
S2E1 - Outline of S2

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About Me

- Nick Morrison | <https://nanocat.net> | nick@nanocat.net | [they/he](#)
- Networking since 2000 (started out in Adelaide, Australia)
- CCIE #28800 (well and truly expired)
- Loves teaching networking
- Loves being interrupted during workshops
- Loves cool tech
- Doesn't love the imbalance in the tech industry

About You

- hello ☒

How the Workshops Work

- choose your level of interaction based on your energy - camera off / muted is totally OK
- if you are usually quiet in workshops, please feel free to take up space here
- if you are usually confident in workshops, please consider making space for others
- interactive “lectures” about a particular topic
- prepared lab tasks
 - build a network to a spec
 - troubleshoot a pre-built network
- learning networking isn't linear - we will sometimes venture into uncharted territory, and then come back to talk about what we discovered.
- tech stack:
 - containerlab - orchestration tool
 - containerlab discord: <https://discord.gg/fbcMcrQ4>
 - hetzner - linux VMs
 - diagrams.net - diagrams

How Much the Workshops Cost

- if you have no income, please don't pay anything
- if you have an income, please help me to cover costs
 - there is a donation link at the top of the workshops page that looks like this -> ☒ donate ☒
- if your company will help cover your cost, I can send you a formal invoice (I am an Einzelunternehmer with a VAT ID)

Roadmap

- this roadmap is negotiable
- Season 1 was fast and wide, Season 2 will be slower and more “linux”-y
- it’s hard to learn networking in a linear fashion
- so we will jump around from topic to topic, getting deeper each time

Roadmap

- Layer 2 and Layer 3
 - tcpdump
 - MAC addresses and IP addresses (IPv4 and IPv6)
 - Packet formats, headers, shims
- TCP vs UDP
 - Connection-based vs Connectionless
 - the Three-Way Handshake
 - TCP windowing for flow control
- Firewalls and Access Control Lists (ACLs)
 - block ur friends
 - ufw vs iptables vs Appliances
 - faking your source IP
- Networking in Linux
 - the ip command
 - network namespaces
 - docker
- Network Programming
 - writing your own network utilities
- Encapsulation
 - VPNs and Tunneling
 - Onion Ring
 - GRE, IPSec, SSH tunnels

That’s it

Please enjoy :-)