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Product Management in Site Reliability Engineering

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Jayaganesh Kalyanasundaram

Site Reliability Engineering Principles

1   SRE needs Service Level Objectives (SLOs), with consequences.

2   SREs must have time to make tomorrow better than today.

3   SRE teams have the ability to regulate their workload.

4   Failure is an opportunity to improve.

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Service Level Objectives

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What is a Service Level Objective?

- Goal for how well the system should operate

- Tracks the customer experience
  - SLOs met = 😍🙂😃 Customers
  - 😟😱🤬 Customers = SLOs not met

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Making Tomorrow Better Than Today

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PM in SRE

- Defines and refines Service Level Objectives.

- Enacts the Error Budget Policy when necessary.

- Makes sure that the application meets the reliability expectations of its users.

Project Work

- Consulting on System Architecture and Design

- Authoring and iterating on Monitoring

- Automating repetitive work

- Coordinating implementation of Postmortem Action Items

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Shared Responsibility Model

Dumping *all* production services on an SRE team cannot work.

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Leadership Buy-in

Without leadership buy-in, SRE cannot work.

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Leadership Buy-in

- When applications miss their SLOs and run out of Error Budget, it puts additional load on the SRE team. You need to either:

  - Devote more company resources to addressing reliability concerns

  - Loosen the SLO

Reliability & Consistency Up Front

- Fixing a product after launch is always more expensive.

- SRE teams can and should consult up-front on designs:

    - Architecting resilient systems

    - Maintaining consistency means fewer SREs can support more products

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Automation!!!

Three places SRE teams can benefit from Automation:

1. To eliminate their toil: Don't do things over and over!

2. To do capacity planning: Auto-scaling instead of manual forecasting!

3. To fix issues automatically: If you can write the fix in a playbook, you can make the computer do it!

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SRE teams have the ability to regulate their workload.

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SRE Principle #3

- Teams need to be able to prioritise and do the work.

- Each new system to maintain has a human cost.

- Must be able to push-back on unreliable practices and systems.

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A Culture of Blamelessness

Learn from Failure

- You've already paid the price in an outage.

- Write a blameless postmortem.

- Make postmortems widely available so others can learn, too.

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"Human" errors are really systems problems.

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SRE Principle #4

Failure is an opportunity to improve.

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SRE Principle #4

- Failure happens. There is no way around it.

- Stop pointing fingers.

- Embrace failure to improve MTTD and MTTR.

- Proactively addressing failure → more robust systems.

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