# Wanchain 3.0 Alpha Testing

# CLI wallet - Bitcoin cross-chain commands (testnet)

## Install environment

1. **Fetch code**

$ git clone <https://github.com/wanchain/wanchain-crosschain-walletcli>

$ cd wanchain-crosschain-walletcli

$ git checkout –t origin/wanchain3.0

1. **Install dependencies**

$ npm install

1. **Start CLI**

$ node cli.js

1. **Get the help text**

$ help

## Information about testnet

In Wanchain 3.0 Alpha Testing, we use BTC testnet3.

BTC testnet explorer:

<https://testnet.blockchain.info/>

WAN testnet explorer:

<http://47.104.61.26/>

You can use this link to obtain some testnet Bitcoins:

<https://testnet.manu.backend.hamburg/faucet>

HTLC timelock is set to expire 2 hours after locking transaction is confirmed in testnet.

You can finalize a BTC to WBTC or a WBTC to BTC transaction during these 2 hours.

Normally testnet3 BTC blocks are created every 3 minutes, and you need to wait 1 block to see your locking transaction confirmed.

## General Bitcoin commands

#### createBtcAddress

Create a new Bitcoin address, it will prompt to enter password of the new Bitcoin address

#### listBtcAddress

Get list of Bitcoin addresses

#### getBtcBalance

Get the balance of all Bitcoin addresses

#### sendBtcToAddress

Send Bitcoin to another BTC address (normal transaction)

## General Wanchain commands

#### listWbtcBalance

List the WBTC balance for all WAN addresses

#### listWanBalance

List WAN balance for all WAN addresses

## Cross-chain transaction commands

#### listTransactions

List all transactions

#### lockBtc

Lock BTC for cross-chain transaction (BTC to WBTC)

#### redeemBtc

Finalize a BTC to WBTC transaction

#### revokeBtc

Cancel BTC to WBTC transaction once HTLC timelock is expired

#### lockWbtc

Lock WBTC for cross-chain transaction (WBTC to BTC)

#### redeemWbtc

Finalize a WBTC to BTC transaction

#### revokeWbtc

Cancel WBTC to BTC transaction once HTLC timelock is expired

#### listStoremanGroups

List BTC address and WAN address of Storeman group

**Example 1 – Send BTC to a Wanchain Address**

First, create a new BTC address

> createBtcAddress

You will need BTC in your CLI wallet to be able to transact, so before continuing send some testnet BTC to the address from your preferred wallet. Once bitcoin is sent to the wallet address, check that the value has been received.

> getBtcBalance

Also, make sure that you have a positive balance in your WAN account as well.

> listWanBalance

If you do not have a positive WAN balance, send some testnet WAN coins to the CLI wallet address.

Now, with balances in both the WAN and BTC addresses, initiate a new BTC to WBTC transaction by locking some bitcoin.

> lockBtc

Answer the prompts, select the storeman group you would like to use, the WAN address you would like to send to, and the amount that you would like to send. Then enter your WAN address’s password, and your BTC wallet password.

Once completed, you can list the transactions to see that it was registered.

> listTransactions

After a few minutes when the transaction that you just created changes to the status “waitingX” (which means that the BTC locking transaction has been confirmed), you can then proceed to finalize the transaction.

> redeemBtc

Now check your WBTC balance. You should see that you now have WBTC.

> listWbtcBalance

If instead you waited too long and the status changes to “waitingRevoke” (which means the HTLC timelock has expired), you can then proceed to reclaim your BTC.

> revokeBTC

**Example 2 – Send WBTC to a Bitcoin Address**

**Note**: you must have positive balances of both WAN and WBTC.

Initiate a new BTC to WBTC transaction by locking some WBTC.

> lockWbtc

Answer the prompts, select the storeman group you would like to use, the WAN address you would like to send from, the BTC address you would like to send to, and the amount that you would like to send. Then enter your WAN password. (You don’t have to enter your BTC wallet password here)

Once completed, you can list the transactions to see that it was registered.

> listTransactions

When the transaction that you just created changes to the status “waitingX” (which means that the WBTC locking transaction has been confirmed), you can then proceed to finalize the transaction.

> redeemWbtc

Now check your BTC balance. After a few minutes, once the BTC transaction confirms, you should see that you received the bitcoin.

> getBtcBalance

If instead you waited too long and the status changes to “waitingRevoke” (which means the HTLC timelock has expired), you can then proceed to reclaim your WBTC.

> revokeWbTC