SoundCloud’s Story of Seeking Sustainable SRE

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Source: http://sre.org/
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~100M users
~100 engineers
engineers < services
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~100M users
~100 engineers
engineers < services

~1B users
~10k engineers
engineers > services
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Failing at SRE Before It Was Cool
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“In 2018, our theme is Sustainable Reliability Engineering.”

“… technical debt …”

“… dark debt …”

“… operational overload and individual burnout …”
Error budgets
Error budgets – prerequisites:

- Monitoring.
- Management support.
- Nuclear option: Return the pager.
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Dickerson’s hierarchy of service reliability

*Site Reliability Engineering – How Google Runs Production Systems*, B. Beyer et al. (ed.), O’Reilly 2016, p104
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- Nuclear option: Return the pager.
● Minimal size of an on-call rotation:
  ○ 6 if following the sun.
  ○ 8 otherwise.
● Minimal size of a dedicated SRE team: 8.
● Feasible percentage of all engineers in SRE: 5%? 10%?
● Number of SRE teams SoundCloud could afford: 1.
Less than 50% ops work.
React to pages in a competent way.
SRE is what happens when you ask a software engineer to design an operations team.

Ben Treynor, Google Inc.

“True” DevOps is if there are no separate dev and ops teams anymore, and not even designated dev or ops roles within a team.

Björn Rabenstein & Matthias Rampke, SoundCloud Ltd.
Take your own pager! It’s still “SRE in spirit”:

- Automate operations as far as possible.
- On-call rotations of the right size.
- Meaningful monitoring & alerting.
- Actionable symptom-based pages. With runbooks.
- Strictly (much) less than 50% ops work.
- Effective self-regulation of features vs. stability.
Error budgets?
Bonus slides
SRE in a smaller organization is similar to how Google runs production systems for which dedicated SRE support is unavailable.