

Crypto Wallet Exploration

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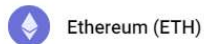
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The wallets selected for this assignment are as below.

1. Desktop Wallet: BitPay
2. Web Wallet: kraken
3. Mobile Wallet: BitPie

Desktop Wallet

- **BitPay** is a Desktop wallet that supports various cryptocurrencies as shown below.



- Though the application **supports testnet**, it by default creates wallets for mainnet.
- We can use the testnet toggle button to create one for testing.

Testnet



- I've created an account for ripple on the testnet. It is observed that the account requires the user to maintain a minimum balance of 20 XRP.



XRP Minimum Balance

The XRP ledger requires that all wallets maintain a minimum balance of 20 XRP. This non-refundable 20 XRP will remain permanently locked in your wallet. Please first deposit no less than 20 XRP to activate your wallet.

- The account is not activated until an initial deposit of 20XRP is made and the same can be observed as a tag

0.00 XRP 

Test Only - No Value



- Now, we see only one tag that says testnet.
- We activate the wallet by requesting 20 ripple from a faucet <https://testnet.help/en/xrpfacuet/testnet#log>. The transaction is recorded below.

TRANSACTION DETAILS

CDF823414B522D1389FE31AE88302F7FAD159576F6571DEA9A276564526DAC6C

The transaction was **successful** and validated in the ledger **#20733024** (index: 0).

Type:	Payment
Time (UTC):	2021-09-05 06:49:13
Source:	rp72UNyvA4i2FikMVnYAdNE2FA3caDtZ4Z
Sequence:	#20293818
Destination:	rUqR2k4HeRgsh4nXDNArxaShiTgoH8tLpT
Delivered amount:	20 XRP
XRPL fee:	0.000012 XRP (12 drops)
Memos:	
Comments:	show
TX json:	show

- Once the transaction is complete, we see an activated tag added to our account.

0.00 XRP 

Test Only - No Value

  TESTNET ACTIVATED

- We only see an activated tag added but do not see any transactions relating to the 20XRP.
- However, when we receive the bitcoins, we will be able to see it in the transactions of our wallet.

Bitcoin test

0.0001 BTC

Test Only - No Value

  TESTNET SEGWIT



Receive



Send

Recent



Received

0.0001 BTC






9 hours ago

Web Wallet

- **Kraken** is a web wallet that supports various cryptocurrencies.



- This application is by default for mainnet and lets us create accounts.
- If we want to test and play around with some test currency, this application provides us credentials for test network.
- As we sign up, we get our login credentials as well as some test currencies allocated on start up.
- Kraken supports 5 currencies in its test network with the corresponding balance allotted.

ASSET	BALANCE
 Bitcoin BTC	0.40000000 BTC
 Ethereum ETH	10.0000 ETH
 Litecoin LTC	20.0000 LTC
 Bitcoin Cash BCH	20.0000 BCH
 Ripple XRP XRP	3,000.00 XRP

- We can use the transfer feature to send funds across wallets and understand compatibilities.
- Compatibilities are as below
 - BTC to BTC or XRP

- ETH to ETH
- LTC to LTC
- BCH to BCH
- XRP to XRP

Funds Transfer

Asset
Bitcoin (BTC)

Deposit
Withdrawal
Transfer

TRANSFER FUNDS BETWEEN WALLETS

From
Bitcoin holding wallet

↔

To
XRP/BTC futures wallet

Balance0.40000000

Available Margin0.00000000

Amount *
0.4

MAX

USD Amount
≈ 20837.5

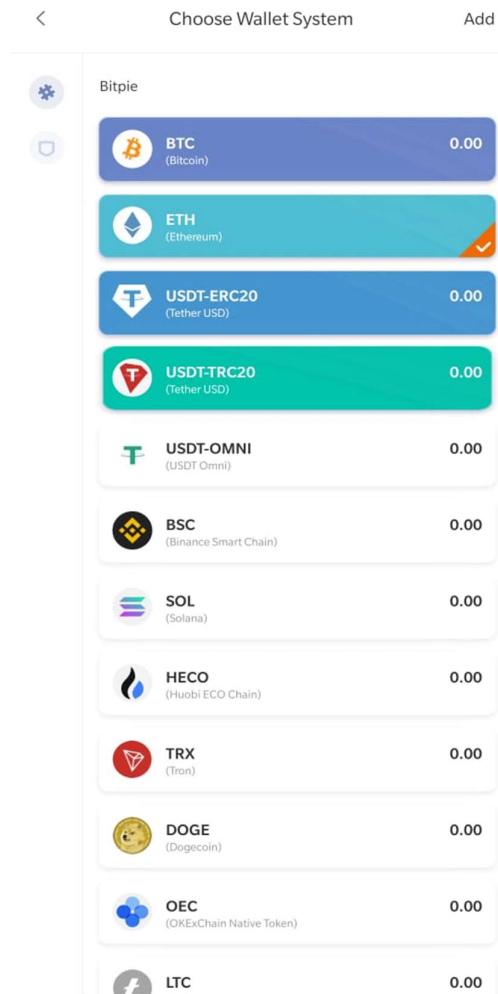
Submit Transfer

- Disadvantages are that we cannot make actual transactions that are recorded on the blockchain.
- However, all the transactions made are recoded in the transaction log

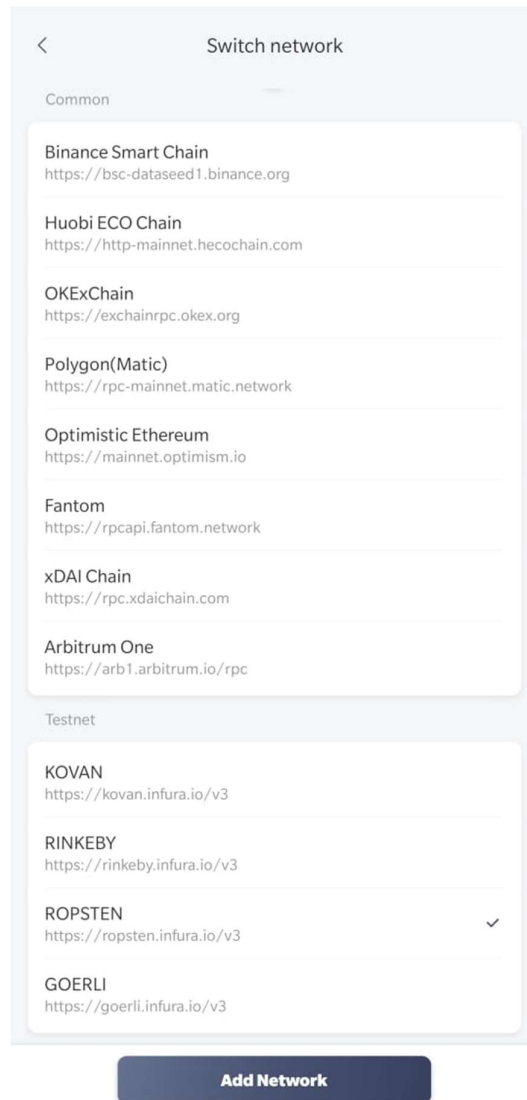
DATE	ACCOUNT	TYPE	SYMBOL	CHANGE	NEW BALANCE
07/Sep/2021 00:12:28	F-ETH:USD	Transfer	ETH	10.0000	10.0000
07/Sep/2021 00:12:28	ETH	Transfer	ETH	-10.0000	0.0000
07/Sep/2021 00:12:19	F-LTC:USD	Transfer	LTC	20.0000	20.0000
07/Sep/2021 00:12:19	LTC	Transfer	LTC	-20.0000	0.0000
07/Sep/2021 00:12:15	F-BCH:USD	Transfer	BCH	20.0000	20.0000
07/Sep/2021 00:12:15	BCH	Transfer	BCH	-20.0000	0.0000
07/Sep/2021 00:12:11	F-XRP:USD	Transfer	XRP	3,000.00	3,000.00
07/Sep/2021 00:12:11	XRP	Transfer	XRP	-3,000.00	0.00
07/Sep/2021 00:11:43	F-BTC:USD	Transfer	BTC	0.40000000	0.40000000
07/Sep/2021 00:11:43	F-XRP:BTC	Transfer	BTC	-0.40000000	0.00000000
07/Sep/2021 00:11:16	F-XRP:BTC	Transfer	BTC	0.40000000	0.40000000
07/Sep/2021 00:11:16	BTC	Transfer	BTC	-0.40000000	0.00000000
07/Sep/2021 00:02:10	LTC	Admin Transfer	LTC	20.0000	20.0000
07/Sep/2021 00:02:10	ETH	Admin Transfer	ETH	10.0000	10.0000
07/Sep/2021 00:02:10	BTC	Admin Transfer	BTC	0.40000000	0.40000000

Mobile Wallet

- **BitPie** is a mobile wallet for cryptocurrency.
- It supports Mainnet and testnet for several cryptocurrencies.



- As per the above screen shot, Ethereum is the chosen wallet and it has various networks to choose from under it.



- Ropsten is the chosen network and we request test coins from the faucet.
- The transaction details are as below.

Transaction Details

Overview

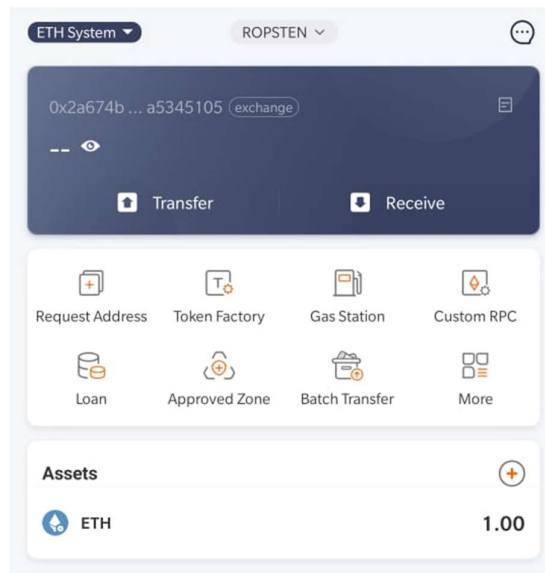
Access List

State

[This is a Ropsten **Testnet** transaction only]

Transaction Hash:	0xfe6030617e9b1e991670c6a37cb97b671a0d82111cfb90f390d18a3ecfda9d3c
Status:	Success
Block:	10982302 3929 Block Confirmations
Timestamp:	14 hrs ago (Sep-06-2021 05:05:49 AM +UTC)
From:	0x2a64a9c092e62c117d1559a0c07bd45ddb5b70
To:	0x2a674b93d7b9f0cb2f3e9976ea26fb7fa5345105
Value:	1 Ether (\$0.00)
Transaction Fee:	0.000039525704085 Ether (\$0.00)
Gas Price:	0.000000001882176385 Ether (1.882176385 Gwei)

- Once the transaction is confirmed we can see the amount reflected in our application.



- Disadvantages with the application is that it does not support testnet for all the systems. For now, supported only for Ethereum.
- Another drawback is that it does not have the option of viewing transactions on the app yet.