

Conf42: Site Reliability Engineering 2022



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SRE Anti-patterns

- » Renaming Operations to SRE and continue to do the same
- » Users notice an issue before you do
- » Measuring until my Edge
- » False Positives are worse than no alerts
- » Configuration Management Trap
- » Mob Incident Response
- » Point Fixing
- » Production Readiness Gatekeeper
- » Human Error
- » SRE is only Automation

Renaming Operations to SRE and continue to do the same

- » SREs are not there to run the daily operations work – Reduce TOIL
- » Reliability is the target
- » Learning from Failure
- » Scalability



Users notice an issue before you do

- » SLOs – Actionable Alerts
- » Observability
- » Fault Tolerance – Chaos Engineering



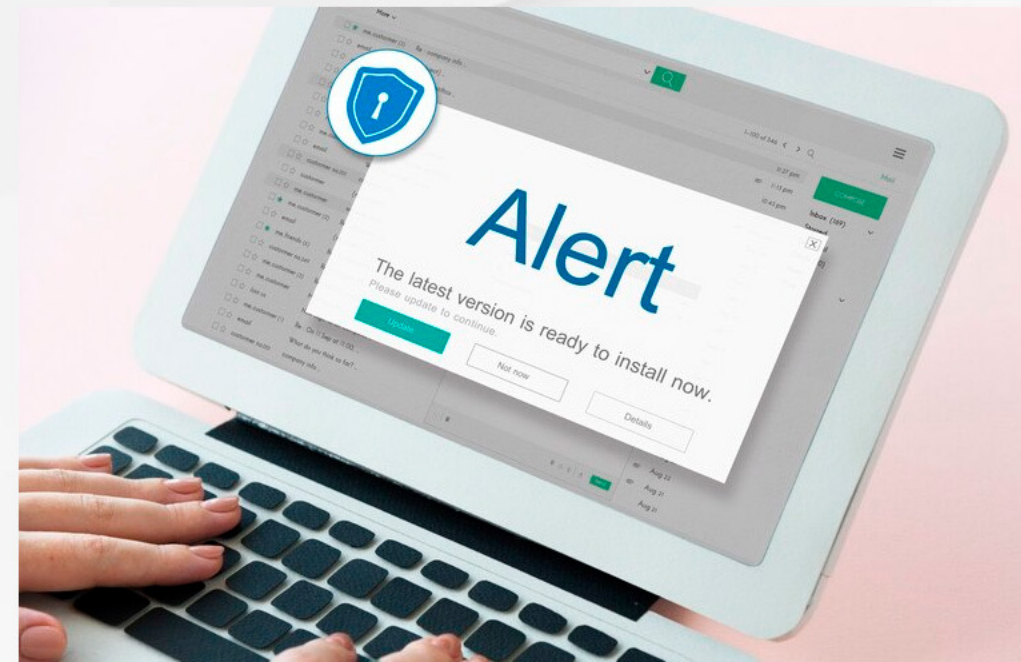
Measuring until my Edge

- » 100% is a bad target
- » Appropriate SLOs
- » Customer Experience
- » End-User Performance Management



False Positives are worse than no alerts

- » Individual Host Alerts and False Positives are worse than no alerts
- » Response Fatigue and Information Overload of time series data is not good
- » Alert should have great diagnostic information



Configuration Management Trap

- » Traditional Infrastructure is not suitable
- » Immutable Infrastructure – Pets Vs Cattle Vs Poultry
- » SRE spends less time on change and more time on homogenizing ecosystems



Mob Incident Response

- » Incident Command Framework
- » No tiered support – Swarming
- » Automation
- » Blameless Postmortem



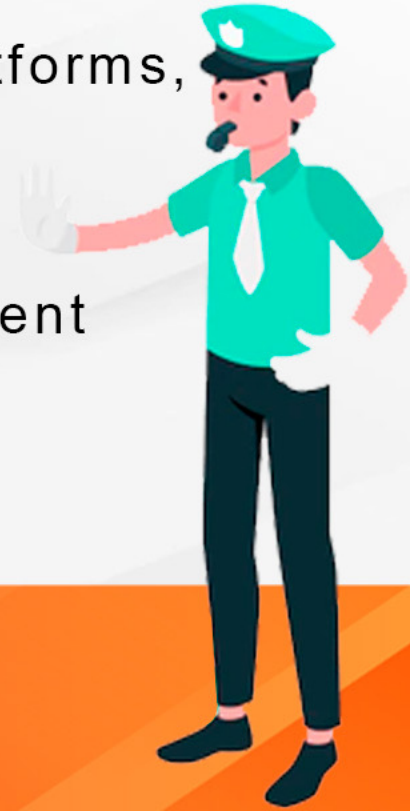
Point Fixing

- » Minimize Outage with automated alerts and solid paging mechanisms and quick workarounds. Fast Rollback, Fail Over and Fix Forward
- » Analyze and eliminate Class of Design Errors
- » Short Term Fixes followed by Preventive long-term fixes leading to Predictive methods
- » Aim for Auto remediation and closed loop remediations without human interventions



Production Readiness Gatekeeper

- Any process that increases the length of the time between the creation of a change and its production release without adding definitive value is a “gatekeeper” that functions as a chokepoint, a speed bump
- SREs enable and enhance velocity, use Error Budgets, Build Platforms, provide Dev Teams with Development Frameworks and templated configurations to speed up reviews
- SREs Shift-Left to build-in Resilience by Design in the Development Lifecycle



Human Error



- SREs strive not to have a cause of an outage repeated
The desire to prevent such recurrent failures is a very powerful incentive to identify causes
- The “Root Cause” is just the place where we decide we know enough to stop analyzing and trying to learn more
- Think of “Contributing Factors”, if we know what happened and where things “Went Wrong”, lets explore the system as a whole and all the events and conditions leading up to the outage
- It is always a problem of the system and not a human problem

SRE is only Automation

- Know the "Why" of Automation
- Measure
- Let the people doing the work decide the tools to be used Platform as a Service



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**If you have any questions, please don't hesitate
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