

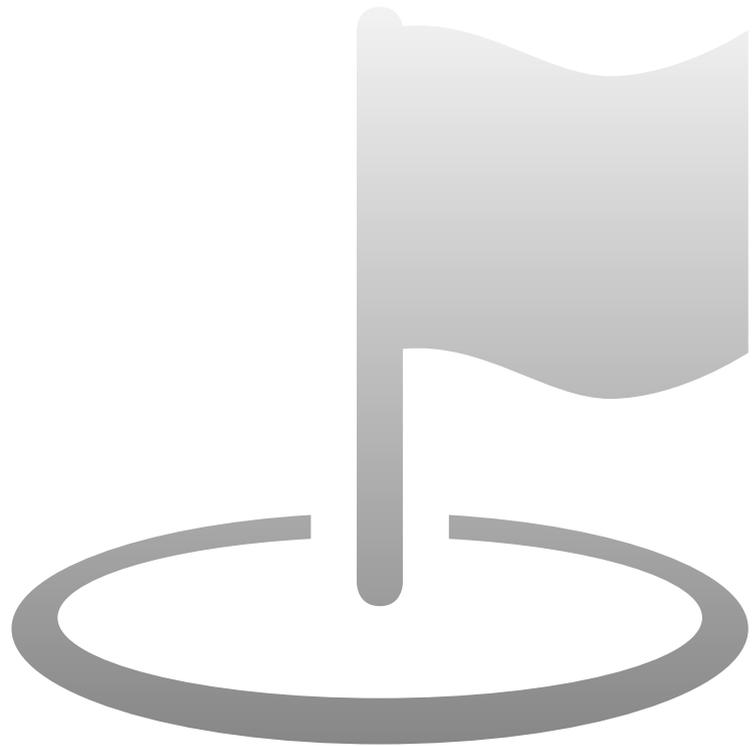
**Echt Dezentrales Netz  
(EDN)  
Unleashing Freifunk**

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# Outline

- Motivation
- Criteria
- Side Criteria
- Approach to **EDN**



# A Fundamental Thing

"There are many fights more important than the fight over how the internet is regulated. Equity in race, gender, sexual preference; the widening wealth gap; the climate crisis [...].

Except for one thing: the internet is how every one of these fights will be won or lost.

[...]

The internet isn't the most important fight we have; but it's the most foundational."

– Cory Doctorow

(<http://www.theguardian.com/technology/2015/jun/15/internet-answer-questions-of-our-time>)

# Nearby

More **security** and **privacy** by and in meshnets.

Leveraging nearby **wireless meshnets**.

Communication and data storage is done **locally**.

# Criteria

- **Dezentralization/ Distribution**  
IN PEOPLES HANDS
- **Authentication**
- **End-To-End-Encryption**
- **Anonymisation/ Meta Data Protection**  
IT MATTERS!
- **Perfect Forward Secrecy (Session-Keys)**

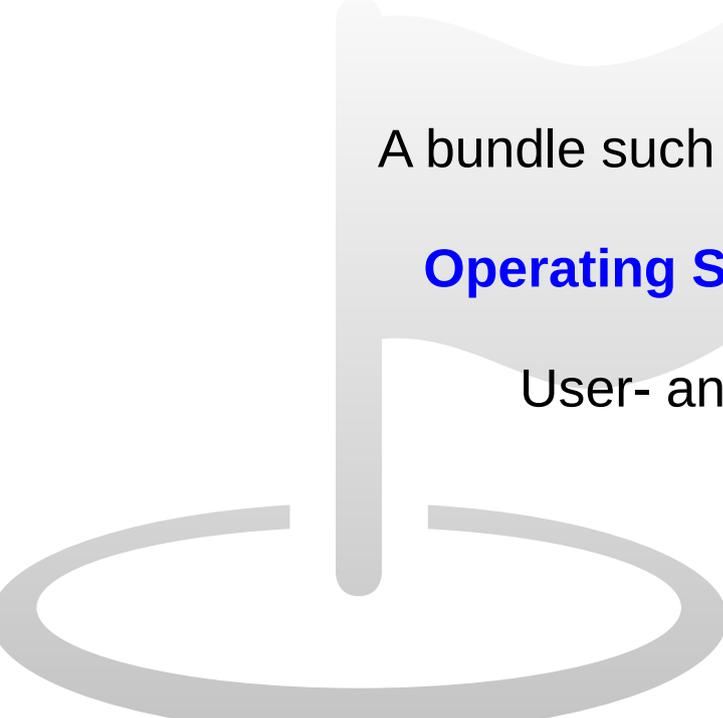


# Side Criteria

- Intuitively usable
- Open Source (AGPL)
- All (including embedded) platforms
- Scalability
- Safe updates
- *[...]*



# Product Goal



A bundle such as *Tails* but for *Free (Wireless) Meshnets*

**Operating System + Base System + Applications**

User- and developer-friendly documentation

# Applications

- Text messaging / Audio-Video-Telephony (synchronous und asynchronous)
- Filesharing
- (Crypto-)Currency / Wallet
- Search of Files / Pages in all reachable networks
- [...]



# Projects List I

- cjdns
- Commotion Wireless
- GNUnet
- Servalproject
- qMp (Quick Mesh Project)
- Maidsafe
- Briar
- ZeroTier One
- RetroShare
- Bitmessage
- Ind.ie
- Tribler
- Zyre (by ZeroMQ)
- RINA



# Projects List II

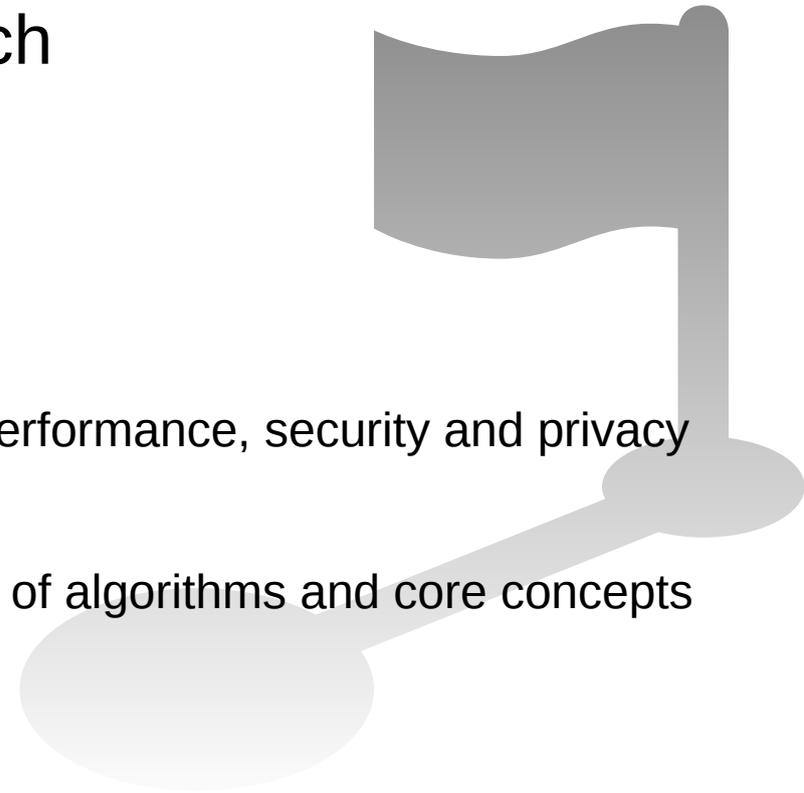
- Netsukuku
- COR
- Qaul.net
- Invisible
- Tahoe-LAFS
- Secure Scuttlebutt
- B.A.T.M.AN
- I2P

- BMX
- OLSR
- Tox
- IPFS
- ethereum
- Babel
- Freenet



# Possible Approach

- **Research**
- **Documentation**
- **Testing**: hole Projects and single modules regarding performance, security and privacy first virtually then in real life
- **Formalisation and Dokumentation**: of best modules: of algorithms and core concepts
- **Rewrite(s) ?**
- **(Combination Testing)**
- **Choice of Build**
- **Formal Verification**: sensitive modules
- **Code Review**: full paid, by at least three independent parties, maybe modulewise
- **Inviting attackers**
- **Usability Testing**



# Participate

[wiki.c3d2.de/Echt\\_Dezentrales\\_Netz](http://wiki.c3d2.de/Echt_Dezentrales_Netz)

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