

1. Install cygwin for Windows

https://www.cygwin.com/setup-x86_64.exe

2. Open a command prompt window and type 'git clone https://github.com/aputlock/comms.git'. Then type 'cd comms'.

3. Install stack for Windows

https://www.stackage.org/stack/windows-x86_64-installer

4. Install Parity for Windows:

<https://github.com/paritytech/parity/releases>

5. From the Windows Menu, click start and search for "Environment", and click "Edit System Environment Variables". Click Environment Variables and in the window that pops up, double click Path in the System Variables box.

Click new and add the directory of your Cygwin installation (usually C:\Cygwin64\bin).

Click new and add the directory of your Parity installation (usually C:\Program Files\Parity\Parity\).

Click Ok on all three of the windows that are open.

6. Open a new command prompt. Copy, paste, and enter the following into the command window:

```
parity --chain ropsten --bootnodes
```

```
"enode://20c9ad97c081d63397d7b685a412227a40e23c8bdc6688c6f37e97cfbc22d2b4d1db1510d8f61e6a8866ad7f0e17c02b14182d37ea7c3c8b9c2683aeb6b733a1@52.169.14.227:30303,enode://6ce05930c72abc632c58e2e4324f7c7ea478cec0ed4fa2528982cf34483094e9cbc9216e7aa349691242576d552a2a56aaeae426c5303ded677ce455ba1acd9d@13.84.180.240:30303"
```

7. Open a new command prompt window in the comms directory and type stack setup. Then type stack install.

8. Add Metamask to your browser:

<https://chrome.google.com/webstore/detail/metamask/nkbihfbeogaeaoehlefnkodbefgpgknn?hl=en>

Click the fox icon in the top right and set it to the Ropsten test network. Click the 3 bars in the top right and create an account. Go to <https://faucet.metamask.io/> and click request 1 ether from faucet. You can do this multiple times if you'd like.

9. Copy your wallet address from <https://faucet.metamask.io/>.

10. Go back to your command prompt in the comms directory. Type comms run. Paste the ethereum wallet address you copied. Use port 3000 for SMTP and 3001 for Pop3. For Ethereum node url, enter http://127.0.0.1:8180.

11. In your web browser, go to <http://127.0.0.1:8180/#/accounts> to access the Parity web client. Click the '+' account button and select private key. Click Metamask, click the 3 dots in the top right, select export private key. Enter your password for Metamask and copy the key. Type 0x and paste the rest of your private key into the private key field on the Parity web client. Fill out any of the other required fields. Click import, and click done.

12. Download and install Thunderbird from <https://www.mozilla.org/en-US/thunderbird/>. Run Thunderbird. On the window that pops up, uncheck to show at startup and click skip. A new window pops up, click skip this and use my existing email. You can enter whatever you want for your user info. Set to pop3 for incoming server. Type localhost for incoming and outgoing server hostname. Set the incoming port to 3001 and the outgoing port to 3000. Click run-test, then click done. On the warning window, click I understand the risks and click done.

13. To create a new contact, open a command prompt. Type in comms import <username@covert.com> <recipient-wallet-address> and press enter. The username can be defined by you as this is how you will reference what wallet address to message.

14. Open a new command window. Type comms publish. Go to the parity web client and enter your password to sign the transaction. Copy the posted contact card hash.

15. To send an email, go to Thunderbird, select write, type in the corresponding email, and click send. Switch to Parity and enter your password to sign the transaction.