

A brief showing off of k3s and tailscale

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Central Iowa Linux User's Group



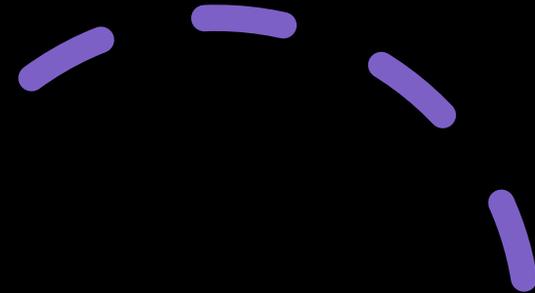
About me

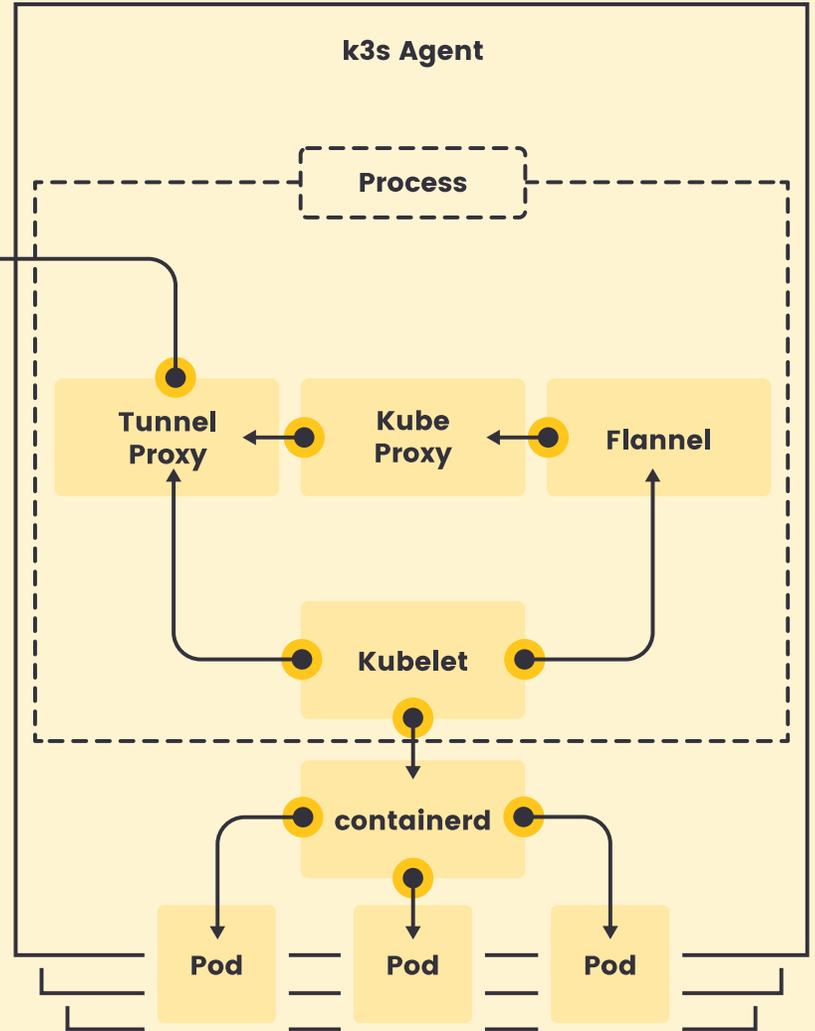
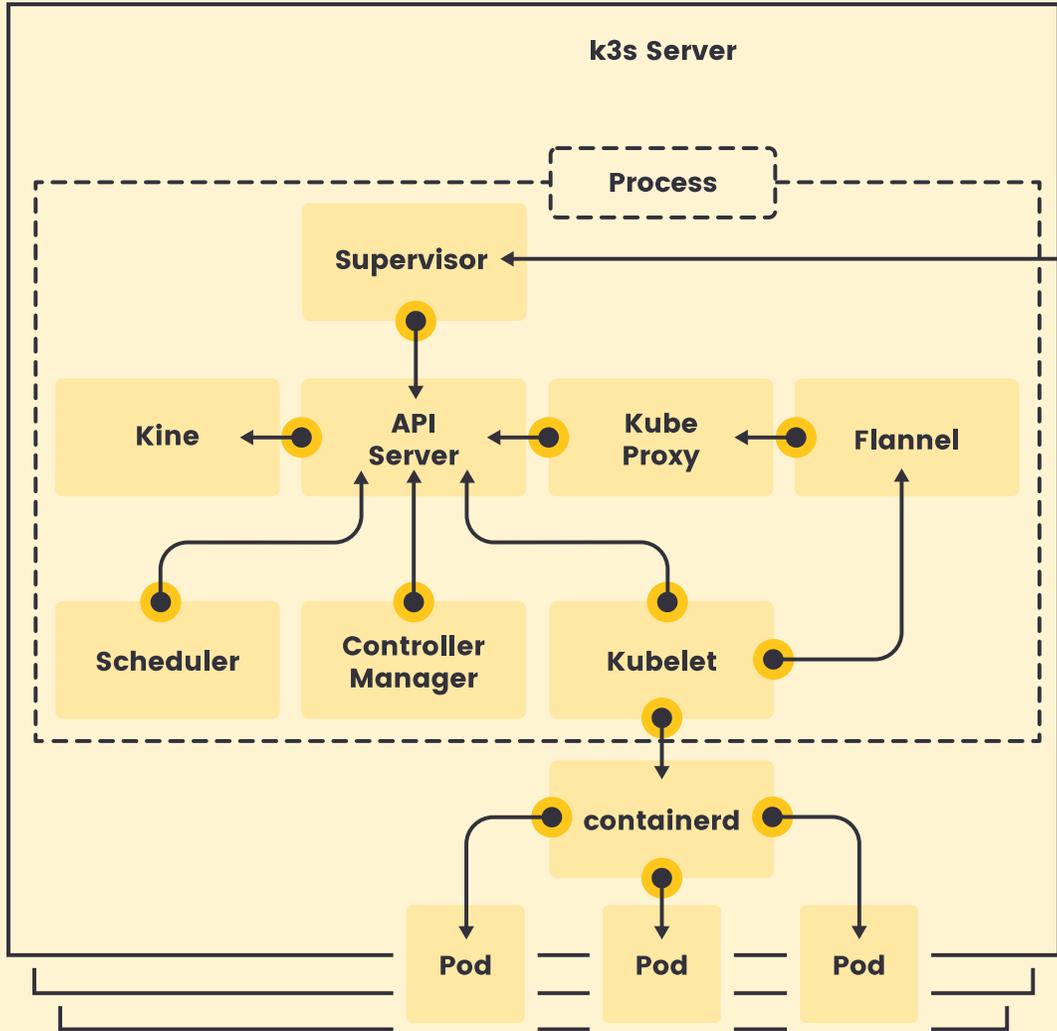
- By Day, computer programmer, linux user, and (currently diaper wrangler)
- By Night, somehow still president of this group?
- Social:
<https://hachyderm.io/@adenner> or
twitter: @adenner
- Slides will be posted:
<https://denner.co>

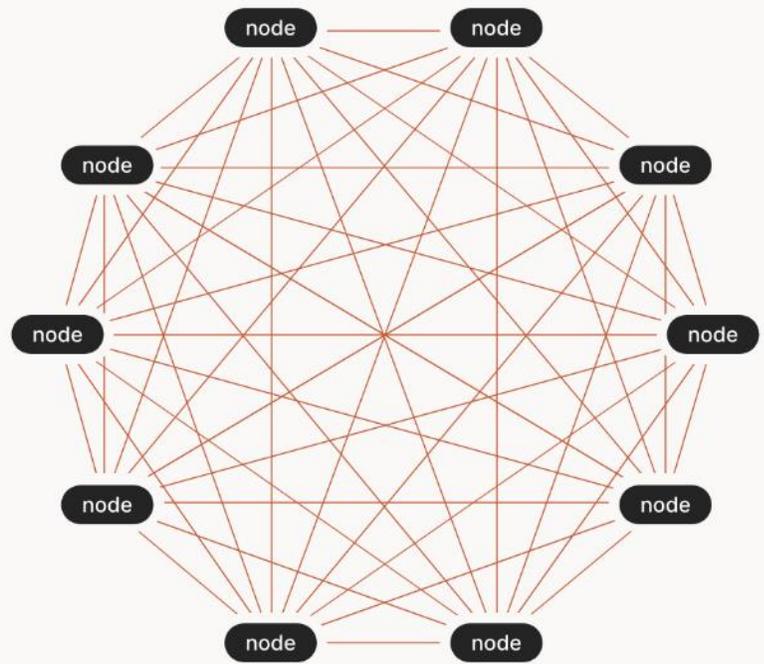
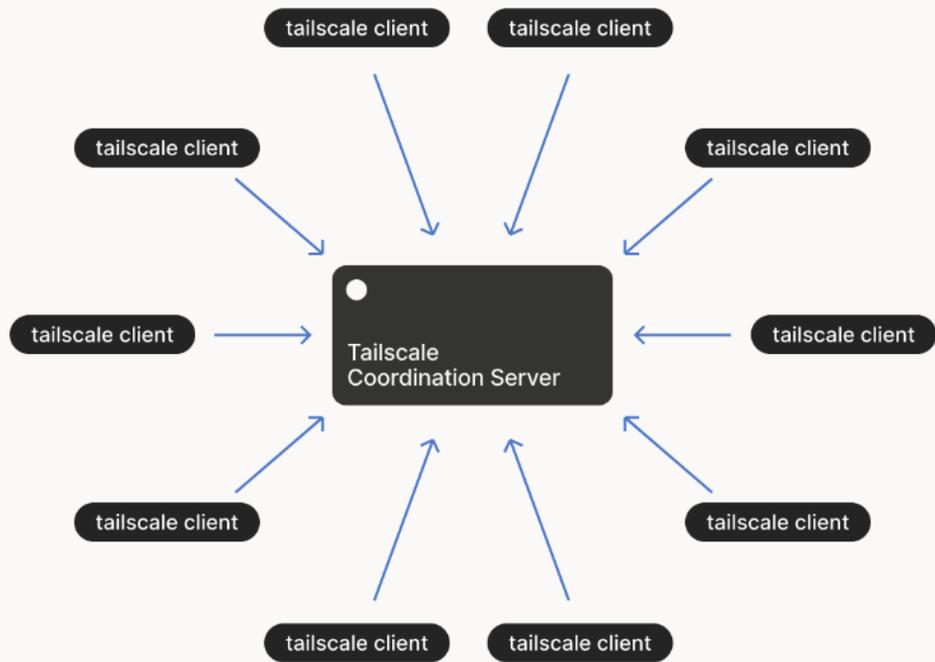


A brief intro

- Tech stack
 - K3S
 - Tailscale
 - Ingress-Flannel
 - Ubuntu LTS

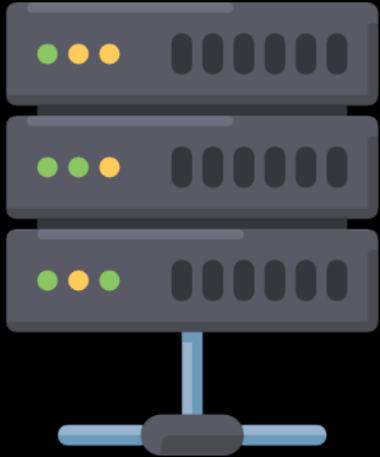




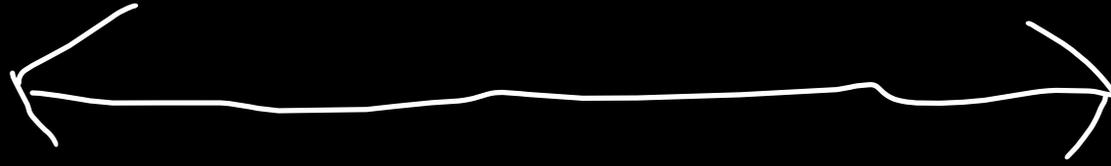


$n(n-1) = 90$ WireGuard endpoints (for 45 connections)

Head server



Intel(R) Core(TM) i7-2600 CPU @ 3.40GHz
16 gb ram



Edge server/ingress



4 cores
4gb ram
public ip 72.18.81.208

Download Tailscale

Install the app and sign in to get started.



Install with one command

```
curl -fsSL https://tailscale.com/install.sh | sh
```

Manually install on

Ubuntu 20.04 LTS (Focal) ▾

Packages are available for x86 and ARM CPUs, in both 32-bit and 64-bit variants.

1 Add Tailscale's package signing key and repository:

```
curl -fsSL https://pkgs.tailscale.com/stable/ubuntu/focal.noarmor.gpg  
curl -fsSL https://pkgs.tailscale.com/stable/ubuntu/focal.tailscale-key
```

2 Install Tailscale:

```
sudo apt-get update  
sudo apt-get install tailscale
```

3 Connect your machine to your Tailscale network and authenticate in your browser:

```
sudo tailscale up
```

4 You're connected! You can find your Tailscale IPv4 address by running:

```
tailscale ip -4
```

If the device you added is a server or remotely-accessed device, you may want to consider [disabling key expiry](#) to prevent the need to periodically re-authenticate.

You should be logged in and connected! Set up more devices to connect them to your network, or log in to the [admin console](#) to manage existing devices.

Installing

```
adenner@k8master:~$ curl -sL https://get.k3s.io | K3S_NODE_NAME=k8master.tail691c9.ts.net sh -s - --bind-address 100.71.94.88 --advertise-address 100.71.94.88 --flannel-iface tailscale0 --advertise-address 100.71.94.88 --node-ip 100.71.94.88 --node-external-ip 100.71.94.88 |
```

```
DirectMap2M: 10521210 KB
```

```
adenner@k8master:~$ sudo cat /var/lib/rancher/k3s/server/node-token
```

```
root@k8edge:~# curl -sL https://get.k3s.io | K3S_URL=https://k8master.tail691c9.ts.net:6443 K3S_TOKEN=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9 sh -s - --flannel-iface tailscale0
```

Machines

Filters 

3 machines

MACHINE	IP	OS	LAST SEEN	
k8edge1 denner@gmail.com Expiry disabled	100.94.22.122	 Linux 1.34.1	● Connected	...
k8master denner@gmail.com Expiry disabled	100.71.94.88	Linux 1.34.2	● Connected	...
crusher denner@gmail.com	100.127.29.9	Windows 1.34.2	● Connected	...

Connect more machines by [installing Tailscale](#)

```
adenner@k8master:~$ sudo kubectl get pods
```

```
[sudo] password for adenner:
```

```
Sorry, try again.
```

```
[sudo] password for adenner:
```

NAME	READY	STATUS	RESTARTS	AGE
nginx-76d6c9b8c-hptnz	1/1	Running	3 (33h ago)	20d

```
adenner@k8master:~$ sudo kubectl get nodes
```

NAME	STATUS	ROLES	AGE	VERSION
k8master.tail691c9.ts.net	Ready	control-plane,master	20d	v1.25.4+k3s1
k8edge.denner.co	Ready	<none>	20d	v1.25.5+k3s2

```
adenner@k8master:~$ sudo kubectl get ingress
```

NAME	CLASS	HOSTS	ADDRESS	PORTS	AGE
nginx	traefik	*	100.71.94.88	80	9d

```
adenner@k8master:~$
```