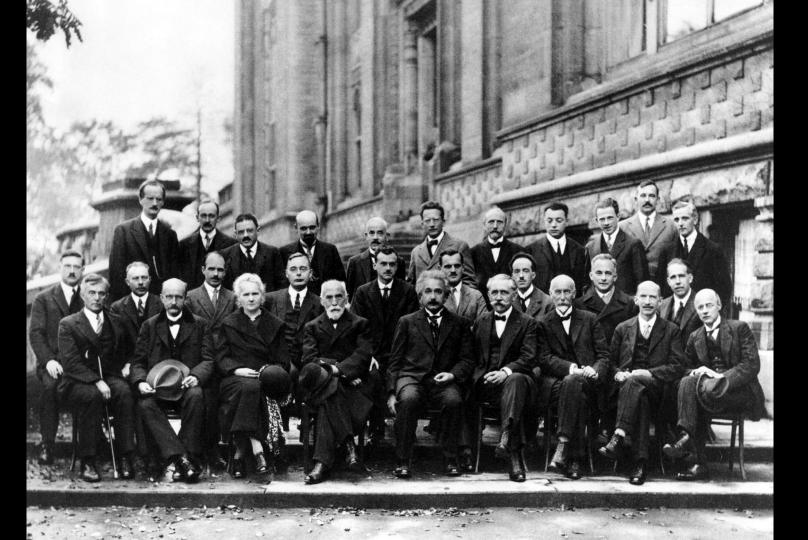
Unified Theory of SRE

@EmilStolarsky

emil.dev





Story Time

2003 - SRE at Google is born

- 2003 SRE at Google is born
- 2009 SRE at Facebook

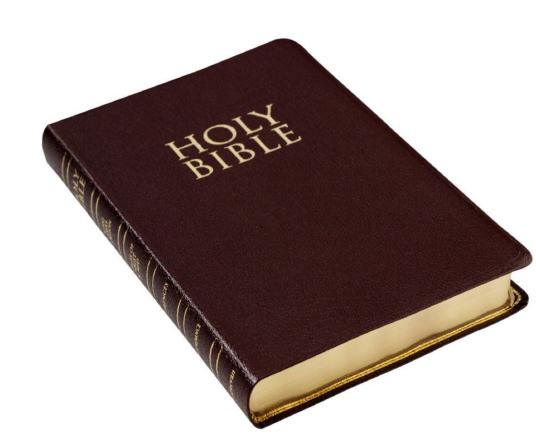
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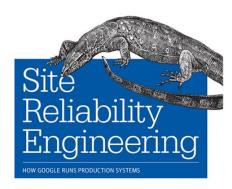
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- 2016 "Site Reliability Engineering" book is released

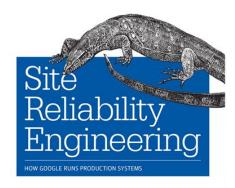


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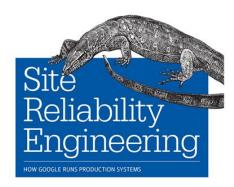
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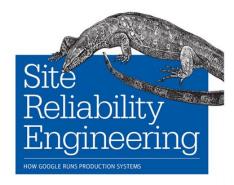
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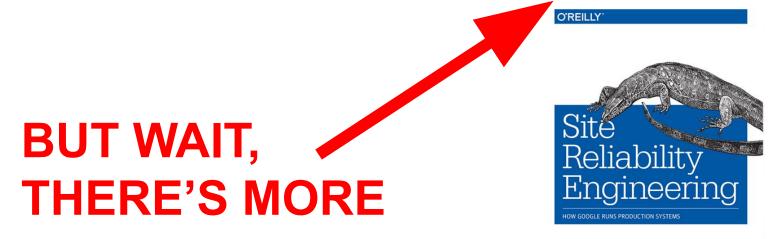
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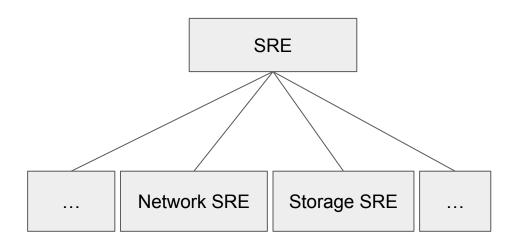
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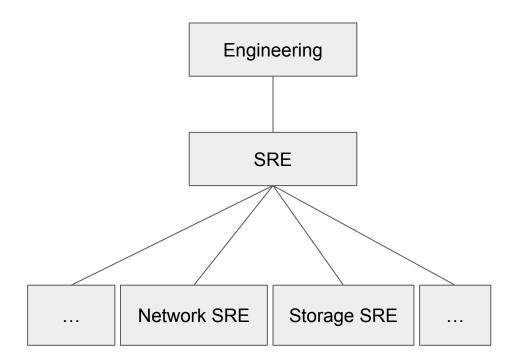


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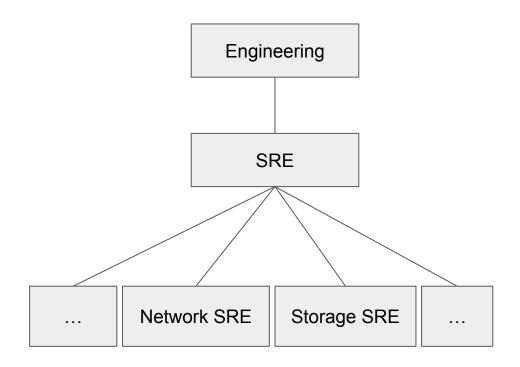


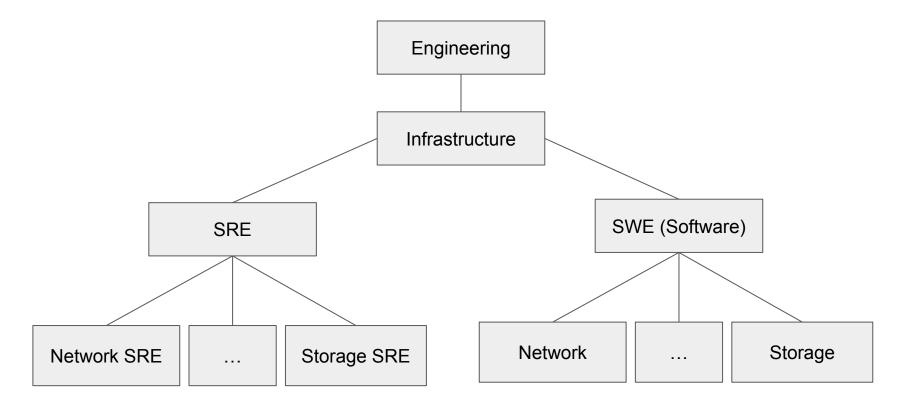
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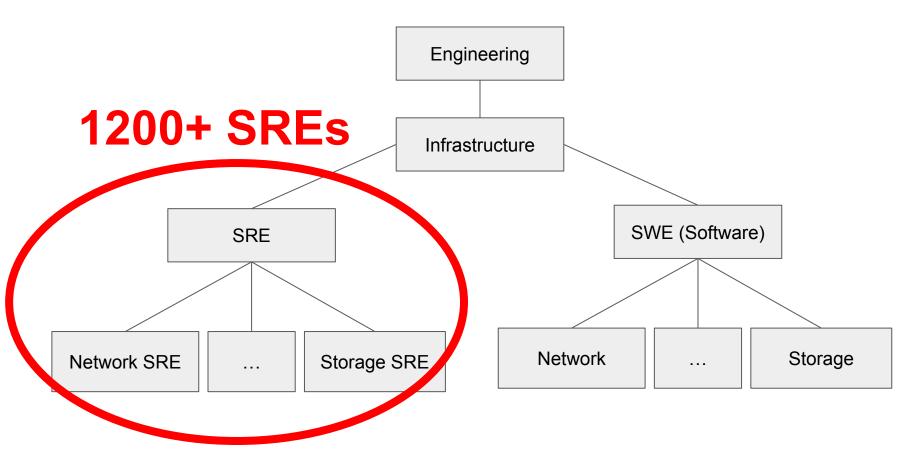


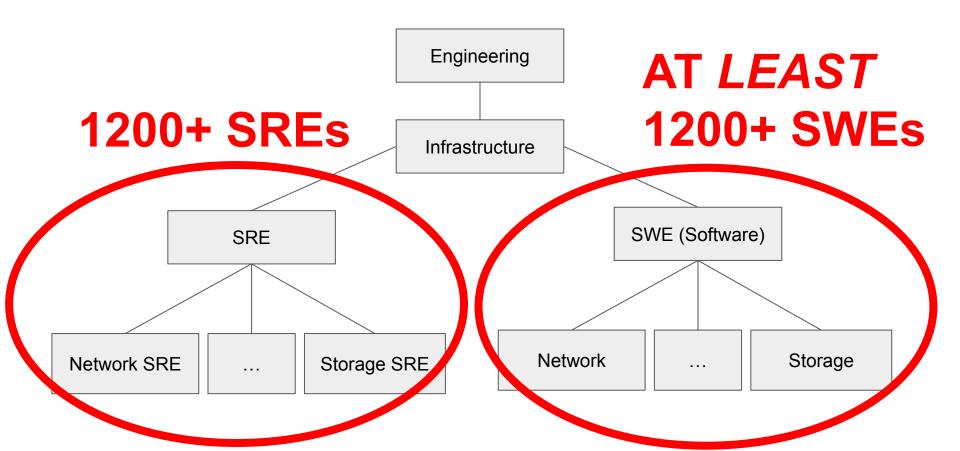




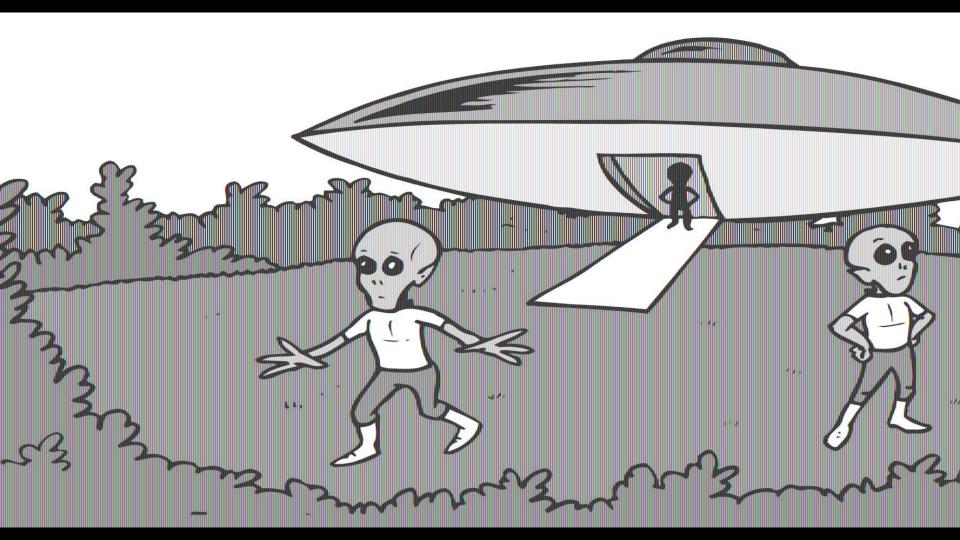


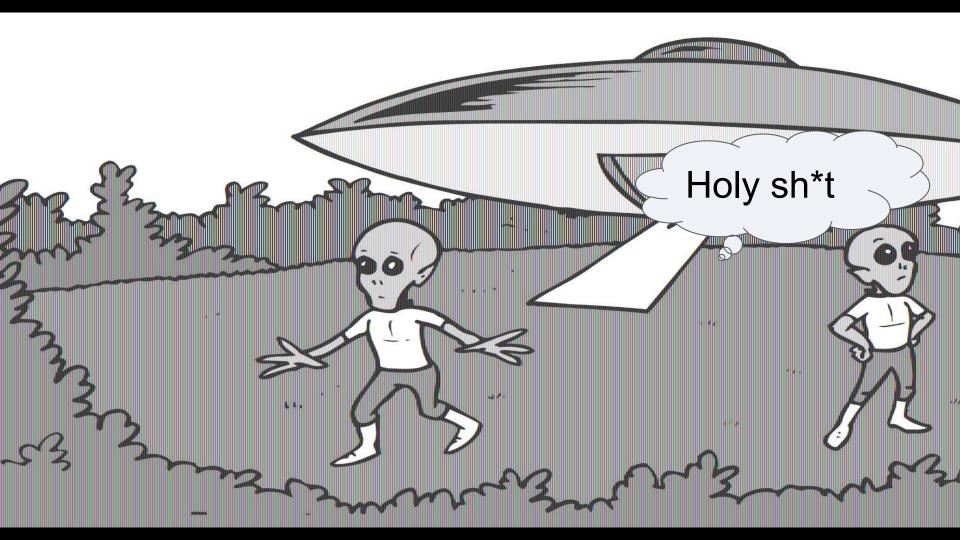


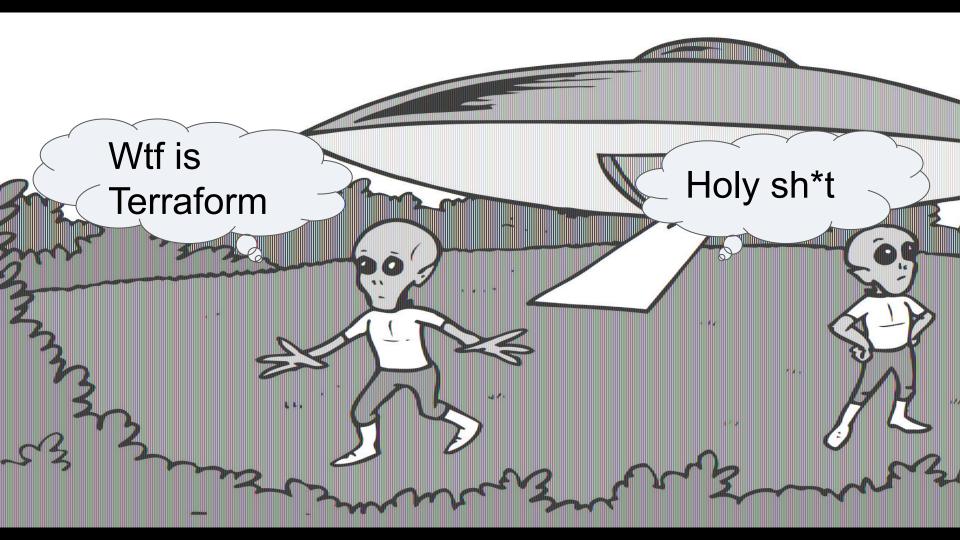


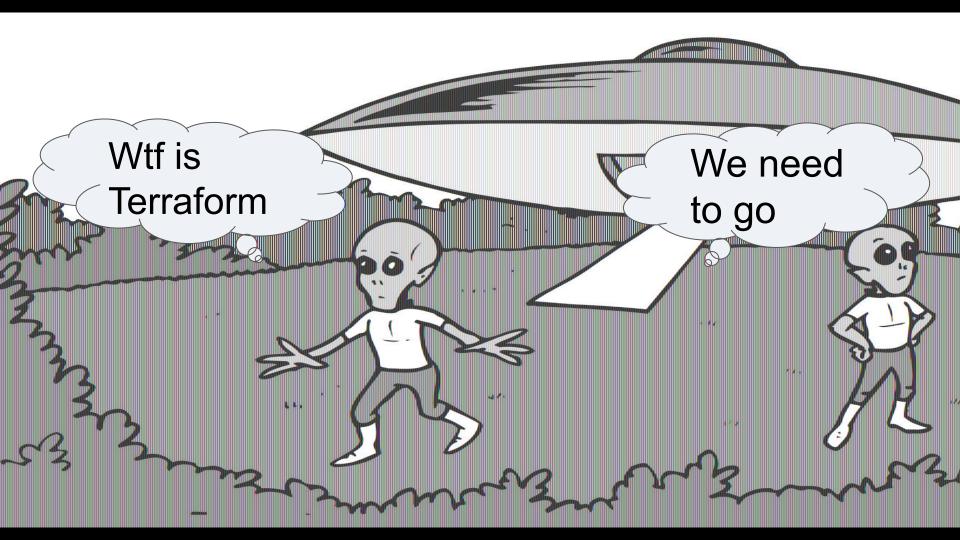


Let's talk about the book... 2400+ Engineers Engineering Infrastructure SWE (Software) SRE Network Storage Storage SRE **Network SRE**









The SRE foundation has cracks

Rebuilding SRE

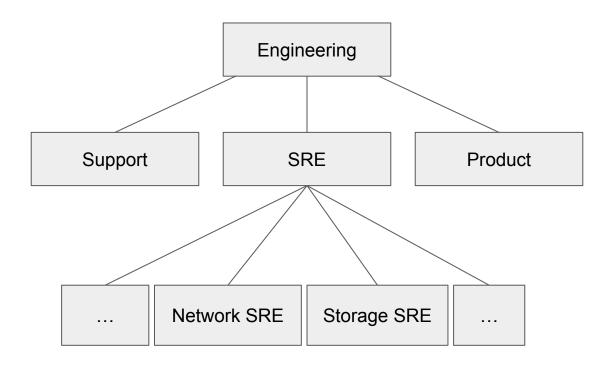


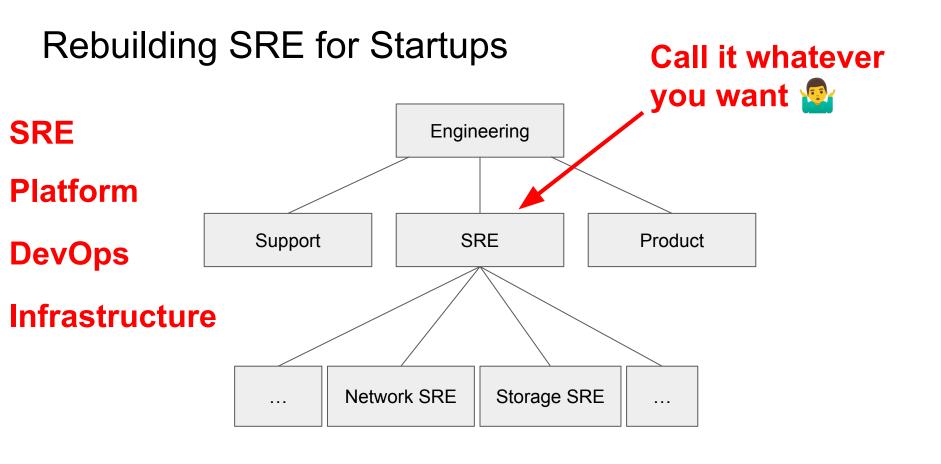
google: i have made SREs angels: you fucked up a perfectly good programmer is what you did. look at it. it's got anxiety

11:07 PM · May 2, 2021 · Twitter Web App

Rebuilding SRE for Startups

Rebuilding SRE for Startups





Rebuilding SRE - Startups vs. Real Business™

- Real Business™ (Default Alive)
 - Has customers that we can SRE
 - Focusing on reliability justifies existence of SREs
- Startup (Default Dead)
 - Hasn't found Product-Market Fit, maybe even no customers
 - Product velocity is all that matters

Rebuilding SRE - Velocity vs. Reliability

- At startups, the most valuable SRE work is increasing velocity
- The number #1 focus is developer infrastructure:
 - Developer Environments
 - Integration testing/Staging/CI system
 - Deploys
- Bare minimum production work to get it running

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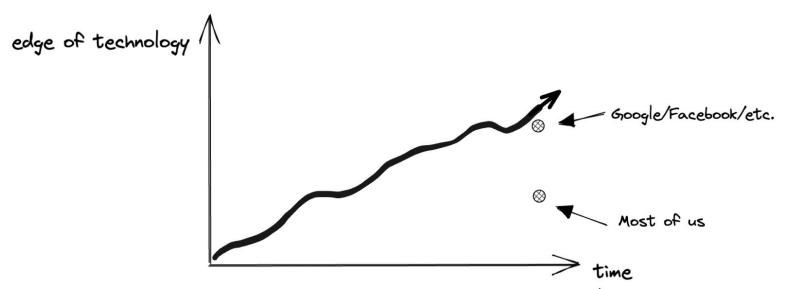
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Rebuilding SRE - Future Proofing

- Certain classes of infrastructure work gets really painful over time
- Foundational components that's easiest to setup on day 0
- The crux is to know when it's future proofing or over-engineering
- Examples:
 - Network/VPC design
 - IAM/Authentication

Rebuilding SRE - Technology



FAANG+ companies operate at the edge of technology while the rest of us have much simpler needs.

Rebuilding SRE - Technology

- The services we operate are all the same (and relatively simple)
- We should be standardizing our designs as a community
- Use boring technology* that doesn't cost any innovation tokens

^{* -} I can't explain it any better than https://boringtechnology.club/

Rebuilding SRE - Technology

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Rebuilding SRE - Service Level Objectives

- Difficult to make a compelling argument for SLOs at a startup
- What you believe matters probably won't, faster than you think
- Instead, work on defining "values" in relation to the product
 - Serve stale data OR return an error?
 - Be down for many small customers OR one big one?
 - o etc.

Rebuilding SRE - Incident Reviews

- A lot of incident review rituals are for large organizations
- Is every incident worth learning from?
- What is the slim version of a valuable incident review?

Rebuilding SRE - On-Call

- What does a healthy on-call look like when you can't put enough engineers on a pager?
- Brings into question at what point there should even be a pager

Thank You!

@EmilStolarsky

emil.dev