

SKILupSM DAYS



SRE For Enterprise-Scaled

How To... Part 2

Dinesh Sekar

SRE Evangelist & Transformation

 sekardinesh

Agenda

Enterprise-scaled organizations; the older the organization is, the older the systems, process, culture are...

“Change is the only constant”

- Enterprise Need for SRE
- SRE Transformation Framework
- Engaging SRE across lifecycle



Dinesh Kumar Sekar

SRE Transformation & Competency Development

- Core SRE Transformation Management
- Driving SRE adopting across Organization
- Up-skill, re-skill and re-purpose teams aligning to SREs practices
- Lead SRE Academy
- Co-Lead SRE Community of Practices

Many org. are NOT Google *(recap from 2020)*

“It is a truth universally acknowledged that systems do not run themselves.
How, then, should a system—particularly a complex computing system
that operates at a large scale—be run?”

It's all well and good to be inspired by core technology serviced organizations!!!

Many enterprise-scaled organizations are NOT GOOGLE !

“Hope is not a strategy”

Few Challenges Faced By Enterprise-scaled

(recap from 2020)

- Legacy environments and /or systems.
- Majority of systems have low DevOps CI/CD maturity.
- Workforce, Silo organization structure and silo culture (~~“you build it, you run it”~~)
- Workforce and upskilling / repurposing (*e.g: operations adopting engineering*)
- Workforce and more workforce to handle more incidents
- Legacy processes and controls (*e.g: ops cannot touch codes*)
- Buy-in from stakeholders on ‘Error-Budget’

What then..?

- Modernizing critical legacy applications is hard...
- Adopting SRE principles and practices is hard...

But...

- Glassdoor on SRE - > 54,000 open positions (8th June 2020). Both from tech firms (GitHub, Spotify, Apple) and non-tech companies (GE, Chase, Walmart, etc.,)

WHY ?

The Need for SRE

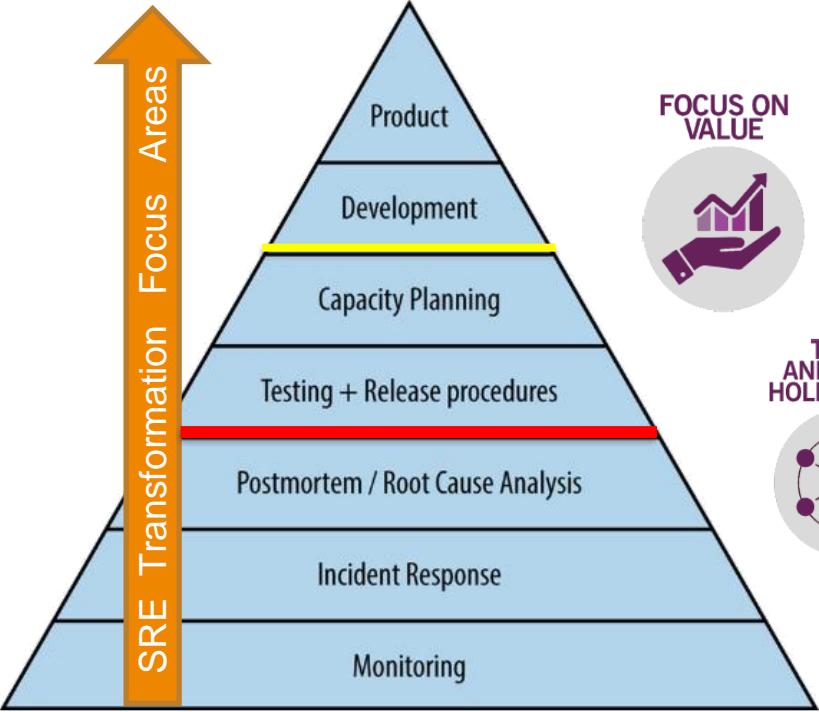
1. When was the last time you / your team worked on a service incident?
 - This week > **54%**
2. How many service incidents do you work / handle per week?
 - 5-10 incidents > **41%**
3. Based on your experience what do you think is the main cause of these incident?
 - Poor quality of changes to code, data, workload, infrastructure etc > **46%**

The Big Question...

How could an enterprise-scaled organization adopt SRE?

How could we integrate the SRE discipline into existing enterprise-scaled?

Guiding Principles for SRE *(adopted from ITIL4)*



Service Reliability Hierarchy

FOCUS ON VALUE



START WHERE YOU ARE



PROGRESS ITERATIVELY WITH FEEDBACK



COLLABORATE AND PROMOTE VISIBILITY



THINK AND WORK HOLISTICALLY



KEEP IT SIMPLE AND PRACTICAL



OPTIMIZE AND AUTOMATE



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SRE Transformation Framework

Assessment

- Assess current state (*e.g: Enterprise ADOC*)
- Develop SRE Champions & SRE Transformation / Change Ambassadors
- SRE roadmap (*Observability, Operability, Reliability, Scalability & People*)

Initiation

- Identify & mapping critical-user-journey
- Defining SLOs & SLIs
- Defining SRE Operating & Engagement Model

Execution

- Execute observability, operability, reliability and scalability action items
- Finalize and implement SREs ways of working
- SLOs, SLIs & Error Budget data in Dashboard

Realization

- Value realization, # of incidents, MTTD, MTTR, MTBF, Incidents that needs manual interventions and etc.
- Re-assess SRE Maturity

Engaging SRE Across Lifecycle

	Design	Build	Release	Post Release
Engineering / Product Team	<ul style="list-style-type: none"> Build Requirement Decide on Scope 	<ul style="list-style-type: none"> Build product / solution 	<ul style="list-style-type: none"> Go-to-market strategy Validate the product 	<ul style="list-style-type: none"> Prioritize, define and iterate over feedback
SRE	<ul style="list-style-type: none"> Provide input for scalable, resilient system Establish SLO / SLI and SRE by design 	<ul style="list-style-type: none"> Confirm metrics, instrumentation can be captured accurately Define error budget 	<ul style="list-style-type: none"> Release Automation Deployment automation & strategy 	<ul style="list-style-type: none"> Monitor SLIs and delivery SLOs, plan capacity, emergency response, etc Manage error budget

Benefits SRE Provide at each stage

Benefits of engaging SRE	<ul style="list-style-type: none"> Minimize future disputes over design choice post-production 	<ul style="list-style-type: none"> Software engineers designing IT operations with Rigorously focus on error budget and SLOs 	<ul style="list-style-type: none"> High quality of release & deployment Low operational burden 	<ul style="list-style-type: none"> Establishes clear ownership of production resiliency
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THANK YOU!

Meet me in the Network
Chat Lounge for questions