

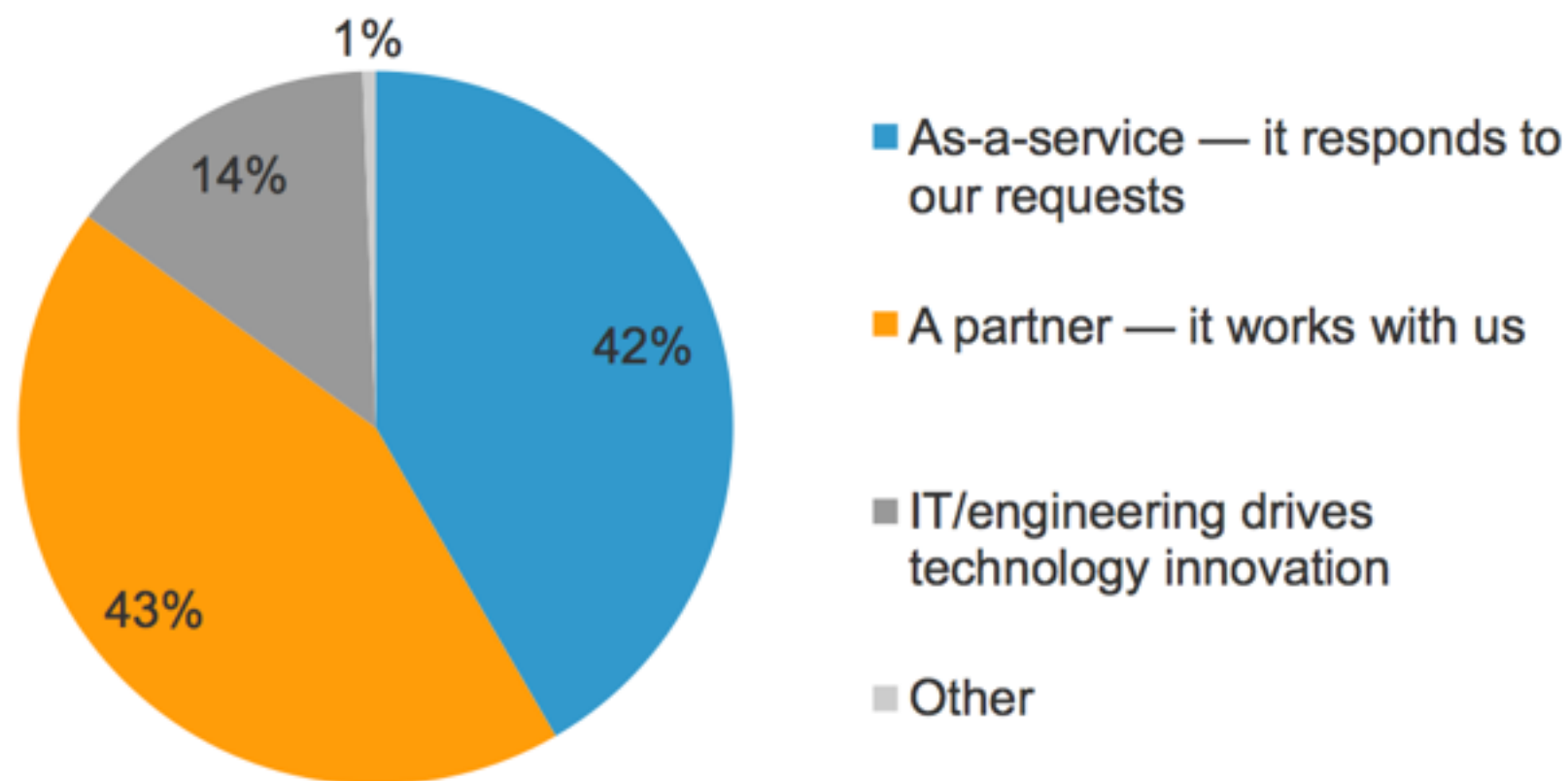
the lean enterprise

@jezhumble | @GRUVERGary



What Business Leaders Think About The Business-IT Relationship

“What level of influence does your software development provider have when it comes to deciding which business services or products you deliver?”



Base: 161 business decision-makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Thoughtworks, September 2012

IT as a competitive advantage



“Firms with high-performing IT organizations were twice as likely to exceed their profitability, market share and productivity goals.”

<http://bit.ly/2014-devops-report>

“it performance”?

lead time for changes

release frequency

time to restore service

change fail rate

highest correlation with it performance

- “Our code, app configurations and system configurations are in a version control system”
- “We get failure alerts from logging and monitoring systems”
- “Developers merge their code into trunk daily”
- “When development and operations teams interact, the outcome is generally win/win.”
- “Developers break up large features into small, incremental changes.”

top predictors of it performance

peer-reviewed change approval process

version control everything

proactive monitoring

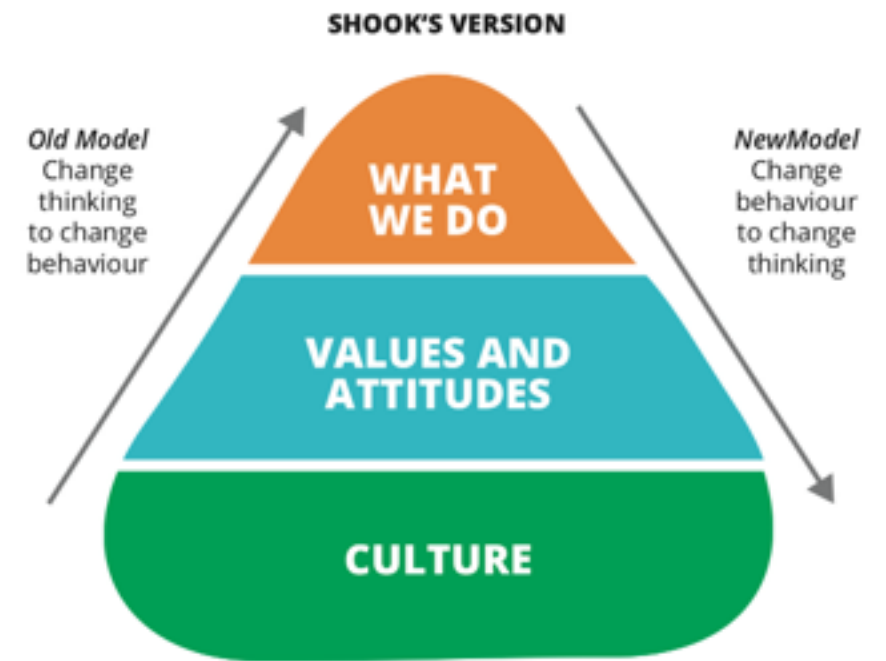
high trust organizational culture

win-win relationship between dev and ops

high trust culture

Pathological (<i>power oriented</i>)	Bureaucratic (<i>rule oriented</i>)	Generative (<i>performance oriented</i>)
Low cooperation	Modest cooperation	High cooperation
Messengers shot	Messengers neglected	Messengers trained
Responsibilities shirked	Narrow responsibilities	Risks are shared
Bridging discouraged	Bridging tolerated	Bridging encouraged
Failure leads to scapegoating	Failure leads to justice	Failure leads to enquiry
Novelty crushed	Novelty leads to problems	Novelty implemented

changing culture

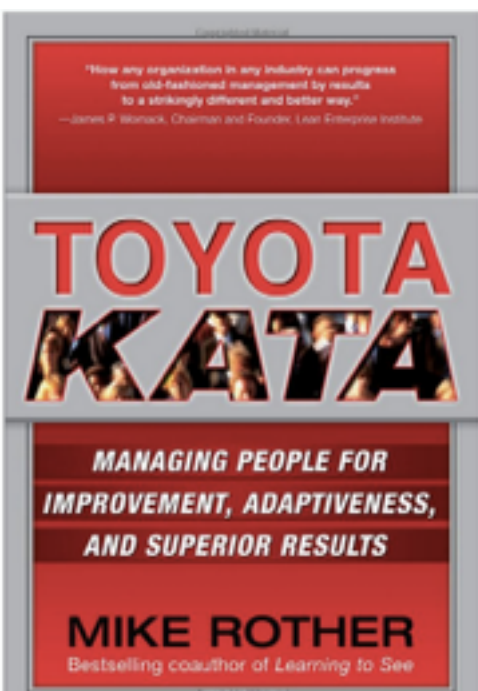
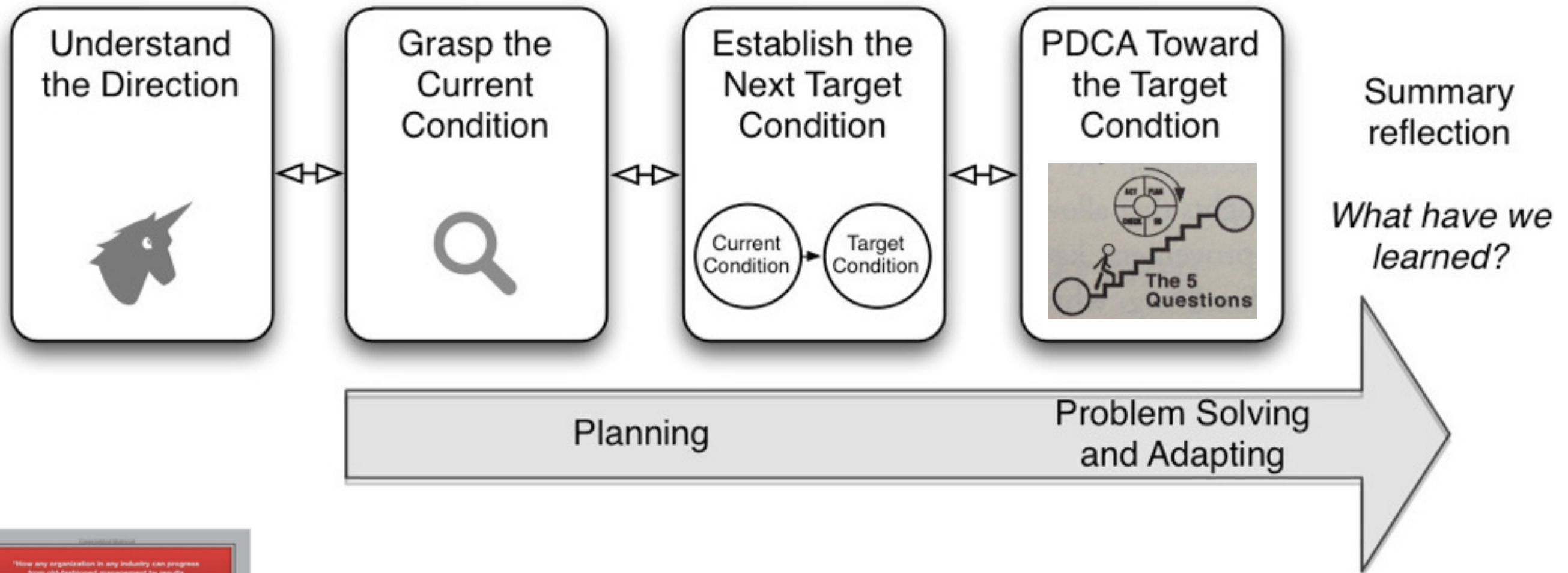


<http://www.thisamericanlife.org/radio-archives/episode/403/nummi>

<http://sloanreview.mit.edu/article/how-to-change-a-culture-lessons-from-nummi/>

Schein, The Corporate Culture Survival Guide

improvement kata



improvement kata

What is the target condition? (The challenge)

What is the actual condition now?

What obstacles are preventing you from reaching it?

which one are you addressing now?

What is your next step? (Start of PDCA cycle)

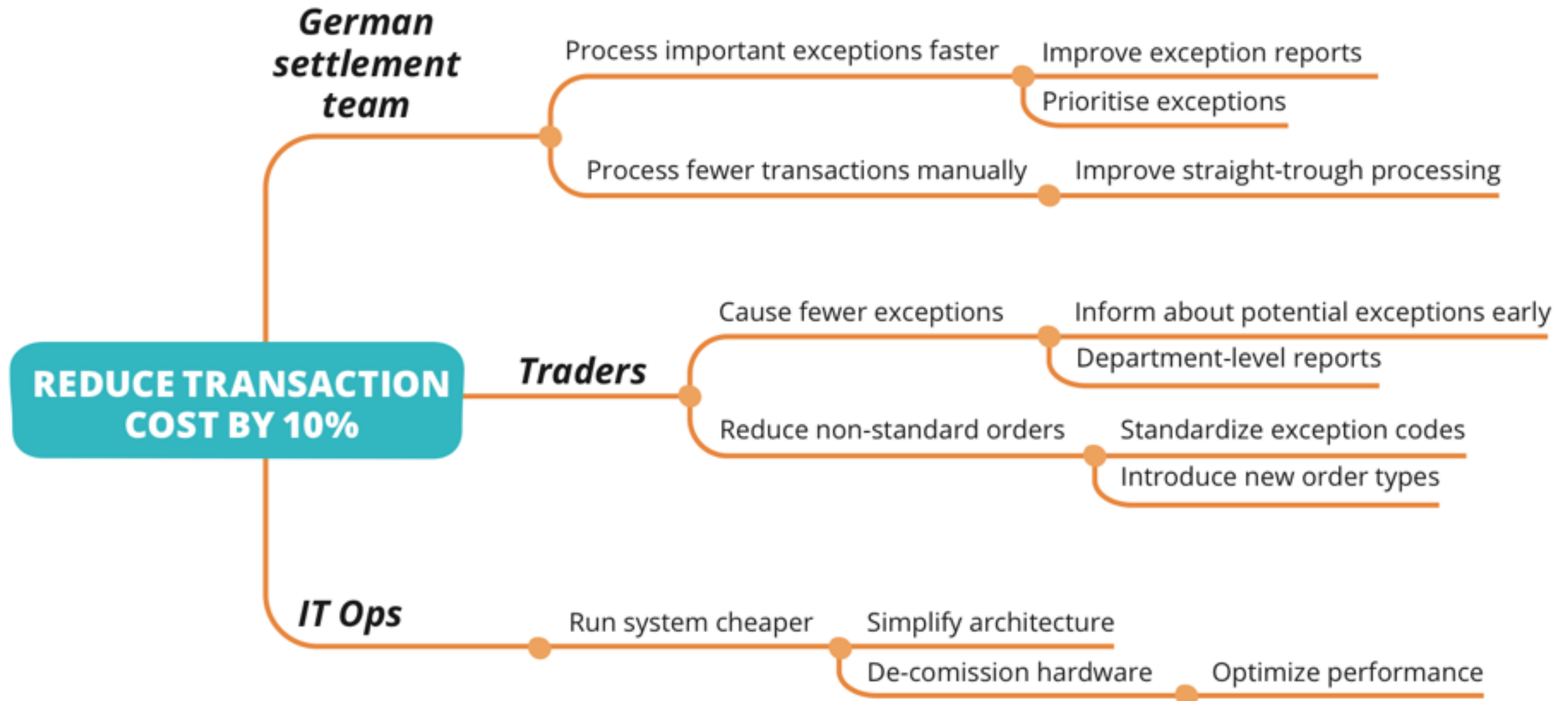
When can we go and see what we learned from taking that step?

improvement kata

Table 5.1. Sample Mini-Milestone Objectives (MM30 Objectives)

Rank	Theme	Exit Criteria: <i>Objective Met/Objective not met</i>
0	Quality threshold	P1 issues open < 1week L2 test failure 24-hour response
1	Quarterly bit release	A) <i>Final P1 change requests fixed</i> B) Reliability error rate at release criteria
2	New platform stability and test coverage	A) Customer Acceptance Test 100% passing B) All L2 test pillars 98% passing C) L4 test pillars in place D) L4 test coverage for all Product Turn On requirements E) 100% execution of L4 tests on new products
3	Product Turn On dependencies and key features	A) Print for an hour at speed to finisher with stapling B) Copy for an hour <i>at speed</i> C) <i>Enable powersave mode</i> D) Manufacturing nightly test suite execution E) Common Test Library support for four-line control panel display
4	Build for next-gen products	A) <i>End-to-end system build on new processor</i> B) <i>High-level performance analysis on new processor</i>
5	Fleet integration plan	Align on content and schedule for “slivers” of end-to-end agile test with system test lab

impact mapping



hypothesis-driven delivery

We believe that

[building this feature]

[for these people]

will achieve [this outcome].

We will know we are successful when we see
[this signal from the market].

do less

“Evaluating well-designed and executed experiments that were designed to improve a key metric, **only about 1/3** were successful at improving the key metric!”

“Online Experimentation at Microsoft”, Kohavi *et al* <http://stanford.io/130uW6X>

Amazon May Deployment Stats

(production hosts & environments only)

11.6 seconds

Mean time between deployments (weekday)

1,079

Max # of deployments in a single hour

10,000

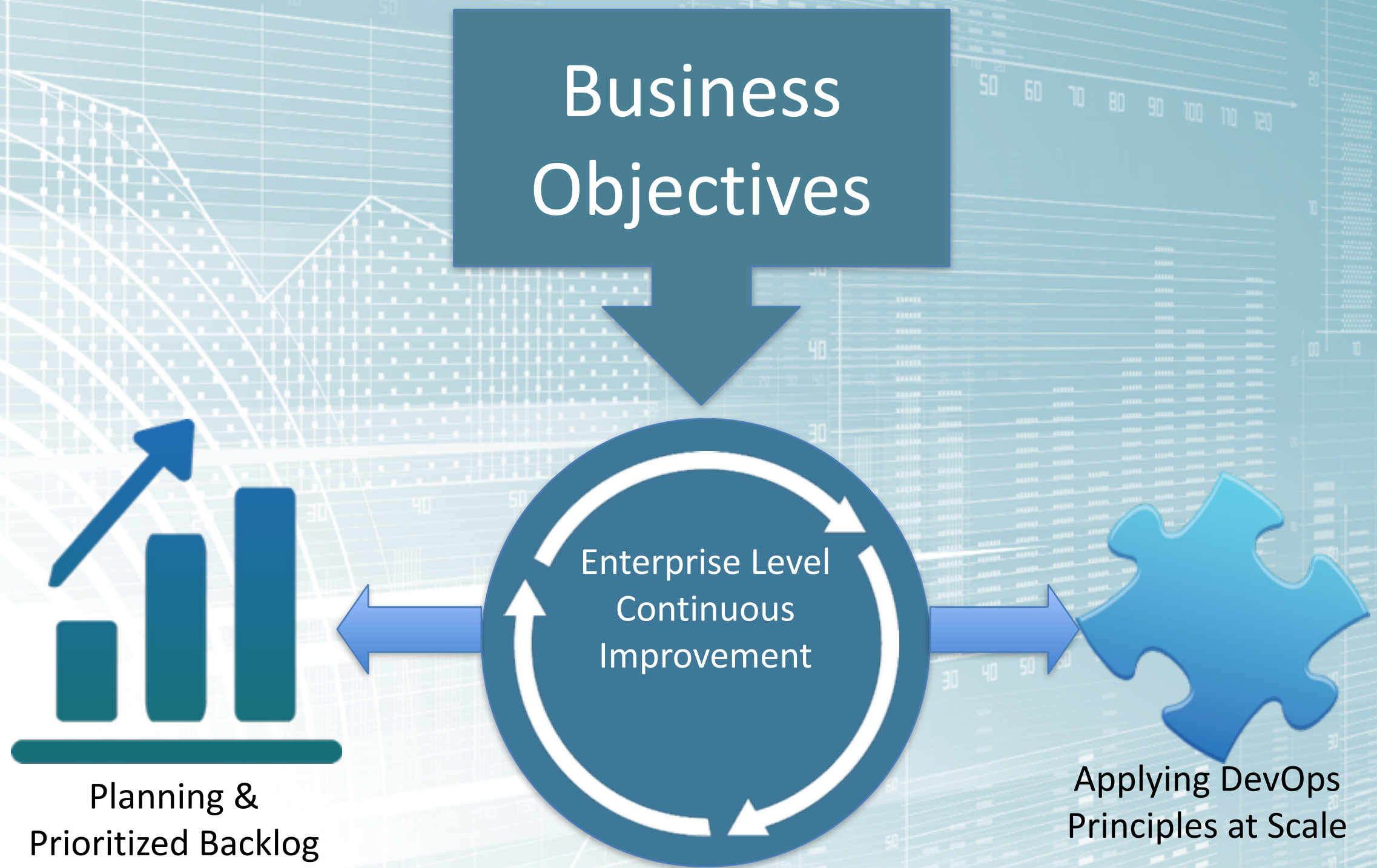
Mean # of hosts simultaneously receiving a deployment

30,000

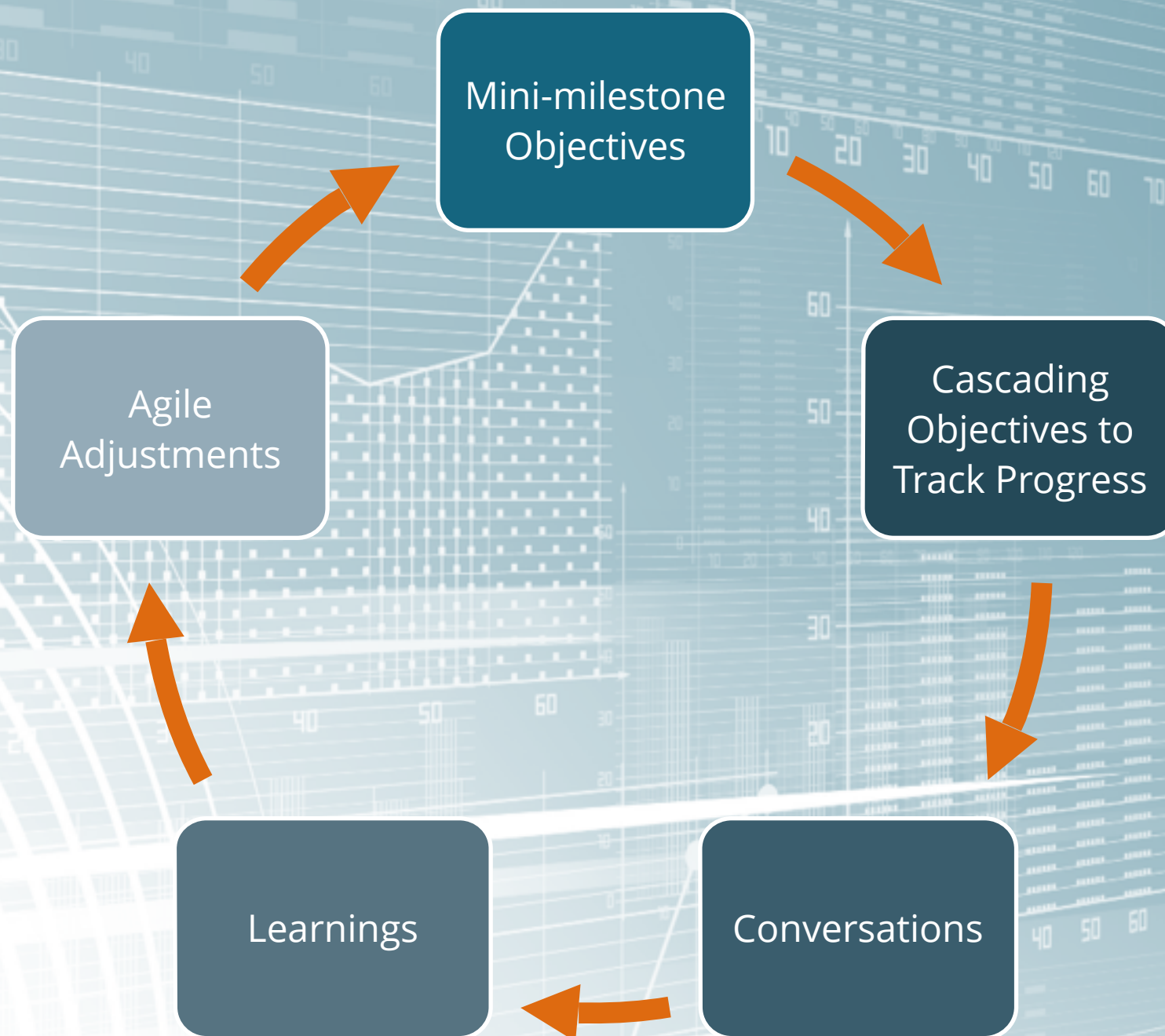
Max # of hosts simultaneously receiving a deployment

“I think building this culture is the key to innovation. Creativity must flow from everywhere. Whether you are a summer intern or the CTO, any good idea must be able to seek an objective test, preferably a test that exposes the idea to real customers. Everyone must be able to experiment, learn, and iterate.”

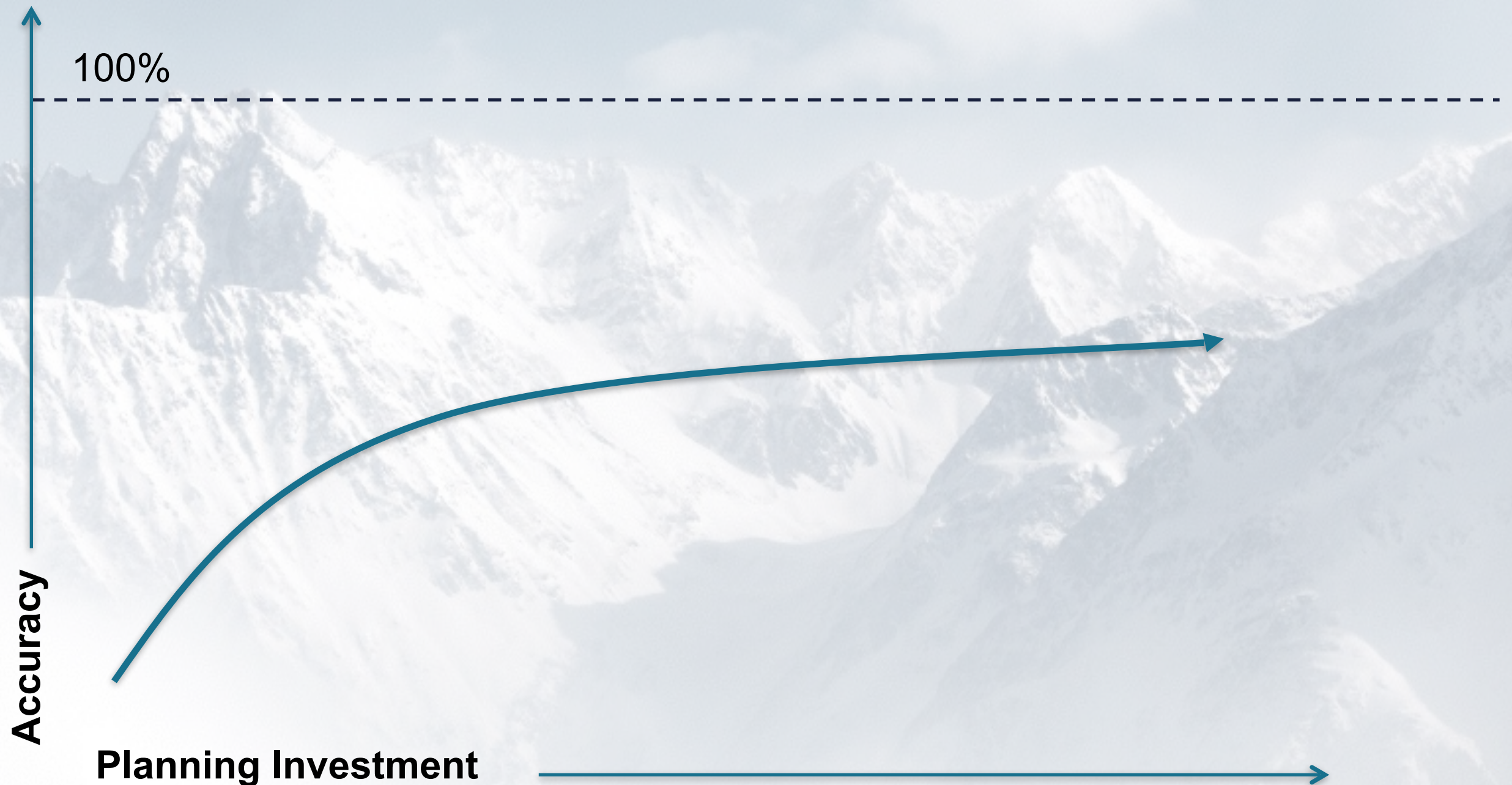
making the enterprise agile



iterative approach to agile management



long term predictability of sw schedules



locking in capacity over time

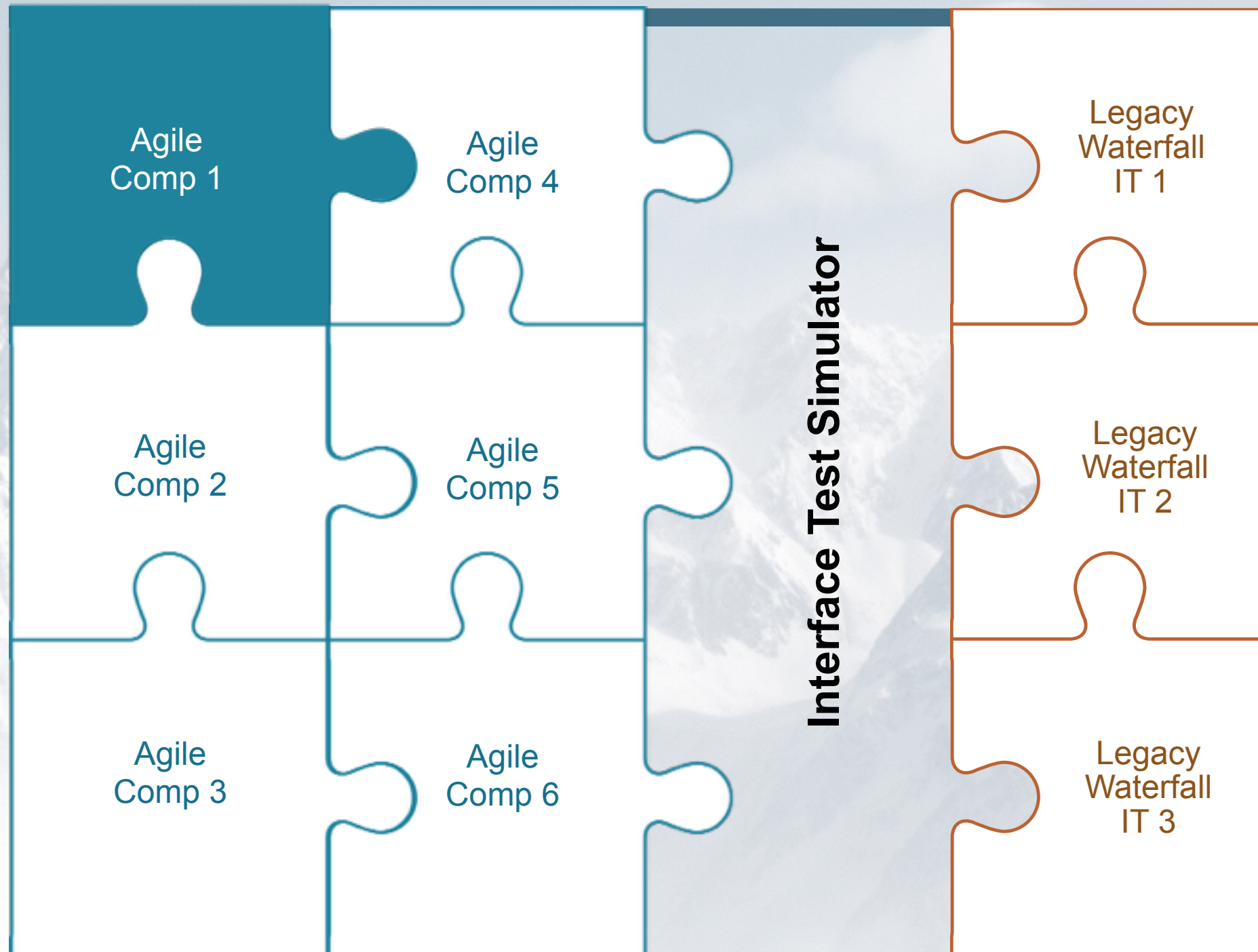


find the offending code

What Code? When?
Are you sure it
wasn't Jez?



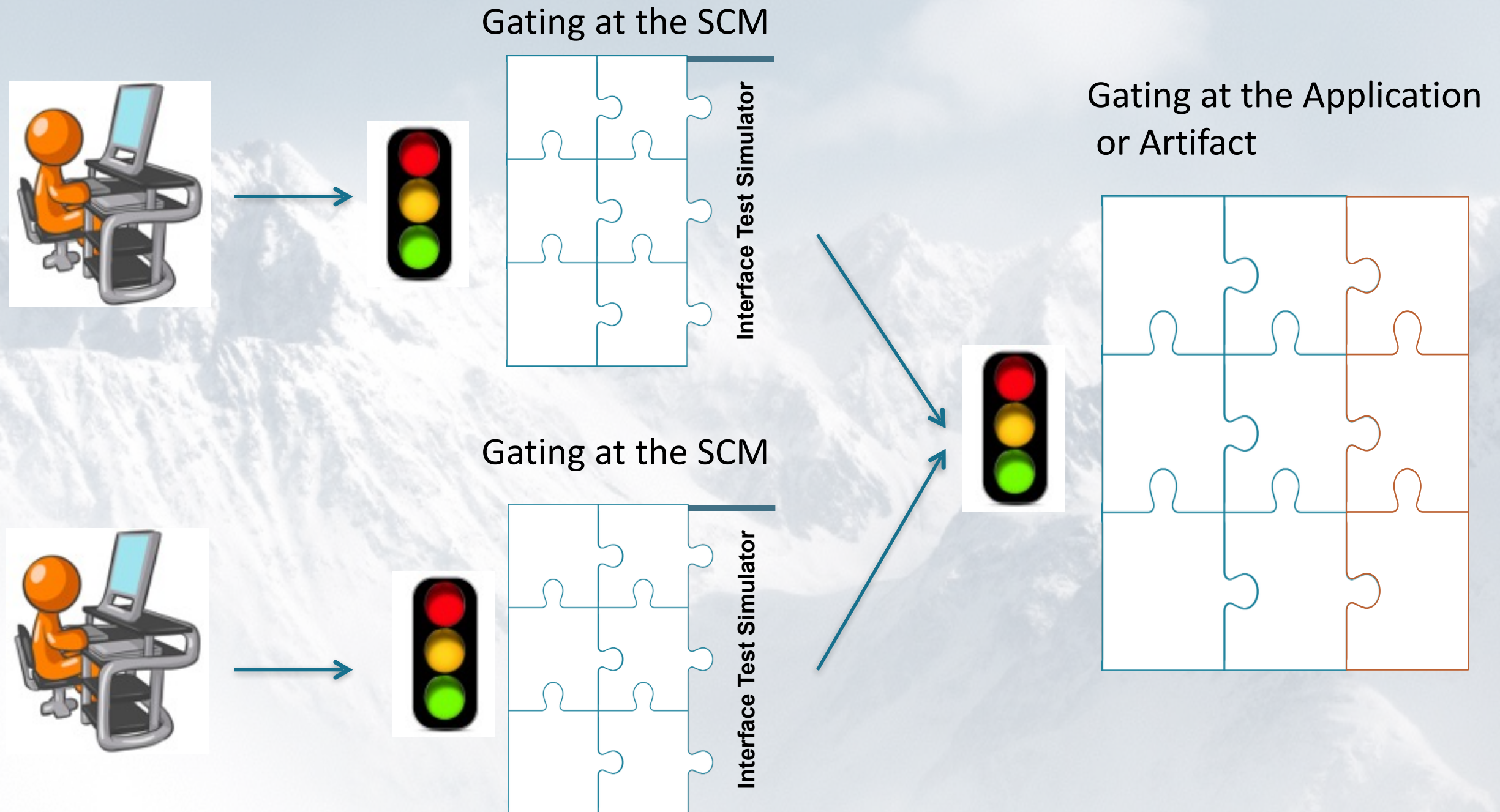
building up a large software system



autorevert / gated commits

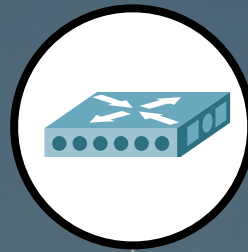


building up the enterprise

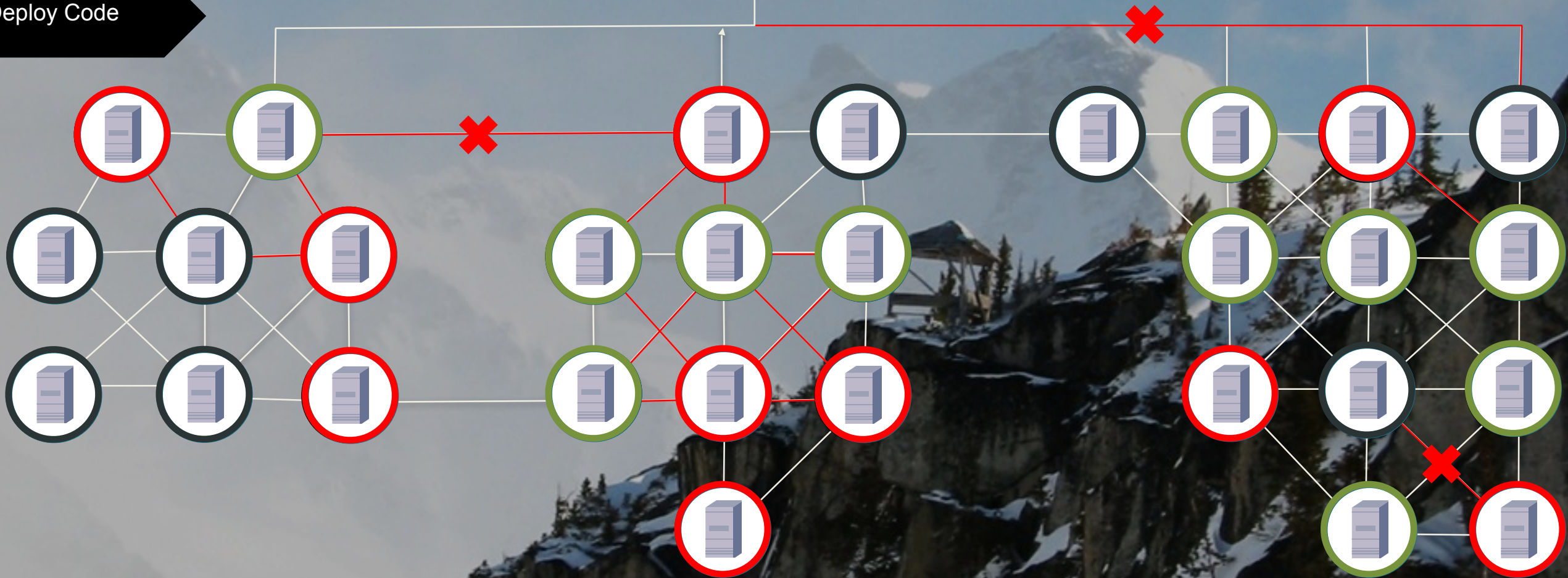


find the offending component quickly

1: Configure Servers/Routing Device



2: Deploy Code

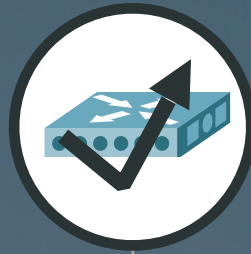


3: Run a System Test

? ? ? ? ? ? ? ? ? ? ?

find the offending component quickly

1: Configure Servers/Routing Device and Validate Data



2: Deploy Code & Validate Successful Deployment



3: Run a System Test

Code Validated

Your Draft Transformation Plan

Business Objective

Change Management Plan

MM 1 Objectives

Rank	Theme	Exit criteria

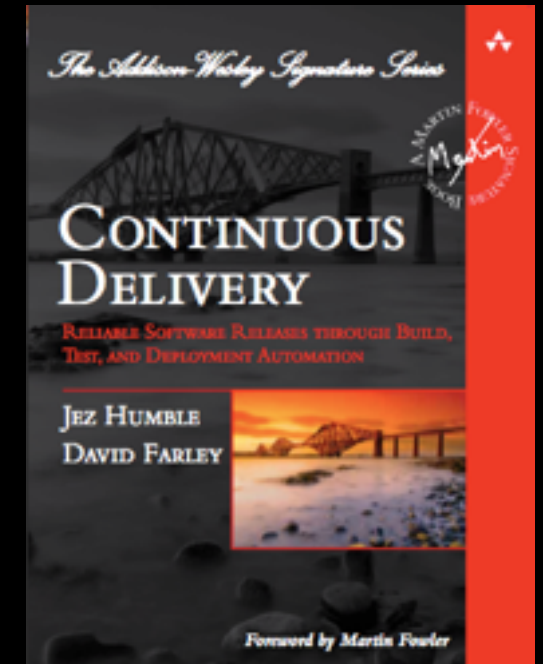
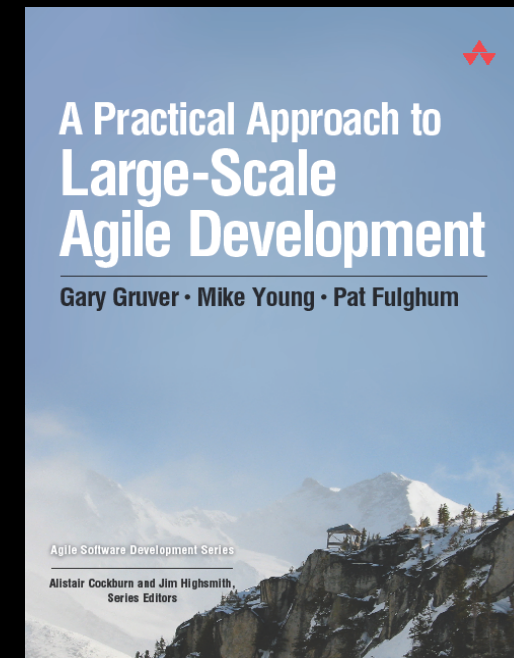
questions

@jezhumble | jez@getchef.com

<http://continuousdelivery.com/>

@GRUVERgary | gbgruver@gmail.com

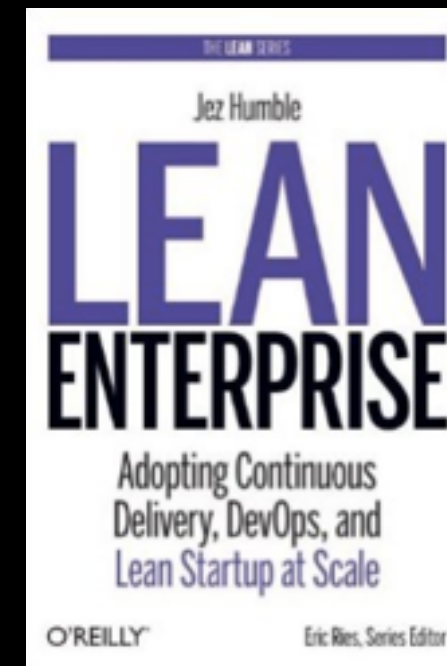
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