

Network Engineering Goes DevOoopsie!!!

DevOpsDays Tampa Bay 2022



THANK YOU, DIAMOND SPONSORS!



spectro cloud





DEVOPS DAYS
TAMPA BAY

Marino Wijay



Developer Advocate @  solo.io

 @virtualized6ix

 marino.wijay@solo.io

 <https://www.linkedin.com/in/mwijay>

 /

twitch.tv/virtualized6ix

**OH: Service Mesh is a
VPN**

INSERT RANDOM **OSI** MODEL
PICTURE

7. Application	HTTP, FTP, IRC, SSH, DNS
6. Presentation	SSL, SSH, IMAP, FTP, MPEG, JPEG
5. Session	API"S, Sockets, WinSock
4. Trasport	TCP, UDP
3. Network	IP, ICMP, IPSec, IGMP
2. Data Link	Ethernet, PPP, Switch, Bridge
1. Physical	Coax, Fiber, Wireless, hubs, Repeaters



Load Balancers, Proxies,
WAFs... API Gateways,
Service Mesh (Istio)



CNI (Cilium, Calico,
Weave, Antrea)
SDN (VPC, VXLAN)



Physical
(Switches/Routers)
x86 + ARM virtualization



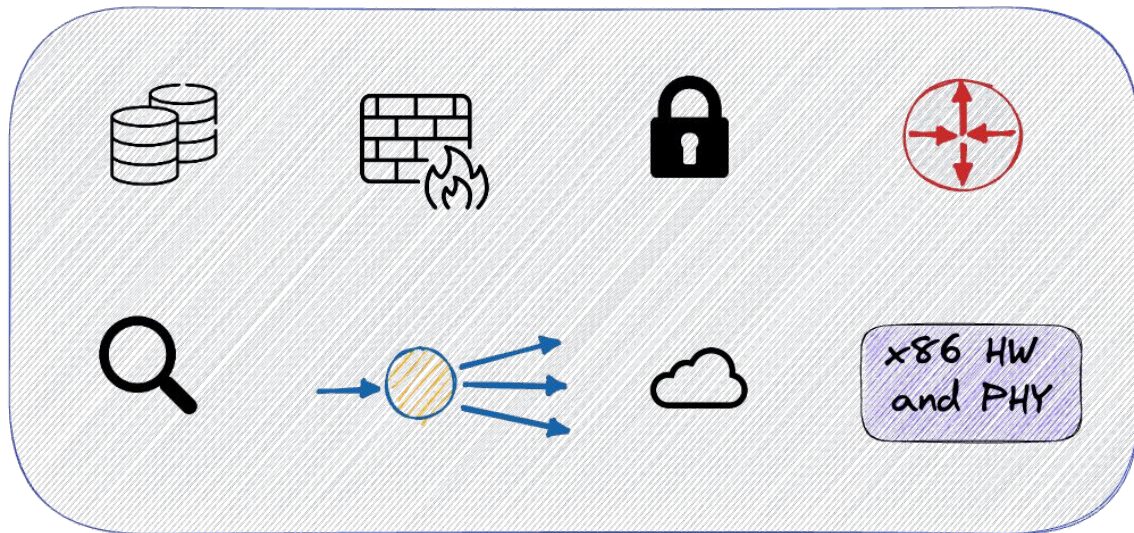
Chasing the certification

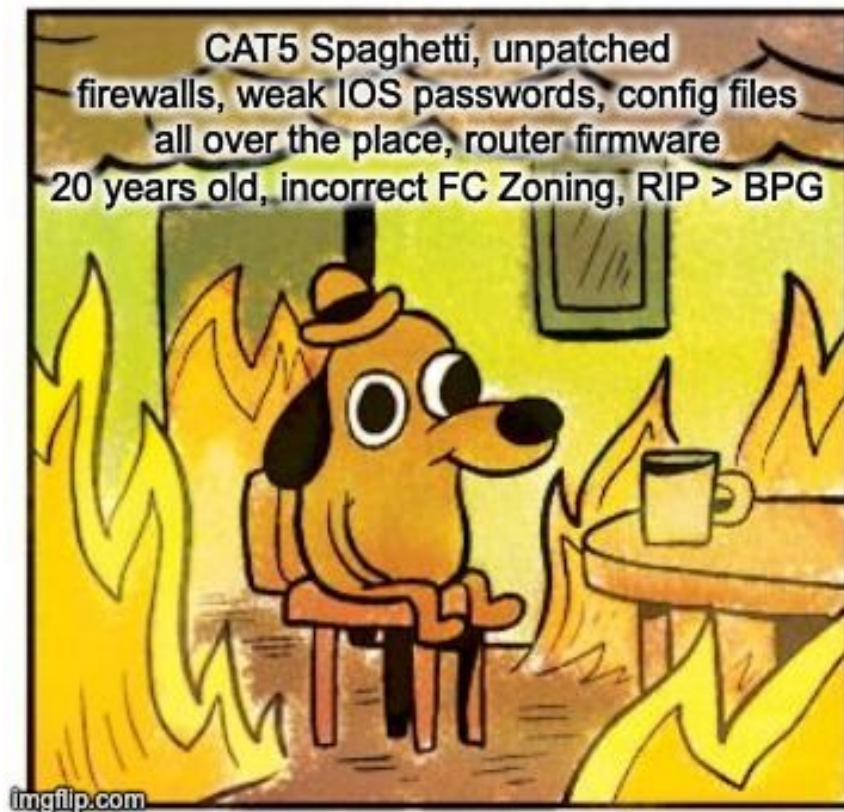


Campus → DC → SAN

JUMBO FRAMES? HELL YEAAAA

Before DevOpsie but still a lot of Ooopsie...





AUTOMATE



AUTOMATE THE NETWORK!!!

AUTOMATE THE VLANS!!

AUTOMATE IT ALL!!


Net...DevOps

What about Python,
Ansible and like..
NAPALM?

WHERE WERE YOU WHEN I
NEEDED YOU, GIT 🥲...



Cooper Netties has
entered the chat!?!

**STAHP, WHY ARE YOU
PUTTING NETWORKZ IN MY
YAML**   

Network Namespaces → CNIs
LB/Route → Service Meshes
Firewall → API Gateways

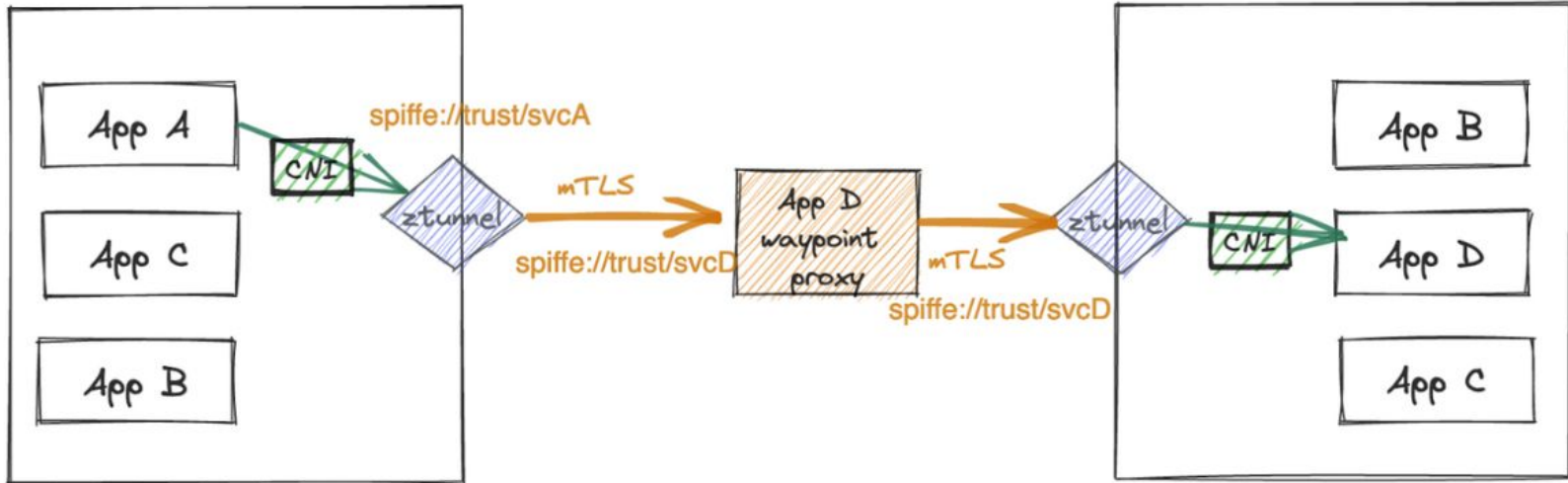
Service Mesh is just...a VPN

It takes from the ideals of
IPSec, Routing, Observability

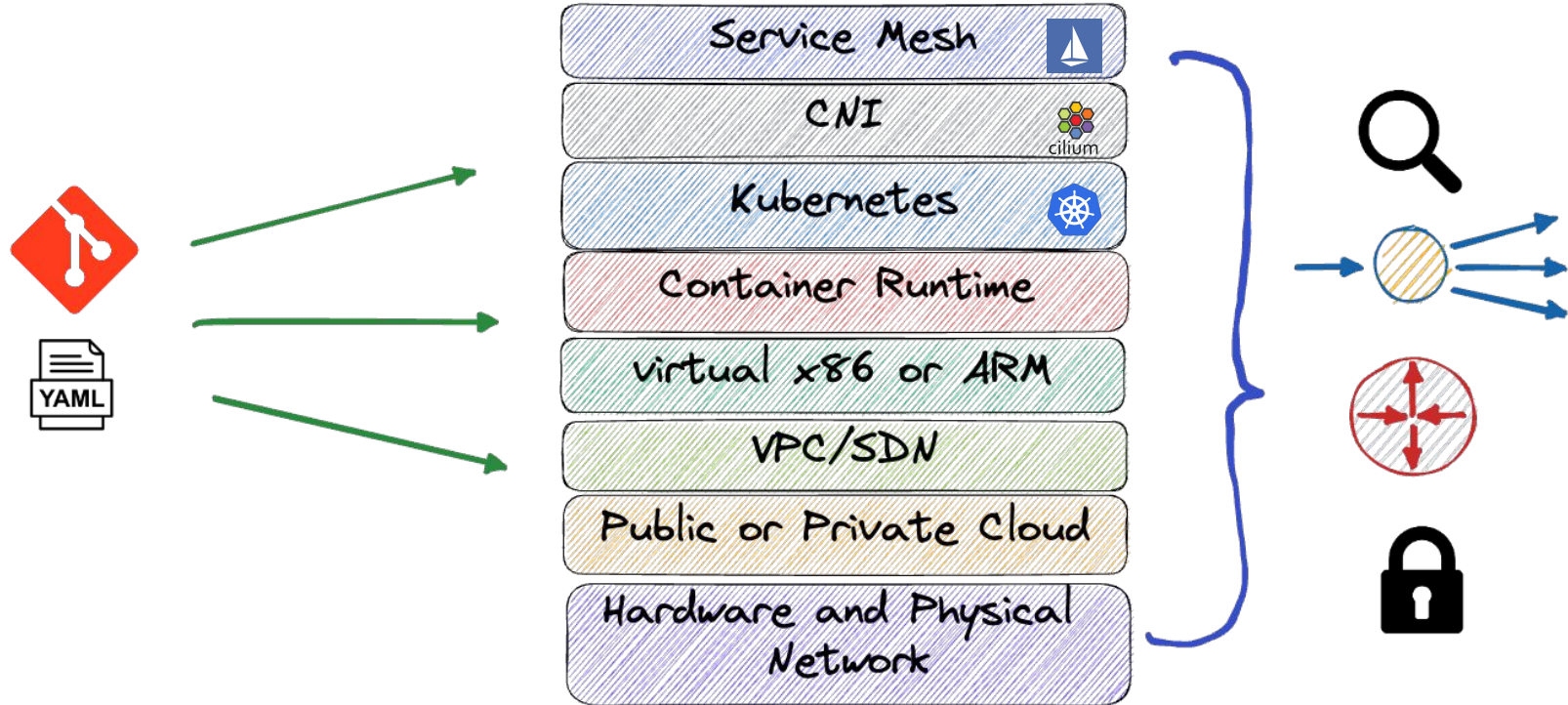
Ambient Service Mesh
is just...a VPN...without
sidecars



Ambient Service Mesh



The New Network Stack



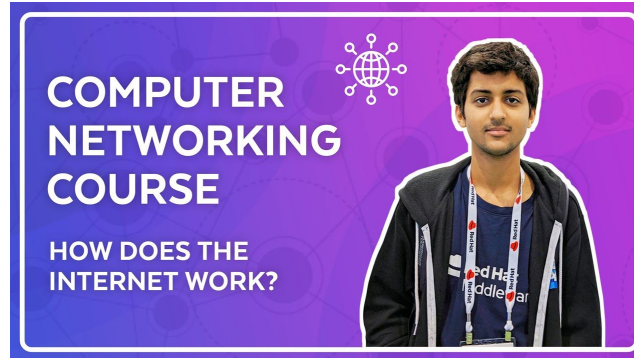
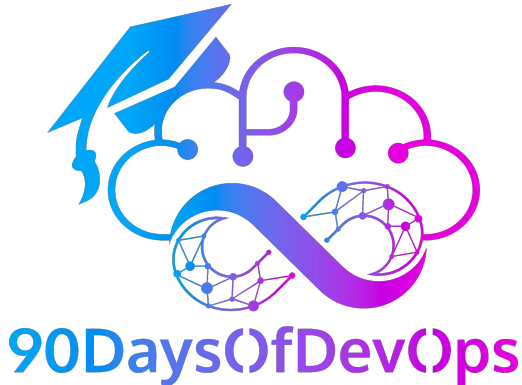
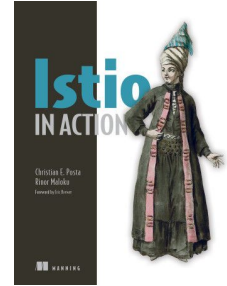
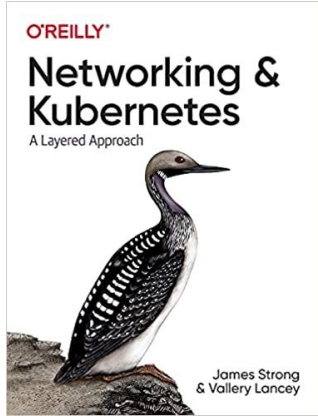
Networking Engineering goes DevOoopsie?



Network
Foundations

- The OSI Model
- IP Networking and Subnetting
- Routing and BGP
- DNS and Dig
- HTTP and cURL
- Load Balancing, Proxies, and Firewalls
- Container Networking
- Kubernetes Networking

Thanks, and always follow the packets





`istioctl proxy-config route`

`vs`

`show ip route`

This penultimate slide was also
intentionally left blank. *I am not sorry.*