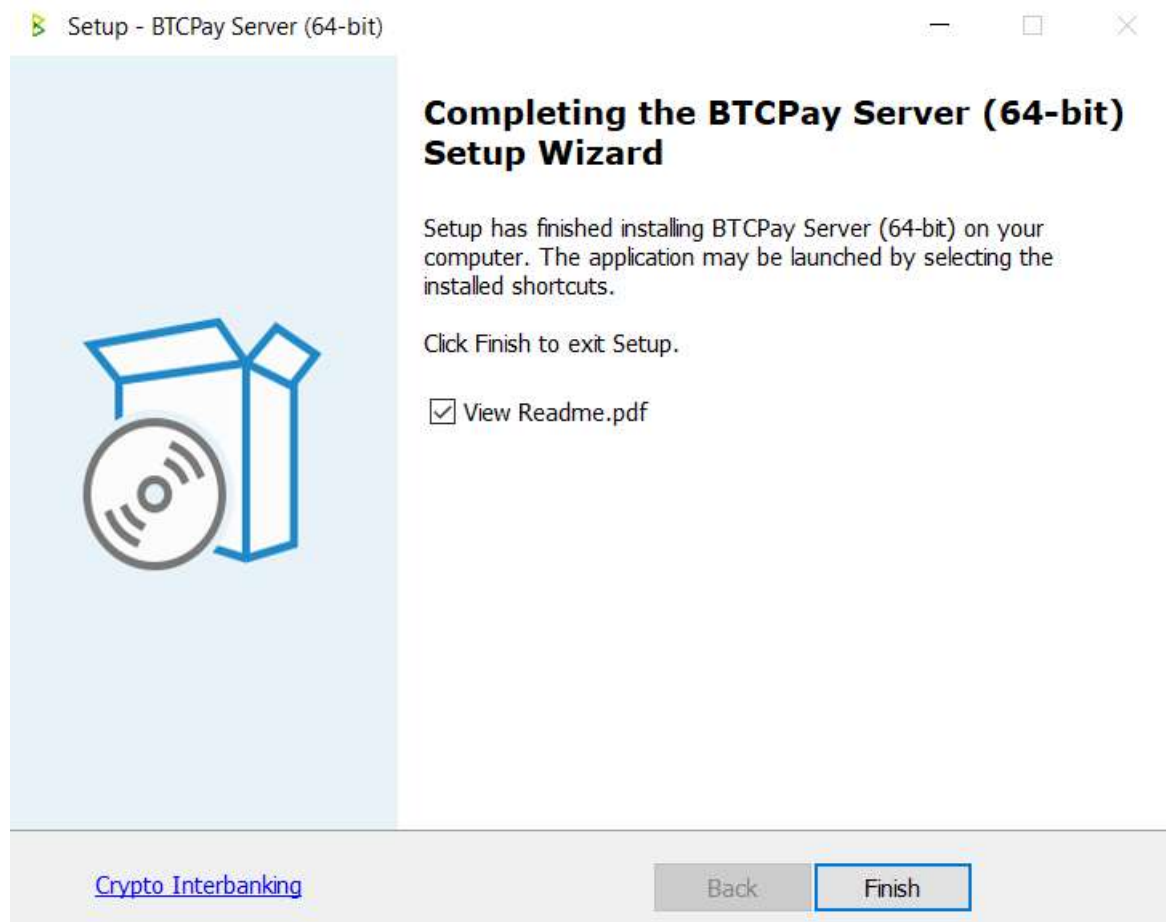
Ping

Response
PostgreSQL 15.3, compiled by Visual C++ build 1914, 64-bit
[PostgreSQL Download](#)

Copyright (C) 2023 - BTCPay Server 1.10.3
[Crypto Interbanking](#)

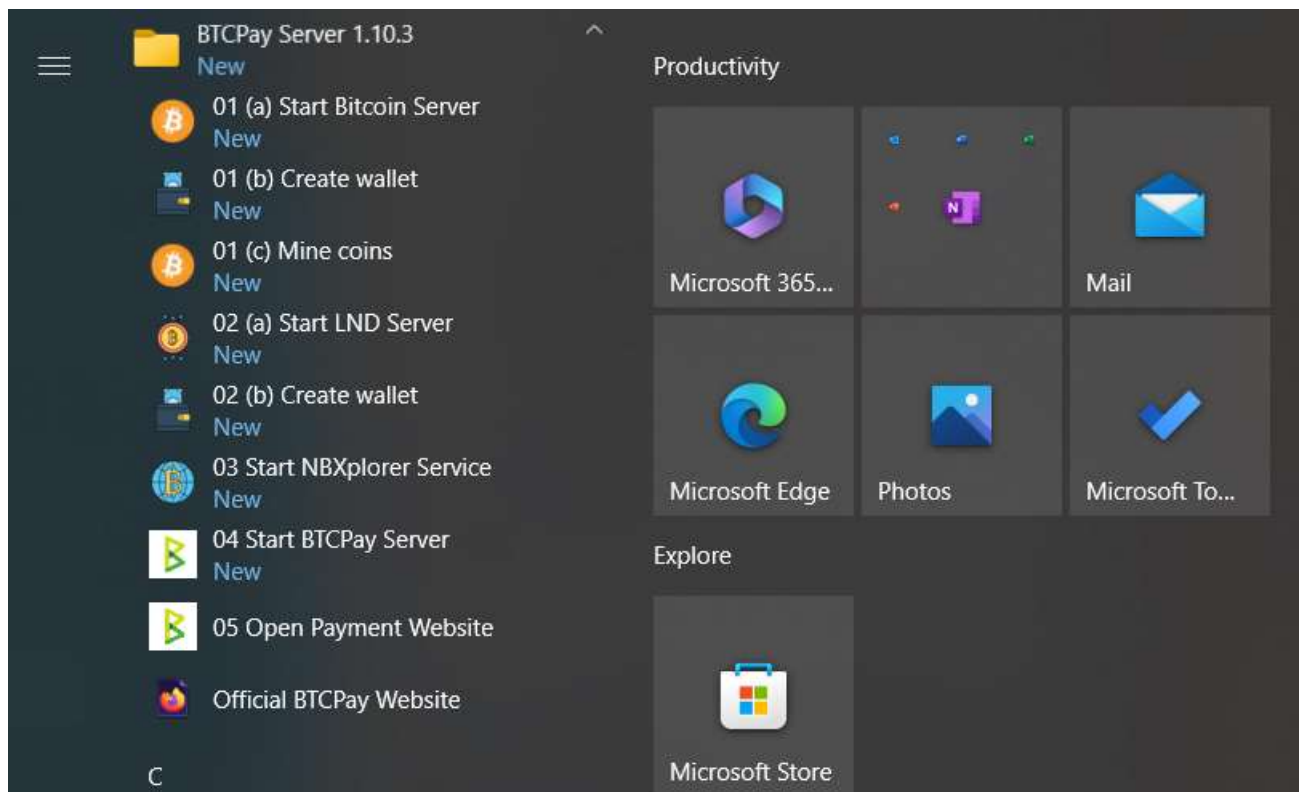
Back Next Cancel

Successful installation!

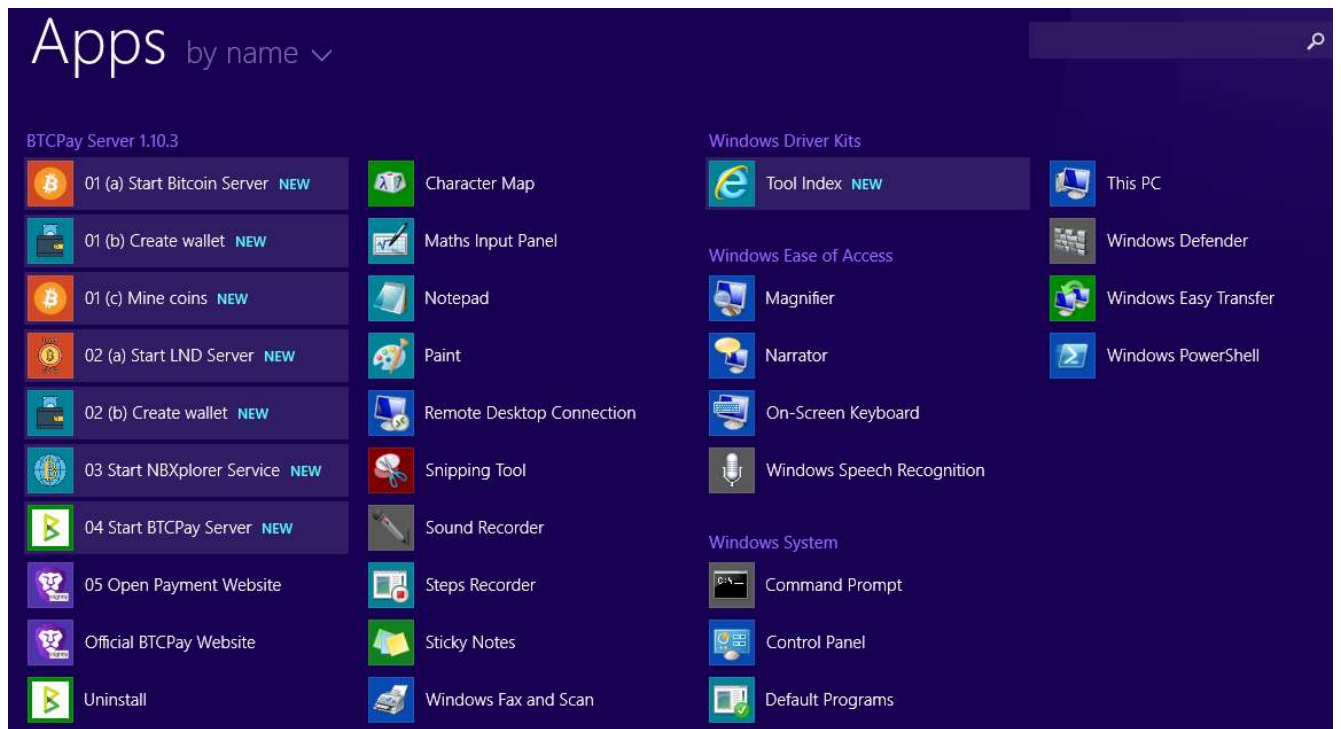


We are in the process of improving this installer. We value your feedback!

Windows 10



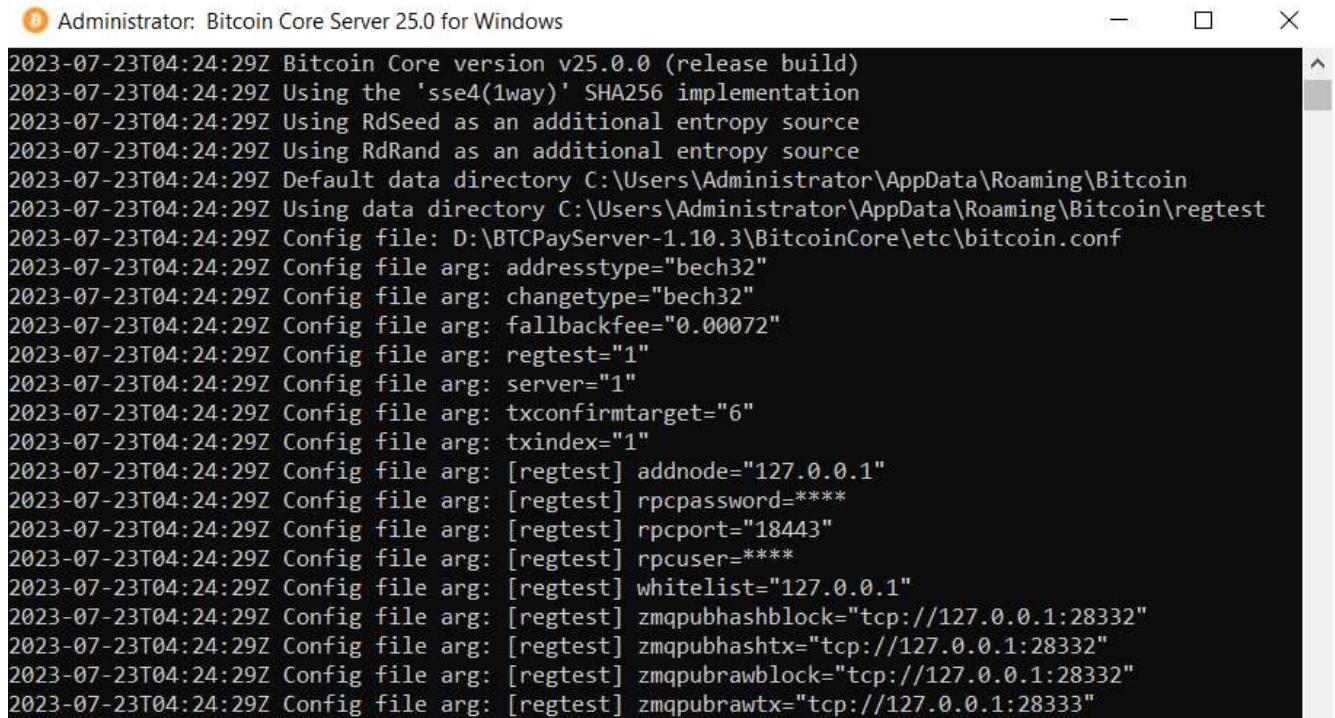
Windows 8.1



Steps

1.- Start Bitcoin Server

Go to Start Menu → BTCPay Server 1.10.3 → Click on '01 (a) Start Bitcoin Server'

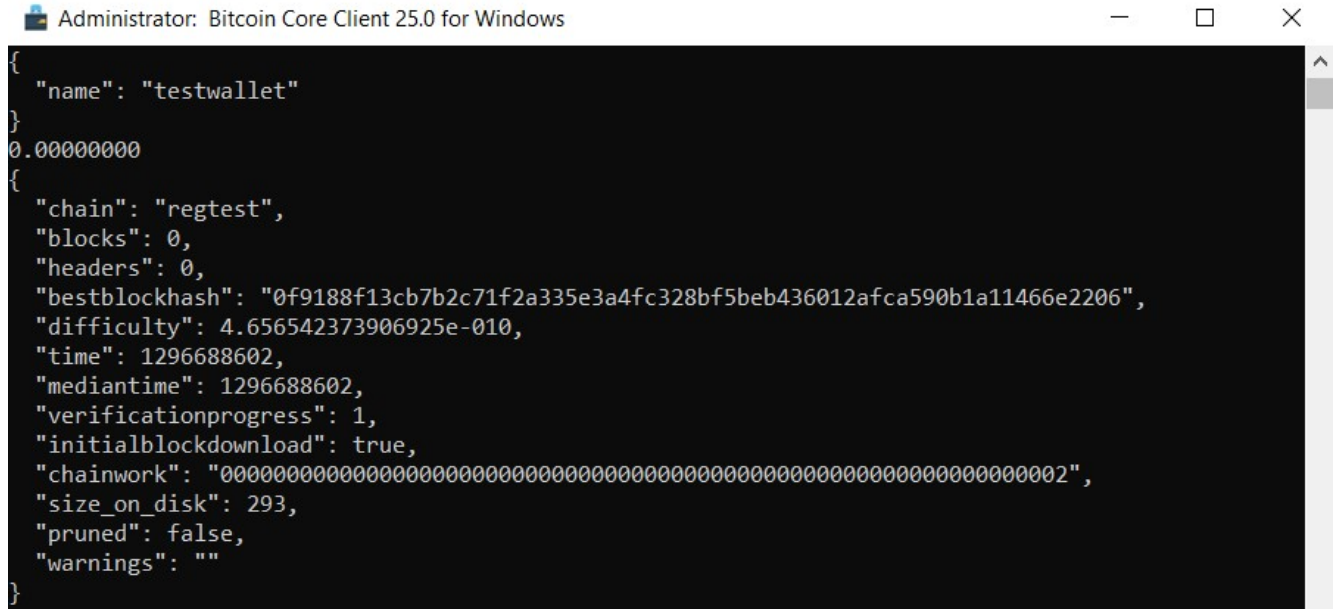


```
Administrator: Bitcoin Core Server 25.0 for Windows
2023-07-23T04:24:29Z Bitcoin Core version v25.0.0 (release build)
2023-07-23T04:24:29Z Using the 'sse4(1way)' SHA256 implementation
2023-07-23T04:24:29Z Using RdSeed as an additional entropy source
2023-07-23T04:24:29Z Using RdRand as an additional entropy source
2023-07-23T04:24:29Z Default data directory C:\Users\Administrator\AppData\Roaming\Bitcoin
2023-07-23T04:24:29Z Using data directory C:\Users\Administrator\AppData\Roaming\Bitcoin\regtest
2023-07-23T04:24:29Z Config file: D:\BTCPayServer-1.10.3\BitcoinCore\etc\bitcoin.conf
2023-07-23T04:24:29Z Config file arg: addresstype="bech32"
2023-07-23T04:24:29Z Config file arg: changetype="bech32"
2023-07-23T04:24:29Z Config file arg: fallbackfee="0.00072"
2023-07-23T04:24:29Z Config file arg: regtest="1"
2023-07-23T04:24:29Z Config file arg: server="1"
2023-07-23T04:24:29Z Config file arg: txconfirmtarget="6"
2023-07-23T04:24:29Z Config file arg: txindex="1"
2023-07-23T04:24:29Z Config file arg: [regtest] addnode="127.0.0.1"
2023-07-23T04:24:29Z Config file arg: [regtest] rpcpassword=****
2023-07-23T04:24:29Z Config file arg: [regtest] rpcport="18443"
2023-07-23T04:24:29Z Config file arg: [regtest] rpcuser=****
2023-07-23T04:24:29Z Config file arg: [regtest] whitelist="127.0.0.1"
2023-07-23T04:24:29Z Config file arg: [regtest] zmqpubhashblock="tcp://127.0.0.1:28332"
2023-07-23T04:24:29Z Config file arg: [regtest] zmqpubhashtx="tcp://127.0.0.1:28332"
2023-07-23T04:24:29Z Config file arg: [regtest] zmqpubrawblock="tcp://127.0.0.1:28332"
2023-07-23T04:24:29Z Config file arg: [regtest] zmqpubrawtx="tcp://127.0.0.1:28333"
```


Step 2: Create a Bitcoin wallet

Go to Start Menu → BTCPay Server 1.10.3 → Click on '01 (b) Create wallet'

This step should be performed only once.

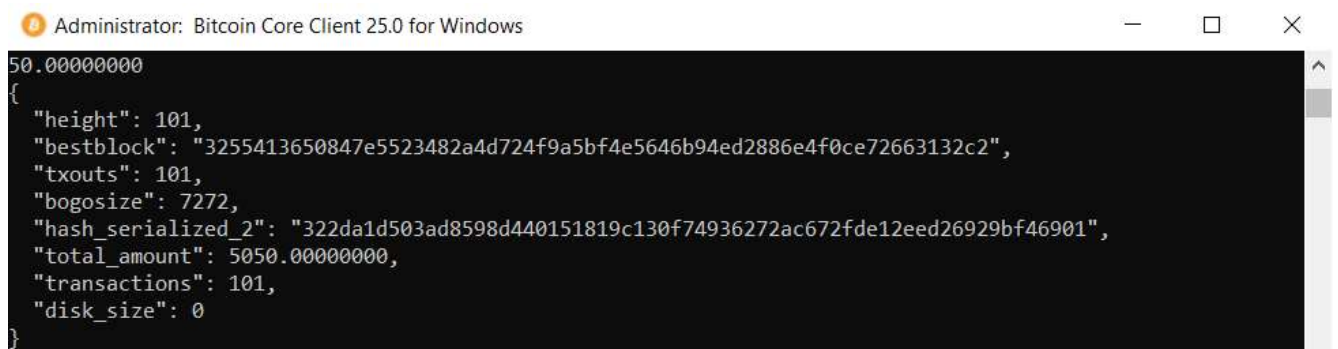


```
Administrator: Bitcoin Core Client 25.0 for Windows
{
  "name": "testwallet"
}
0.00000000
{
  "chain": "regtest",
  "blocks": 0,
  "headers": 0,
  "bestblockhash": "0f9188f13cb7b2c71f2a335e3a4fc328bf5beb436012afca590b1a11466e2206",
  "difficulty": 4.656542373906925e-010,
  "time": 1296688602,
  "mediantime": 1296688602,
  "verificationprogress": 1,
  "initialblockdownload": true,
  "chainwork": "0000000000000000000000000000000000000000000000000000000000000002",
  "size_on_disk": 293,
  "pruned": false,
  "warnings": ""
}
```

Step 3: Mine some BTC coins

Go to Start Menu → BTCPay Server 1.10.3 → Click on '01 (c) Mine coins'

This step should be performed only once.



```
Administrator: Bitcoin Core Client 25.0 for Windows
50.00000000
{
  "height": 101,
  "bestblock": "3255413650847e5523482a4d724f9a5bf4e5646b94ed2886e4f0ce72663132c2",
  "txouts": 101,
  "bogosity": 7272,
  "hash_serialized_2": "322da1d503ad8598d440151819c130f74936272ac672fde12eed26929bf46901",
  "total_amount": 5050.00000000,
  "transactions": 101,
  "disk_size": 0
}
```

Step 4: Start Lightning Network Daemon (LND)

Go to Start Menu → BTCPay Server 1.10.3 → Click on '02 (a) Start LND Server'

```
Administrator: LN Server 0.16.99-beta for Windows
lnd version 0.16.99-beta commit=tor/v1.1.1-48-ga6fc5d075-dirty
Attempting automatic RPC configuration to bitcoind
Automatically obtained bitcoind's RPC credentials
2023-07-23 14:32:51.608 [INF] LTND: Version: 0.16.99-beta commit=tor/v1.1.1-48-ga6fc5d075-dirty, build=production
, logging=default, debuglevel=trace
2023-07-23 14:32:51.611 [INF] LTND: Active chain: Bitcoin (network=regtest)
2023-07-23 14:32:51.640 [DBG] RRPC: Router RPC server successfully register with root gRPC server
2023-07-23 14:32:51.640 [DBG] VRPC: Versioner RPC server successfully registered with root gRPC server
2023-07-23 14:32:51.641 [INF] RPCS: RPC server listening on 127.0.0.1:10009
2023-07-23 14:32:51.649 [DBG] RRPC: Router REST server successfully registered with root REST server
2023-07-23 14:32:51.649 [DBG] VRPC: Versioner REST server successfully registered with root REST server
2023-07-23 14:32:51.652 [INF] RPCS: gRPC proxy started at 127.0.0.1:8080
2023-07-23 14:32:51.652 [INF] LTND: Opening the main database, this might take a few minutes...
2023-07-23 14:32:51.652 [INF] LTND: Opening bbolt database, sync_freelist=false, auto_compact=false
2023-07-23 14:32:51.706 [INF] LTND: Creating local graph and channel state DB instances
2023-07-23 14:32:51.766 [DBG] CHDB: Populating in-memory channel graph, this might take a while...
2023-07-23 14:32:51.766 [DBG] CHDB: Finished populating in-memory channel graph (took 233.9µs, num_node_features=
0, num_nodes=0, num_channels=0)
2023-07-23 14:32:51.767 [INF] CHDB: Checking for schema update: latest_version=29, db_version=29
2023-07-23 14:32:51.768 [INF] CHDB: Checking for optional update: prune_revocation_log=false, db_version=empty
2023-07-23 14:32:51.768 [INF] LTND: Database(s) now open (time_to_open=114.6331ms)!
2023-07-23 14:32:51.768 [INF] LTND: We're not running within systemd or the service type is not 'notify'
2023-07-23 14:32:51.769 [INF] LTND: Waiting for wallet encryption password. Use `lncli create` to create a wallet
, `lncli unlock` to unlock an existing wallet, or `lncli changepassword` to change the password of an existing wa
llet and unlock it.
```

Step 5: Create an LND wallet

Go to Start Menu → BTCPay Server 1.10.3 → Click on '02 (b) Create wallet'

This step should be performed only once.

```
Administrator: LN Client 0.16.99-beta for Windows
lncli version 0.16.99-beta commit=tor/v1.1.1-48-ga6fc5d075-dirty
Input wallet password:
Confirm password:

Do you have an existing cipher seed mnemonic or extended master root key you want to use?
Enter 'y' to use an existing cipher seed mnemonic, 'x' to use an extended master root key
or 'n' to create a new seed (Enter y/x/n): n

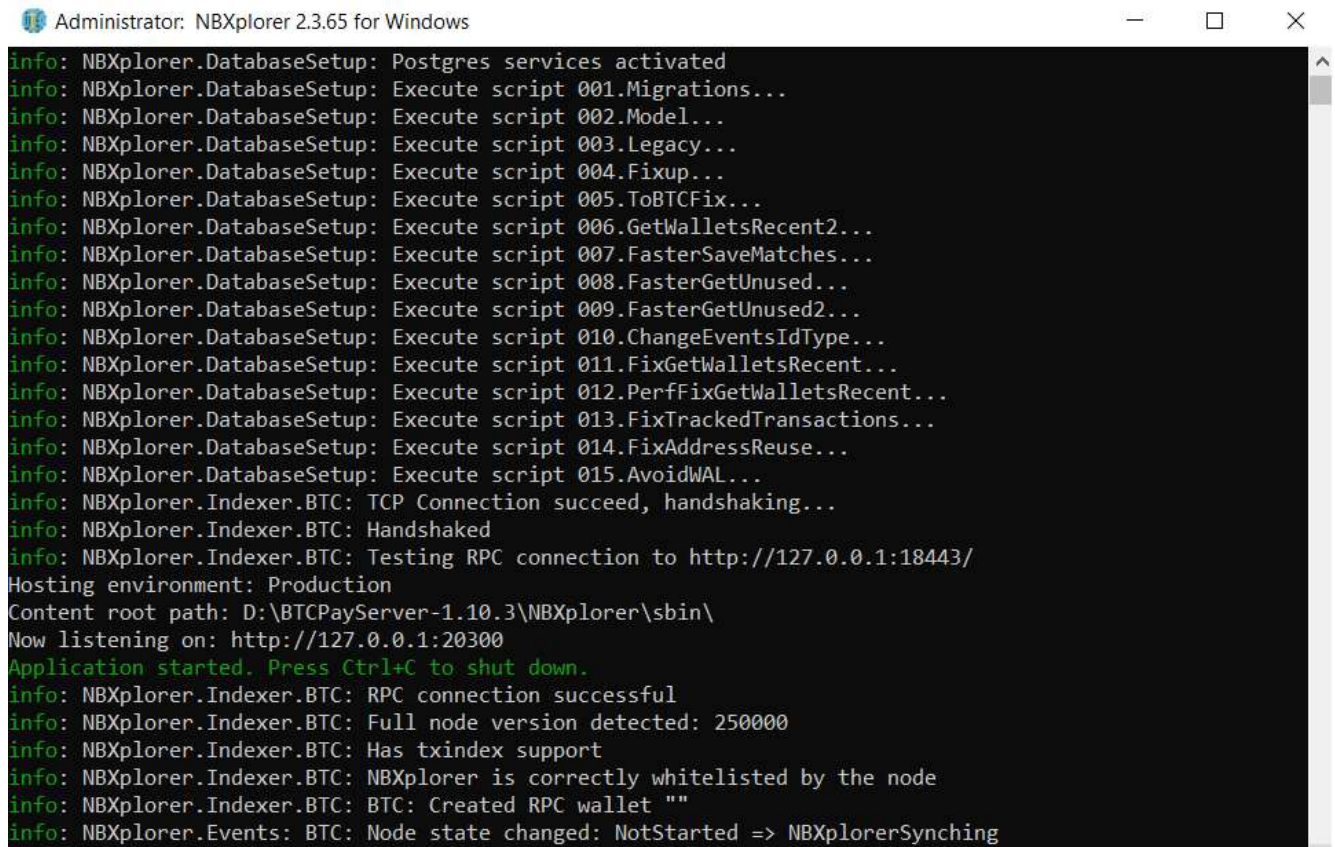
Your cipher seed can optionally be encrypted.
Input your passphrase if you wish to encrypt it (or press enter to proceed without a cipher seed passphra
se):

Generating fresh cipher seed...

!!!YOU MUST WRITE DOWN THIS SEED TO BE ABLE TO RESTORE THE WALLET!!!
```

Step 6: Start NBXplorer Service

Go to Start Menu → BTCPay Server 1.10.3 → Click on '03 Start NBXplorer Service'



```
Administrator: NBXplorer 2.3.65 for Windows
info: NBXplorer.DatabaseSetup: Postgres services activated
info: NBXplorer.DatabaseSetup: Execute script 001.Migrations...
info: NBXplorer.DatabaseSetup: Execute script 002.Model...
info: NBXplorer.DatabaseSetup: Execute script 003.Legacy...
info: NBXplorer.DatabaseSetup: Execute script 004.Fixup...
info: NBXplorer.DatabaseSetup: Execute script 005.ToBTCFix...
info: NBXplorer.DatabaseSetup: Execute script 006.GetWalletsRecent2...
info: NBXplorer.DatabaseSetup: Execute script 007.FasterSaveMatches...
info: NBXplorer.DatabaseSetup: Execute script 008.FasterGetUnused...
info: NBXplorer.DatabaseSetup: Execute script 009.FasterGetUnused2...
info: NBXplorer.DatabaseSetup: Execute script 010.ChangeEventsIdType...
info: NBXplorer.DatabaseSetup: Execute script 011.FixGetWalletsRecent...
info: NBXplorer.DatabaseSetup: Execute script 012.PerfFixGetWalletsRecent...
info: NBXplorer.DatabaseSetup: Execute script 013.FixTrackedTransactions...
info: NBXplorer.DatabaseSetup: Execute script 014.FixAddressReuse...
info: NBXplorer.DatabaseSetup: Execute script 015.AvoidWAL...
info: NBXplorer.Indexer.BTC: TCP Connection succeed, handshaking...
info: NBXplorer.Indexer.BTC: Handshaked
info: NBXplorer.Indexer.BTC: Testing RPC connection to http://127.0.0.1:18443/
Hosting environment: Production
Content root path: D:\BTCPayServer-1.10.3\NBXplorer\sbin\
Now listening on: http://127.0.0.1:20300
Application started. Press Ctrl+C to shut down.
info: NBXplorer.Indexer.BTC: RPC connection successful
info: NBXplorer.Indexer.BTC: Full node version detected: 250000
info: NBXplorer.Indexer.BTC: Has txindex support
info: NBXplorer.Indexer.BTC: NBXplorer is correctly whitelisted by the node
info: NBXplorer.Indexer.BTC: BTC: Created RPC wallet ""
info: NBXplorer.Events: BTC: Node state changed: NotStarted => NBXplorerSyncing
```


Step 7: Start BTCPay Server


Go to Start Menu → BTCPay Server 1.10.3 → Click on '04 Start BTCPay Server'

```
Administrator: BTCPay Server 1.10.3 for Windows
info: BTCPayServer.Plugins.PluginManager: Adding and executing plugin BTCPayServer - 1.10.3
info: BTCPayServer.Plugins.PluginManager: Adding and executing plugin BTCPayServer.Plugins.Shopify - 1.10.3
info: BTCPayServer.Plugins.PluginManager: Adding and executing plugin BTCPayServer.Plugins.PointOfSale - 1.10.3
info: BTCPayServer.Plugins.PluginManager: Adding and executing plugin BTCPayServer.Plugins.PayButton - 1.10.3
info: BTCPayServer.Plugins.PluginManager: Adding and executing plugin BTCPayServer.Plugins.NFC - 1.10.3
info: BTCPayServer.Plugins.PluginManager: Adding and executing plugin BTCPayServer.Plugins.Crowdfund - 1.10.3
info: Configuration: Supported chains: BTC
info: Configuration: BTC: Explorer url is http://127.0.0.1:20300/
info: Configuration: BTC: Cookie file is C:\Users\Administrator\AppData\Roaming\NBXplorer\RegTest\cookie
info: Configuration: Network: Regtest
info: Configuration: Using HTTPS with the certificate located in regtest.pfx.
info: Configuration: Root Path: /
info: Configuration: Connection to NBXplorer's database successful, dashboard and reporting features activated.
info: PayServer: Checking if any payment arrived on lightning while the server was offline...
info: PayServer: Processing lightning payments...
info: PayServer: Starting listening NBXplorer (BTC)
info: PayServer: Start watching invoices
info: PayServer: Starting payment request expiration watcher
info: PayServer: 0 pending payment requests being checked since last run
info: Configuration: Now listening on: https://0.0.0.0:8084
info: PayServer: BTC: Checking if any pending invoice got paid while offline...
info: PayServer: BTC: 0 payments happened while offline
info: PayServer: Connected to WebSocket of NBXplorer (BTC)
```

Step 8: Open BTCPay Website

Go to Start Menu → BTCPay Server 1.10.3 → Click on '05 Open Payment website'

🔒 <https://127.0.0.1:8084/register>



Welcome to your BTCPay Server

A self-hosted, open-source bitcoin payment processor.
It is secure, private, censorship-resistant and free.

Create account

Email

Password

Confirm password

Create account

Then, we can register an account (e.g. admin@solo.com.au)

After that, we create a brand new store



Create your first store

To start accepting payments, set up a store.

Name *

Default currency *

Preferred Price Source *

The recommended price source gets chosen based on the default currency.

Later on, we can link to an existing wallet (e.g. Ledger Nano) or create a new one.

Create BTC Hot Wallet

Address type

Segwit (Recommended)



Enable PayJoin



PayJoin enhances the privacy for you and your customers. Enabling it gives your customers the option to use PayJoin during checkout. ⓘ

✓ [Advanced settings](#)

Create

Our first receiving BTC address



This step is optional; here we can connect or link to an existing Lightning node.

Connect to a Lightning node



Please understand that the Lightning Network is still under active development and considered experimental. Before you proceed, take time to familiarize yourself with the risks. [More information](#)

Use internal node

Use custom node

Using the BTCPay Server internal node for this store requires no further configuration. Click the save button below to start accepting Bitcoin through the Lightning Network.

Save

TEST_STORE

BTC Lightning Node

● Online

No public address available.

Create a new Point of Sale (POS)



TEST_STORE

Dashboard

Settings

WALLETS

Bitcoin

Lightning

Create a new PointOfSale

App Name *

TEST_POS

Create

Tea shop



Green Tea

Lovely, fresh and tender, Meng Ding Gan Lu ('sweet dew') is grown in the lush Meng Ding Mountains of the southwestern province of Sichuan where it has been cultivated for over a thousand years.

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Pay



Black Tea

Tian Jian Tian Jian means 'heavenly tippy tea' in Chinese, and it describes the finest grade of dark tea. Our Tian Jian dark tea is from Hunan province which is famous for making some of the best dark teas available.

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Pay



Rooibos (limited)

Rooibos is a dramatic red tea made from a South African herb that contains polyphenols and flavonoids. Often called 'African redbush tea', Rooibos herbal tea delights the senses and delivers potential health benefits with each caffeine-free sip.

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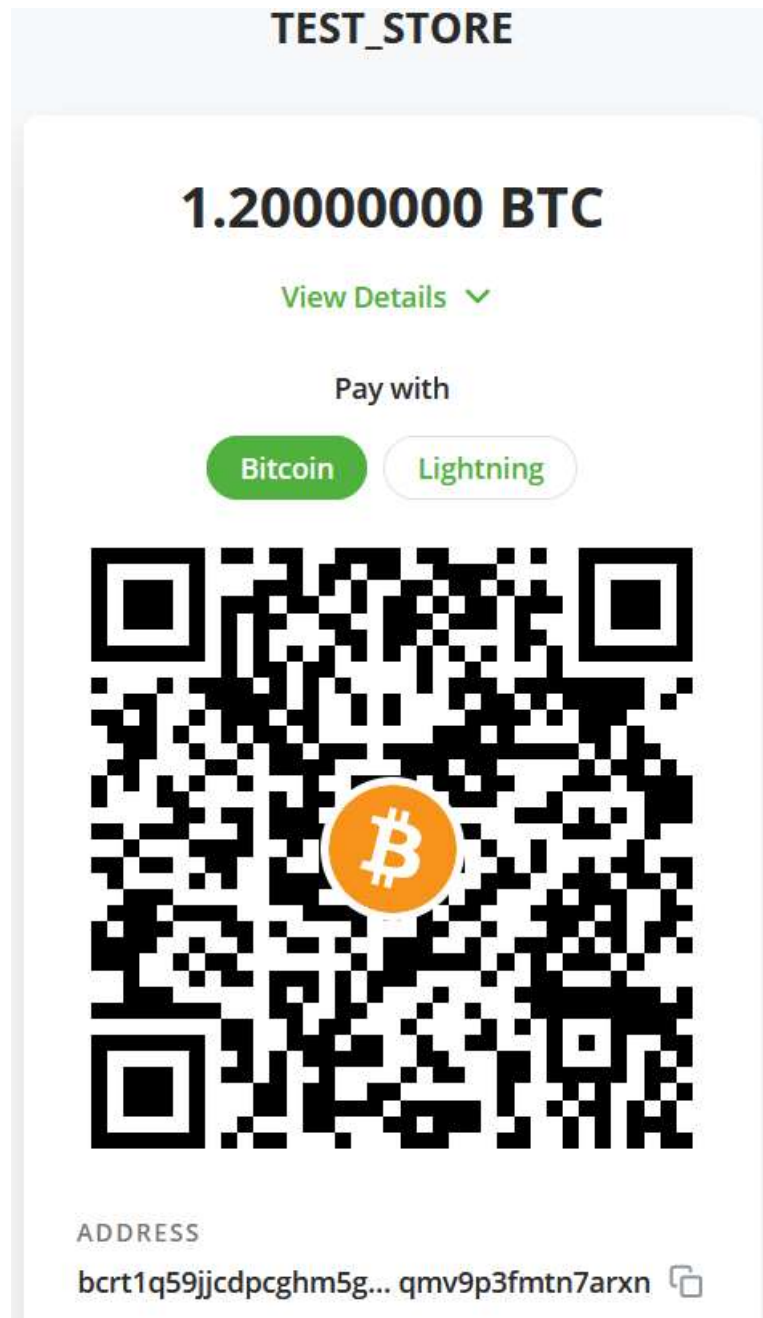
1.2



Add to cart

5 left

When clicking on 'Add to cart' button, then the buyer can see the payment address or QR.



[View Details](#) ^

Total Price	1.20000000 BTC
Amount Due	1.20000000 BTC


Pay with

Bitcoin

Lightning



LIGHTNING

Inbcrt1200m1pjtevlxp... lph36w4gqux37wj 

Pay in wallet

We can see all the invoices here and their status.

Invoices

Invoices ⓘ

Search...

All Status ▾

All Plugins ▾

All Time ▾

Actions ▾

Export ▾

ⓘ

☐

Date ⓘ

Order Id

Invoice Id

Status

Amount

Actions

☐

23/7/23, 3:00 pm

pos-app_bCK1B...

HytN4hnfCWogw4pEtRxv
bW

New ▾

1.20000000 BTC

Checkout [^]

Details ▾

☐

23/7/23, 3:00 pm

pos-app_bCK1B...

HytN4hnfCWogw4pEt
RxvbW

New ▾

1.20000000 BTC

Checkout [^]

Details ⤴

Payment method	Destination	Rate	Paid	Due
BTC (On-Chain)	bcr1q5...tn7arxn ⓘ		0.00000000 BTC	1.20000000 BTC
BTC (LNURL-Pay)			0.00000000 BTC	1.20000000 BTC
BTC (Off-Chain)	1nbcr1...qux37wj ⓘ		0.00000000 BTC	1.20000000 BTC