The background of the slide is a dark, moody photograph of a winter landscape. A single street lamp stands on a snow-covered path, its light glowing yellow against the dark surroundings. Bare trees with intricate branch patterns frame the scene, their silhouettes sharp against the light from the lamp. The overall atmosphere is mysterious and cold.

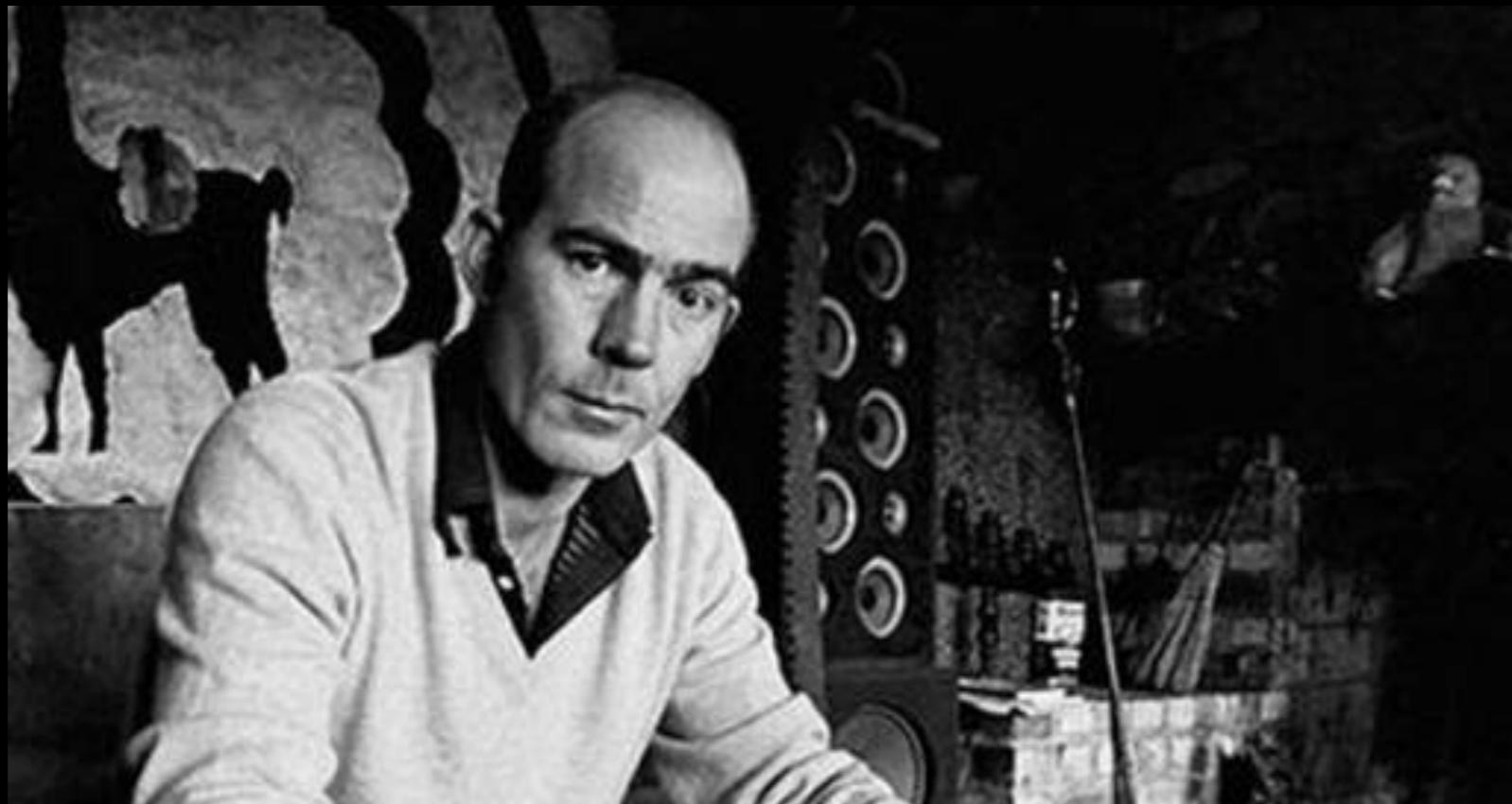
SRE: The Incomplete Guide to Cultural Narnia

by: Anthony Caiafa

About Me

- 10+ years Ops background and pager jockey
- OSS Contributor
- Self Proclaimed Genius(like most of you)
- Father to a fantastic little boy
- In love with technology and breaking everything
- I spend quite a bit of time fielding phone calls from recruiters and explaining to them they are using the term DevOps incorrectly ;)

Disclaimer

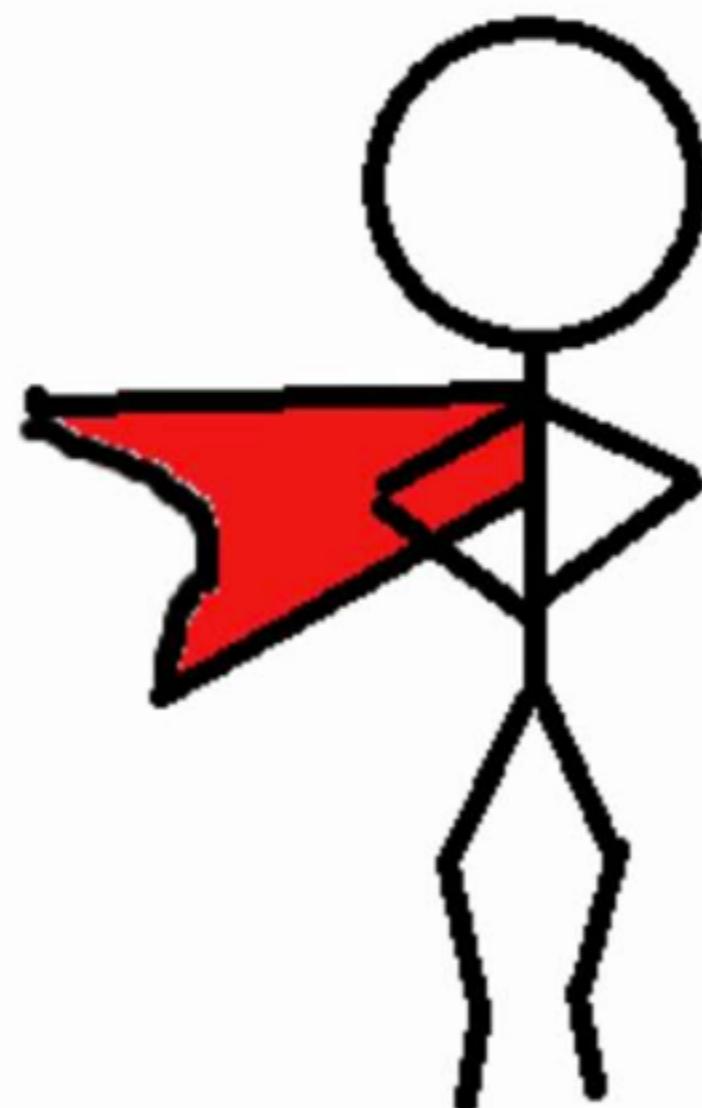


THESE ARE MY OPINIONS

SRE

TechOps

DevOps
Developer



Network
DevOps

Senior DevOps Engineer

Production
Engineer



INCORRECT

Implementation



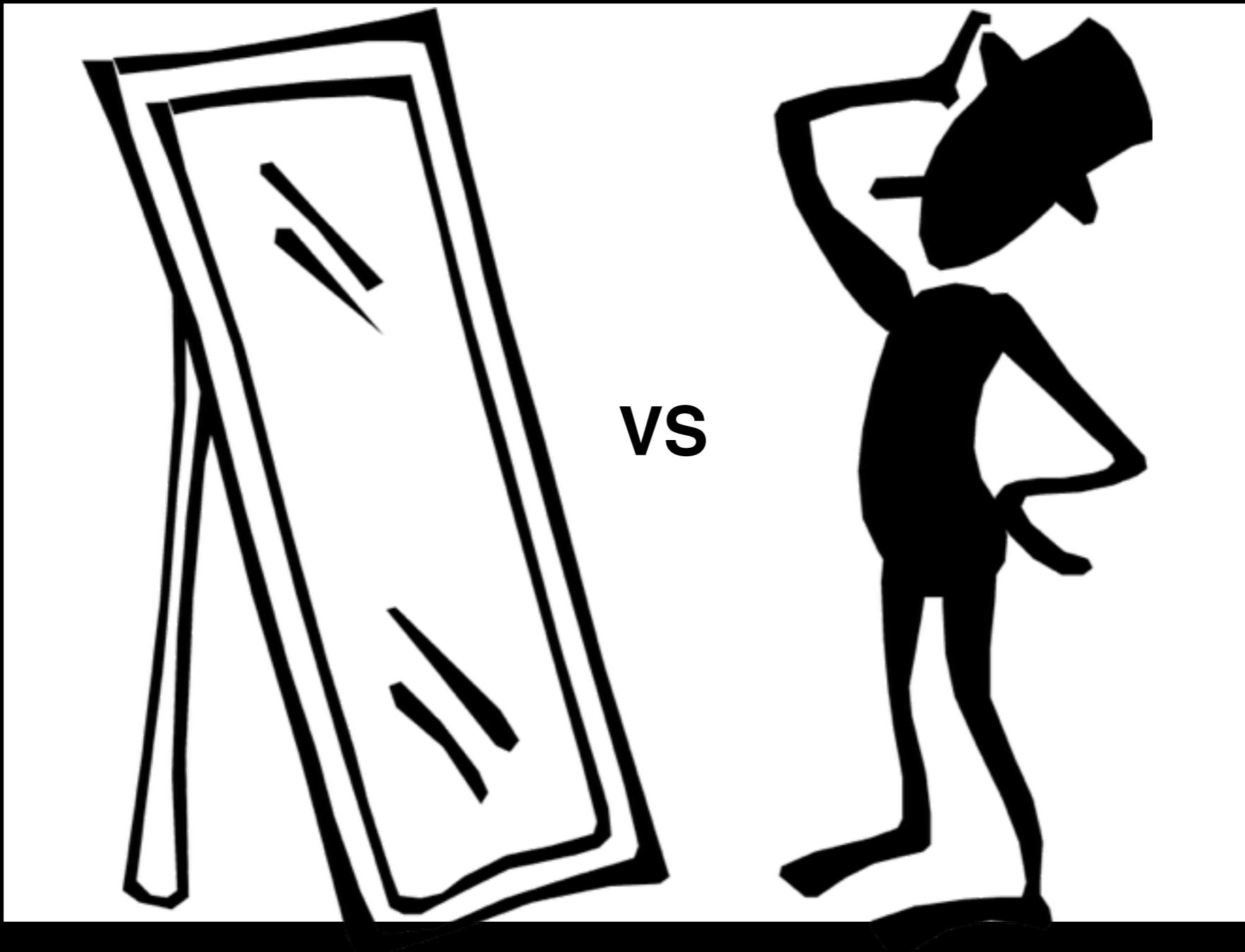
What is SRE to me?

- SRE is a core group of individuals who have a wide array of skill sets. These skill sets range from operations, networking, development, hardware, distributed systems, monitoring, stability, capacity planning, etc.
- SRE's are responsible for building out and scaling all aspects of infrastructure for any team looking for support.
- SRE is not just about the technology. SRE is a mindset, thought process, and **cultural shift**. These are traits that seasoned individuals will bring to the organization to help drive it forward.

Areas of Responsibility

- Monitoring
- Configuration Management & Automation
- Core Infrastructure Services, Tooling and Provisioning Capacity Planning & System
- Performance Documentation and Runbooks
- Incident Response

Application SRE



Infrastructure SRE

Bridging the Gap





Where to begin?

Application SRE

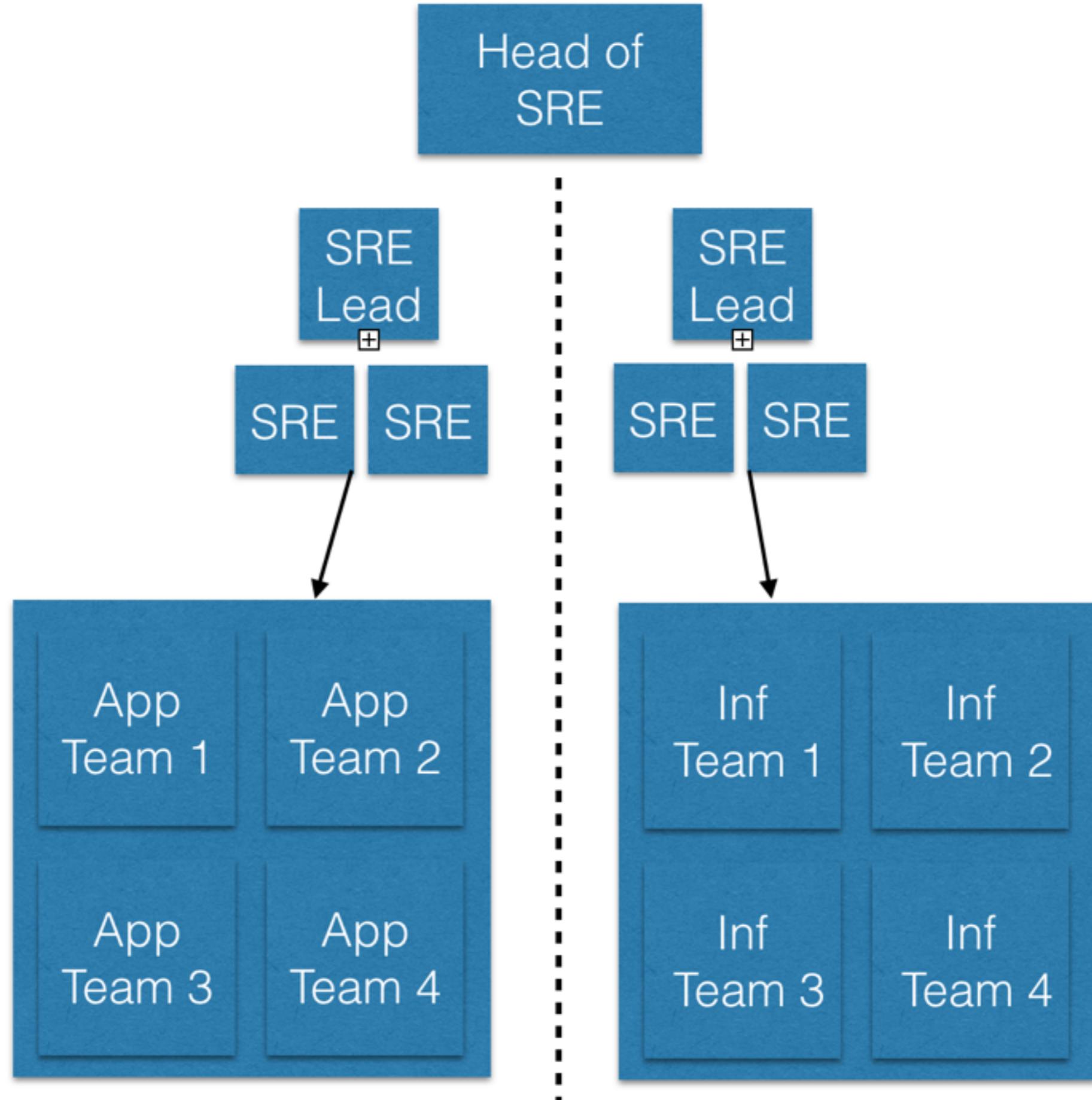
- Embedded for Application/Service Teams
- Support within the Application/Service Team
- Automation for apps and services for the team
- Monitoring / Metrics for Application/Service Team
- Benchmarking and performance assistance for code
- Infrastructure deployment and architecture for applications and services
- Write documentation & runbooks for alerts issued by application/service stack

Infrastructure SRE

- Build & Management of core Tech Infrastructure(provisioning,OS,dns,dhcp,networking,etc)
- Automation of infrastructure services(telemetry, log aggregation,chef, etc)
- Build and Document tools/services for outside teams to consume
- Support for Application SRE teams
- Building Infrastructure as Code
- Architectural guidelines and assistance for Application SRE teams
- Institute best practices and documentation



Organization Layout





Support Structure

Example Application Team

Support Chain

Ruby Web Application Team

Application Code
Service Code
Application Health Endpoints
Application Scaling

Application Features
Application Performance
Support for Bug Fixes

Application Error Reporting
Application RunBooks
OnCall Dev Schedule
Application Testing

Web Application Environment(Prod/Dev/Stage)

Database
Rails
Web Servers
Best Practices & Tooling Info

Backend Service Servers
Monitoring Dashboards
Scaling Systems & Capacity
Application Code Knowledge

Performance Tuning
Release Process
OnCall Scheduling
Train Frontline

Infrastructure(OS/Hardware/Chef/etc)

Ruby Web Cookbooks
Monitoring Infrastructure
Monitoring Standards
Monitoring Cookbooks

Infrastructure to run Code
Database Cookbook
Capacity on hand
API hooks to Infra services

Consistent OS across platforms
Service & Package Updates
OS Updates
Application Best Practices

Frontline Support(primary on call / runbacks / etc)

Initial Receiver of Alert
Diagnose Issue
Follow Runbooks

Document Common Issues
Generate Alert report for SRE Team
Improve runbacks and automation

Selectively Escalate Issues
Actively Monitor System State

Application Team

Application SRE Team

Infrastructure SRE Team

Frontline Support



That's all Folks!

Questions?

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