Hi :-)

- Moritz Warning (mwarning)
- Wrote a tool want to share

KadNode

- Yet another P2P-DNS like system
- Task
 - Find IP addresses by some identifier
 - but decentralized
 - Low footprint (Disk, CPU, RAM, Traffic)
- => small task
 - No Domain registry. Not really DNS!

How it works

- DHT (Distrbuted Hash Table)
 - DHT code from Transmission Bittorrent client
 - 20 Bytes => IP addresses
- intercepts .p2p domain on host system
 - /etc/nsswitch.conf ("Name Service Switch")
 - Local DNS server (handles A, AAAA, SRV)

Configuration

/etc/kadnode/kadnode.conf

- --value-id myname.p2p
- --value-id aa52fb210465bddd679d6853b491ccce.p2p

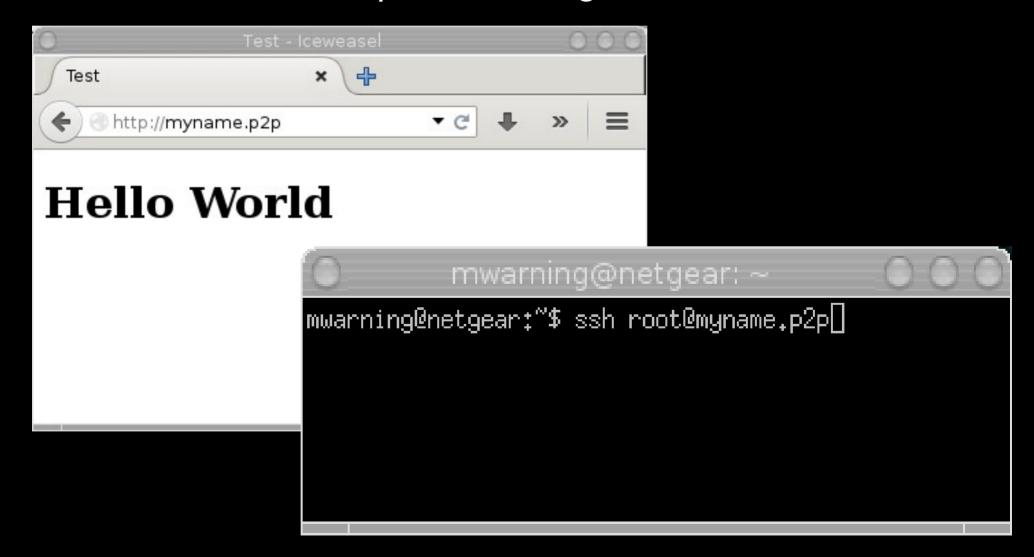
Bootstrapping from /etc/kadnode/peers.txt

bttracker.debian.org

... or via Local Peer Discovery

Anywhere

On another computer running KadNode:



Typical Issues

Problems:

- everybody can announce any identifier
- Authentication in KadNode?
- ... or end application, e.g. Browser (https)
- most application do not try multiple IP addresses
- No back channel ("Hey KadNode ban that imposter!")

Features

- IPv4/IPv6
- Written in C / Open Source
- Small: 75-120KB
- Local Peer Discovery
- NAT Port mapping (UPnP/NAT-PMP)
- Packages:
 - OpenWrt, Debian, ArchLinux, OSX, Windows, FreeBSD

Thanks

- https://github.com/mwarning/KadNode
- Find me at the "Freifunk" Assembly
- Have fun!