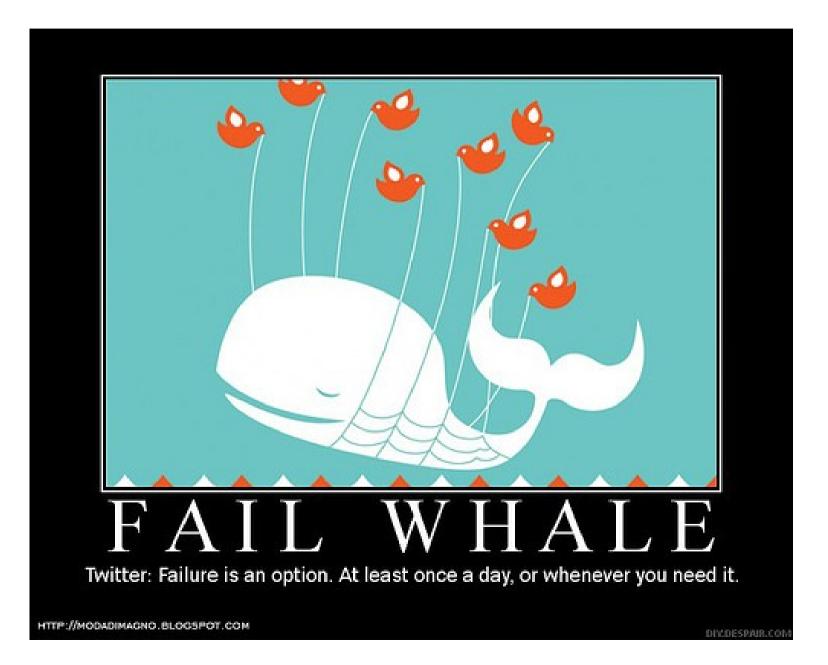# 12many

A decentralized Twitter
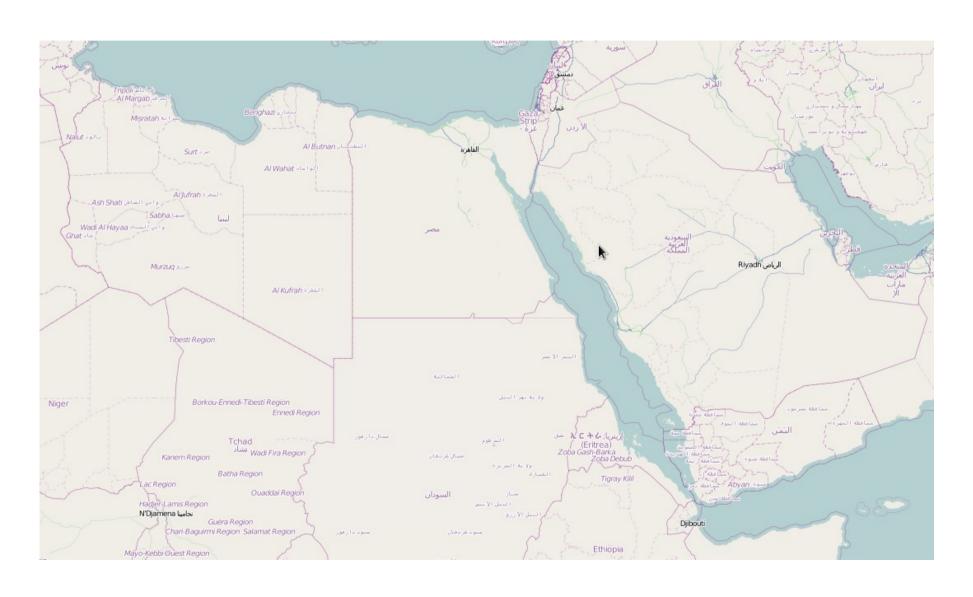
Why: Single point of failure

Why: Geschäftsmodell / FBI Backdoor

Why: Political single point of failure

Why not...

- Other alternatives (identi.ca, status.net) rely on DNS and readily-available servers

- DNS easily sabotaged

- DNS/Servers easily disconnected from net

- Lack of offline functionality

What: Feature wishes

- Decentralized
- Censor-resistant, hard to destroy
- Public messages
- Direct messages
- Group messages
  - With and without history for new members
- Access policies enforced by cryptographic means
  - Identity-based cryptography

How: Clients, the DHT, services

- "Tweets" (for the lack of a better word) are stored in a DHT ("12many servers")

- 12many clients connect to...

  - Any DHT node (for posting)

  - Services for push notification, search indexes, etc.

- Services provide stuff better done in a more centralized manner

  - Are optional!

  - User chooses which services to use (and to trust)

What the DHT should do

- Store messages (of course)

- Do message replication

- Check for validity of updates

  - Some entries may not be overridden

  - Others may if the signature is valid

  - ...

- Expire old messages

- Give clients information about possible new entry points (warning: Possibility of DHT hijacking)

What clients should do

- Manage your profile
  - ID = Public key. Nickname: Human-readable alias
  - Update your profile in DHT
- Post new tweets to the DHT :-)
- Store all your old tweets and downloaded tweets
- In case of a "big split" (i.g. Internet has been switched off)
  - Manually enter new DHT entry point
  - Upload all stored tweets to re-populate DHT
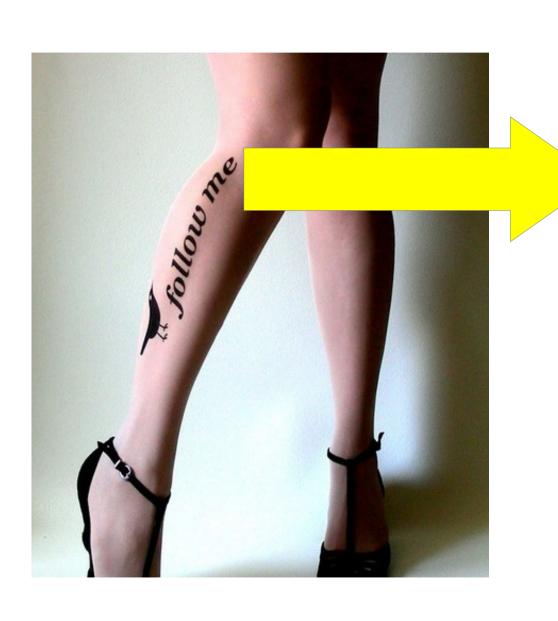
Entries in DHT

- Messages (of course)
  - No stupid 140c limit (allow more, not unlimited)
  - Metadata: Timestamp, Retweet (by whom, original source), Reply (to what message), Tags, PKs of mentioned nicks
  - Signature
- User profile
  - Public key, Nick, Image, Biography, "recommendation list" (aka "I follow...")
- Nick lookup
  - List of public keys for a nick

What we don't know yet :-)

(at least not exactly)

- DHT implementation
  - Replication stuff
- Group encryption
- Mentions, direct messages (and probably other stuff) within DHT
- Programming language war not yet fought ;-)

12many can become sexy ;-)

@12manyproj
http://github.com/12many

Thanks!
@scytale
@_skyr

Bildnachweise

- http://www.flickr.com/photos/ausnahmezustand/4752989186/

- http://haze.ch/wp-content//failwhale1.jpg

- http://www.flickr.com/photos/bfishadow/4237025430/

- http://www.openstreetmap.org/?lat=23.8&lon=35&zoom=5&layers

- http://www.flickr.com/photos/bioxid/4268701028/