

# Bulletinboard DHT and wireguard-p2p

<https://github.com/manuels>

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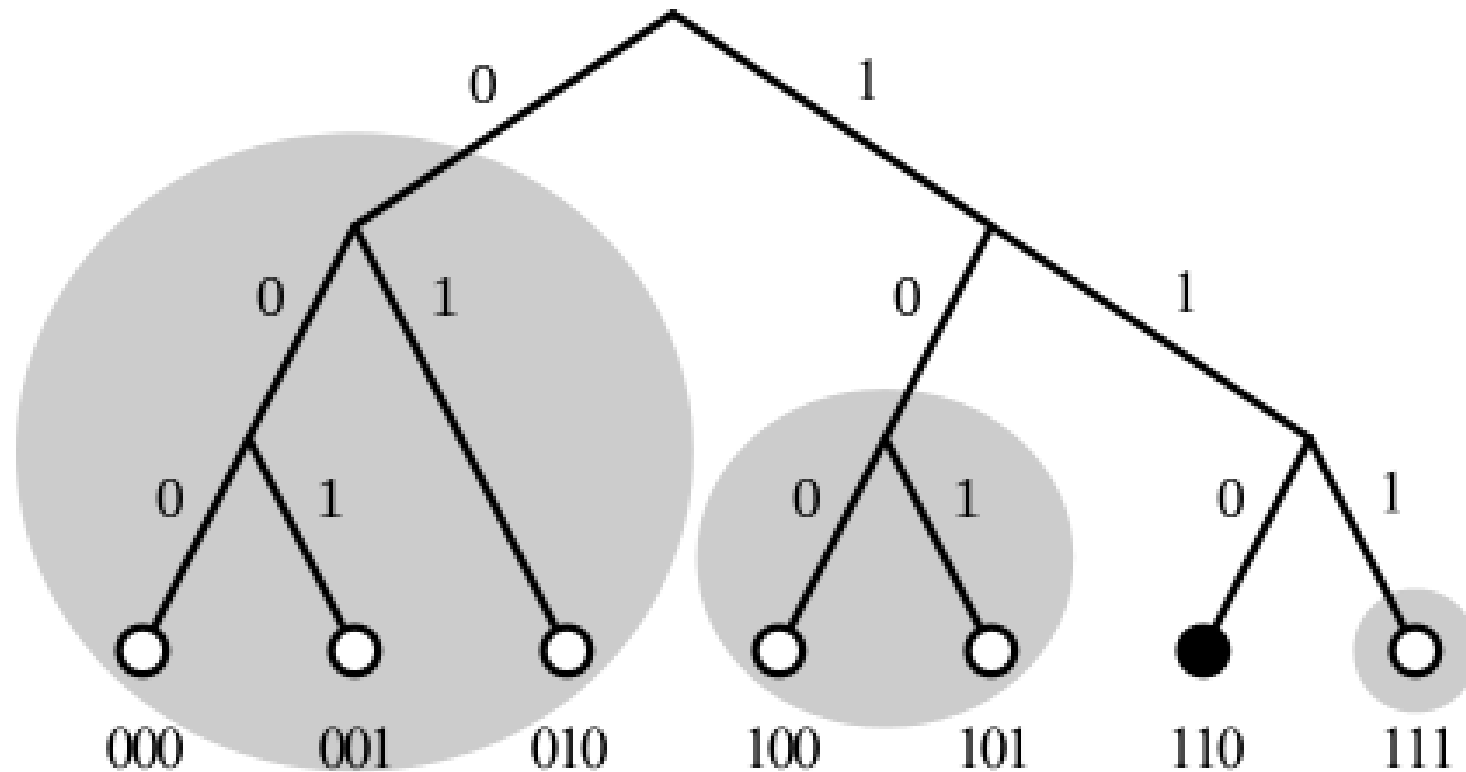
# Mission Statement

Connect any computers  
by just knowing their public keys





# Bulletinboard: Kademlia Protocol





# Bulletinboard: General Purpose DHT

- **UDP-based, implemented in Rust**
- **DBus Service**
  - `Put(str app_id, byte[] key, byte[] value)`
  - `Get(str app_id, byte[] key) → byte[][] values`
  - TODO: `Subscribe(byte app_id, byte[] key)`  
→ `byte[][] values`
- **Max. value size: Soft: MTU, Hard (2KB)**

# Wireguard VPN



- **UDP-based**
- **Using Noise protocol**
- **Almost Linux mainline kernel**

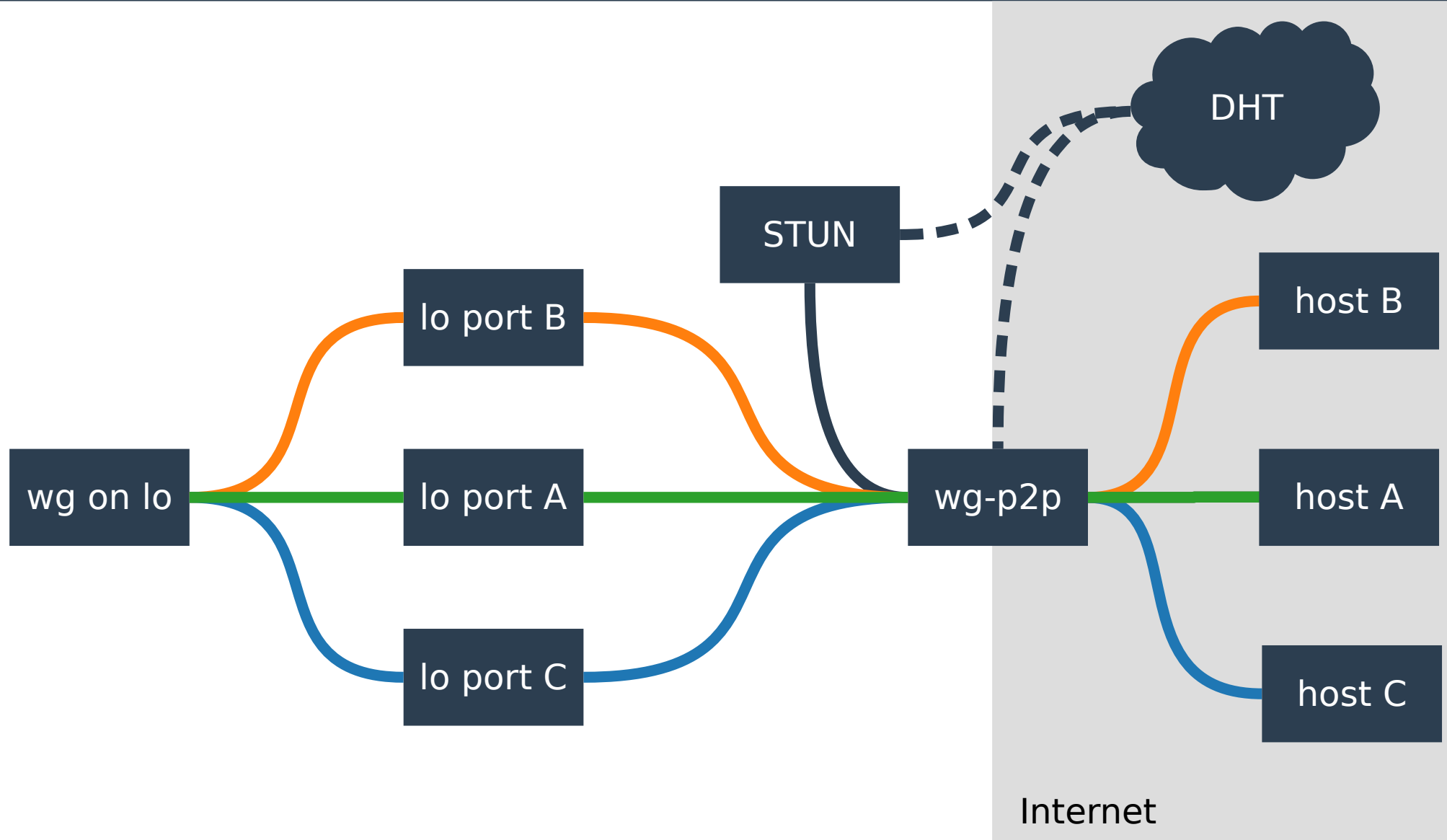
```
$ wg genkey
```

```
6KRW+XV/Ef6+zDtS6f00Ype7qXcUzSs0lZDCVjWLyWg=
```

```
$ wg genkey | wg pubkey
```

```
+LrzG0qVx21DJ5y0mpgvXdTmn0m4EsH1Z3XtCnix9QU=
```

# wireguard-p2p: Concept

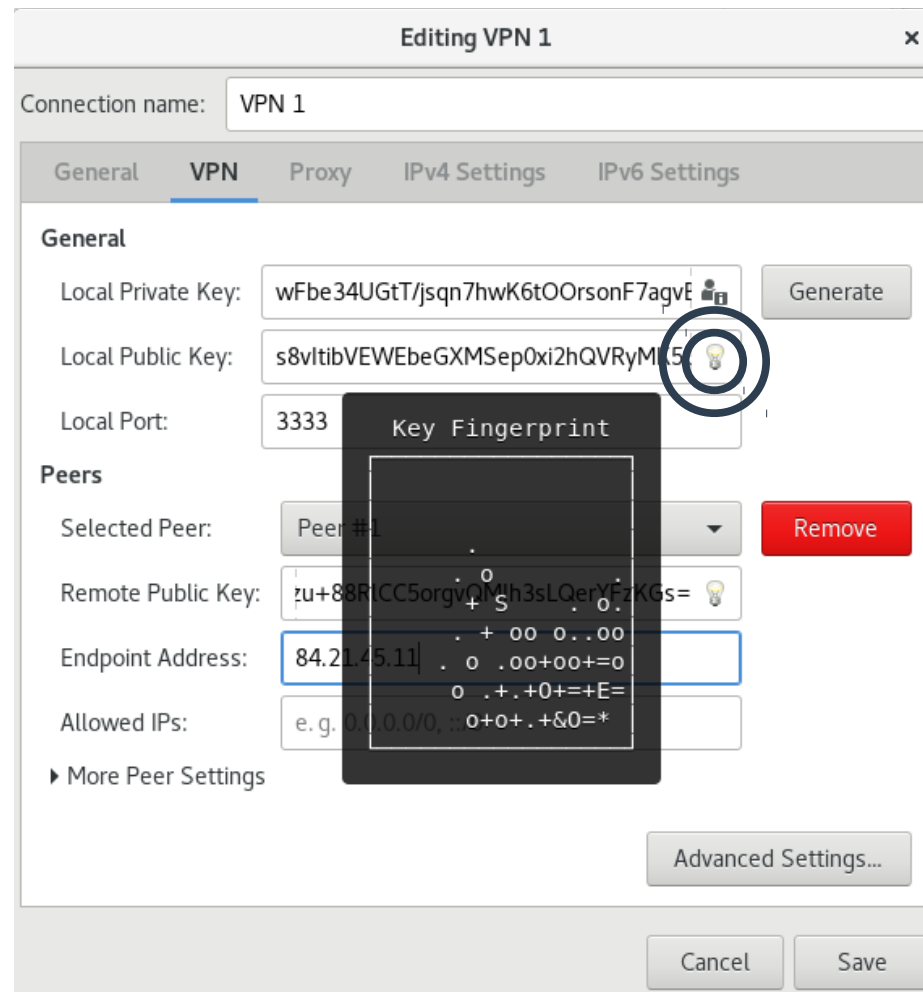


# wireguard-p2p: Configure

```
# /etc/wireguard-p2p.conf
[wg0]
Peer1=L33UsFS1bqI914MZ7sHMUTF...
Peer2=ANGjhuZ5bwm0cUAKZMUi4ed...
Peer2=qgJoFLs1pa/icBSG1N6f4h0...
...
```

```
$ wireguard-p2p daemon
```

# Wireguard Network Manager Plugin





# Packaging

- **Bulletinboard**
  - Debian and Fedora packages available
  - cargo install bulletinboard
  
- **wireguard-p2p**
  - cargo install wireguard-p2p

(Rust nightly required)

