

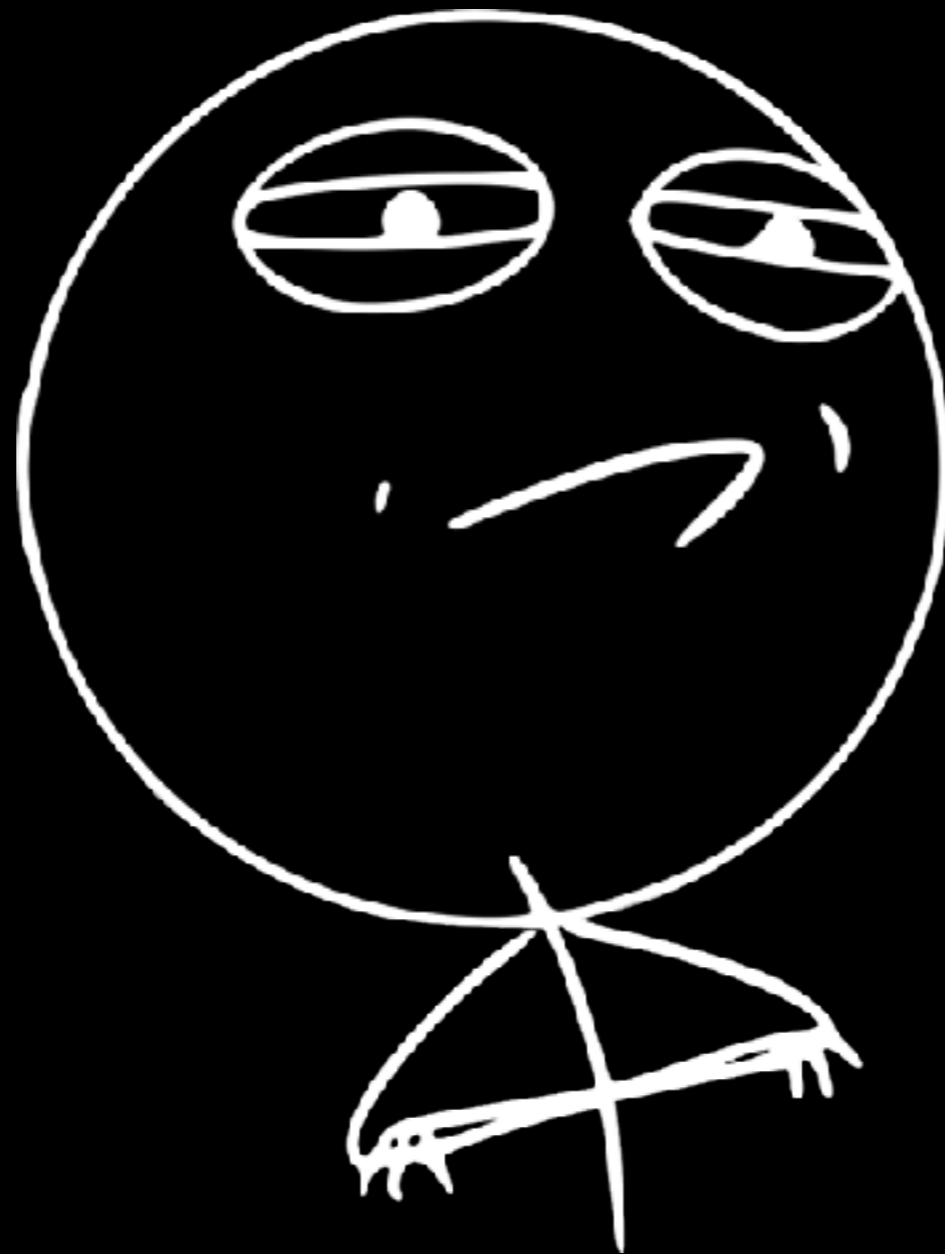
ratools

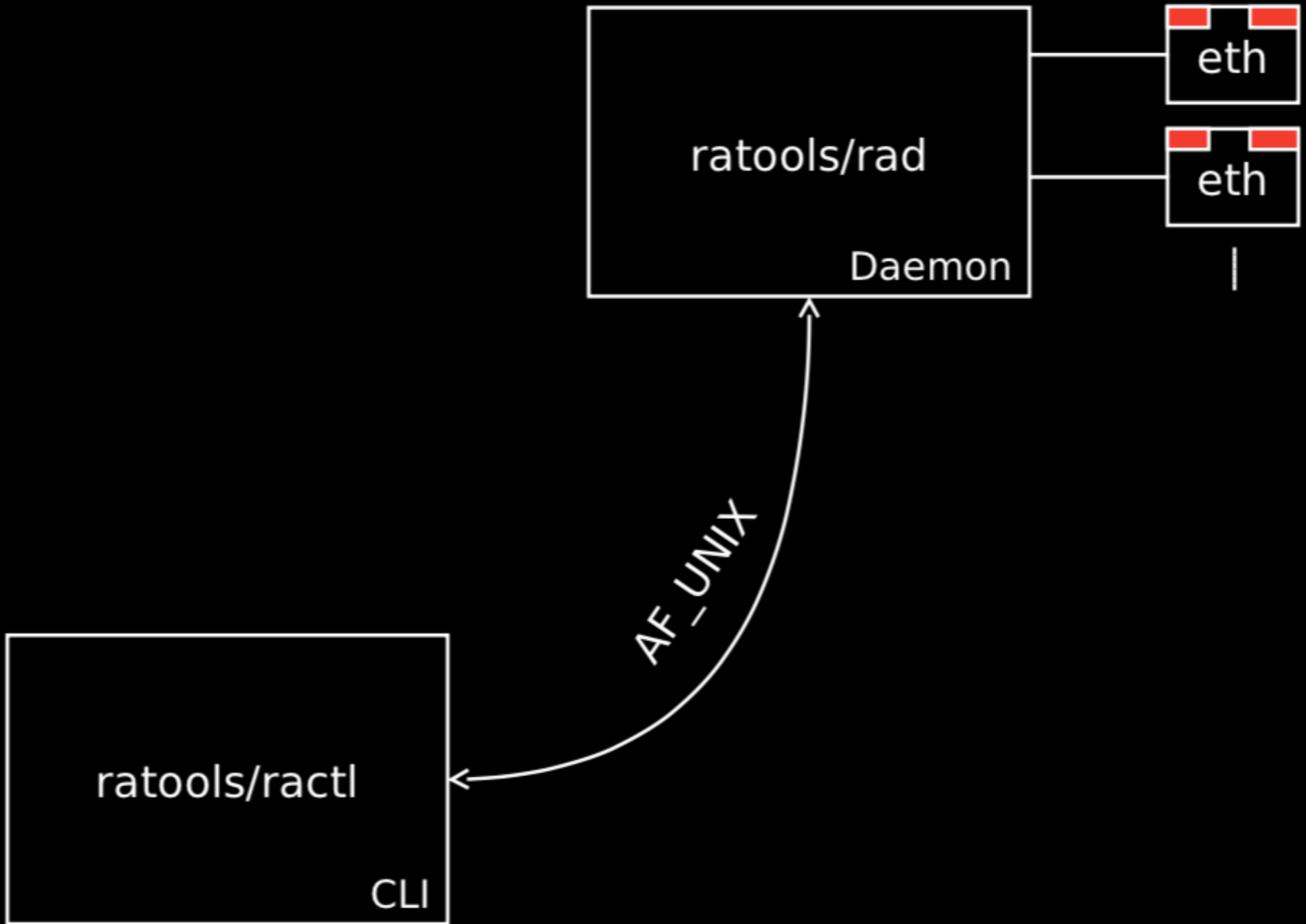
Router Advertisement Daemon for Linux

github.com/danrl/ratools.git

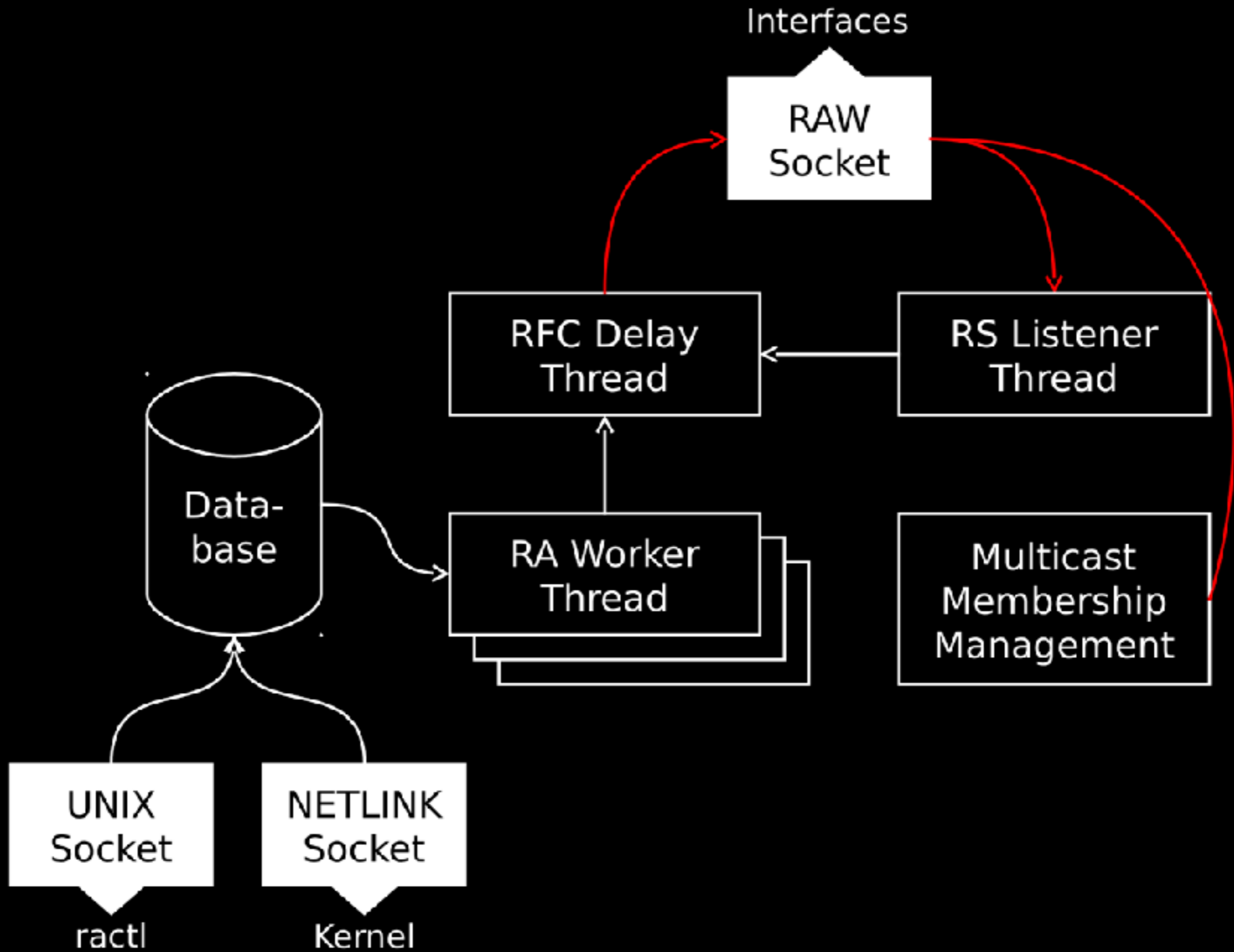
@danrlde @c3noc

We need **more** and **better** IPv6 software!





```
$ ip addr show
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP>
mtu 1500 qdisc pfifo_fast state UP qlen 1000
link/ether 00:0c:29:28:fd:4c
brd ff:ff:ff:ff:ff:ff
inet6 fe80::20c:29ff:fe28:fd4c/64 scope link
valid_lft forever preferred_lft forever
```



very Link-MTU
such auto-detection

many Source Link-layer Address
such auto-detection

such Prefix Information

so Recursive DNS Servers

much RAW



```
# ractl ra@eth2.3000 dump
```

```
ra@eth2.3000 create
```

```
ra@eth2.3000 set maximum-interval 0h5m0s
```

```
ra@eth2.3000 set minimum-interval 0h1m0s
```

```
ra@eth2.3000 enable
```

```

# ractl ra@eth2.3000 show
Router Advertisement `ra@eth2.3000':
  State: Enabled
  Created: 2014-12-28 01:00:59
  Updated: 2014-12-28 01:01:30
  Version: 26/26
  Interface ID: 6 (eth2.3000)
  Interface State: 1 (Up)
  Interface MTU: 1500
  Hardware Address: 90:e2:ba:62:a7:0c
  Link-local Address: ::
  Maximum Interval: 300 (0d 0h 5m 0s)
  Minimum Interval: 60 (0d 0h 1m 0s)
  Solicited/Unsolicited: 104/0
  Unicast/Multicast: 0/104
  Total RAs: 104 (20608 Bytes)
  Next RA scheduled: 2014-12-28 10:12:34
  Current Hop Limit: 64
  Managed Flag: 0 (No Managed Address Configuration)
  Other Managed Flag: 0 (No Other Managed Configuration)
  Home Agent Flag: 0 (No Mobile IPv6 Home Agent)
  Router Preference: 00 (Medium)
  NDP Proxy Flag: 0 (No NDP Proxy)
  Lifetime: 1800 (0h 30m 0s)
  Reachable Time: 0 (0h 0m 0s 0ms)
  Retransmission Timer: 0 (0h 0m 0s 0ms)

```


**Some implementations
are breaking your IPv6 connectivity!**

Some implementations are breaking your IPv6 connectivity!

- Can not advertise admin-defined source link-layer addresses
- Do not support the ICMPv6 RDNSS option
- Are not state-keeping
- Never heard of de-advertising

Use moar
~~bandwidth~~ NAT64!

31c3 Wifi:
nat64/nat64

@c3noc @danrld