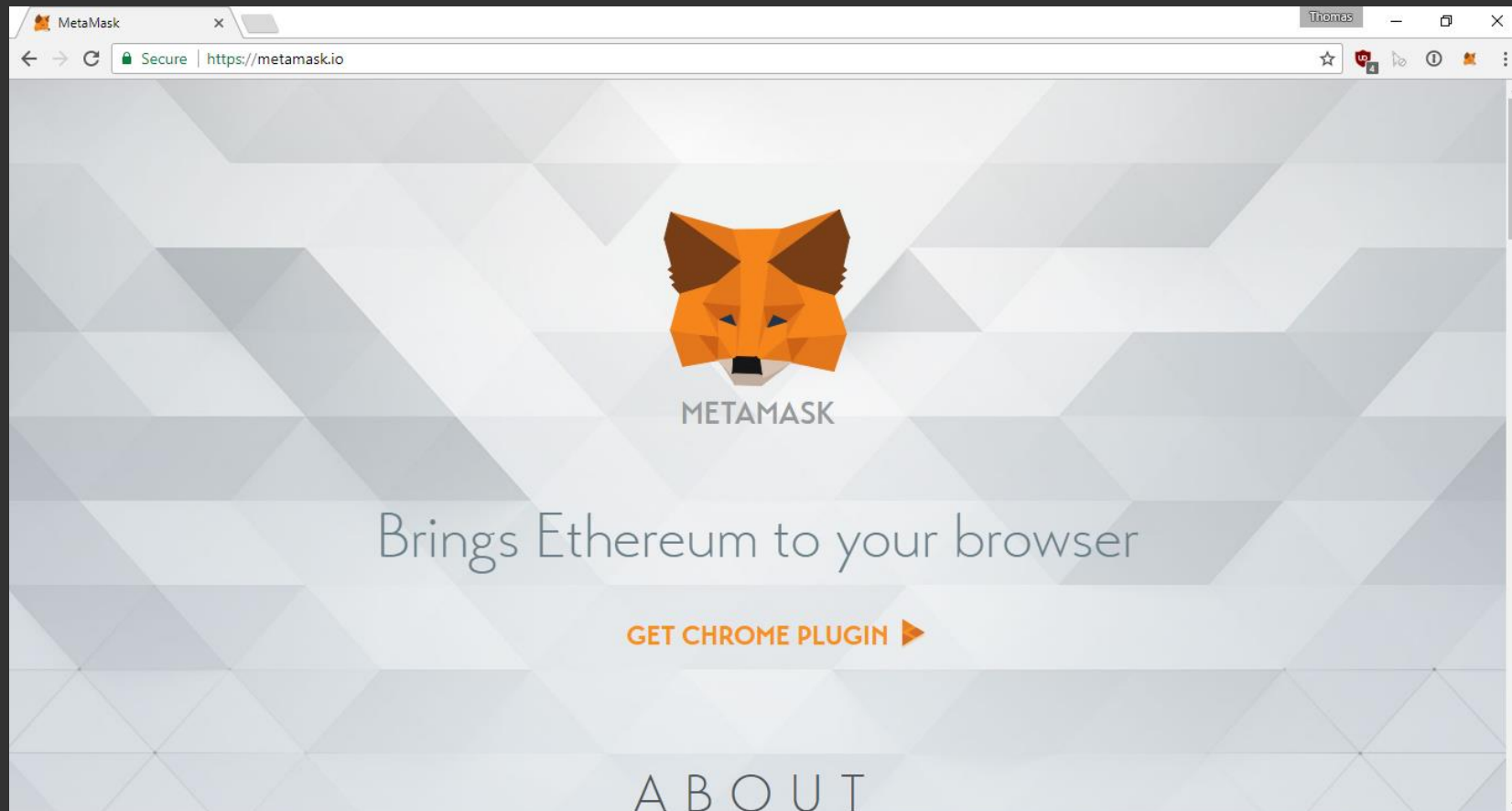# METAMASK

A Blockchain „Bridge"

WHAT IS METAMASK

- Chrome Plugin

- Similar to MIST-Browser
  - Just in Chrome

- No geth node
  - Is a bridge
  - Like a „light-client" – but is none!
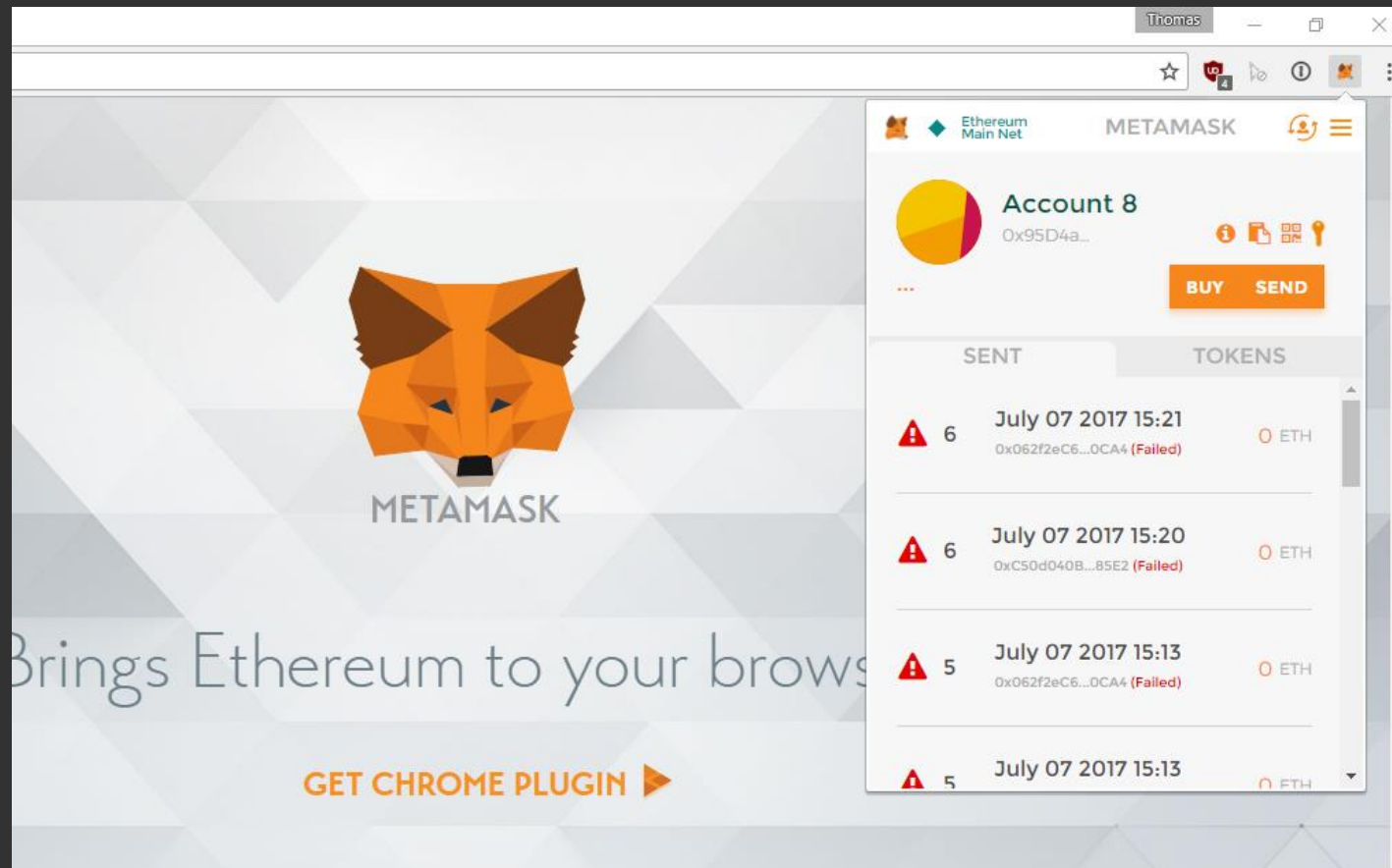
- A „Key-Store" for your private keys

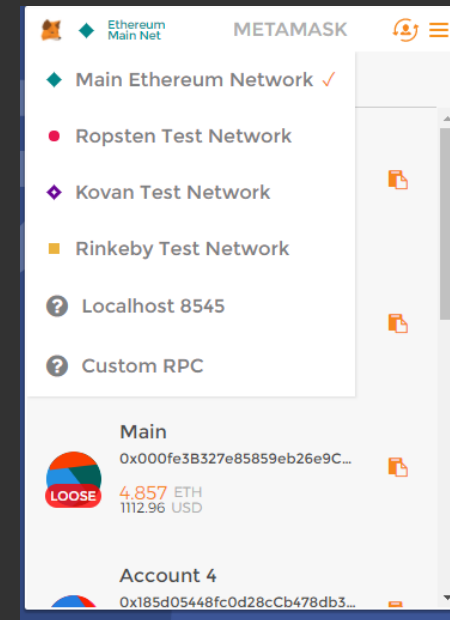# METAMASK

WHERE TO GET IT?

- Follow the instructions on MetaMask.io

- It's in beta
  - Google Chrome store

- „Firefox beta Version"
  - Like a „beta-beta" version
  - For development better to have Firefox without MetaMask

METAMASK PLUGIN

METAMASK SUPPORTED NETWORKS

- Main Ethereum Network

- Ropsten Test Network

- Kovan Test Network

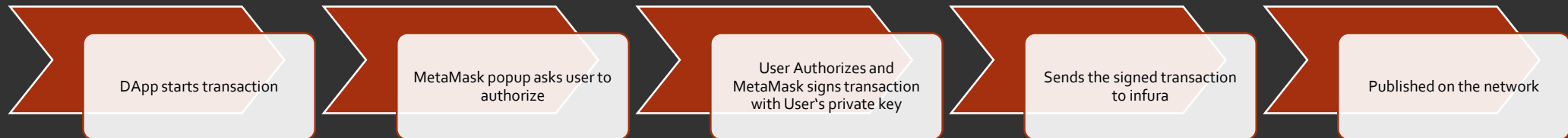- Rinkeby Test Network

- Localhost 8545

- Custom RPC

HOW THIS WORKS

- Difference: Call/Transaction

- Transaction Invoked through injected web3
  - web3.eth.sendTransaction(…)
  - Popup appears
  - User accepts transaction
  - MetaMask Plugin signs transaction
  - Sent through the network

- Call
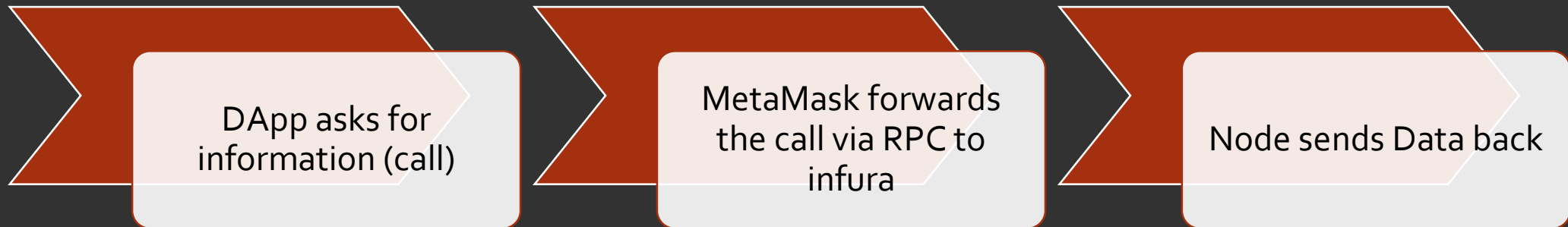 - Data is downloaded from the Network

DATA SOURCE

- Data needs to come from somewhere

- RPC Interface of some kind

- Infura
  - Scalable Blockchain Infrastructure
  - 500 Million Requests per Day

- "HOSTED BLOCKCHAIN"
  - Like running your own geth node – just scalable

HOW TRANSACTIONS WORK VISUALLY

DApp starts transaction

MetaMask popup asks user to authorize

User Authorizes and MetaMask signs transaction with User's private key

Sends the signed transaction to infura

Published on the network

HOW CALLS WORK VISUALLY

DApp asks for information (call)

MetaMask forwards the call via RPC to infura

Node sends Data back

IS IT „SECURE"?

- In short & theory: YES!

- Private keys are only stored on your browser
  - Don't loose the seed or password

- Information on the Blockchain is „public"
  - Nothing „private" ever reaches the outside world

- Not totally decentralized
  - You have to trust infura

WHAT YOU LEARNED

- MetaMask is a browser plugin
  - Similar to MIST

- Makes access to the blockchain very easy
  - Through the „injected web3 object"

- Does no „real magic" – it's not a light client
  - It connects to a blockchain provider

- But it's pretty cool

QUESTIONS/SUGGESTIONS?

- We are available in the Q&A!

- Feedback is always awesome to hear.

- Problems outside of the course?
  - Send us a message!