Helping operations top-heavy teams the smart way



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This Is The Only Slide You May Need a Picture Of

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- Staff Site Reliability Engineer @ LinkedIn
- Production-SRE Team
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- Senior Staff SRE @ LinkedIn
- Capacity Engineering Team
- Co-Author of *Kafka: The Definitive Guide*
- Late of VeriSign Infrastructure Engineering



Code Yellow

When Operations Isn't Perfect

https://devops.com/code-yellow-when-operations-isnt-perfect/

This talk is not



- How to quickly erase all your technical debt
- How to change your engineering culture

This talk is



- How to identify team anti-patterns
- How to work through high toil
- How to create sustainable workloads

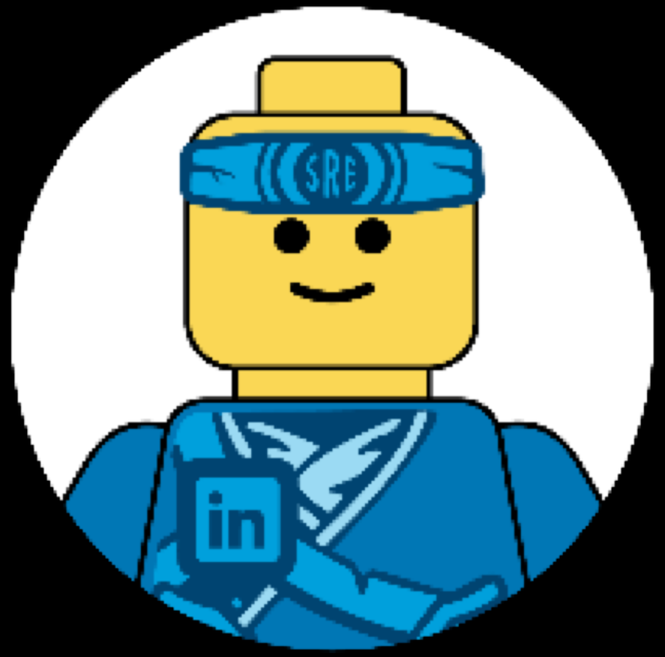
Today’s agenda

1	Background
2	Scenario 1: Traffic-SRE
3	Scenario 2: Kafka-SRE
4	Building A Formula For Success
5	Key Learnings
6	Q&A

Background

Personal Experience in the past two years

ASSISTANCE RENDERED



- **Traffic-SRE:** Technical Debt/ Resource Allocation
- Voyager-SRE: Technical Debt
- Capacity War-room
- Espresso-SRE: Reliability
- **Kafka-SRE:** Capacity and Alert Fatigue

Scenario 1: Traffic-SRE

Traffic-SRE



Technical Debt

Problem Statement

- Written documentation needed improvement
- Deployment infrastructure needed investment
- Alert Fatigue

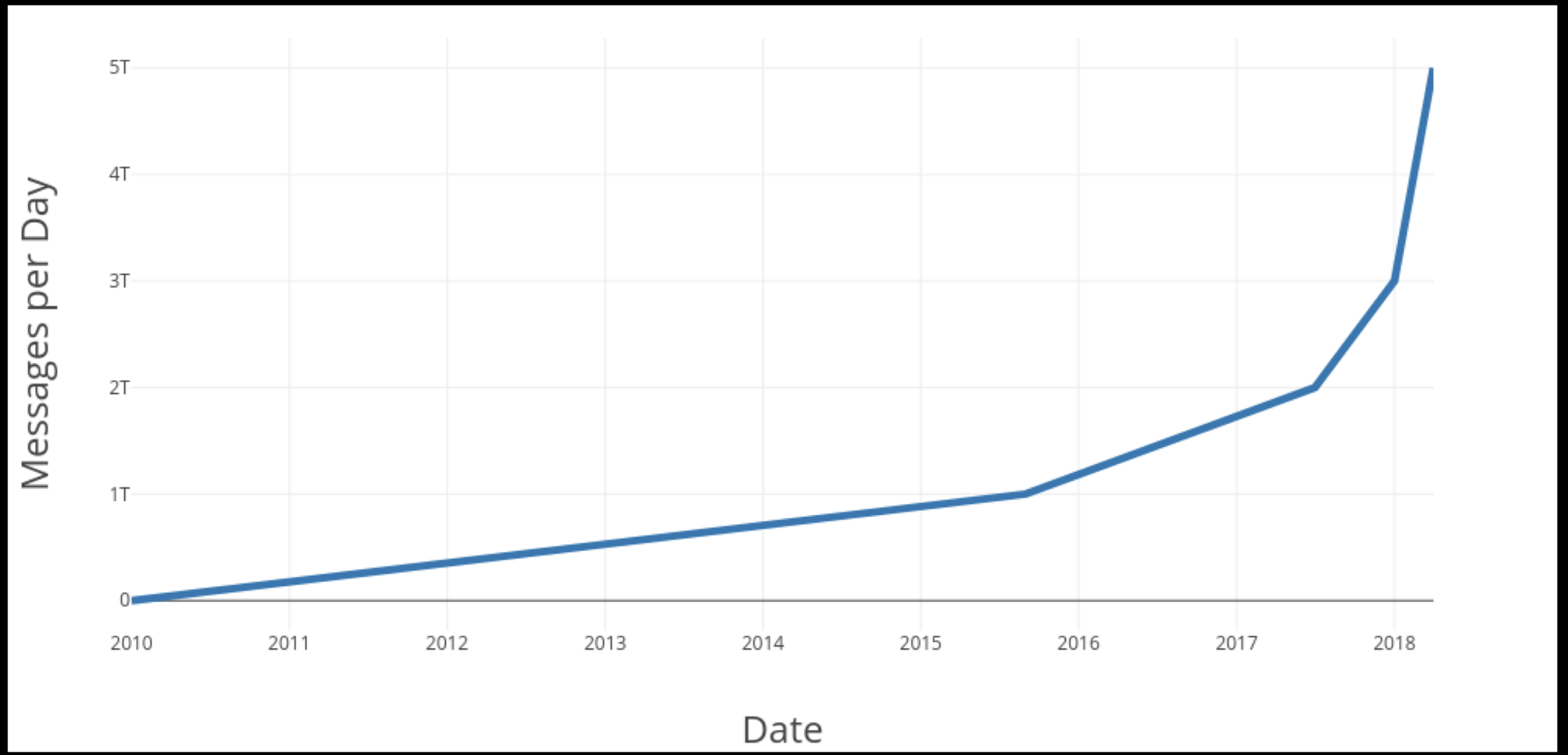


Resource Allocations

Problem Statement

- Backlog of work for clients
- Staff shortage

Scenario 2: Kafka

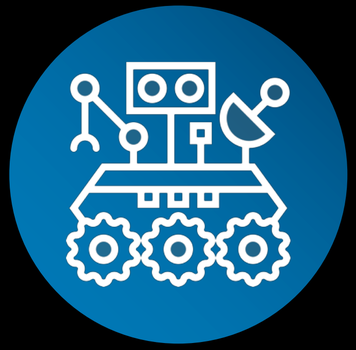

Messages per Day
5T
4T
3T
2T
1T
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Date



Capacity Planning

Problem Statement

- Multi-tenant Infrastructure
  - No resource controls
  - Unclear resource ownership
- Ad-hoc capacity planning
- Sudden 100% increase in traffic



Alert Fatigue

Problem Statement

- Multiple applications overutilized
- No time for proactive work
- Most alerts non-actionable

Building a formula for success

Code Yellow

Building a formula for success



Problem Statement

Define the areas that need attacking



Exit Criteria

Define success criteria



Resource Acquisition

Get the help that you require



Planning

Plan for short-term & long-term



Communication & Partnerships

Communicate expectations with clients & partners

Building a formula for success

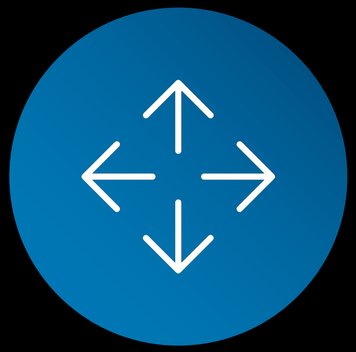


Problem Statement

Define the areas that need attacking

- Admit there is a problem
- Measure the problem
- Understand the problem
- Determines underlying causes that need to be fixed

Building a formula for success



Exit Criteria

Define success criteria

- Define concrete goals
- Define concrete success criteria
  - Measure via an operational metric
  - Measure via a project being completed
- Define timelines for completion

Building a formula for success



Resource Acquisition

Get the help you require

- Ask other teams for help
- Get dedicated engineers/ project managers/ other roles as required
- Set exit-date for resources

Building a formula for success



Planning

Plan for the short-term & long-term

- Plan out short-term work
- Plan out longer-term projects
  - Do they need to be rescheduled?
- Prioritize work that will reduce toil & burnout (Automation + Measurement)

Building a formula for success



Communication & Partnerships

Communicate expectations with clients & partners

- Communicate problem statement & exit criteria
- Send regular progress updates
- Ensure that stakeholders understand delays & expected outcomes

Key Learnings

Key Learnings



Measure

Measure toil/ overhead



Prioritize

Prioritize efforts to remove overhead/toil



Communicate

Communicate with partners & teams

Q&A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