



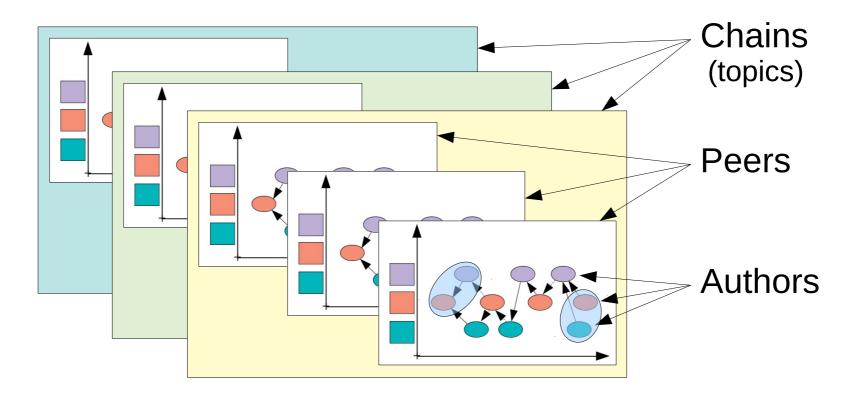




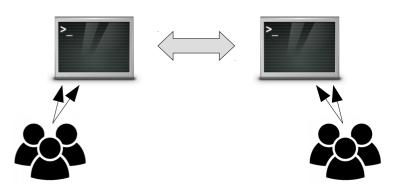


peer-to-peer content dissemination

- Persistent publish-subscribe topic-based model
- Peer-to-Peer gossip dissemination
- Happened-before best-effort partial order
- Per-topic reputation system for healthiness



- Open-source software for PC and mobile
- Standalone daemon listening for peers
  - local users perform actions
  - remote peers synchronize
- User interfaces:
  - command line
  - kotlin library
  - textual protocol

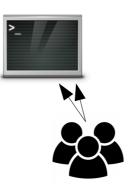


# Setup

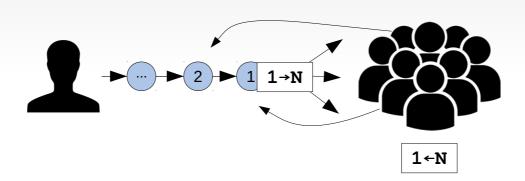
\$ freechains-host start /var/freechains/ &





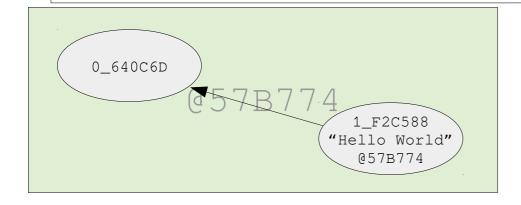


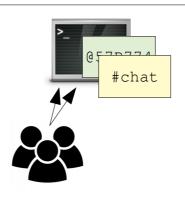
# Public Identity (1→N / 1←N)



# Public Identity (1→N / 1←N)

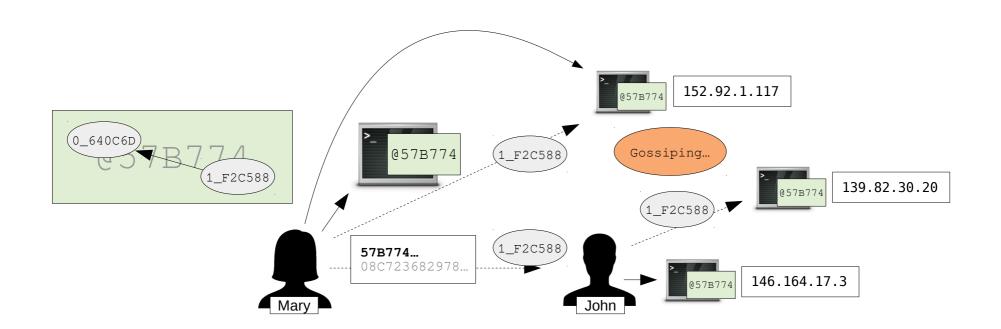
- \$ freechains crypto pubpvt <passphrase>
  57B774... 08C723682978...
- \$ freechains chains join "@57B774..."
- \$ freechains chains join "#chat"
- \$ freechains chain "@57B774..." genesis
- 0\_640C6D...
- \$ freechains chain "@57B774..." post inline "Hello World!" --sign=08C723682978...







- \$ freechains crypto pubpvt <passphrase>
- \$ freechains chains join "@57B774..."
- \$ freechains chain "@57B774..." post
  inline "Hello World!" --sign=08C723682978...
- \$ freechains peer 146.164.17.3 send "@57B774..."
- \$ freechains peer 152.92.1.117 send "@57B774..."
- \$ freechains peer 139.82.30.20 send "@57B774..."

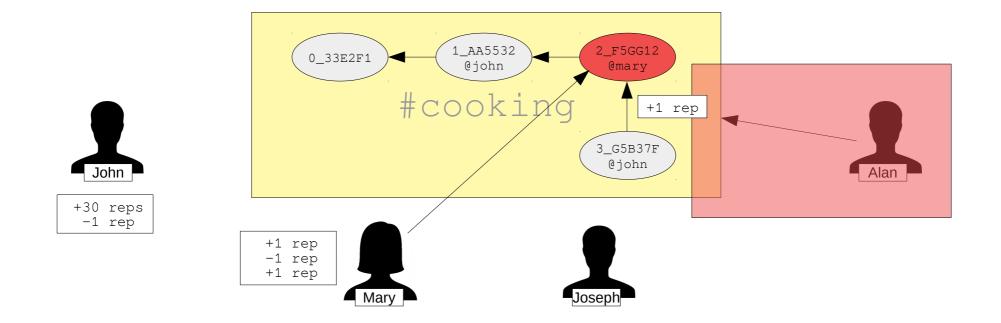


# Public Forum (N↔N)



#### **Reputation System**

\$ freechains chains join "#cooking"
\$ freechains chain "#cooking" post inline
 "Post your best recipes..." --sign=7A553D12EE9A...
\$ freechains chain "#cooking" post inline
 "Cut half of a lime..." --sign=08C723682978...



## **Reputation System**

- First author is 30 days ahead in reputation
  - he shapes the initial community development
  - multiple first authors cannot synchronize
- New authors require community approval
  - reputation growth is slow
- New posts are initially penalized
  - authors must "choose words" wisely
  - posts volume is not rewarded (but quality is)
- Old posts are the community wealth
  - only form of "production"
  - limited to 1/day/author in 30-day window
  - still subject to moderation











peer-to-peer content dissemination