

Run BGP/DNS/BSD!

whoami

whoami (1)

Bram – Network Engineer

signetbreedband (BU Connectivity team.blue/NL)

Started using shell accounts on high school (2000ish)

Trying different OS'es on old HW

Settled with CentOS later moved to Debian

Self-hosting :allthethings:

whoami (2)

Focus on networking

“Outsourced” stuff

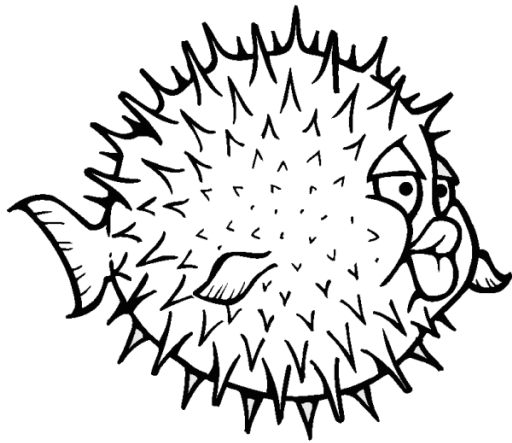
Email

Home Server -> Synology NAS

Kept Raspberry Pi's running FreeBSD

BSD

Somehow, somewhere and all of a sudden there was:



*Open***BSD**
.amsterdam

BGP

BGP – AS215131 (1)

ASN + /48 IPv6 PI via sponsoring-lir

BGP sessions on VPS'es

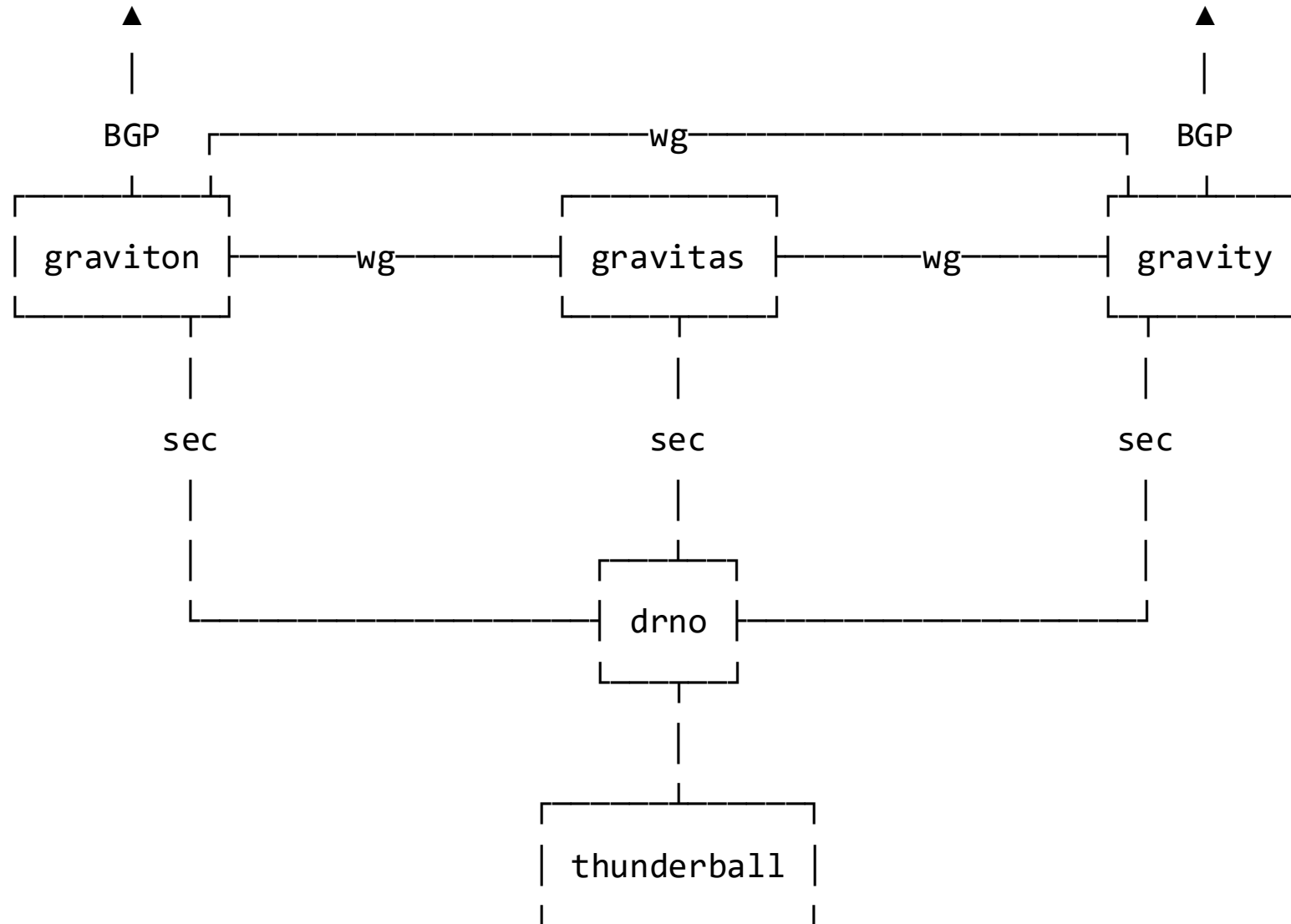
Tunnels everywhere

Wireguard between OpenBSD VM's

gif(4) to home -> replaced by sec(4) available since 7.4

ospf6d (but...)

BGP – AS215131 (2)



BGP – AS215131 (3)

rpki-client

io heavy -> cache on mfs -> rtr with strayrtr

script -> prefix-sets generator with bgpq4
/var/db/bgpd/prefix-sets

rDNS -> using NSD (+ ldns-utils)
weekly cron for DNSSEC

BGP – AS215131 (4)

Non BSD stuff

krill RPKI daemon – docker container on Synology

Issues

block in pf.conf -> asymmetric routing

ifconfig <interface> destroy

DNS

DNS (1)

SBC's

SD card issues -> redundancy

Raspberry Pi

FreeBSD: local_unbound + bird

Rock64

FreeBSD -> OpenBSD

Replaced with APU2

DNS (2)

OpenBGPD for IP reachability

8.8.8.8 -> 9.9.9.9 -> 10.10.10.10!

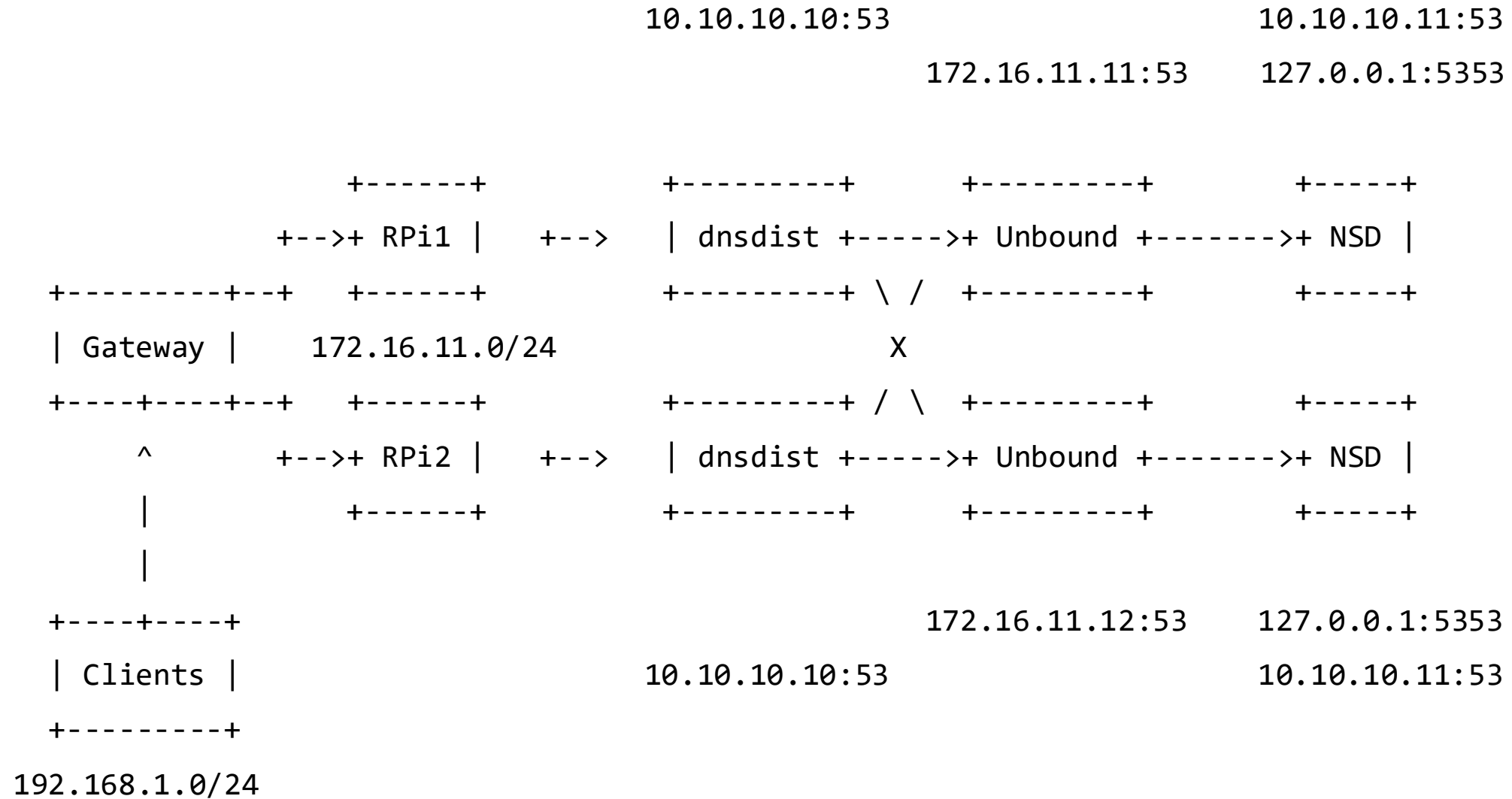
dnsmasq for load balancing and adblocking

Unbound for resolving (DoT to Quad9)

DNS64 (+ NAT64 on SRX) = IPv6-mostly Guest WiFi

NSD for internal forward and reverse zones

DNS (3)



What's next?

Cleanup scripts, put them in a better path
(but it works (-:))

Backup, backup, backup! Test! Backup!

Distributed Webserver (on IPv6) -> rdist?

More BGP

Monitoring / collect stats

Redo httpd/relayd/pf/dnsdist configs (again? :-D)

Questions?

Thanks !

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