



Jayne Groll
CEO, DevOps Institute
@jaynegroll

SRE is a Service Management Framework

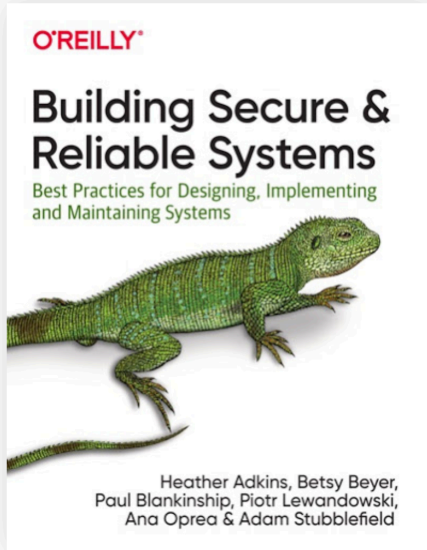


Digital transformation is no longer optional.

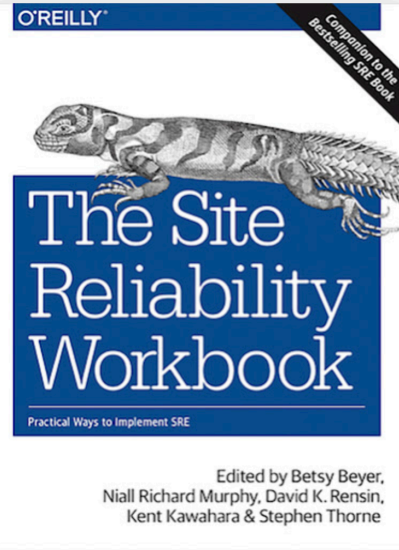
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You can't be digital if you aren't reliable.

“SRE is what happens when you ask a software engineer to design an operations function”
Ben Treynor Sloss, Google



Building Secure & Reliable Systems



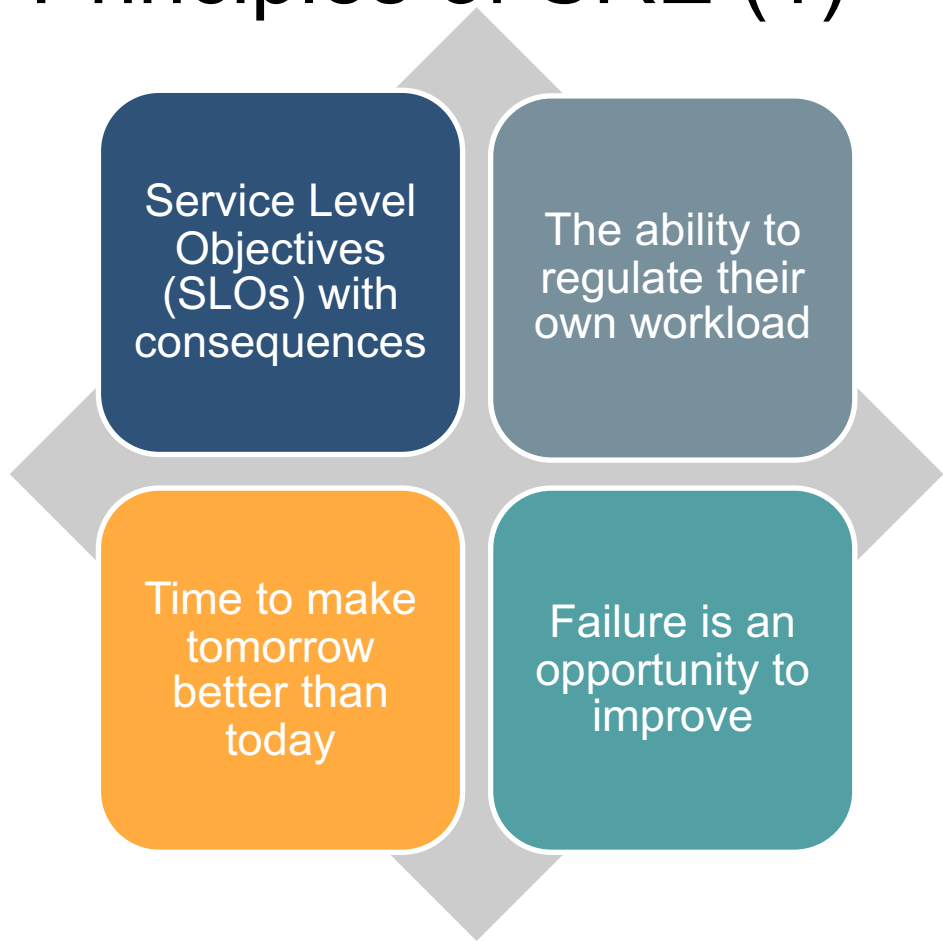
The Site Reliability Workbook



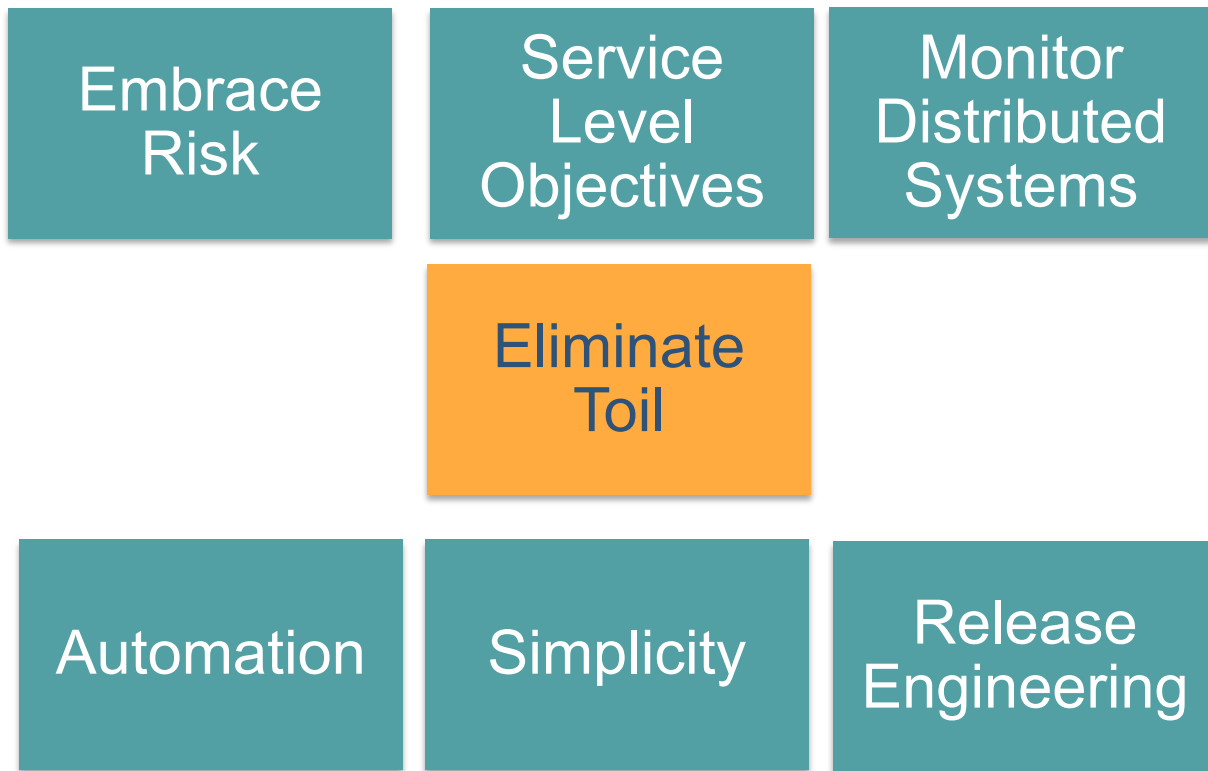
Site Reliability Engineering

<https://landing.google.com/sre/books/>

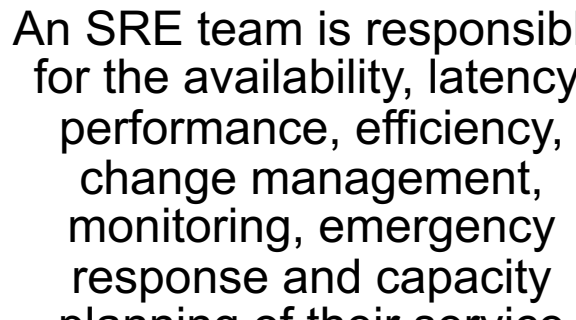
Guiding Principles of SRE (1)



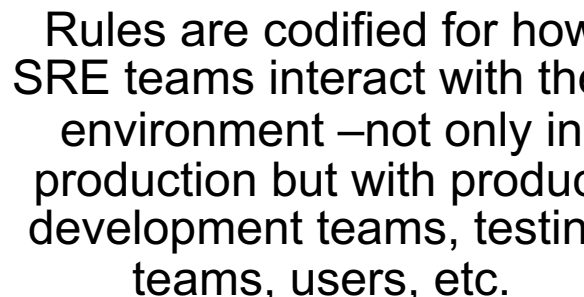
Guiding Principles of SRE (2)



Google Considers SRE its Approach to Service Management



An SRE team is responsible for the availability, latency, performance, efficiency, change management, monitoring, emergency response and capacity planning of their service

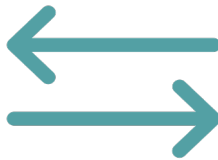


Rules are codified for how SRE teams interact with their environment –not only in production but with product development teams, testing teams, users, etc.

SRE is the the most innovative approach to ITSM since the early days of ITIL®



Service Level
Management



Change
Management



Event
Management



Capacity
Management



Incident
Management



Problem
Management

Service Level Management

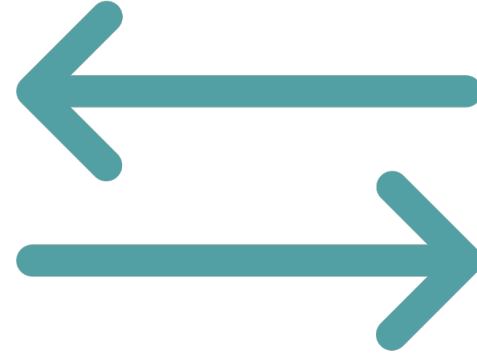
- Manage to Service Level Objectives (SLO)
- Measure by Service Level Indicators (SLI)

Per SRE, the term SLA is overloaded and takes on a number of meanings depending on context.



Change Management

- Error Budgets
- Automation
- Increased release velocity



Removing humans minimizes the number of users and operations exposed to bad changes and avoids normal problems of fatigue, familiarity/contempt and inattention to highly repetitive tasks.

Event Management (Monitoring)

- Latency
- Traffic
- Errors
- Saturation



Monitoring from an internal and external perspective (Observability)

Capacity Management

- Organic growth (natural usage)
- Inorganic growth (event driven)



Since capacity is critical to availability, SRE teams are in charge of capacity planning and provisioning.

Incident Management

- Incident Command System
- Recognized Command Post
- Live Incident State Document
- Clear, Live Handoff



An Incident Commander structures the incident response, assigns responsibilities, removes roadblocks and keeps a living incident document.

Problem Management (Effective Troubleshooting)

- Problem Report
- Triage
- Examine
- Diagnose
- Test/Treat
- Cure



Blameless post-mortems are a tenet of SRE culture and must focus on identifying the contributing causes of the incident without indicting any individual or team.

SRE Also Provides Tangible Guidance On



EMERGENCY
RESPONSE
ON-CALL



LOAD BALANCING



SECURITY



SOFTWARE
ENGINEERING IN SRE



MANAGING
OPERATIONAL
LOAD



COMMUNICATION
AND
COLLABORATION



RELIABLE
PRODUCT
LAUNCHES

Isn't SRE More Technical Than Traditional ITSM?

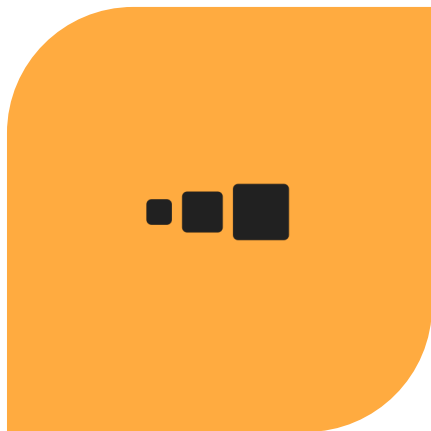


We are information **technology**, right?

Intelligent process is needed for intelligent automation.

- Durable focus on engineering
- Toil reduction
- Time allocation – learn new skills

SRE is On the Rise



SRE ADOPTION HAS RISEN FROM 10%
ADOPTION IN 2019 TO 15% IN 2020
(UPSKILLING 2020: ENTERPRISE DEVOPS
SKILLS REPORT)



SITE RELIABILITY ENGINEER IS THE FIFTH
FASTEST GROWING IT ROLE FOR 2020
(LINKEDIN REPORT)

SRE is a Real Job!

Over 10,000 jobs listed in the US
alone, most paying over \$100K



Who Should Consider Learning More About SRE

- Software Engineers
- System Administrators
- Change Managers
- Release Managers
- Incident Managers
- Automation Architects
- Infrastructure Managers
- Everyone!



SKILup Playbooks

- Collaborative Bodies of Knowledge
- Dynamic
- Coming soon: SRE Playbook

SKILup
PLAYBOOK SERIES



Explore & Discover	Understand & Learn	Plan / Practice & Do	Optimize & Improve
Vision	Frameworks	Culture	Performance
Success	Principles	Process & Functions	Ask Question (Coming Soon)
Landscapes	Core Practices	Automation	Visual Library

<https://devopsinstitute.com/devops-journey-playbook/>



Thank You!

Jayne Groll
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