



# Product Management in Site Reliability Engineering

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# 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.

# Service Level Objectives

# 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

Making Tomorrow Better Than Today

# 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

# Shared Responsibility Model





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

# Leadership Buy-in



**Without  
leadership  
buy-in, SRE  
cannot work.**

# 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

# 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!

## SRE Principle #3

SRE teams have the  
ability to regulate  
their workload.

# 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.

# 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.



**“Human”  
errors are  
really systems  
problems.**

## SRE Principle #4

Failure is an  
opportunity to  
improve.

# 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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