

# Studying an Ethereum Token: BAT

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# Basic Attention Token

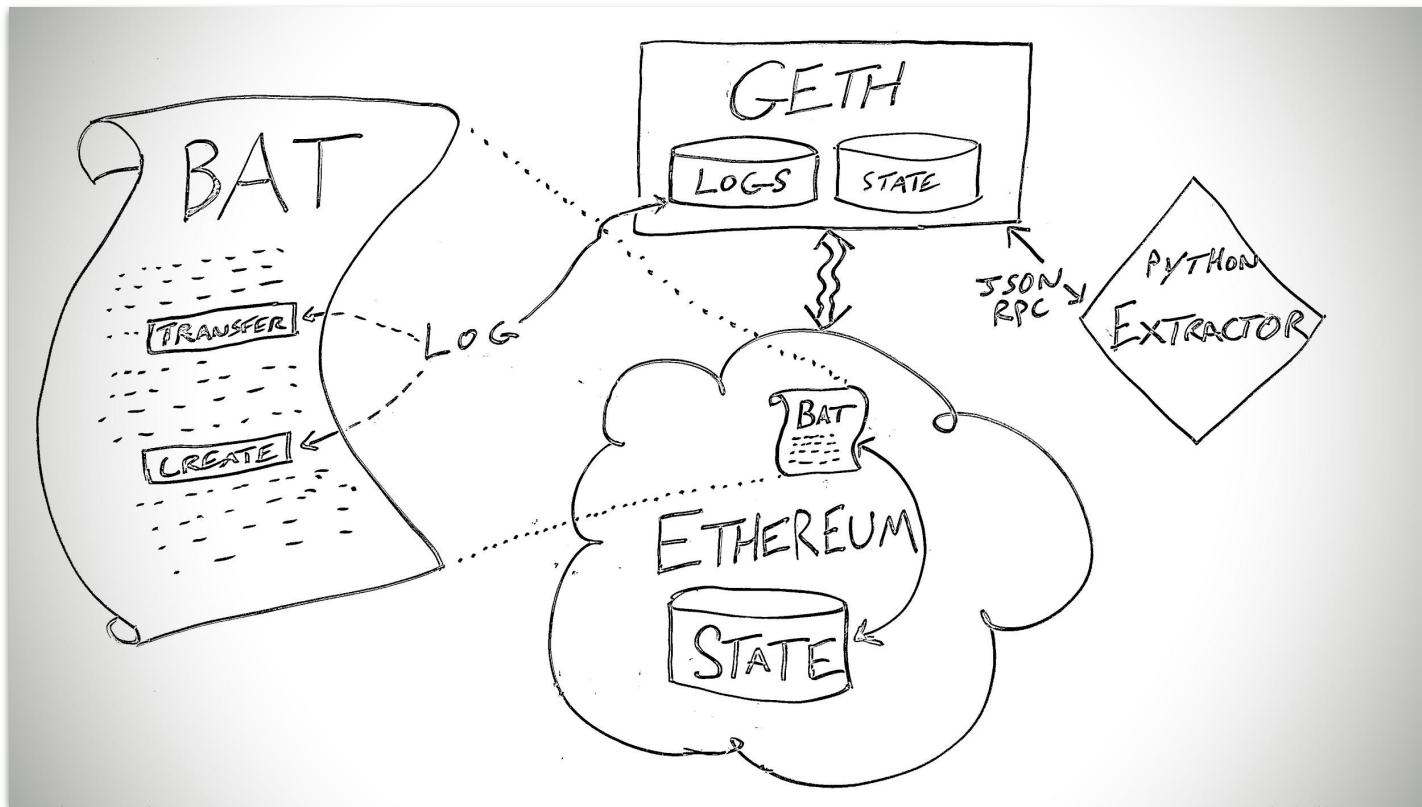
- Currency (Crypto)
- Internet Users -----Pay-----> Publishers
  - (In exchange for content)
- Advertisers -----Pay-----> Users
  - (In exchange for viewing ads)
- Preserves user privacy
  - All transactions are public
  - But also, anonymous
- They raised 34 million USD in ICO.



## Plan v/s Results

- How is BAT ecosystem developing?
  - Are publishers making money?
  - Are users buying in?
- Difficulties
  - Brave browser wallets kept in a centralized system.
  - Publisher wallets also in the same system.
  - This system is off-chain.

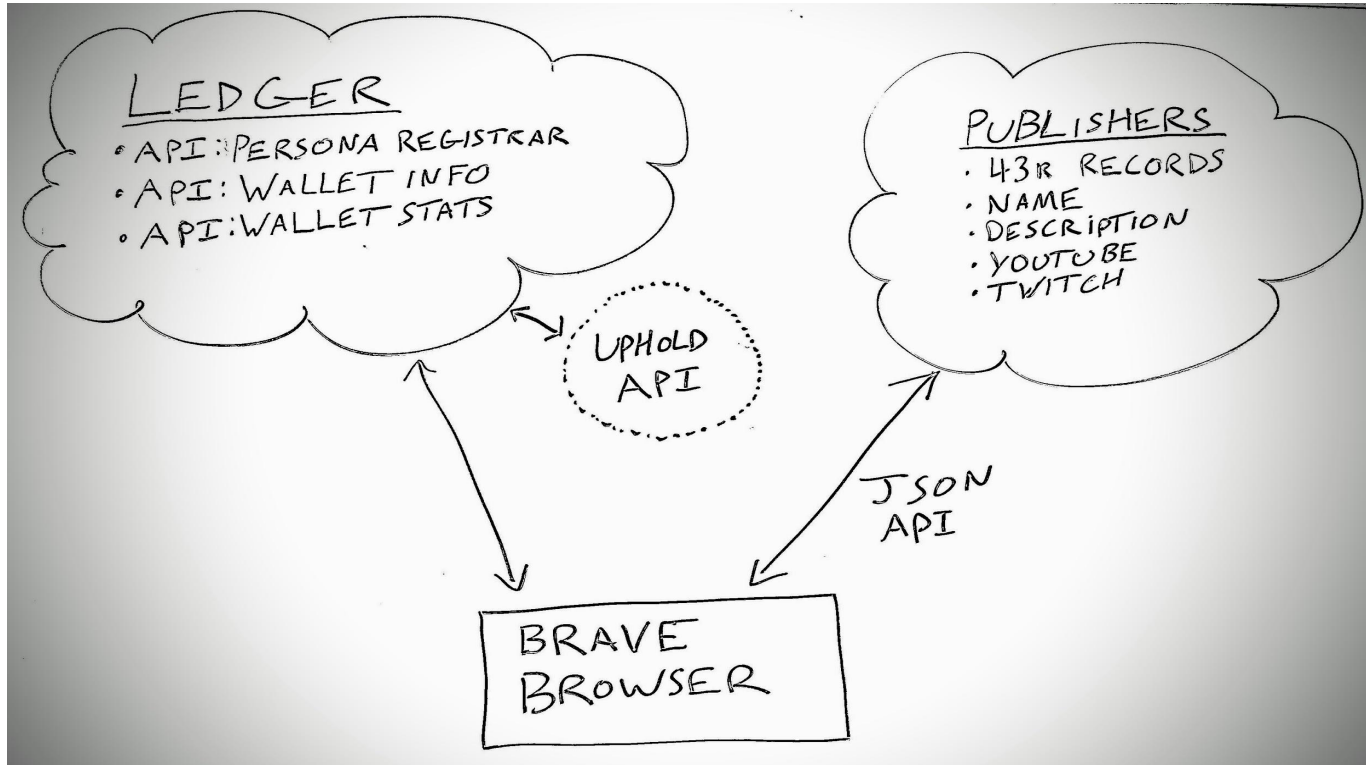
# Data: Log Collection



## Data: Network Traffic Collection

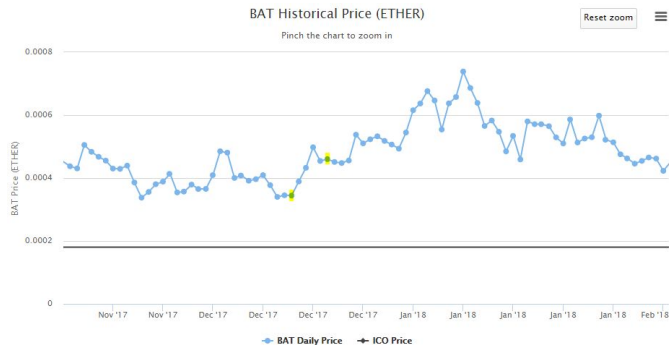
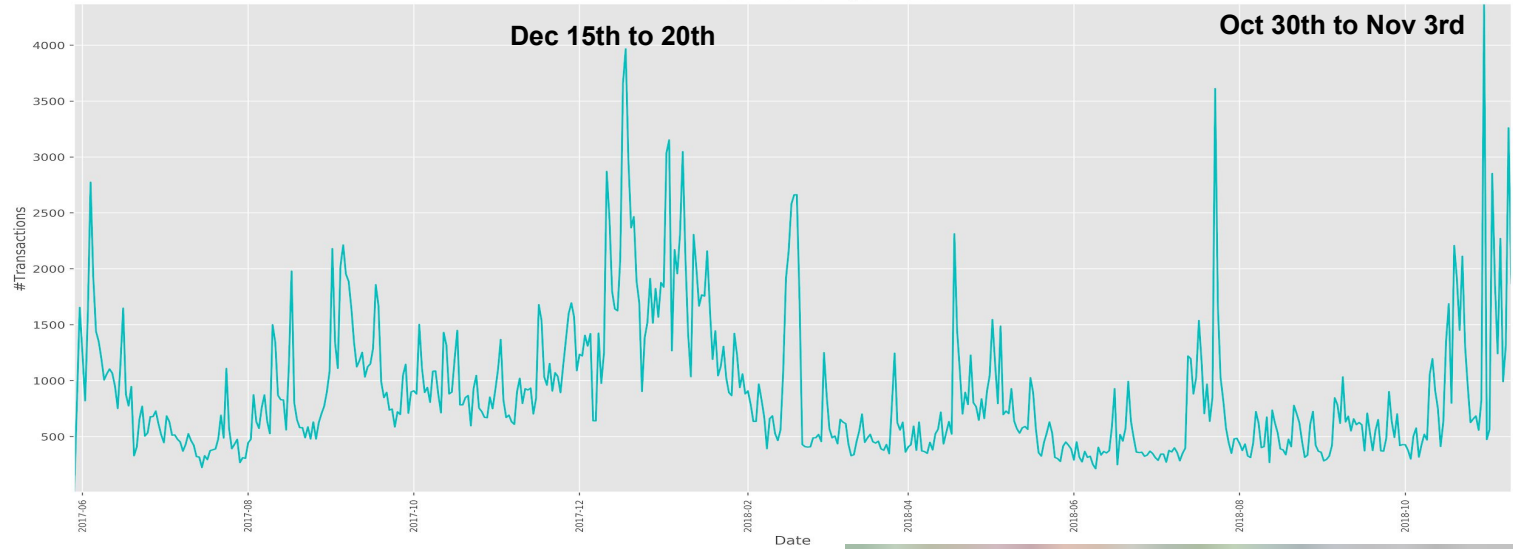


# Ecosystem/Payment Analysis



# Transactions Analysis

#Transactions v/s Date





# Graph Analysis

- Addresses '0xfbb1b73c4f' and '0x73295d3c0c' have the highest in-degrees and out-degrees. The former is owned by an exchange, 'Bittrex'.
- All top 5 addresses with highest in and out degrees are owned by exchanges and remain more or less constant over the entire timespan.
- The graph at every given point in time has a SCC around 60% of the addresses, and several smaller SCC between size 1 to 5 (mostly 1).
- More than 50% of the smaller SCCs are 5 or less hops away from the main Brave address involved in the ICO.
- Few SCCs are not connected to Brave at all.





# Conclusion

- The BAT ecosystem has not accomplished its goals yet
  - Current system is not decentralized
  - This makes the cryptocurrency aspect irrelevant to the functioning of the system
- Centralization makes measurements difficult
  - Many important transactions occur off-chain
  - It is possible for users and publishers to use the system without directly controlling BAT

**Thanks!!!**