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# RED HAT CONSULTING EVENT STORMING

Tech Lab

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# THE BUSINESS / IT GOAL



# THE BUSINESS / IT GOAL

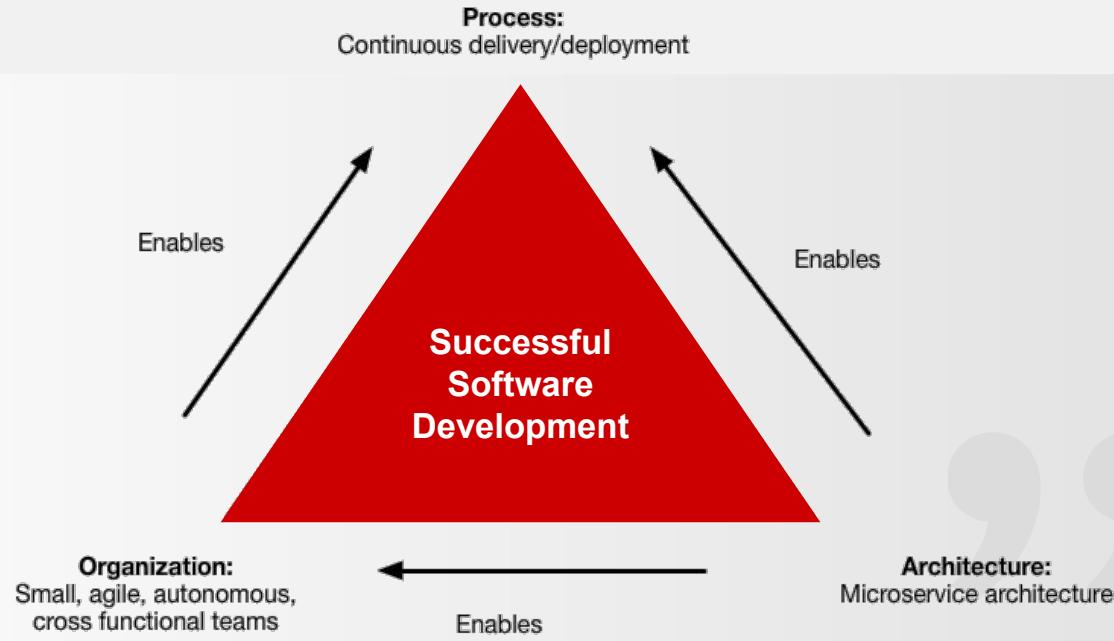


# AUTOMATION AND SCALE

HOW DO WE GO FROM MICROSERVICE EXPERIMENTATION TO  
MASS MICROSERVICE ARCHITECTURE AND CREATE A MODERN  
IT ORGANIZATION IN THE PROCESS?



# THE BUSINESS / IT GOAL



Microservices.io



**Hands On**

# EVENT STORMING: What is it?

- Provides a repeatable, teachable technique
  - ...for modelling event driven systems
  - ..and large microservice based systems
- A really really large modelling surface
- Lots of stickies in a rainbow of colours (+ a legend)



# EVENT STORMING: What is it?

- Key business stakeholders and techies
- Lots of talking, a fair bit of squabbling, and periodically some very heated debate.
- No chairs!
- Expect a tiring but fun day, that achieves a great deal from the most basic of tools.



# EVENT STORMING: Where did it come from?

Event Storming was developed by Alberto Brandolini.

- Brandolini has a background in event driven systems.
- Is an active member of the DDD community.
- He started event storming as a guest slot in Vernon Vaughn's DDD workshop and first blog post about event storming in 2013
- 



A slide from the Explore DDD Conference Denver 2017. The slide features a photo of Alberto Brandolini speaking on stage. To the right of the photo, the year "2017" is displayed. Below the photo, a bulleted list describes the state of Event Storming in 2017:

- GROWING MOMENTUM
- MANY PRACTITIONERS -> MANY IDEAS
- MANY DIFFERENT FORMATS:
- BIG PICTURE / PROCESS MODELLING / SOFTWARE DESIGN
- RETROSPECTIVE / INDUCTION / MORE...

The logo for the Explore DDD Conference Denver 2017. The logo features a stylized "D" icon and the text "EXPLORE DDD CONFERENCE DENVER | 2017". Below the main logo, it says "SPONSORED BY" and lists "alteryx" and "AGILE Denver". At the bottom, it says "ORGANIZED BY" and lists "virtualgenius" with the tagline "building by design".

# EVENT STORMING: Why do we use it?

Very simple modelling - accessible to all business people.

Engages all stakeholders and removes technical barriers

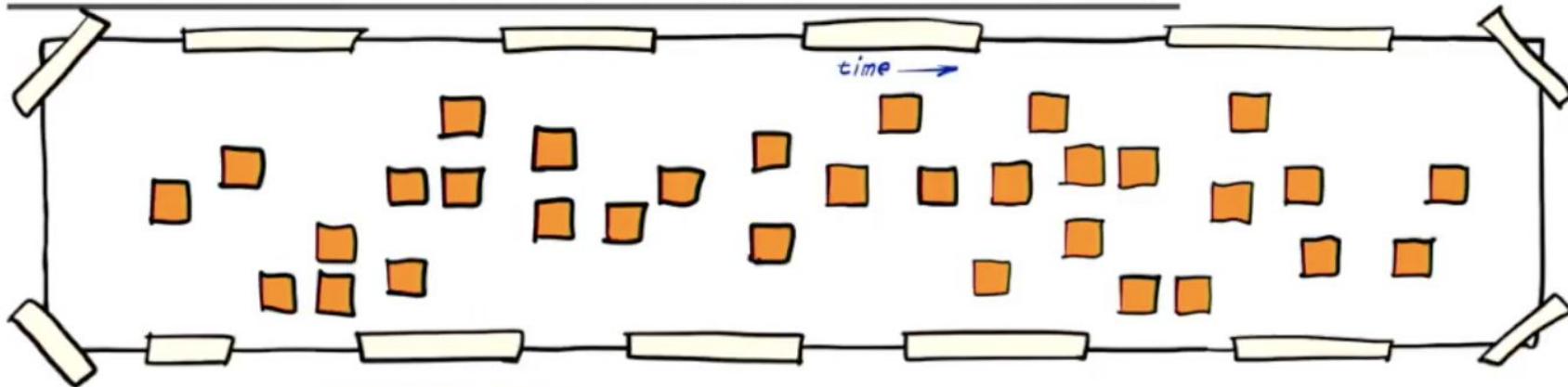
- Non-technical people can actively contribute
- Builds shared understanding
- Fail fast to solve difficult problems
- Deliver really useful design artefacts
  - Big picture - quickly build a shared understanding of a problem space
  - Process - model business process
  - Aggregate modelling - find the key microservices, operations and a respective event model
  - UI modelling - model the flow of screens in an application

# EVENT STORMING: How do we use it?

- Big Picture Workshop
- Invite the right people -> Business, IT, UX
- Provide unlimited modelling space
  - Surface, Markers, Stickies
- Model A WHOLE BUSINESS LINE with Domain Events

# EVENT STORMING: How do we use it?

## EXPLORE WITH DOMAIN EVENTS

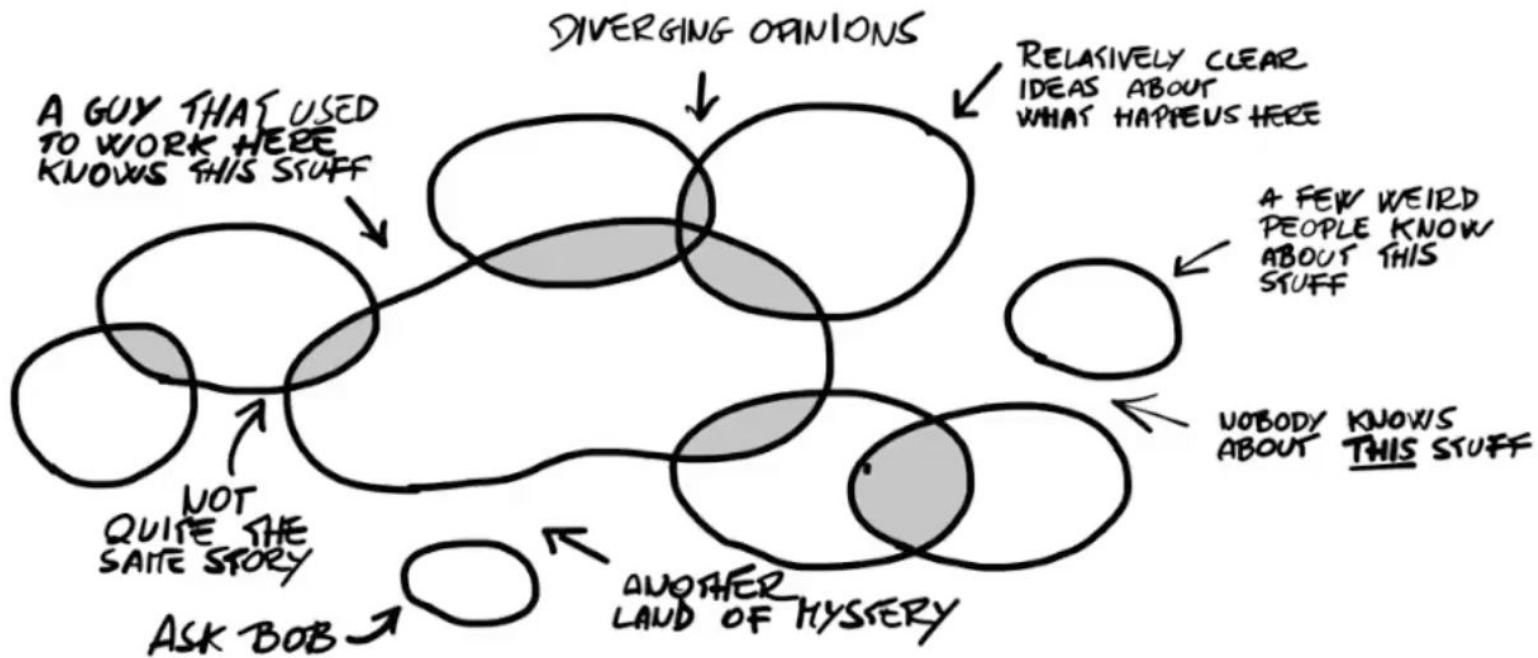


THIS IS A **DOMAIN EVENT**

- **ORANGE** STICKY NOTE
- VERB AT **PAST TENSE**
- RELEVANT FOR DOMAIN EXPERTS

## EVENT STORMING: How do we use it?

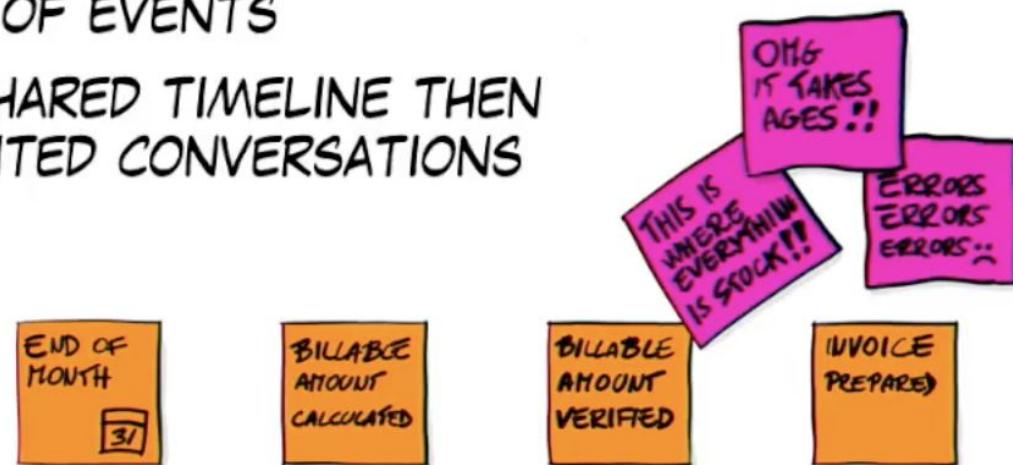
### THE KNOWLEDGE DISTRIBUTION



## EVENT STORMING: How do we use it?

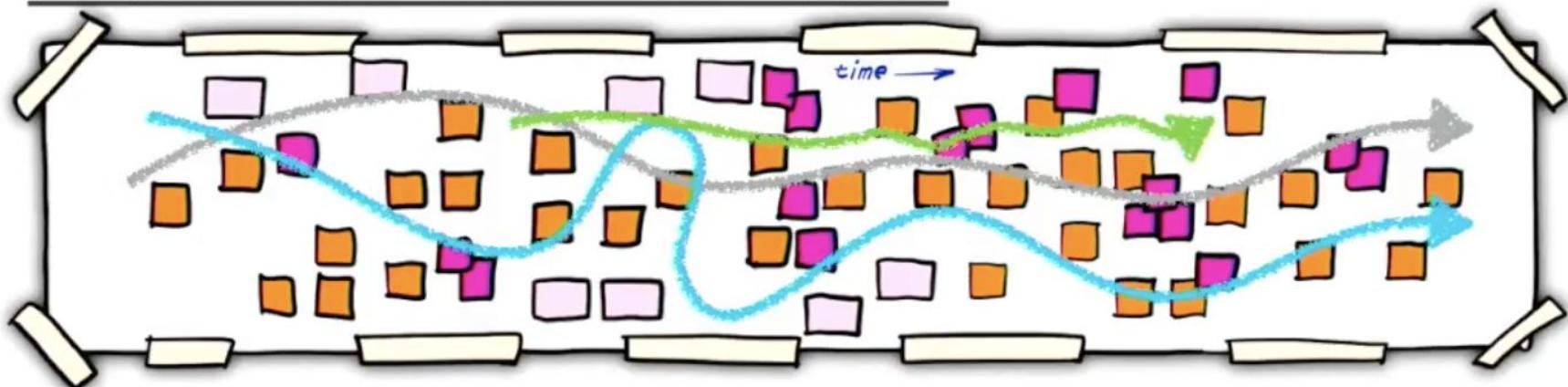
### ENFORCING THE TIMELINE

- ❑ EXPERTS WILL USUALLY POST A LOCALLY ORDERED SEQUENCE OF EVENTS
- ❑ BUT ENFORCING A SHARED TIMELINE THEN TRIGGERS LONG AWAITED CONVERSATIONS

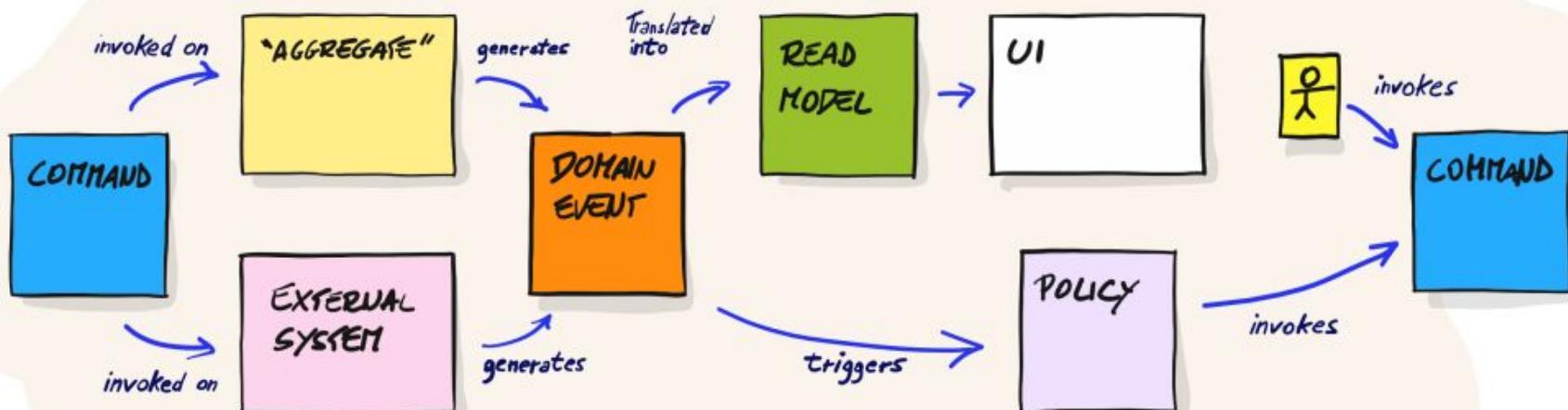


## EVENT STORMING: How do we use it?

OUTCOME (BIG PICTURE):



# EVENT STORMING: How do we use it?



## EVENT STORMING: How do we use it?

### CHALLENGING VALUE

- EVERY STEP CAN CREATE OR DESTROY VALUE FOR GIVEN USERS
  - DISCOVERING MULTIPLE CURRENCIES
  - DISCOVERING NEW OPPORTUNITIES
  - DISCOVERING INCONSISTENCIES

## EVENT STORMING: How do we use it?

### A DIFFERENT JOB

- BIG PICTURE IS FOR DISCOVERY -> DISAGREEMENTS ARE OK
- HERE WE ARE REACHING AN AGREEMENT -> CONSENSUS IS HARD

## EVENT STORMING: How do we use it?

### INVESTIGATING AGGREGATES



- STATE MACHINE LOGIC
- FOCUS ON BEHAVIOUR, NOT DATA
- POSTPONE NAMING

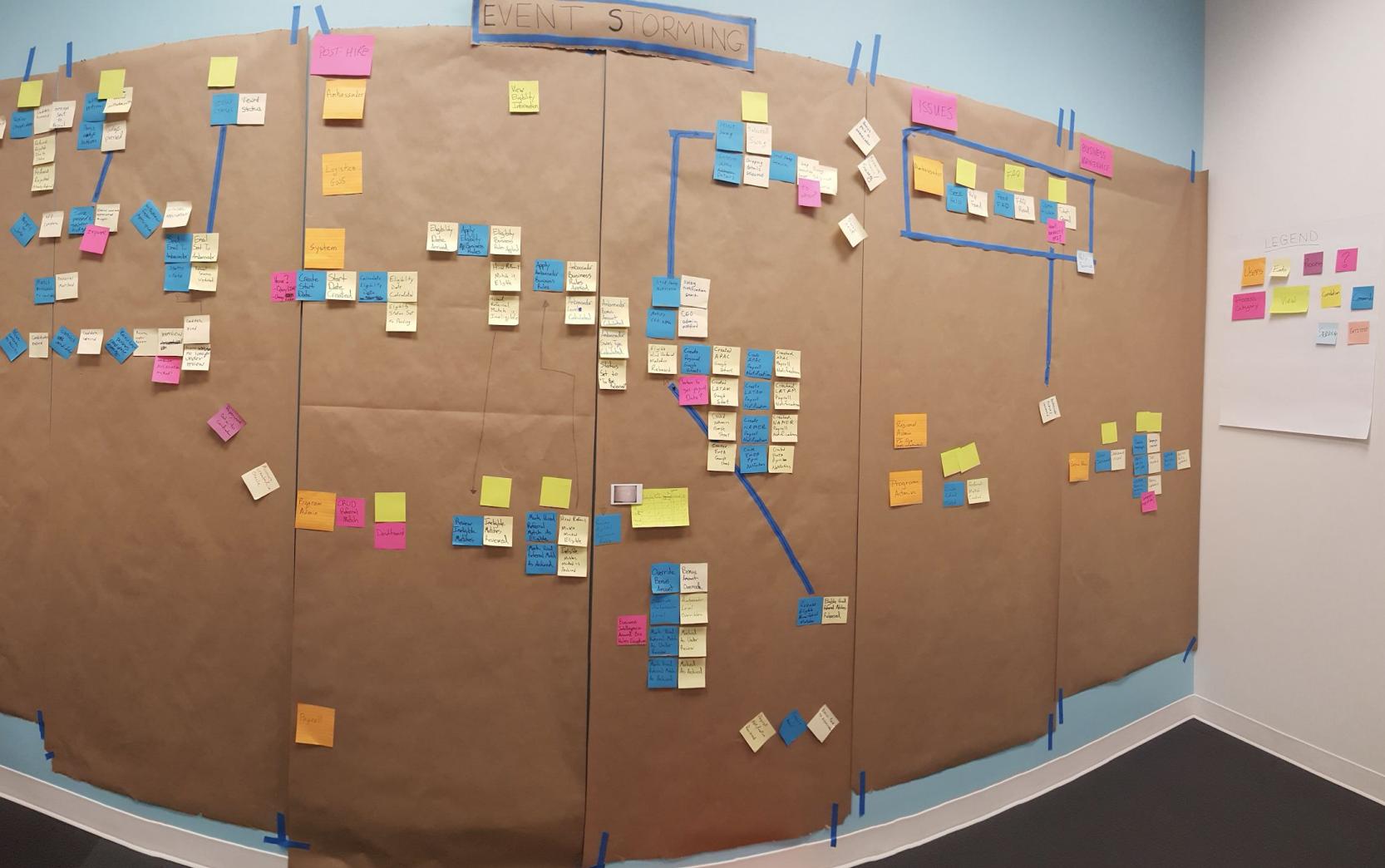
# SOME EXAMPLE EVENT STORMS



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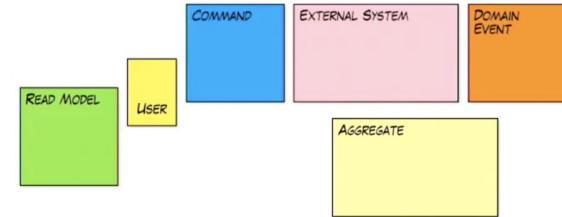
# EVENT STORMING



# EXERCISE: “Build the Event Storm for Innovator Delivery System”

EXERCISE:

1. As a class, let's walk through an example Event Storm for Innovator Delivery System.
2. In Table Groups, take this example and extend it to cover additional events (for example, Custom Tags, Location, etc. etc.)
  - a. Add the new events
  - b. Add the new commands
  - c. Are there new users?
  - d. Are there 3rd party systems to consider?
  - e. Any questions/ambiguities? Add those to the event storm too!
3. Think about what aggregates we might use here



TIME BOX: 30 minutes

# KEY TAKEAWAYS

BUILDS SHARED UNDERSTANDING OF A PROBLEM SPACE

MODEL BUSINESS PROCESSES

AGGREGATE MODELLING TO FIND KEY MICROSERVICES AND EVENT MODEL

MODEL THE FLOW OF SCREENS IN AN APPLICATION

ALIGNS BUSINESS AND IT PEOPLE



## Why Red Hat?

At the end of the day, when we talk about technology change – whether it's the Internet of Everything, big data, or machine learning –

**it's really about people and organizational cultures, first and foremost.**

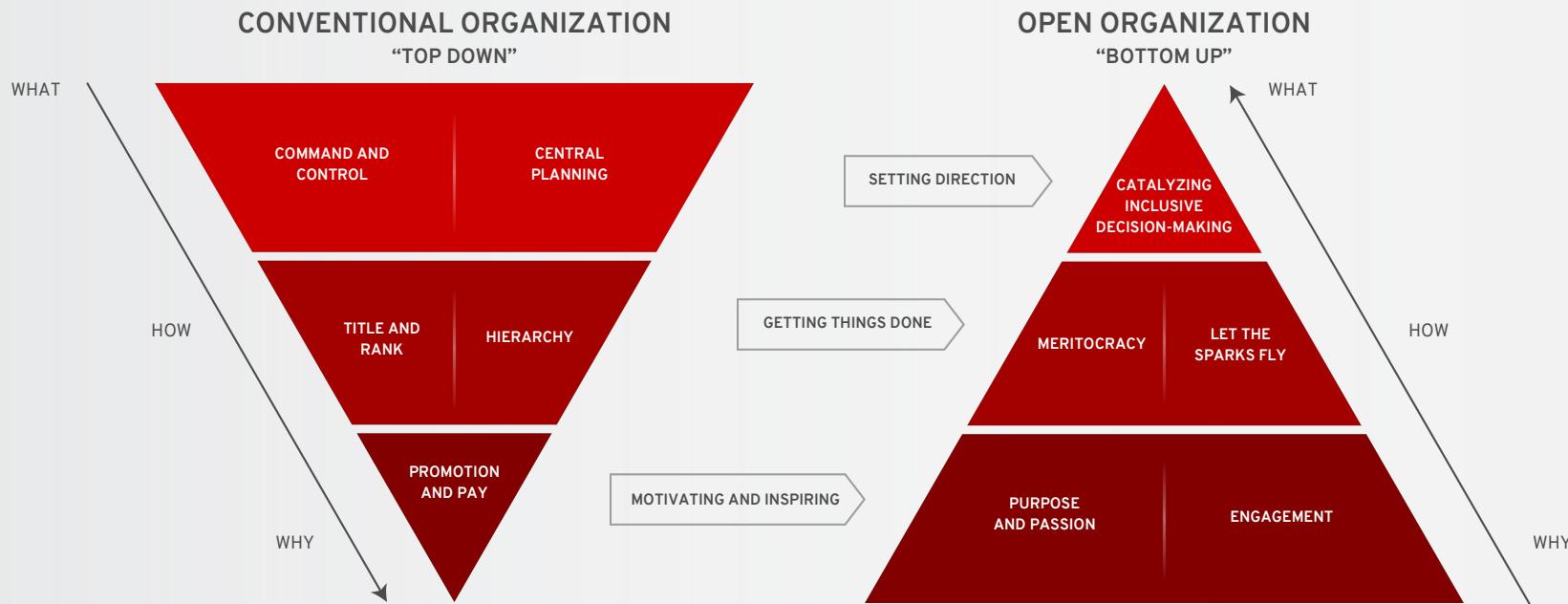
- Dr. David Bray, Exec Director, People-Centered Internet

“Then it's about how those people  
**get stuff done together ...**

- Dr. David Bray, Exec Director, People-Centered Internet

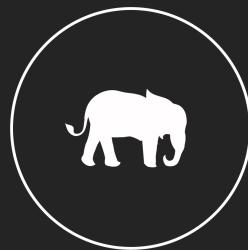
# THE OPEN ORGANIZATION

JIM WHITEHURST, RED HAT CEO

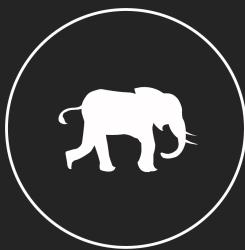


# Digital Darwinism

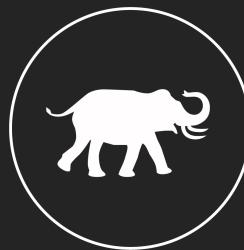
## The Developer's Journey



Re-Org to  
DevOps



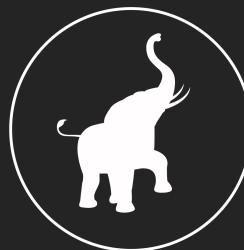
Self-Service,  
On-Demand,  
Elastic  
Infrastructure



Automation  
Puppet, Chef,  
Ansible,  
Kubernetes



CI & CD  
Deployment  
Pipeline

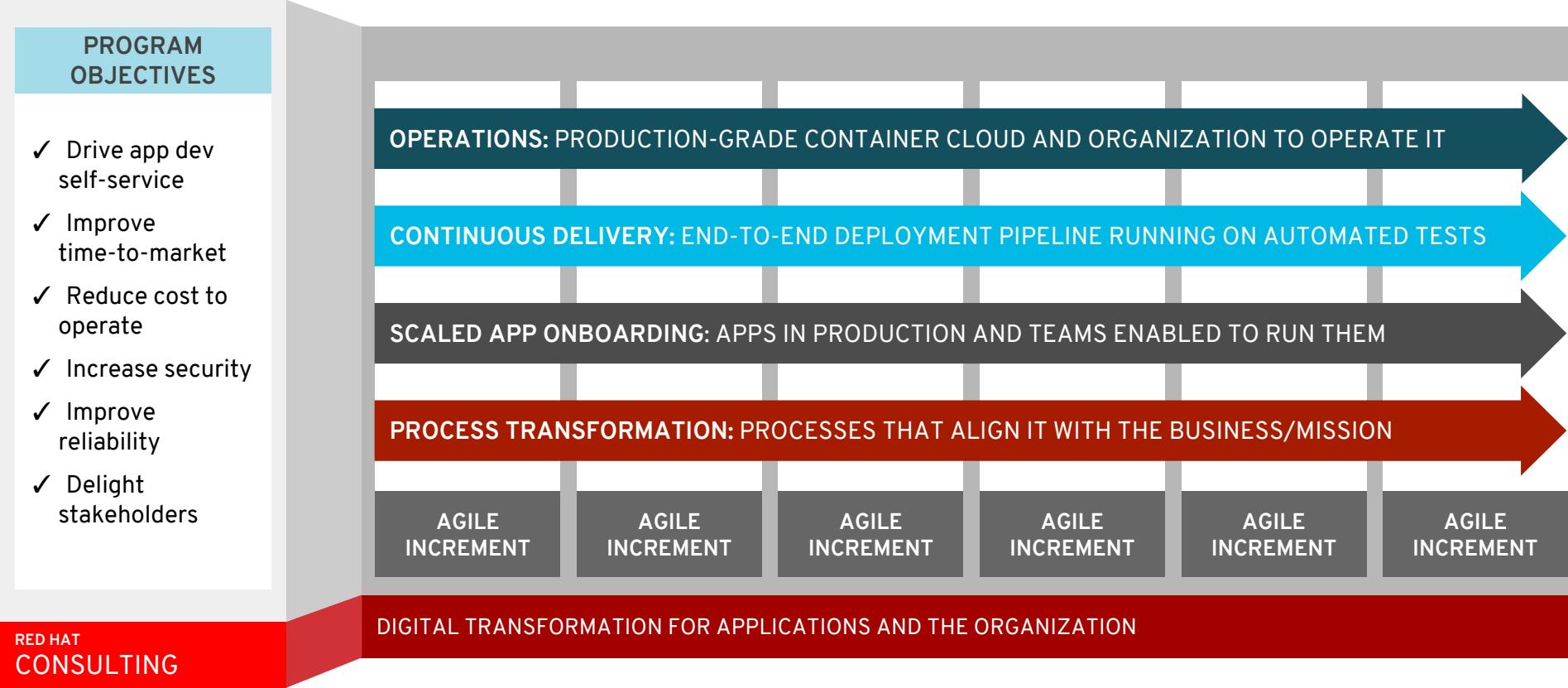


Advanced  
Deployment  
Techniques



Microservices  
(and flying  
elephants!)

# CONTAINER ADOPTION PROGRAM: OVERVIEW



# CONTAINER ADOPTION PROGRAM: MILESTONES

BEGIN

Discovery Session



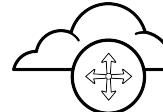
## Pilot

A meaningful workload runs in production on a minimally viable container platform managed by a select team



## Prepare

Repeatable onboarding processes are implemented and new apps brought onto an enhanced platform



## Expand

Distributed development teams guide app onboarding at scale using standardized approaches



## Accelerate

Small teams are enabled and empowered to enhance designs in support of rapid response to the market



## Optimize

Infra and app instrumentation enables DevOps practices to be adopted by leadership and informs strategy



## Self-Sustain

Culture, process, and technology changes permeate the organization to drive continued improvement

AGILE  
INCREMENT 1

AGILE  
INCREMENT 2

AGILE  
INCREMENT 3

AGILE  
INCREMENT 4

AGILE  
INCREMENT 5

AGILE  
INCREMENT 6

DIGITAL TRANSFORMATION FOR APPLICATIONS AND THE ORGANIZATION



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# THANK YOU



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