

Kubernetes The Dark Art Of Container Monitoring

Gianluca Borello

Me

Gianluca Borello

- Software Engineer at Sysdig
- Core developer of sysdig



gianlucaborello

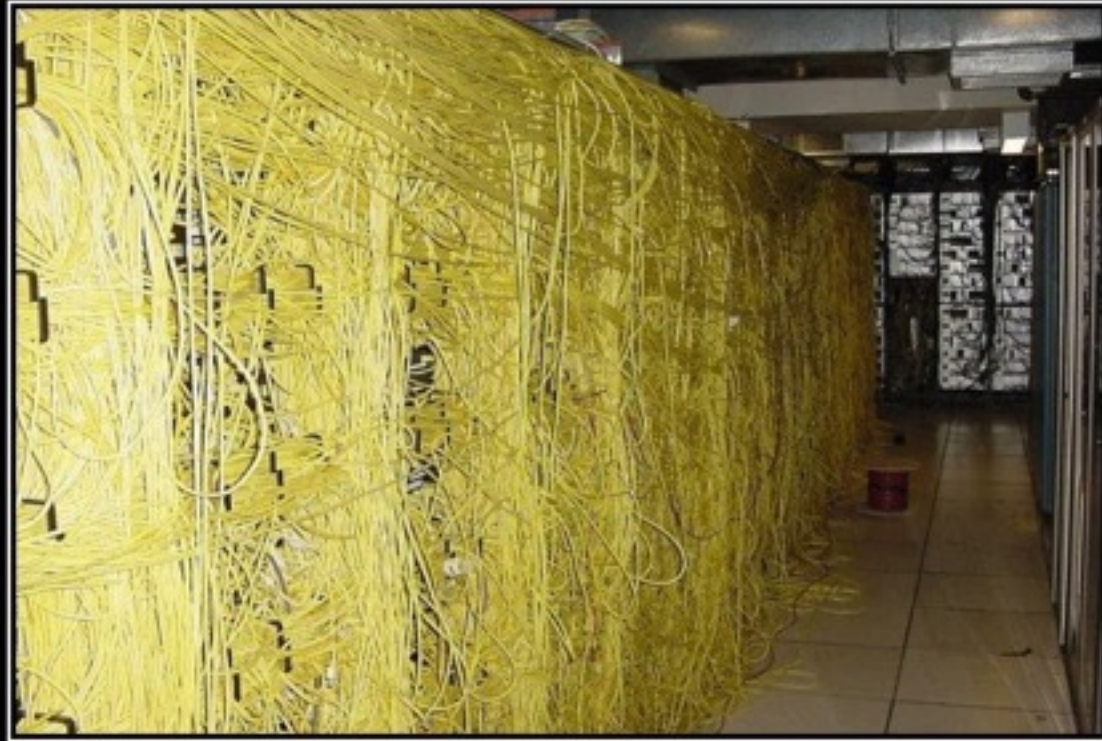
In This Talk

- Monitoring
- Troubleshooting
- Monitoring
- Troubleshooting
- Monitoring
- Troubleshooting

Demo environment

- Kubernetes application
- 2 namespaces (**dev** and **prod**)
- Each namespace runs tons of stuff: **Wordpress, Tomcat, MySQL, Cassandra, Redis, MongoDB, ...**
- Every component is replicated via **controllers** and exposed via **services** (+**SkyDNS** addon)
- In other words...

...a troubleshooting nightmare



A NETWORK CABLE IS UNPLUGGED

You're fucked.

Kubernetes tools

- Kubernetes UI
- cAdvisor
- Heapster
- KubeDashboard
- Grafana
- ...



I need more!

What network activity
is my namespace
doing?

What transactions is my
Redis service serving?

Is my **X-I-Am-Awesome**
HTTP header being set?

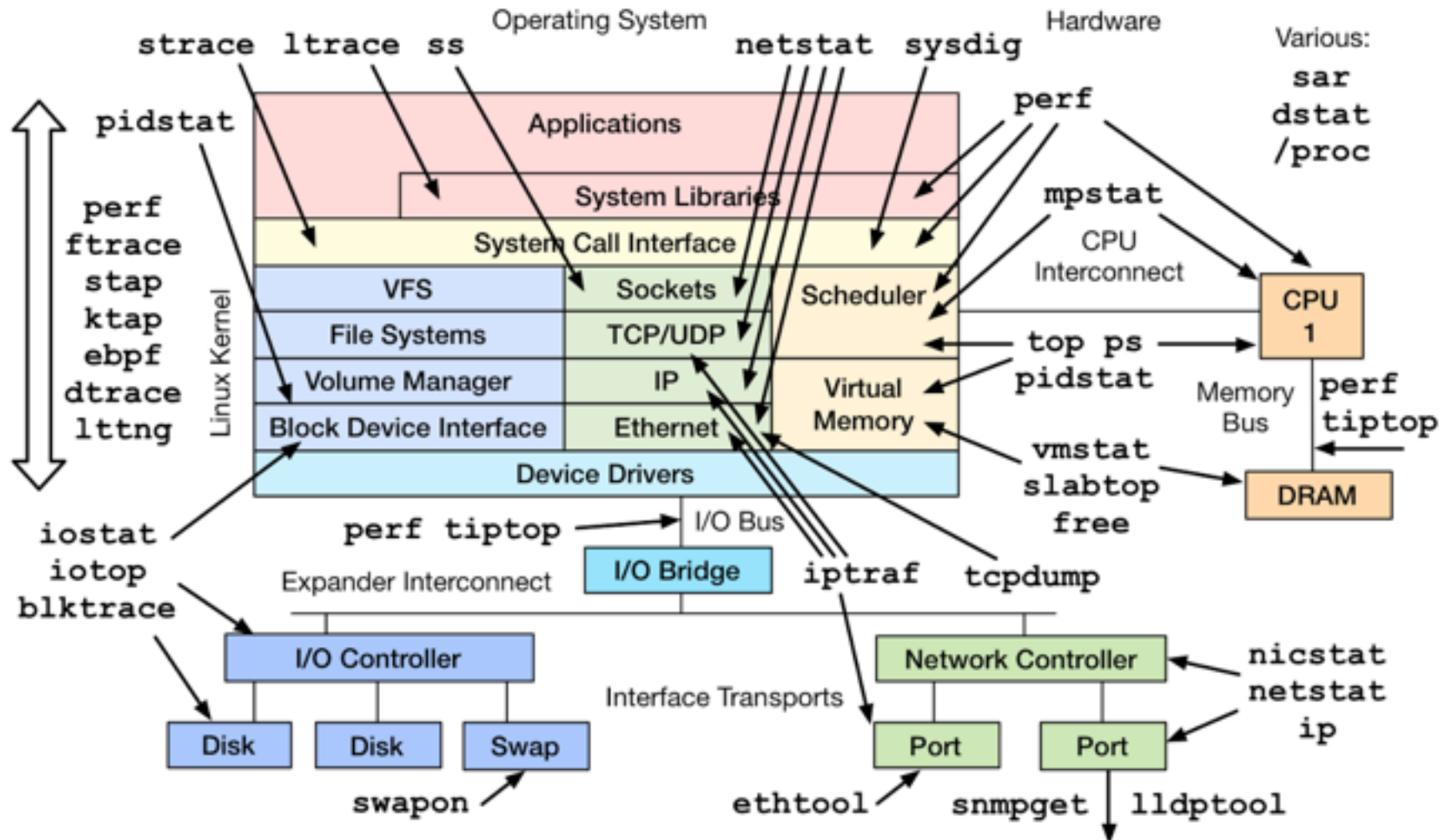


How the hell does
my K8S service
work?!

What processes are
being run in this
pod?

What files are
being written to
the file system?

Troubleshooting like a pro



sysdig

- Capture system events, filter them, run useful scripts
- strace + tcpdump + lsof + htop + Lua
- Open Source
- Nice curses UI
- **Native support for Kubernetes!**

Great, but...

Multi-Node?!!