

DevOps, SRE, and other Buzzwords

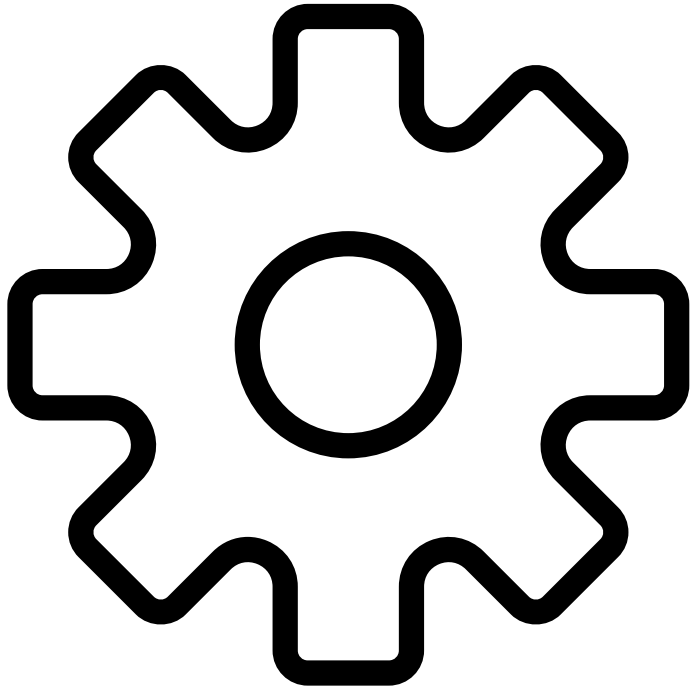
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What does a sysadmin do?

Configure



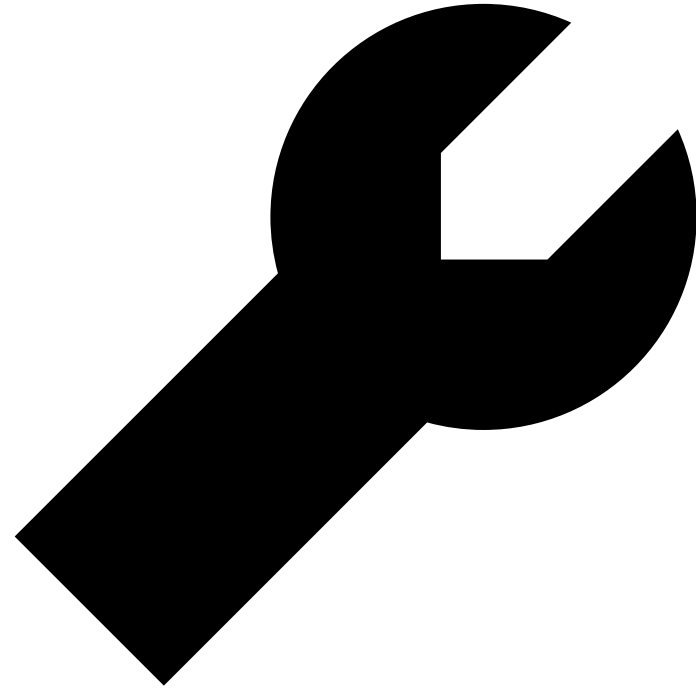
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Operate



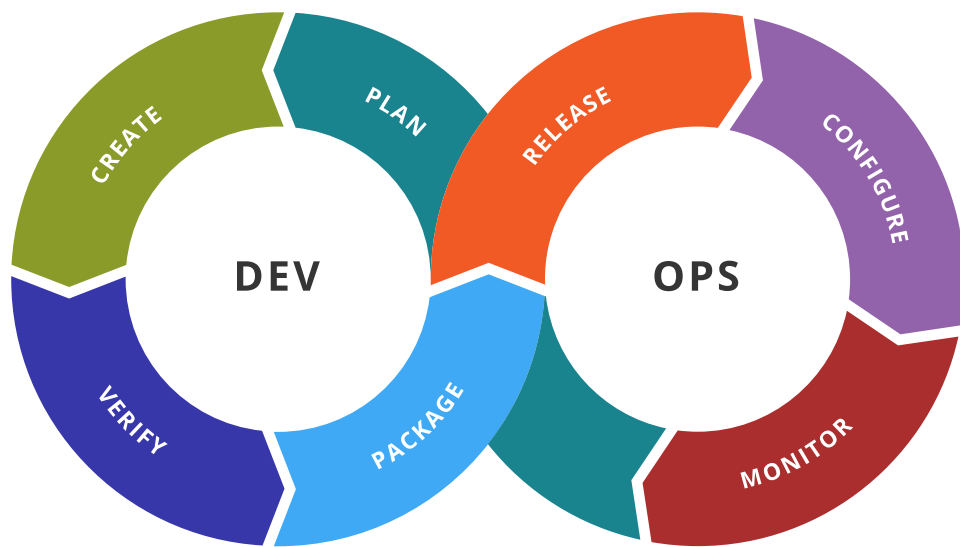
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Maintain



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DevOps Patterns

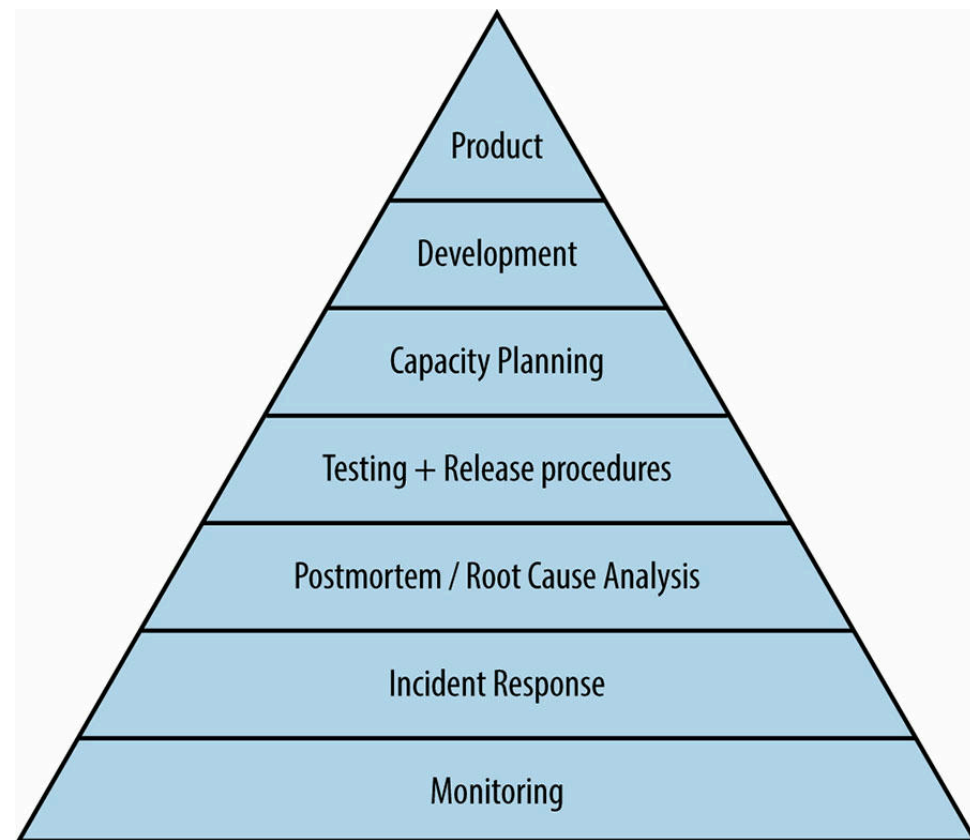


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- Hardware in the cloud
- Everything is code
- “YAML engineers”
- Devs doing sysadmin or sysadmins doing dev?

Site Reliability Engineering (SRE)

- Change management
- Automation
- CI/CD Pipelines
- Testing
- “Treat operations as if it’s a software problem.” – Google



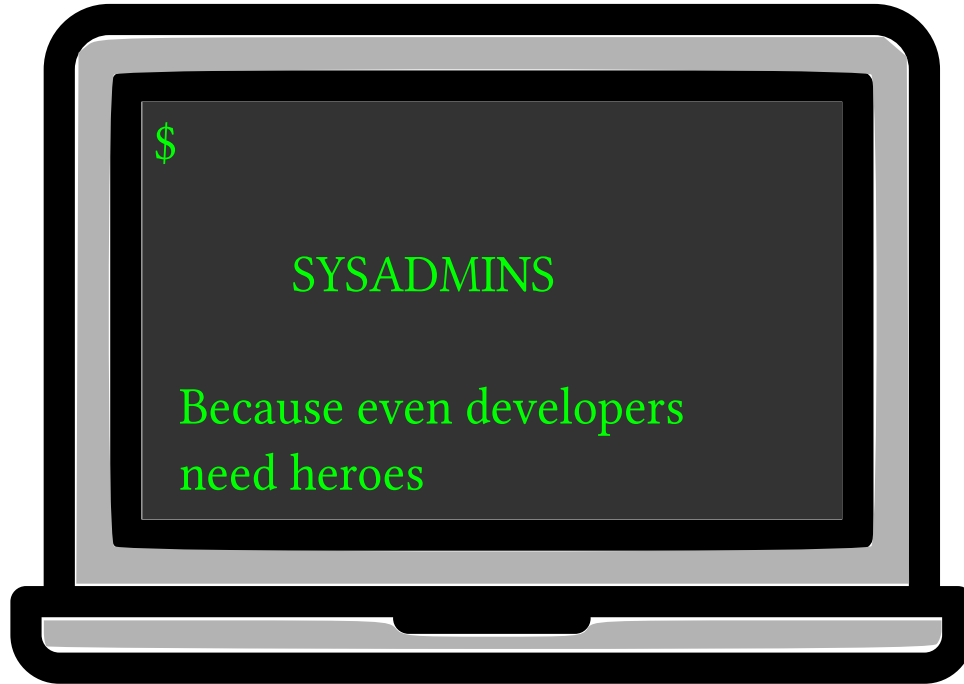
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Is the Sysadmin Dead?



- Nope, they're just coding more
- Expertise in uptime and hardware optimization helps solve software problems
- An empowered sysadmin can do more, much more
- Experience matters

What does it all mean?



- Failure is an option!
- A whole lot of virtualization
- Continuous deployment is expected
- Rapid (automated) response
- Downtime for maintenance is passe
- Make it run on anything
- Automate, automate, automate!
- Save configurations, not images

What solutions are we using *now*?

Automation Tools

Ansible
Terraform
Chef/Puppet

VMs

Amazon EC2
Digital Ocean
Linode

Containers

LXC
K8s
Podman

Reproducible Systems

NixOS
GUIX

Function as a Service

AWS Lambda
Google Cloud Functions
Azure Functions

Platform as a Service

Heroku
Fly.io
Railway.app

Immutable Linux

ChromeOS
Vanilla OS
Endless OS

Hybrid Cloud

OpenStack, K8s, etc.
Any big IaaS

Self-Hosted AI

How do we keep up?

- We've talked about and used lots of tools, but they aren't the only ones
- Concepts > Use Instances
- Read, share, contribute
- Learn from past mistakes
- Don't believe the hype. Think for yourself!
- Argue and learn
- Insular sysadmin culture *is* dead
- My personal thoughts on the future: distributed, decentralized, federated, mesh