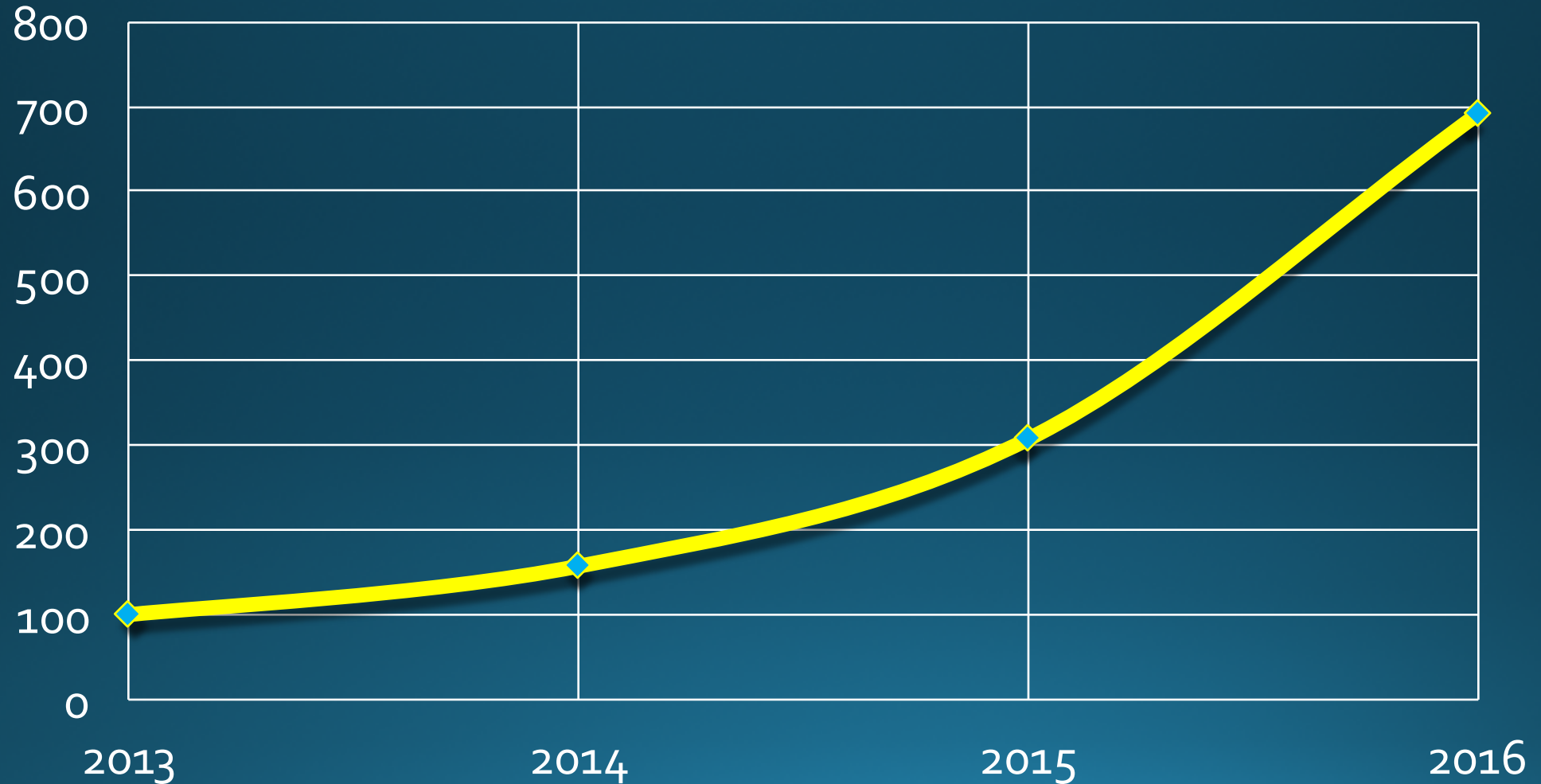


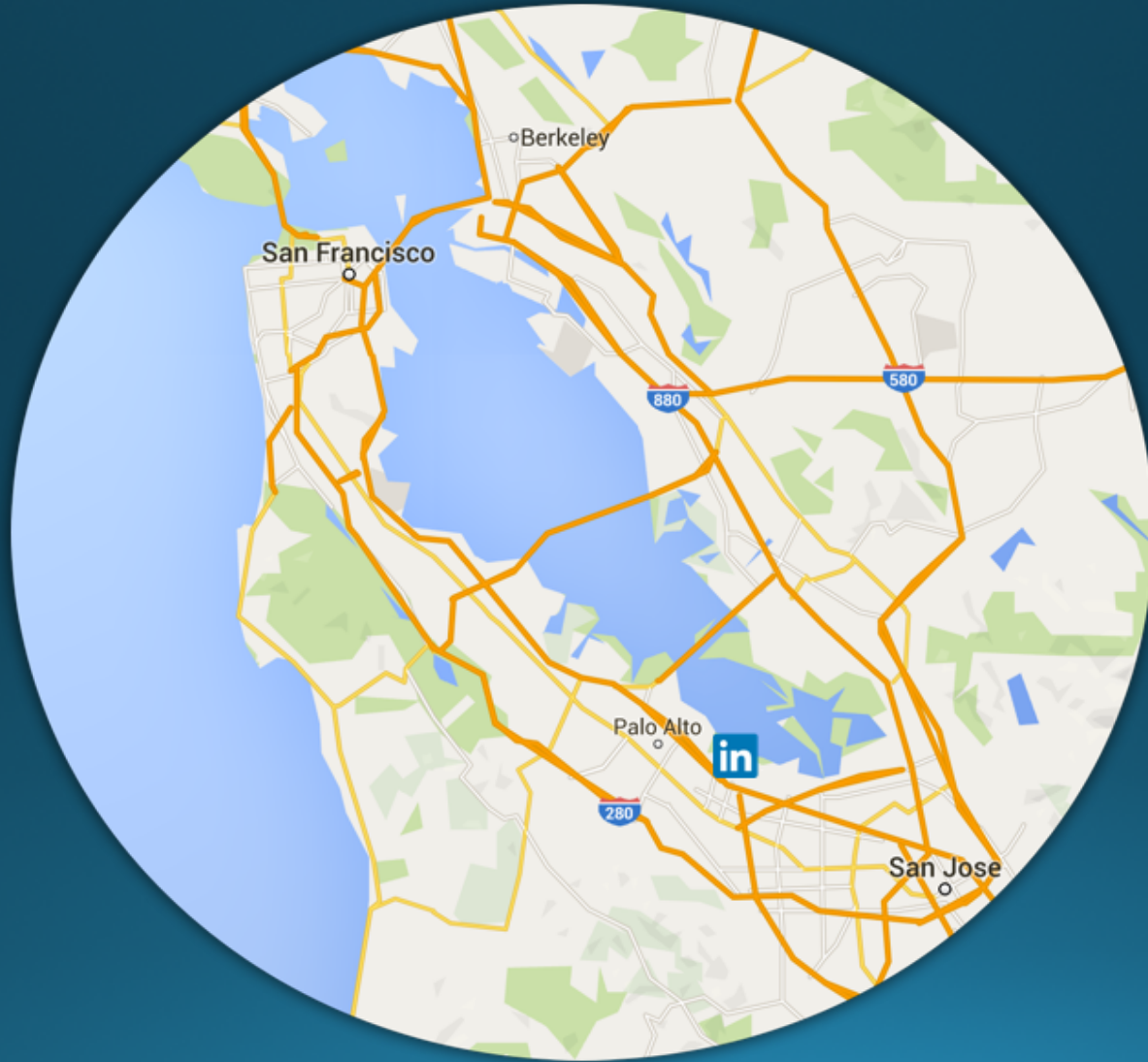
Lessons from Iraq for

# Building and Running SRE Teams

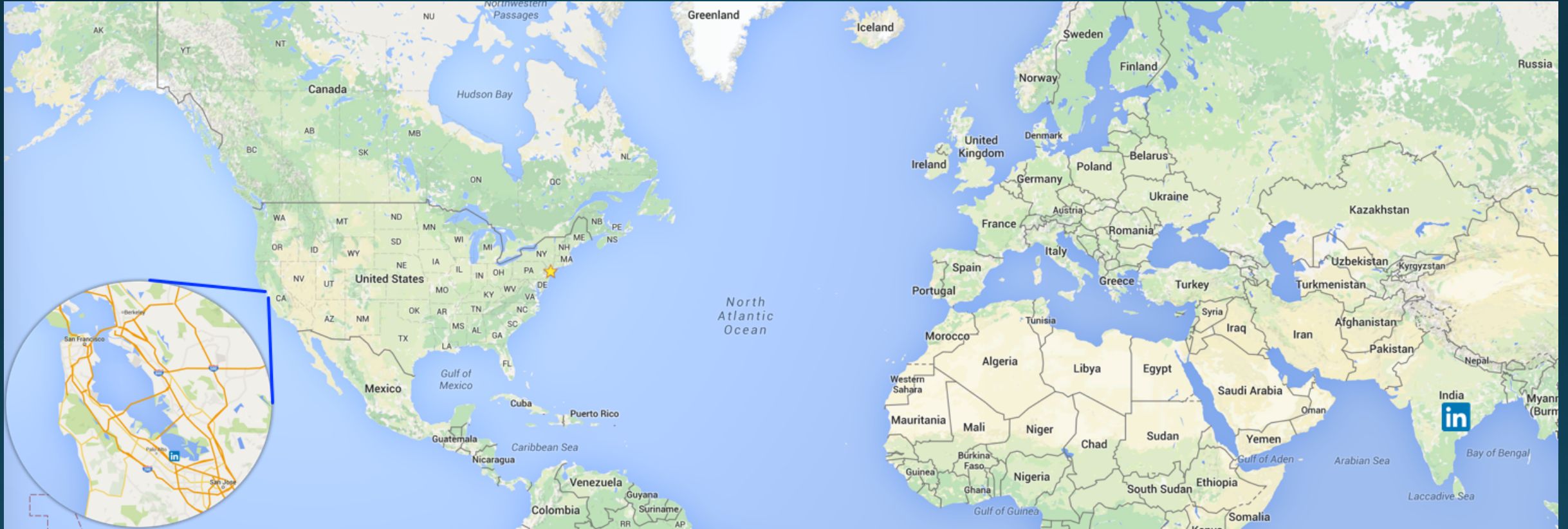
# Site Reliability @ LinkedIn



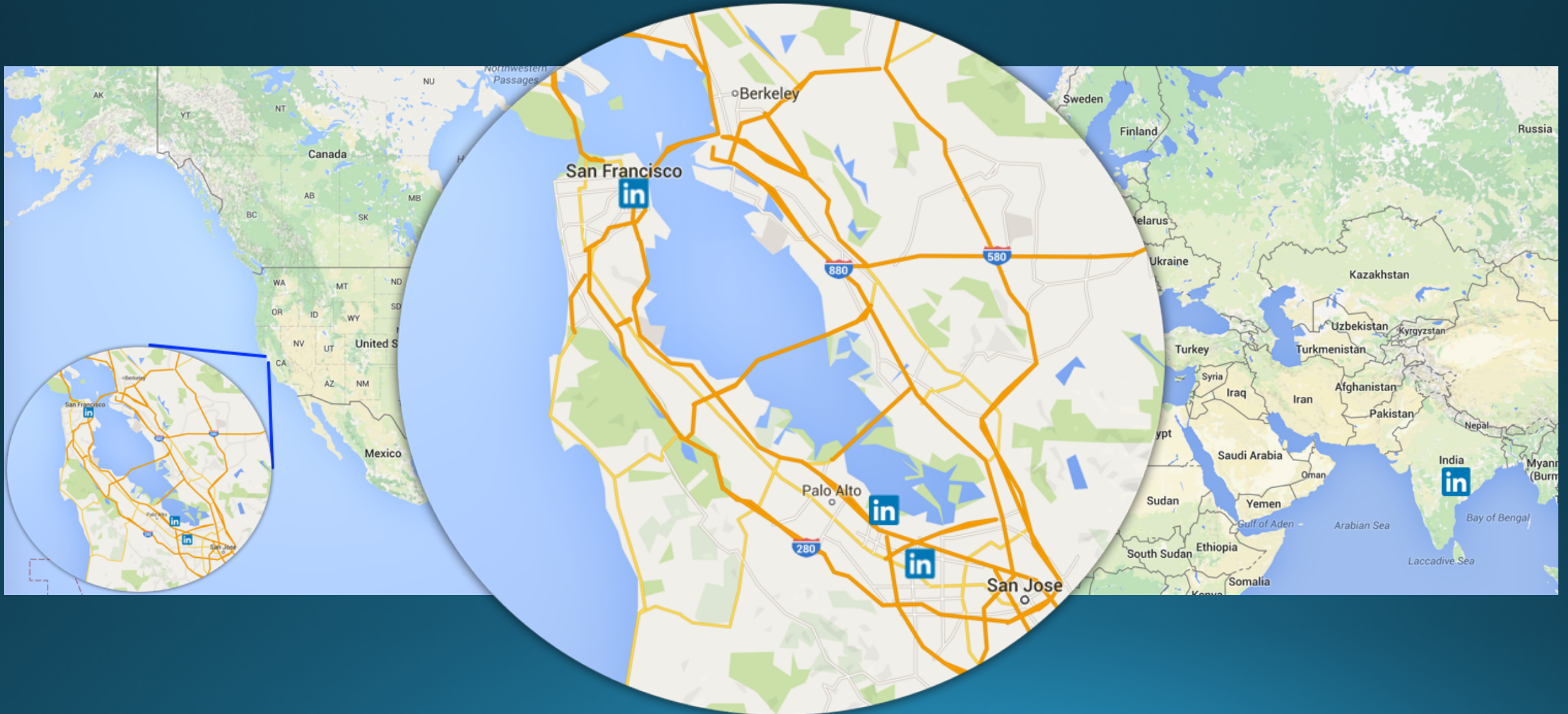
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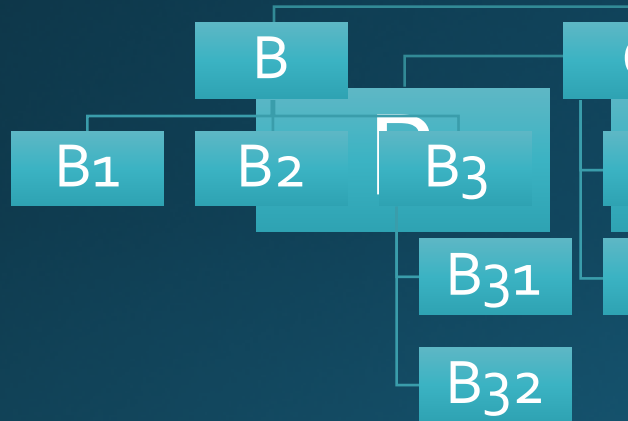
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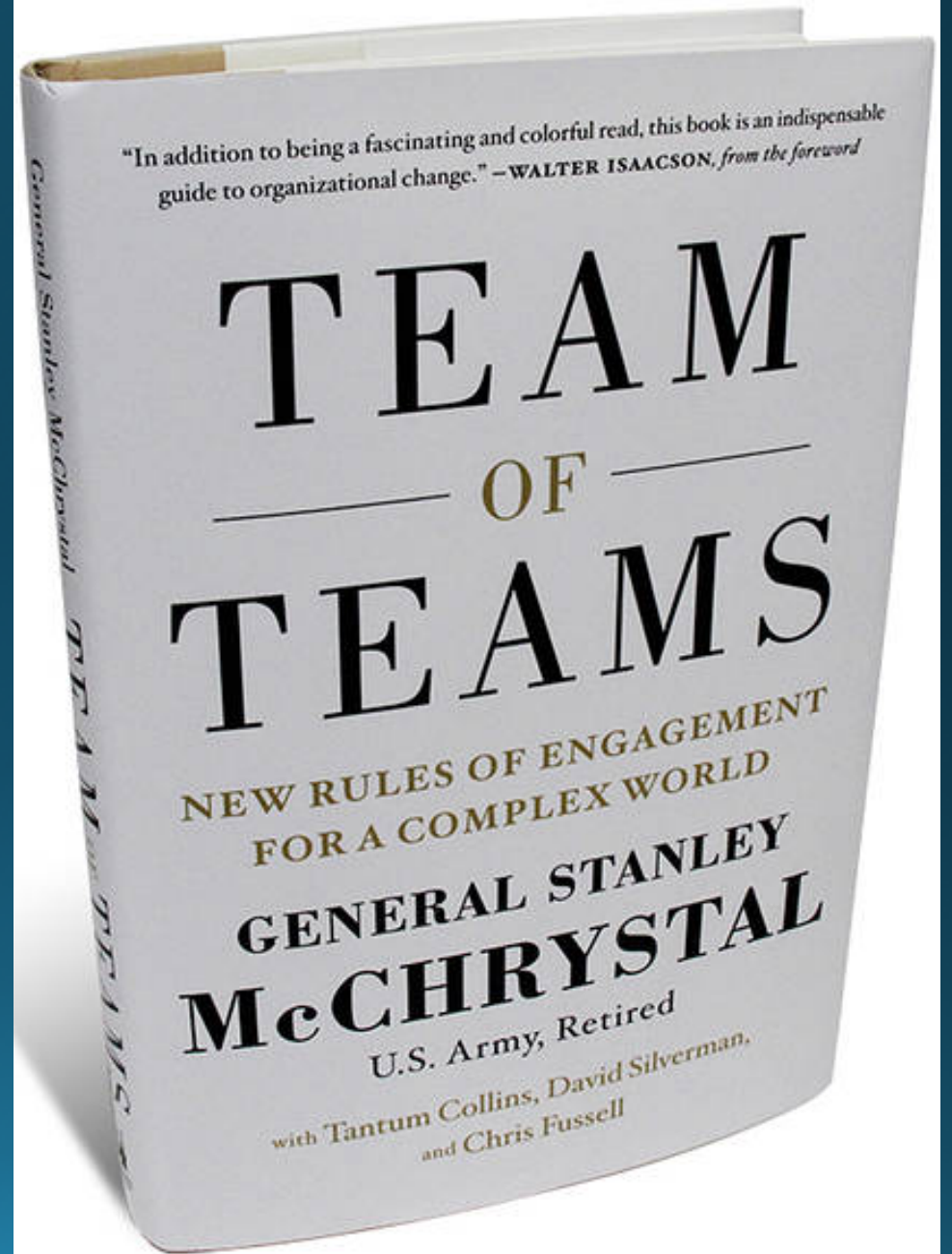


# Site Reliability @ <sup>®</sup>



# Site Reliability @ **LinkedIn**







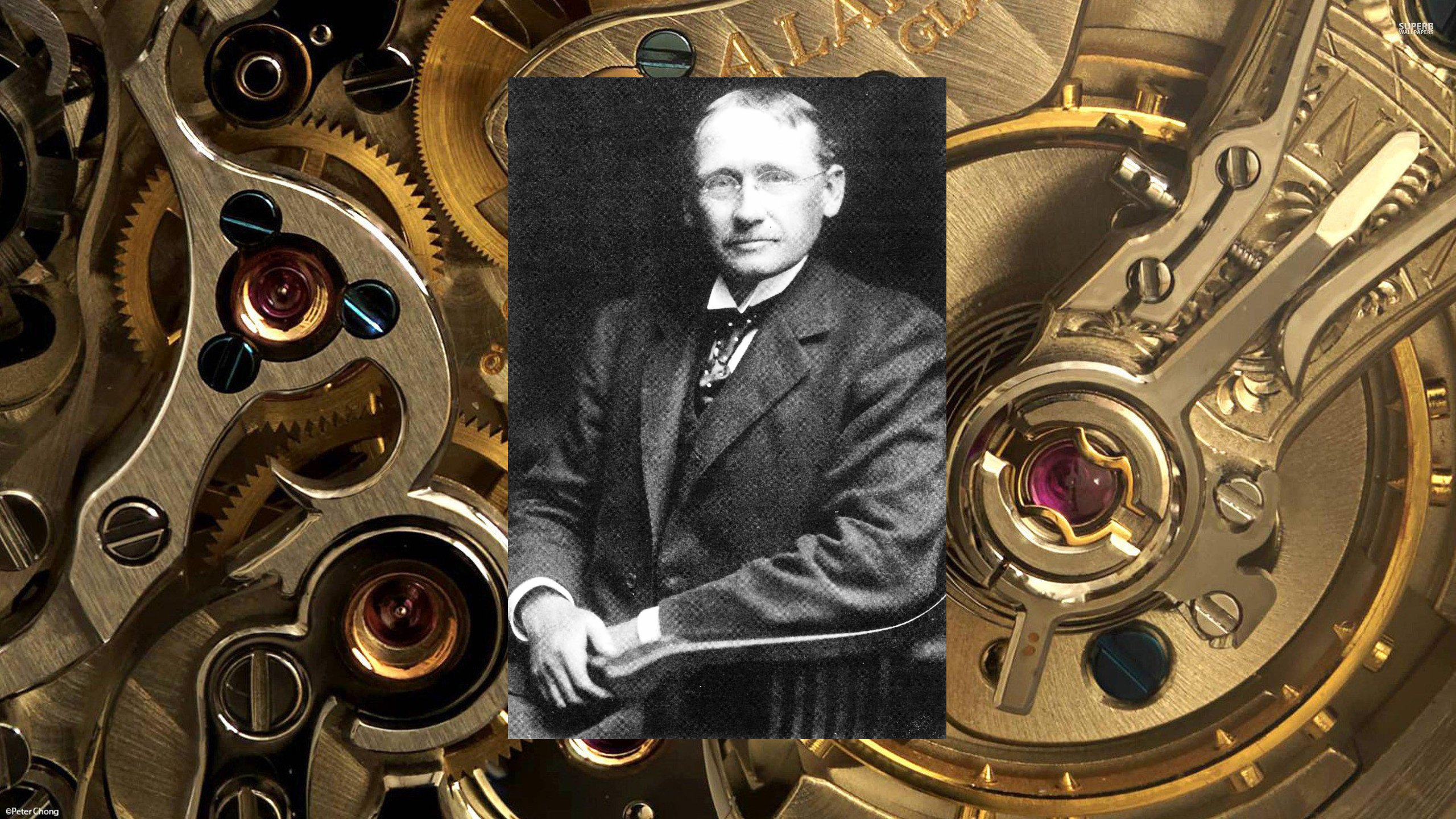


LOGARITHMS

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LOGARITHMS

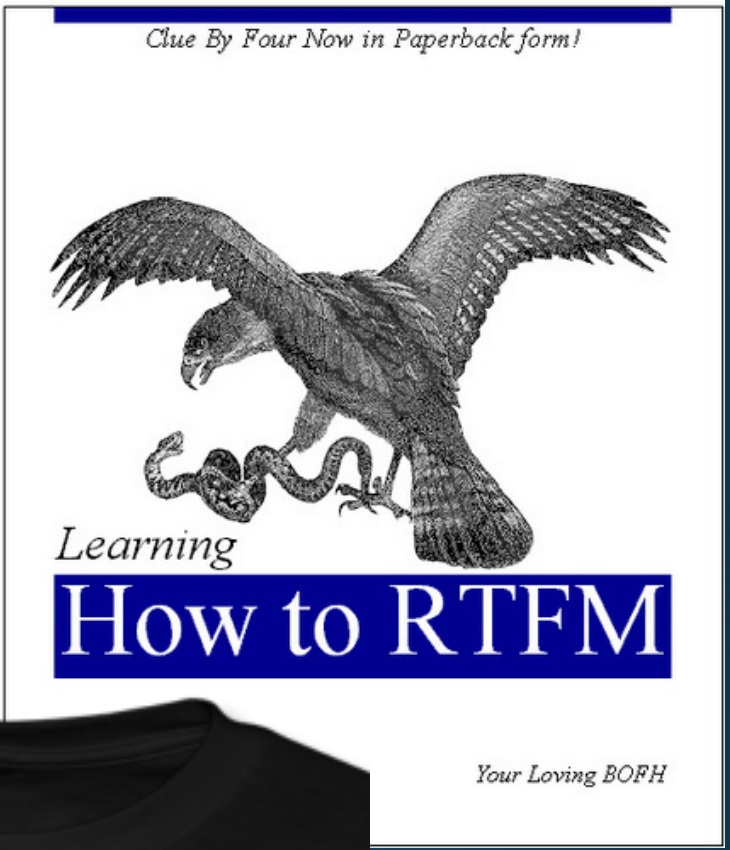
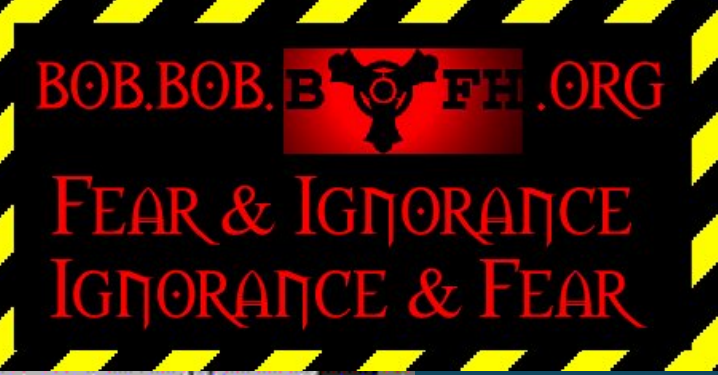
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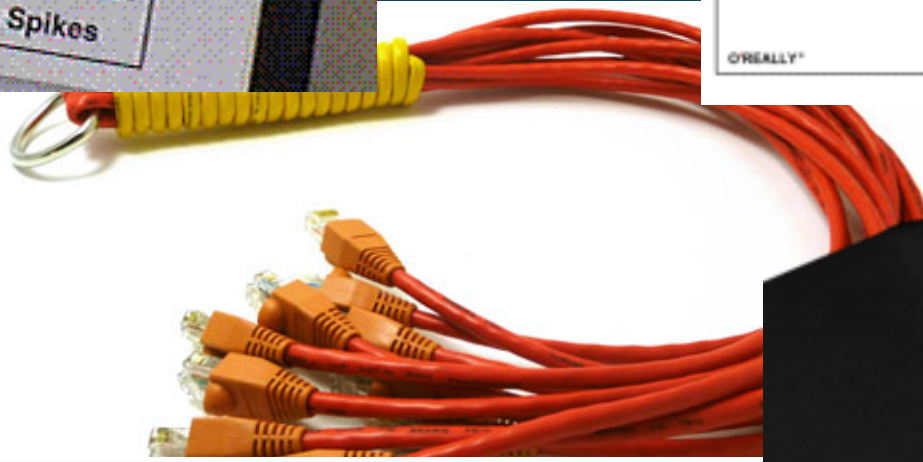
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45	6532	6542	6551
46	6628	6637	6646
47	6721	6730	6739
48	6812	6821	6830
49	6902	6911	6920



- Delete Random User
  - Change User Home to /dev/null
  - Read Med-Centre Mail
  - Impromptu Shutdown
- Things not to do

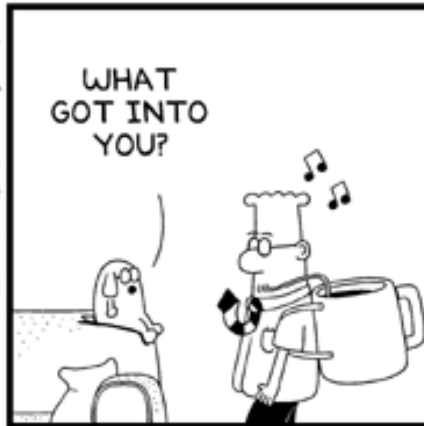
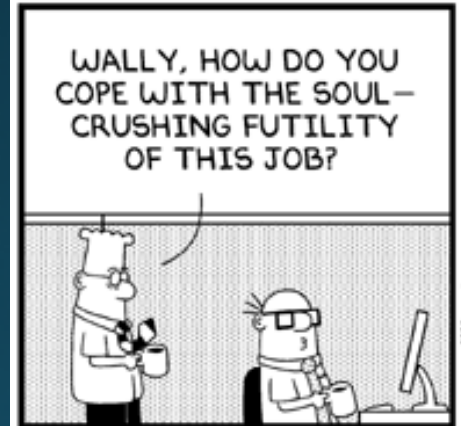


Excuse: Intrinsic Delayed Grounding Spikes



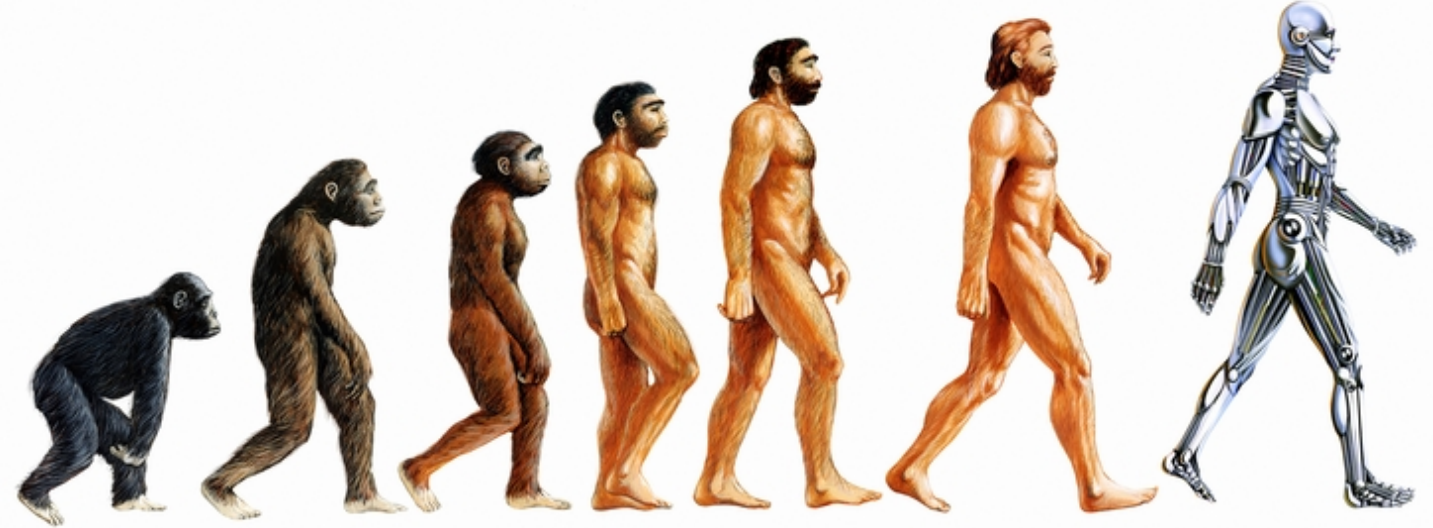
Arrested  
DevOps

the  
reformed  
bofh



# DevOps Movement

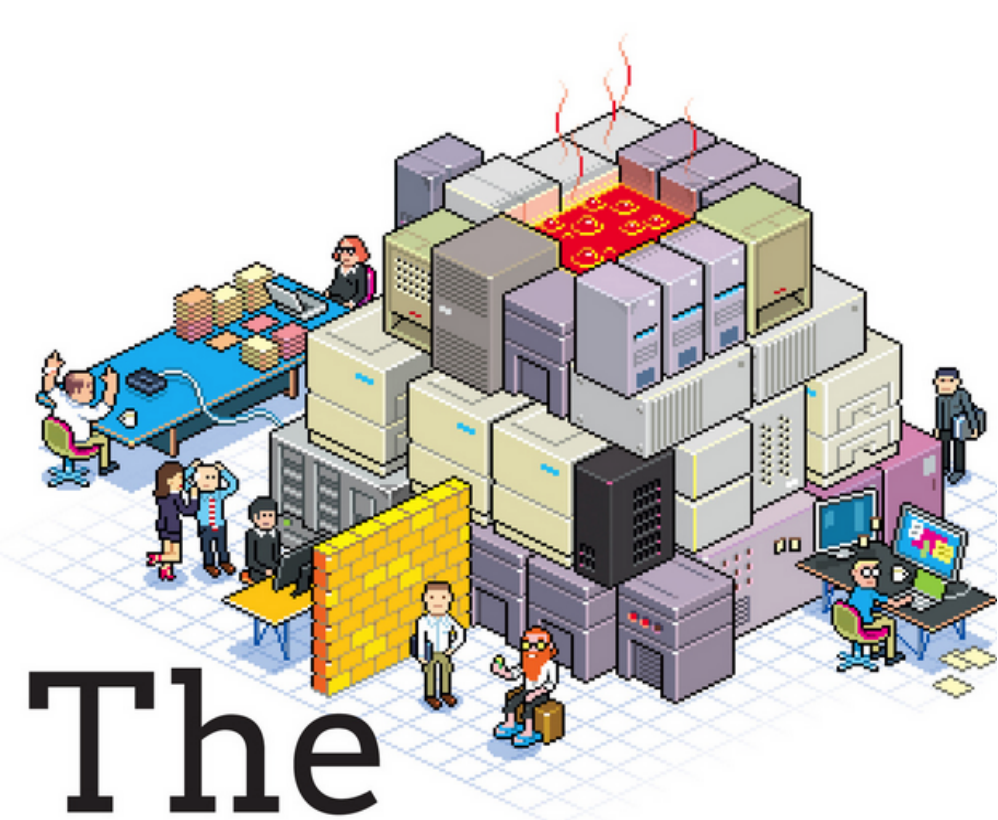
Waterfall    Agile    Lean    Continuous Integration    Continuous Delivery    Continuous Deployment    Continuous Operations



# The Phoenix Project

A Novel About IT, DevOps, and Helping Your Business Win

Gene Kim, Kevin Behr and George Spafford



**Hope is  
not a  
plan**

O'REILLY®

A detailed black and white illustration of a lizard, possibly a monitor lizard, is positioned horizontally across the top right of the book cover. The lizard's body is textured with scales, and its long tail tapers to a point. It is shown in a slightly curved, walking or crawling posture.

Site  
Reliability  
Engineering

HOW GOOGLE RUNS PRODUCTION SYSTEMS

Edited by Betsy Beyer, Chris Jones,  
Jennifer Petoff & Niall Murphy

# Taylorist Management

- Planning,
  - Organizing,
  - Commanding,
  - Coordinating, and
  - Controlling
- 
- Incentivizes: ...gather and centralize more information in order to push more and more efficient directives to the organization



# Taylorist Worker

- Feed the cycle, and
- Await the next commands





# Scientific Management

...is premised upon:

1. Absolutely rigid and inflexible standards throughout your establishment
2. That each employee of your establishment should receive every day clear-cut, definite instructions as to just what he is to do and how he is to do it, and these instructions should be exactly carried out, whether they are right or wrong.



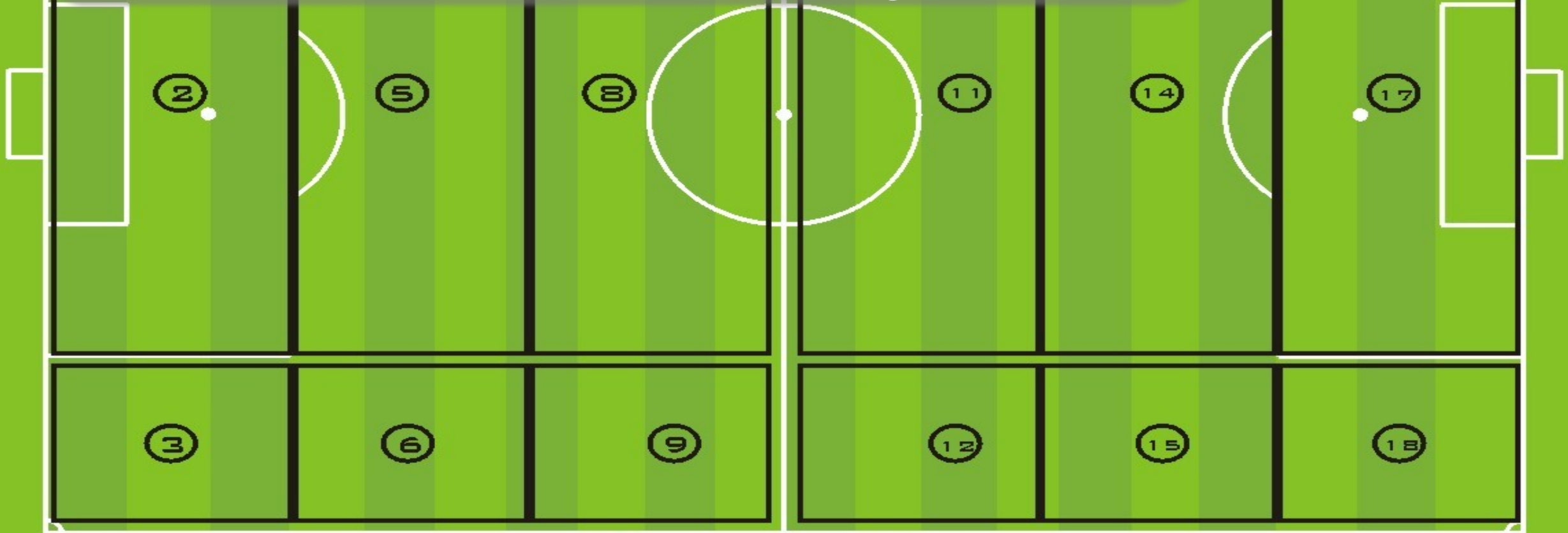






# Silos

To each unit, the piece of the war that really mattered was the piece inside their box on the org chart



DIRECTION OF PLAY

# What's your job?

If you play defense, . . . ?

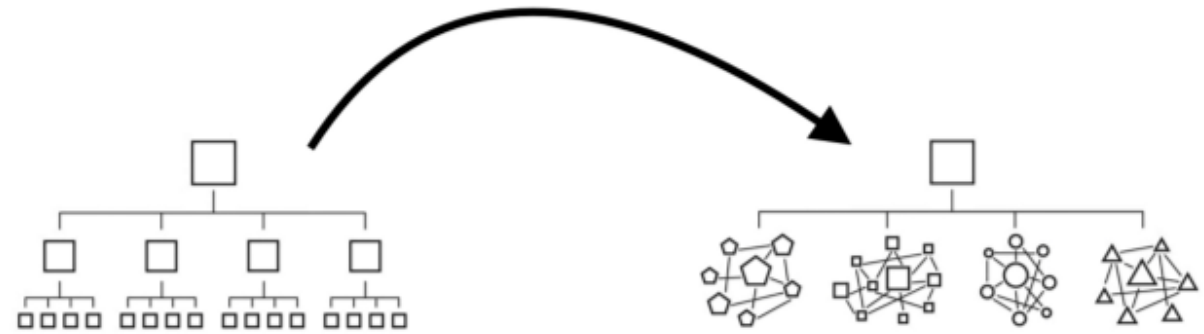
- Most people say their job is to prevent the other team from scoring goals.

If you play offense, . . . ?

- Most people say their job is to score goals.

*Most people are wrong.*

- Adaptability is more characteristic of small interactive teams than large top-down hierarchies
- Shifting from tactical to strategic adaptability requires organizing teams into teams of teams instead of command-delegated teams

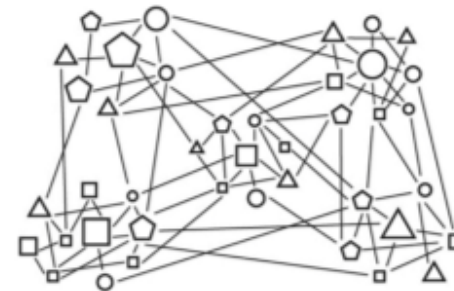


**Command**

*A traditional top-down structure. The connections that matter are between workers and their managers.*

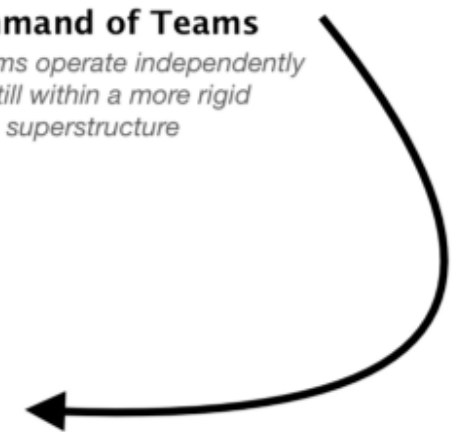
**Command of Teams**

*Small teams operate independently but still within a more rigid superstructure*



**Team of Teams**

*The relationship among teams resembles the closeness among individuals on those teams.*





# SRE Tactics for Teams of Teams

- Virtual teams and working groups
  - great for bootstrapping new technologies and driving adoption



# SRE Tactics for Teams of Teams



**SRE Learn [in] Day**

# SRE Tactics for Teams of Teams


- PM Roll Up



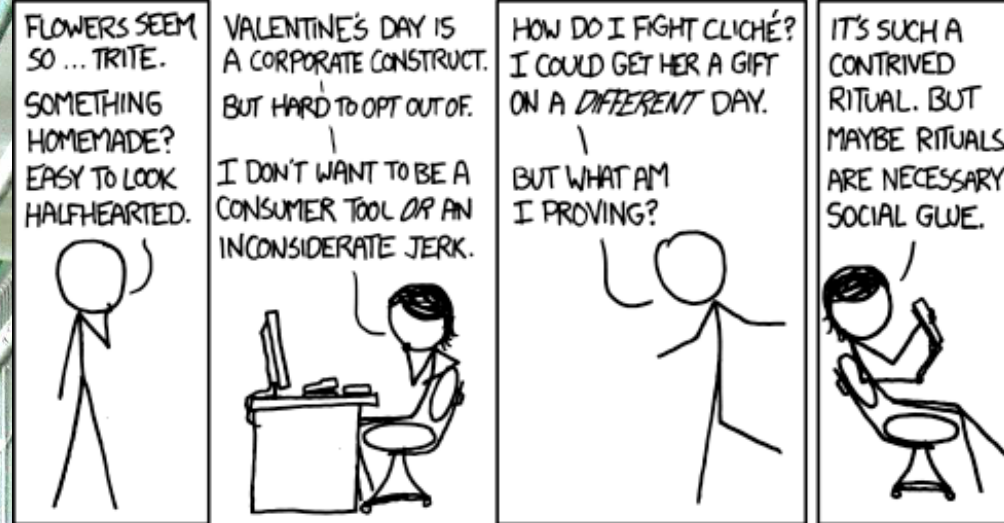
# SRE Tactics for Teams of Teams

- Inter-team rotations



An hourglass with a dark wood frame and two glass bulbs. The top bulb is partially filled with light-colored sand, while the bottom bulb is mostly empty. The hourglass is set against a light background, casting a shadow to the left. The right side of the image features a dark blue background with white text.

Most organizations are more concerned with how best to control information than how best to share it

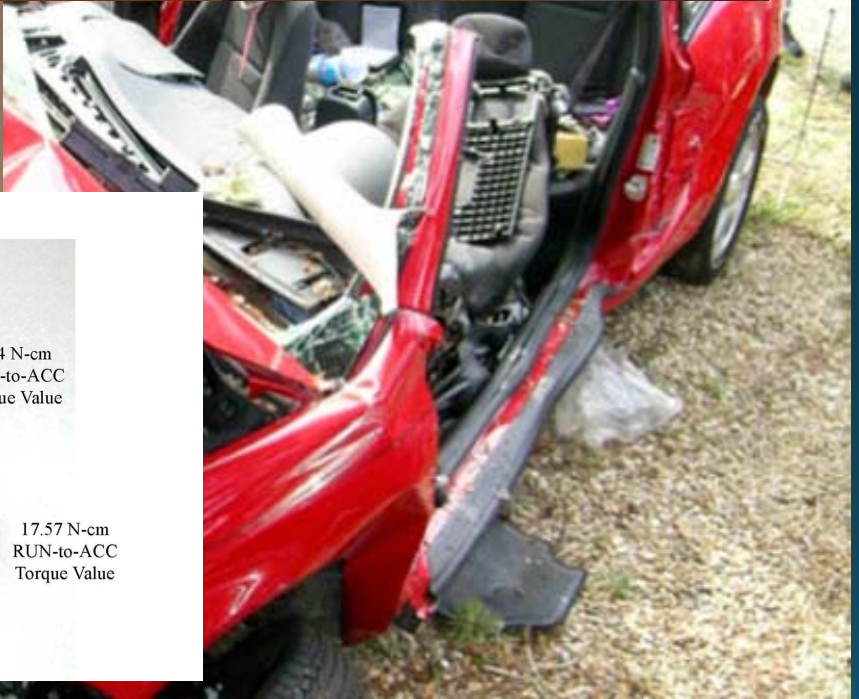


		Prisoner A Choices	
		Stay Silent	Confess and Betray
Prisoner B Choices	Stay Silent	Each serves one month in jail	Prisoner A goes free Prisoner B serves full year in jail
	Confess and Betray	Prisoner A serves full year in jail Prisoner B goes free	Each serves three months in jail

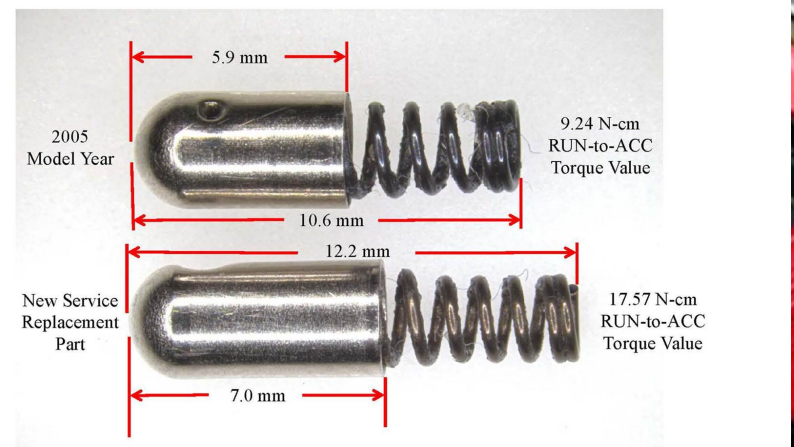
**Prisoner B Choices**

Stay Silent

Confess and Betray



Exemplar Chevrolet Cobalt Switch Detent Plungers



“It is the idea flow within a community that builds the intelligence that makes it successful.”

—Alex Pentland



# Engagement



# Exploration



Disney

SHAKE  
IT UP



Manager:

*"What if I spend all this money training and developing my staff and they leave?"*

Consultant:

*"What if you don't and they stay?"*

WE NEED TO  
DISRUPT OUR ENTIRE  
INDUSTRY. AND WE  
NEED TO MOVE  
QUICKLY.



@ScottAdamsSays

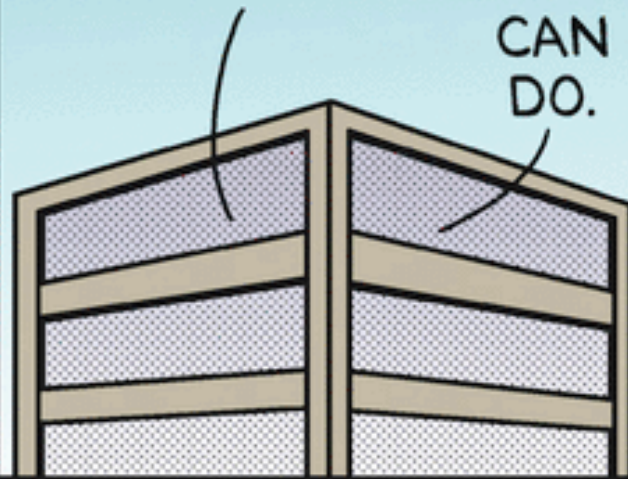
Dilbert.com

BUT CHECK WITH  
ME BEFORE YOU DO  
ANYTHING.



7-11-16 © 2016 Scott Adams, Inc. /Dist. by Universal Uclick

I WANT YOU TO THINK  
LIKE ENTREPRENEURS,  
BUT NOT LIKE THE  
BRAVE ONES.



Push decision making  
as close to the action  
as possible



# Effective Incident Response

... 1400, Friday afternoon ... pager has just exploded ... service has stopped serving *any* traffic in an entire datacenter. A few minutes in, ... another alert: a second datacenter has stopped serving.

Then the third of your five datacenters fails ...

*Is this going to be one of **those** days or weekends?*

- Technical Focus
- Poor Communication
- Freelancing

**or**

- Recursive Separation of Duties
  - Incident Command
  - Operational Response
  - Communication
  - Planning

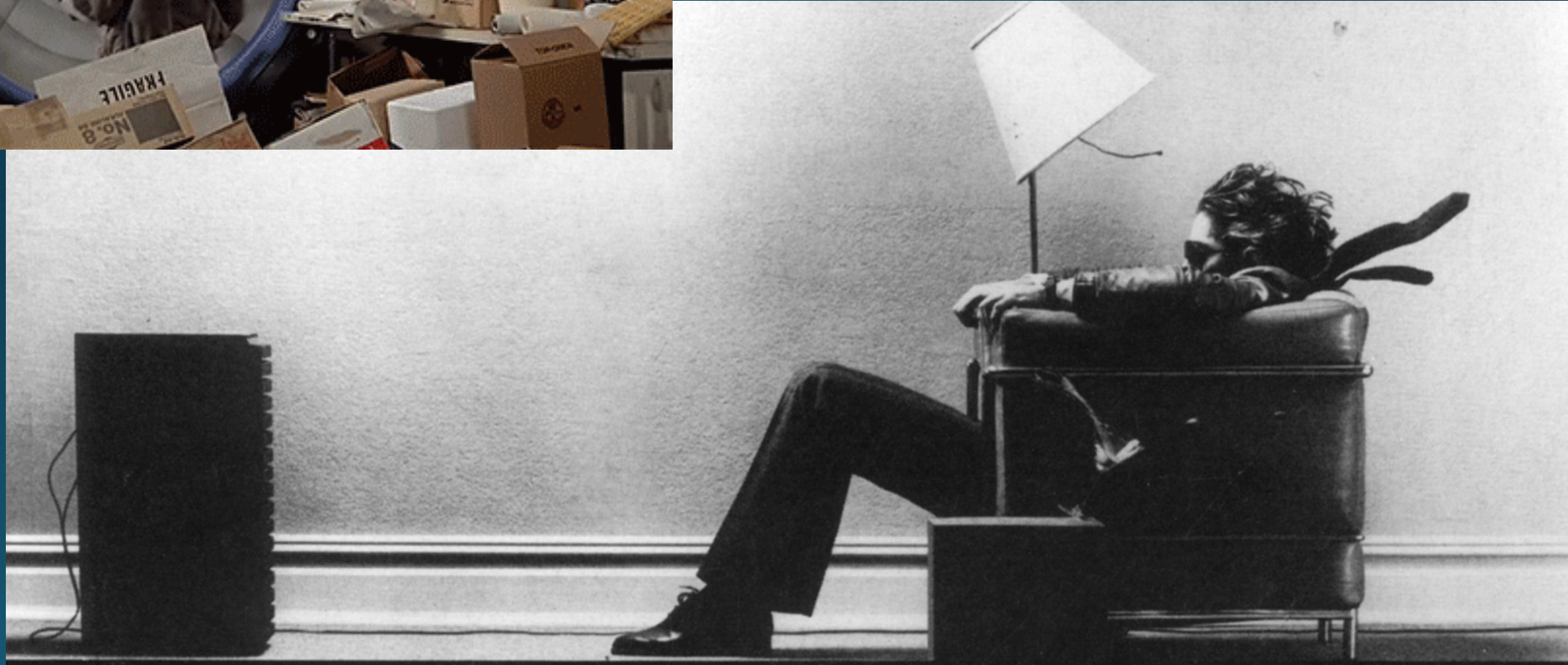


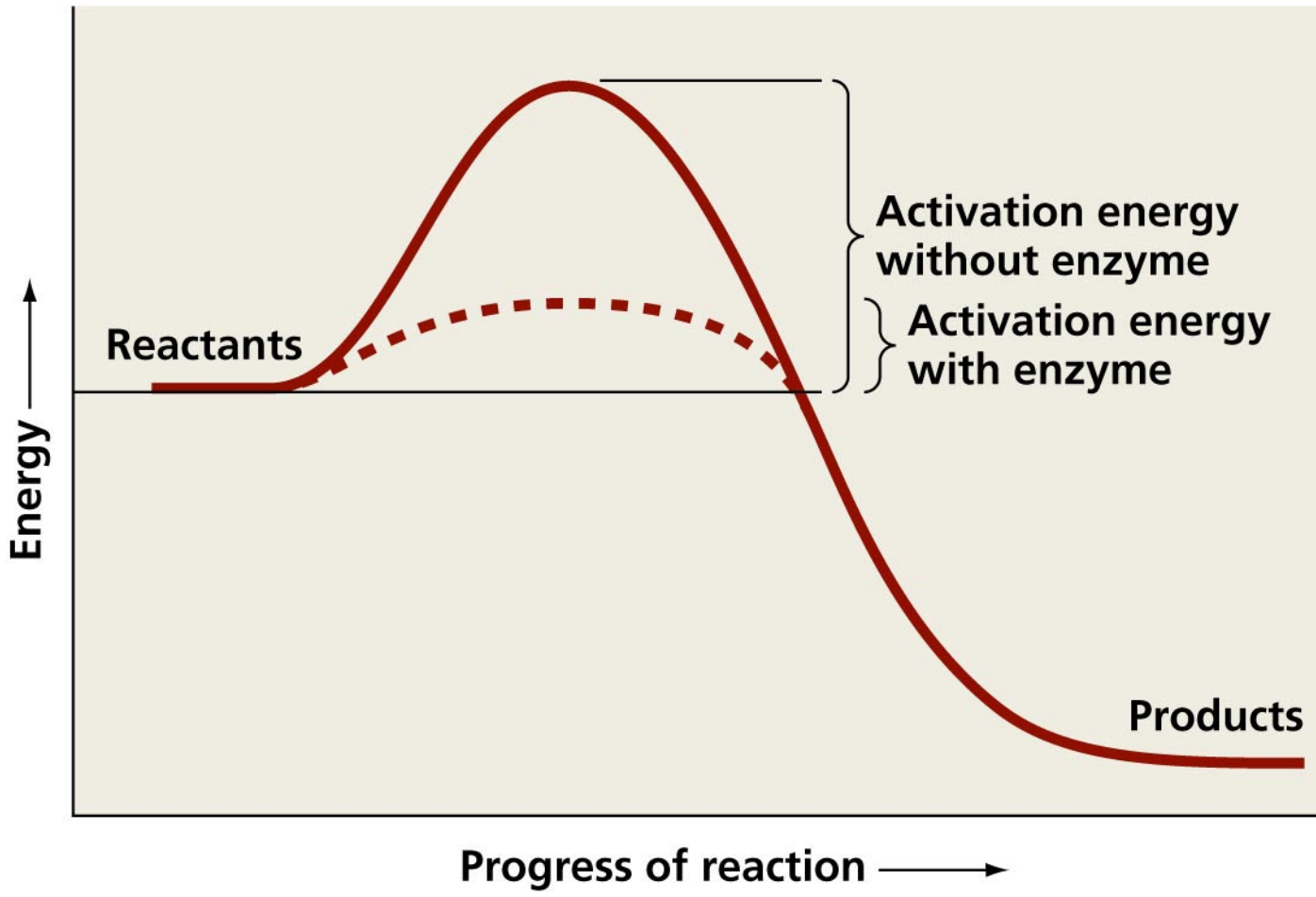
“When we find that things go right under difficult circumstances, it’s mostly because of people’s *adaptive capacity*; their ability to recognize, adapt to, and absorb changes and disruptions, some of which might fall outside of what the system is designed or trained to handle.”

– *Sidney Dekker*

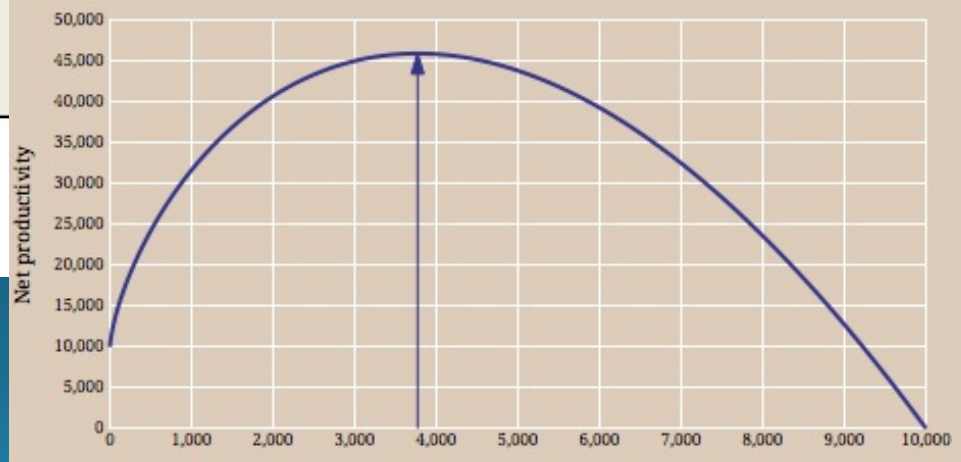
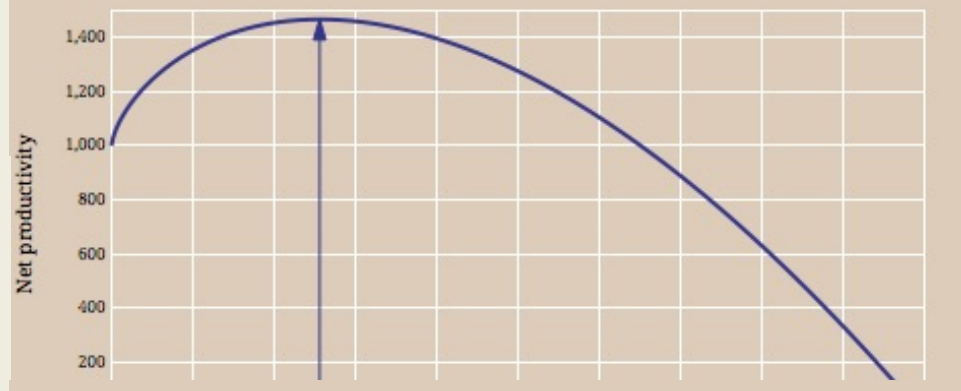
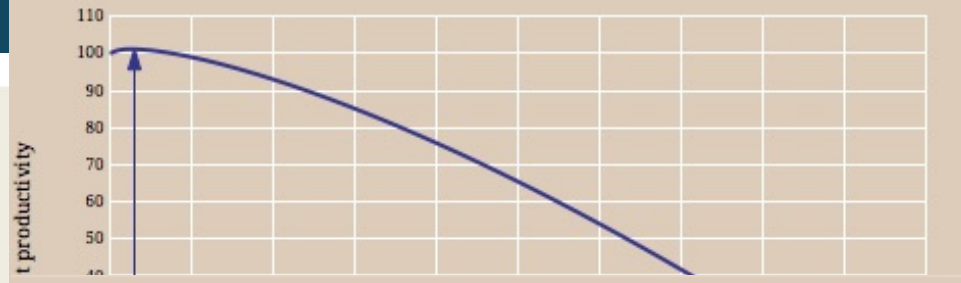
# Task Force findings

- With local authority to make decisions:  
quality & speed increased
- Old way ("try harder")  
10 → 18 raids per month
- New way: → 300 per month (17x)





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EE Engineers out of 10,000 ( $s = 0.7$ ;  $b = 0.02$ )





<b>VISION</b>				
<b>MISSION</b>				
<b>VALUE PROPOSITION</b>				
<b>TARGET AUDIENCES</b>				
<b>STRATEGY</b>				
<b>PRIORITIES</b>	<b>Talent</b> <i>Build a world-class team</i>	<b>Technology</b> <i>Data-driven dev at scale</i>	<b>Product</b> <i>Products that our members love</i>	<b>Monetization</b> <i>Scale profitable business lines</i>
<b>OBJECTIVES</b>				
<b>CULTURE</b>	Transformation   Integrity   Collaboration   Humor   Results			
<b>VALUES</b>	Members first   Relationships matter   Be open, honest, and constructive   Demand excellence   Take intelligent risks   Act like an owner			

1

3

10

30

100

300

1000



What  
are you  
inspiring  
others  
toward?







# Relationships matter

*...e to add you to my professional network on LinkedIn."*

*"Hi, I'd like to add you to my professional network on LinkedIn."*



*"Hi, I'd like to add you to my professional network on LinkedIn."*



*"Hi, I'd like to add you to my professional network on LinkedIn."*

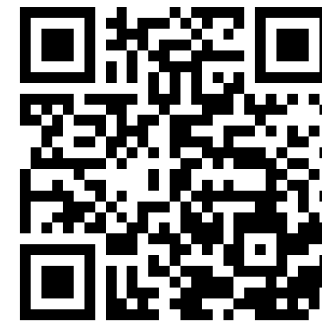
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[linkedin.com](https://www.linkedin.com)

Hi, I'd like to add you to my professional network on LinkedIn.



# Resources

- Team of Teams, Stanley McChrystal  
ISBN-13: 978-1591847489
- Social Physics, Alex Pentland  
ISBN-13: 978-0143126331
- Conscious Business, Fred Kofman  
ISBN-13: 978-1622032020
- Peter Siebel's blog: [gigamonkeys.com](http://gigamonkeys.com)
- Rule of 3 & 10:  
<https://www.sequoiacap.com/article/the-rule-of-3-and-10/>