Red Hat Services

Platform Operating Model

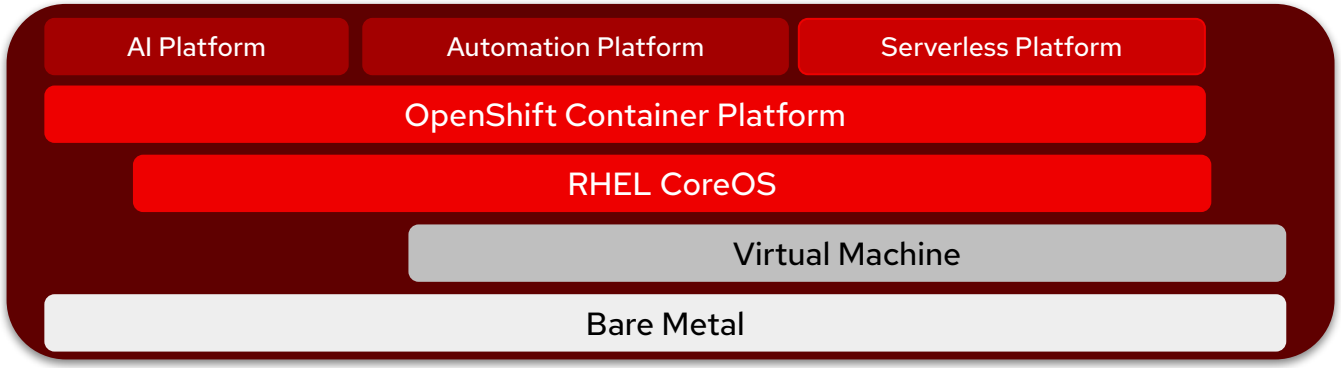
Red Hat's prescriptive path to adaptive capacity

Red Hat

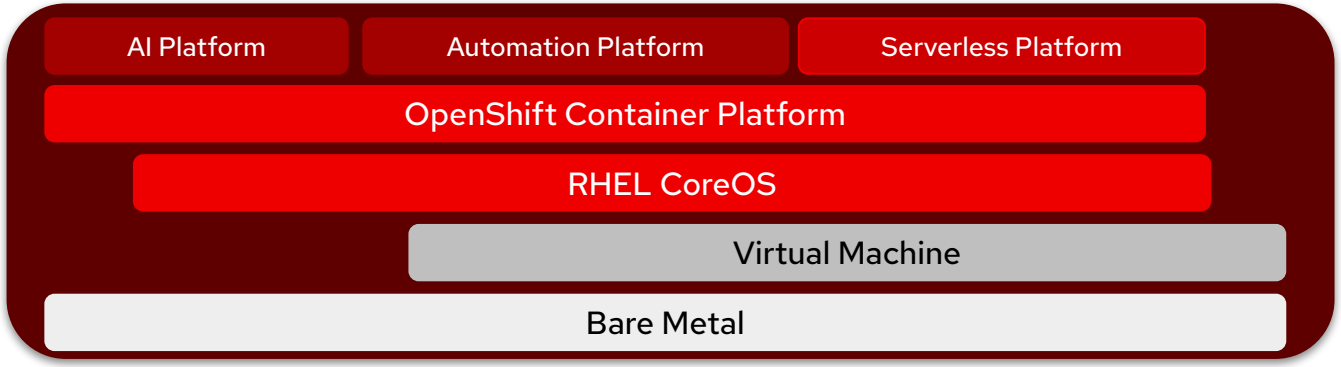
Red Hat, we have the tech

Highly evolved, comprehensive platform

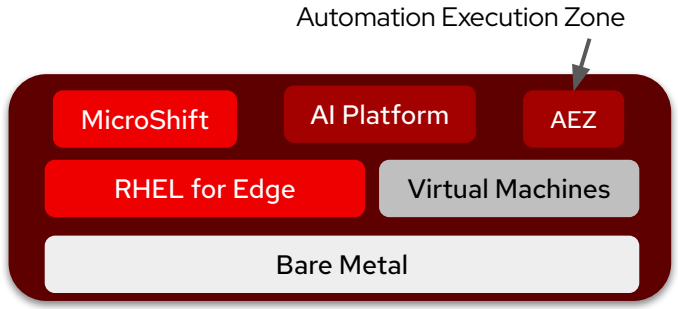
Built on the Shoulders of High Performing Teams



*.Cloud



Data Center | Co-lo



Edge

Self-Service Consumption of:

Bare Metal • Virtualization • Containers (*VM or bare-metal host*) • Serverless

Red Hat

Red Hat, we enable organizations to drive business objectives



Red Hat
Platform Operating Model

High Performing Software Delivery Teams
Product delivery teams delivering differentiated user experiences

ReUsable Components
Proven components to enhance software quality and delivery times

Consumer focused Platforms
Platforms continuously delivered to reduce cognitive load of consumers

Communities
Drive engagement, innovation & organizational learning

System Delivery Metrics

Lead Time to Deploy

Deployment Frequency

Change Failure Rate

Mean Time to Restore

Business Objectives

Enter new Markets

Increase Market Share

Reduce Costs

Attract and Retain Talent

Stay out of Jail

Red Hat

Becoming a Higher Performing Organization

Red Hat helps our customers achieve this...

A harmony of flow and adaptability at scale

...by working collaboratively to deliver these

Increase ability to seize opportunities

Improve the rate and quality of our response to unplanned and unexpected market conditions, enabling the business to seize opportunities to increase market share and enter new markets.

Decrease time-to-market

Constantly reduce the time it takes to go from conception or request for our services to the delivery of state-of-the-art work.

Decrease process friction & toil

Make the process of accomplishing any work as lean and elegant as possible.

Increase workflow visibility

Make it easier for people to access information and do world class work by making workflows visible and communicating and working out in the open.

requires a purposeful Operating Model

"An operating model is the blueprint for how value will be created and delivered to target customers...

An information and technology (I&T) operating model represents how an organization orchestrates its I&T capabilities to achieve its strategic objectives."*

*https://www.gartner.com/en/information-technology/glossary/operating-model

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Platform Operating Model

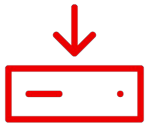
The Why

The Platform Operating Model enables the attainment of Business Objectives

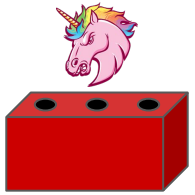
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How Might We Make Developers' Dreams a Reality @SCALE?

As a developer I want



Self service consumption



Git clone & Make it my own



Automated Testing & Verification



Automated Deployment

So that I can focus on delighting my end users

Win the developer's Epoch by delivering high quality software that drives business outcomes in a timely manner.

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Operate above the Developer Value Line

Frictionless Developer Experience
- Tailored Reusable Components
- Tailored Reusable Services
- Customer Support & Experienced Guides

Platform Operating Model

Developer Value Line

Self Service Delivery of
- Reusable Services
- Reusable Components

Automagic Elasticity

Hyperscalers
(AWS, Azure, GCP)

Table Stakes Line

Security and The ‘illities
- Scalability
- Availability
- Reliability

Infrastructure Providers

- **Tailored** – Meets Corporate Standards for GRC & Security and are closer to development team’s 80%

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Evolution of our Approach:

agile ---> DevOps ---> SRE ---> Platform Operating Model

New Ways of Working
Iterative
collaborative

Eliminate wall of Confusion
Path to Production

Optimizing Operations
Safe to Fail
Give Ops Teeth

Holistic Prioritization
App Dev Engine
Platform as a Product

Red Hat

Platform Operating Model

The Theory

"Make the right things easy to do and the wrong things hard to do"

-Touchstone, Platform Operating Model

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Platform Operating Model

is designed to enable organizations to operate above the developer value line



- **Holistic Prioritization of the investment of time and effort**
  - Conway's law
  - Product Teams



- **ReUsable Components and Services via ReCommoning**
  - Scope Economy
  - ReCommoning
  - 5 Elements



- **Platform as a Product**
  - **Platform Engineering Focused on Reducing Developer Cognitive Load**

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Conway's Law

"Organizations that design systems ____ are constrained to produce designs which are copies of the communication structures of these organizations"

*https://en.wikipedia.org/wiki/Conway%27s_law

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Platform as a Product

The Impact of Platform Teams delivering Platforms with Purpose

Puppet State of DevOps Report

Teams that have taken the steps to introduce a platform model appear to **accelerate** their **DevOps** journeys

Formation of a **platform as a product team** ... is an action leadership can take to expand **DevOps success**

Using **product management practices** for a platform is more likely to **drive success and adoption** of the platform

The results are in!

94% ↑ DevOps

60% ↑ Reliability

59% ↑ Productivity

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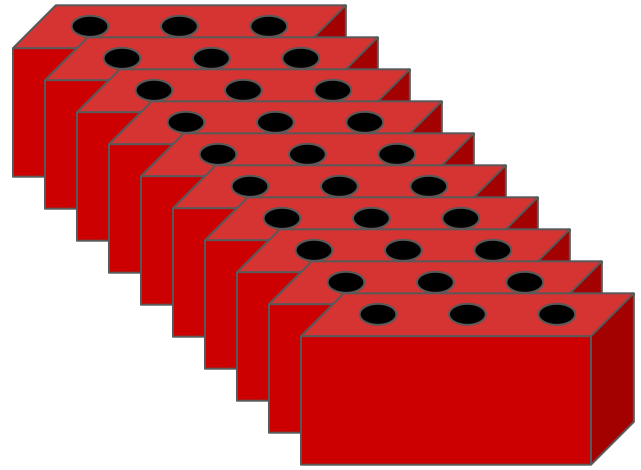
2021 State of DevOps Report - https://media.webteam.puppet.com/uploads/2021/07/Puppet-State-of-DevOps-Report-2021.pdf
2023 State of DevOps Report - https://www.puppet.com/resources/state-of-platform-engineering

Escaping the dichotomy of Differentiation & Scale



Differentiation



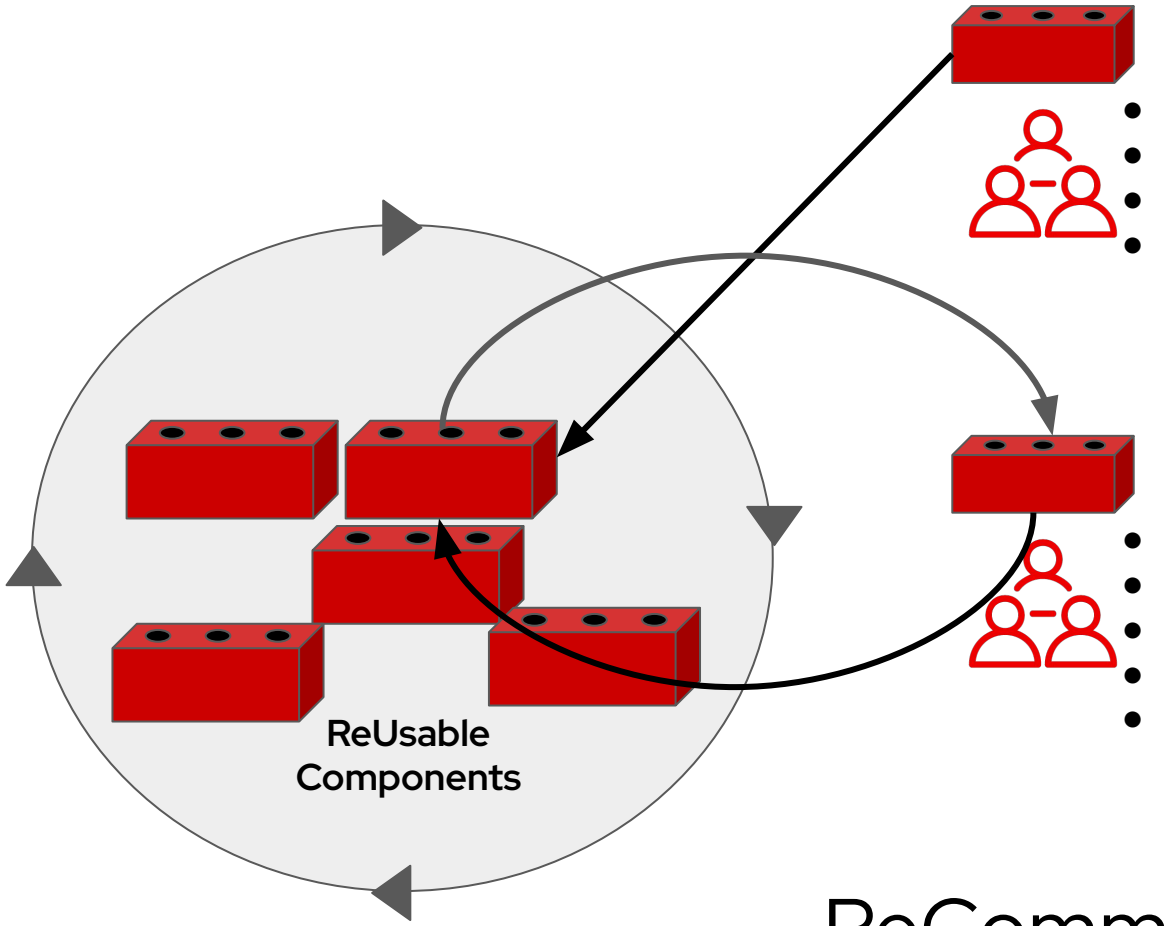


Scale

http://blog.jabebloom.com/2020/03/04/the-three-economies-an-introduction/

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ReUsable Components



Component Creation

- Team doing something new on the platform
- Potential reUsability is identified
- ReUsable Component is developed with contributions from 5 Elements
- Initial reUsable component is harvested and contributed to the Community

Component ReUse

- Team(s) following a defined platform pattern
- Clones ReUsable component
- ReUses component
- Improves | Enhances component
- Collaborates with the Community to ReCommon their innovation

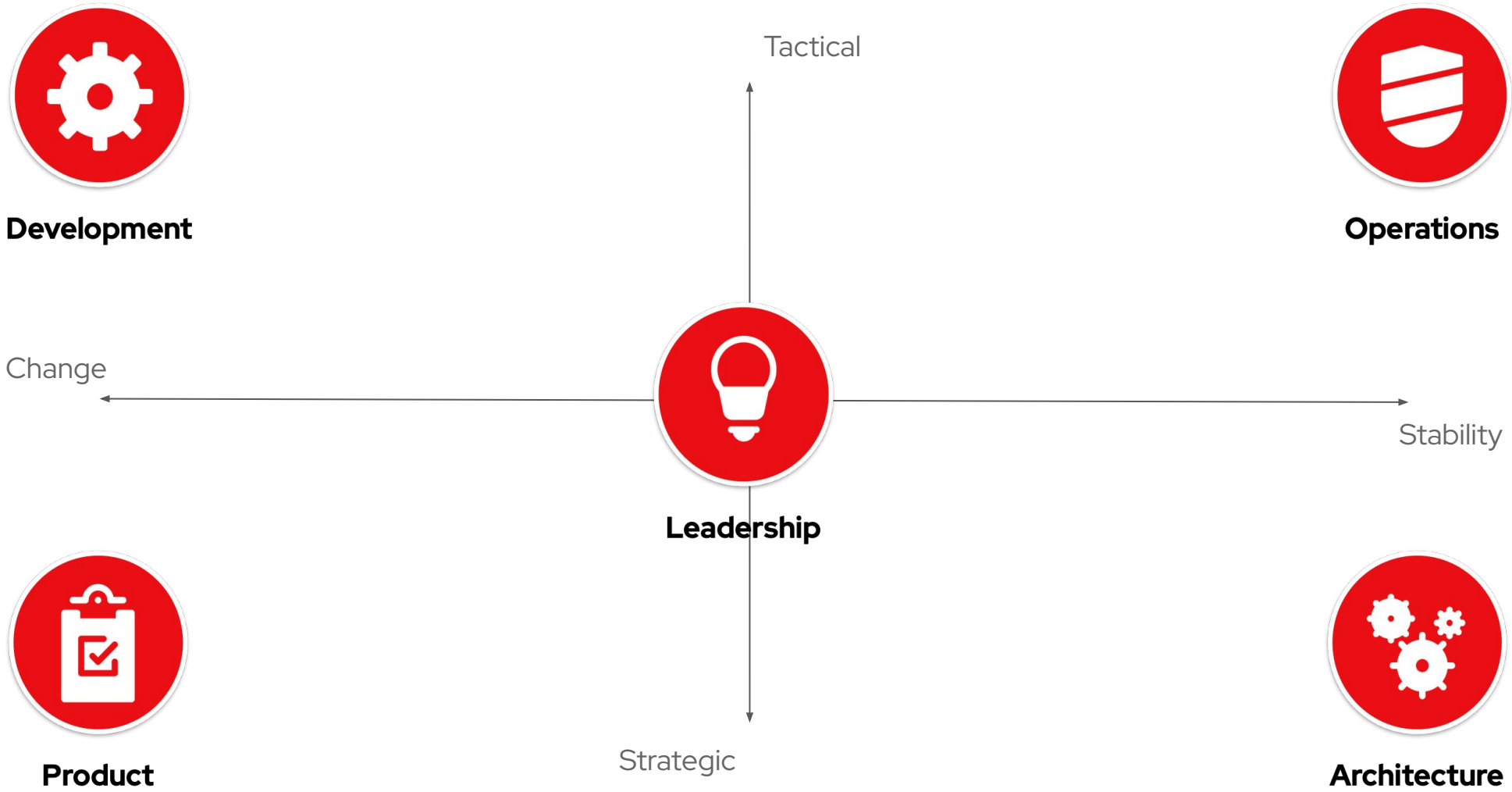
ReCommoning powers innovation @ scale

Community

Jabe Bloom – https://www.youtube.com/watch?v=mGNEbDhT1Hw
Dimeji Onafuwa – https://www.onafuwa.com/recommoning

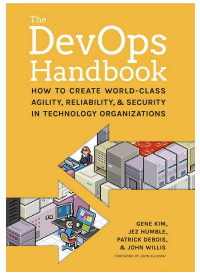
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Five Elements (Capabilities) of IT Organizations

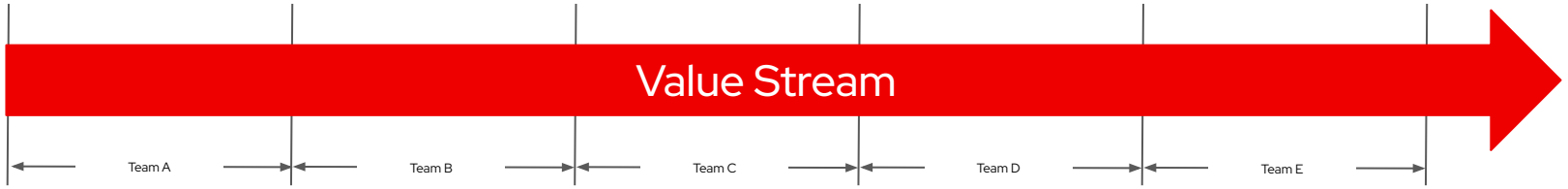


https://www.redhat.com/rhdc/managed-files/rh-5-elements-transform-balance-your-organization-ebook-f31580-202207-en.pdf

Product Teams continuously deliver value through streams



...we typically define our technology value stream as *the process required to convert a business hypothesis into a technology-enabled service that delivers value to the customer*.



Why take a value stream approach?

Taking a team based approach often results in unsustainable local optimization. Taking a value stream approach can optimize the full Path to Production.

- Optimize for flow
- Improve developer experience
- Reduce cognitive load

Working with value streams

- Cross-functional teams, focused on measurable and unambiguous results, leveraging agile methodologies, operating in alignment with a product model
- Organized to facilitate the delivery of the system required by target outcomes
- Understand team responsibilities and the responsibilities of teams to their left and right
- Clearly defined, lean, interfaces / communication structures between teams

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Platform Operating Model
The Approach

"Make the right things easy to do and the wrong things hard to do"

-Touchstone, Platform Operating Model

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The Platform Operating Model is about balance

Platforming Empowers Differentiation at Scale

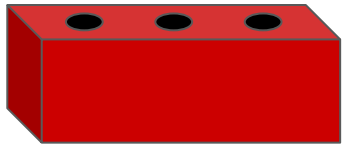
Right things Easy
Easy to Onboard
Easy to do Work
Easy to Contribute

ReUse
ReCommon -> Inner source approach to innovation @scale

CoPs
Increase engagement, enable organizational learning, drive innovation @scale



Differentiation
Enables Velocity, Variability and Variety



Scale
Controls Velocity, Variability and Variety

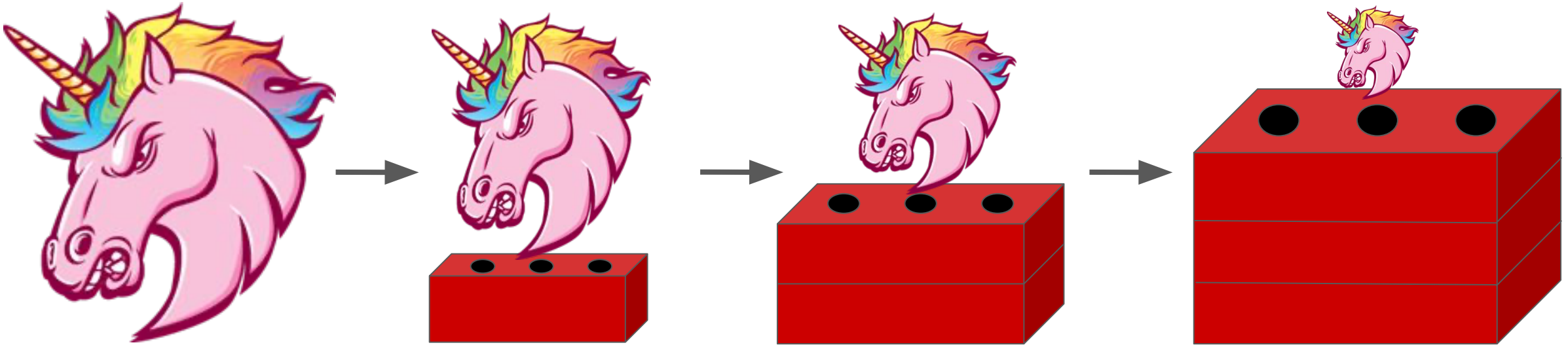


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Focus on outputs that drive outcomes and impacts

From Unicorns to Bricks, better known as ReUsable Components

Define & Develop Initial ReUsable Components
Automate self service consumption of ReUsable Components
Incentivize & enable customer transition to ReUsable Components
Stop producing Unicorns
Continue to iteratively grow the consumption of ReUsable Components and shrink the Unicorns to meaningful differentiation



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Platform Operating Model

High Performing Organizations

Built on the Shoulders of High Performing Teams



*built on top of Team Topologies

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Holistic Prioritization of the Investment of Time and Effort

We need to improve observability to prevent incidents

We could benefit from static code analysis in our CI/CD pipeline

We need to onboard to the platform

We had an outage due to an expired security certificate

We want to leverage streaming capabilities with our workloads

We want to run serverless workloads on the platform

Prioritization in descending order

1. Improve Observability
2. Automate Certificate Handling
3. Serverless Capabilities
4. Onboard Team
5. Static Code Analysis
6. Enable Streaming Capabilities



*built on top of Team Topologies

VSA Delivery Teams

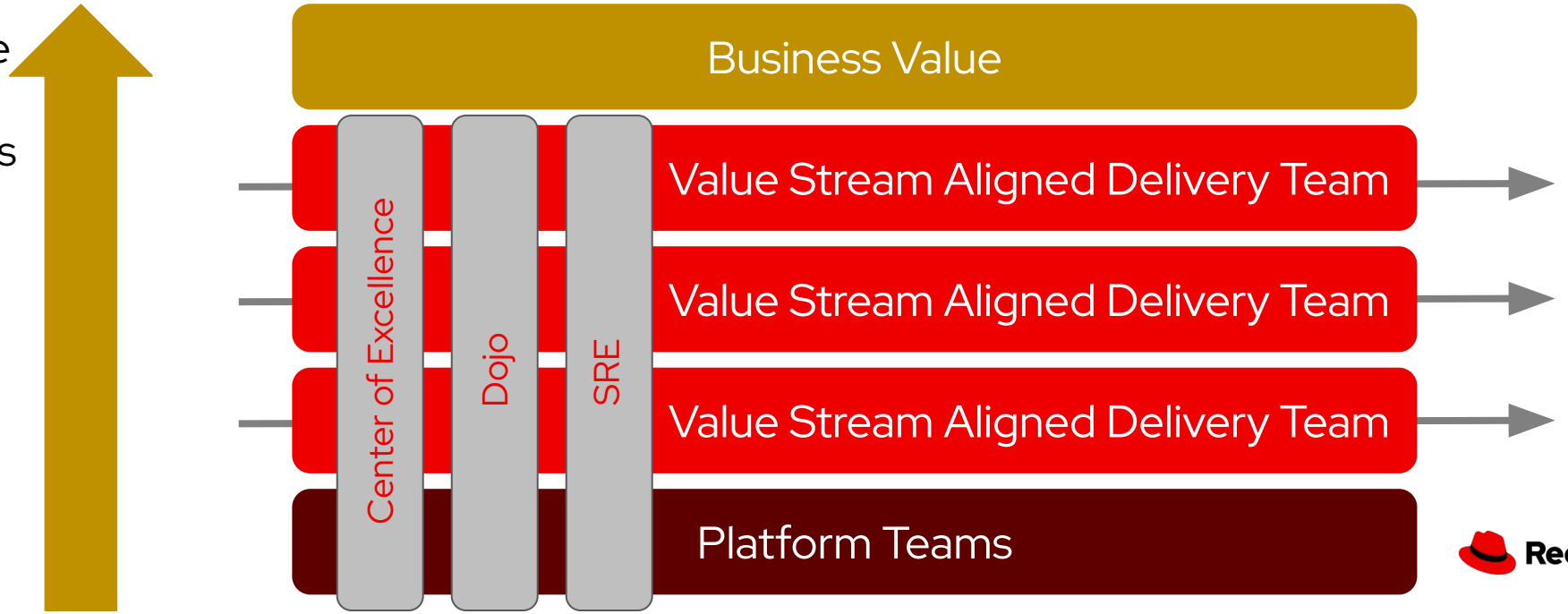
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Platform Value Flow

The Flow of Platform Value

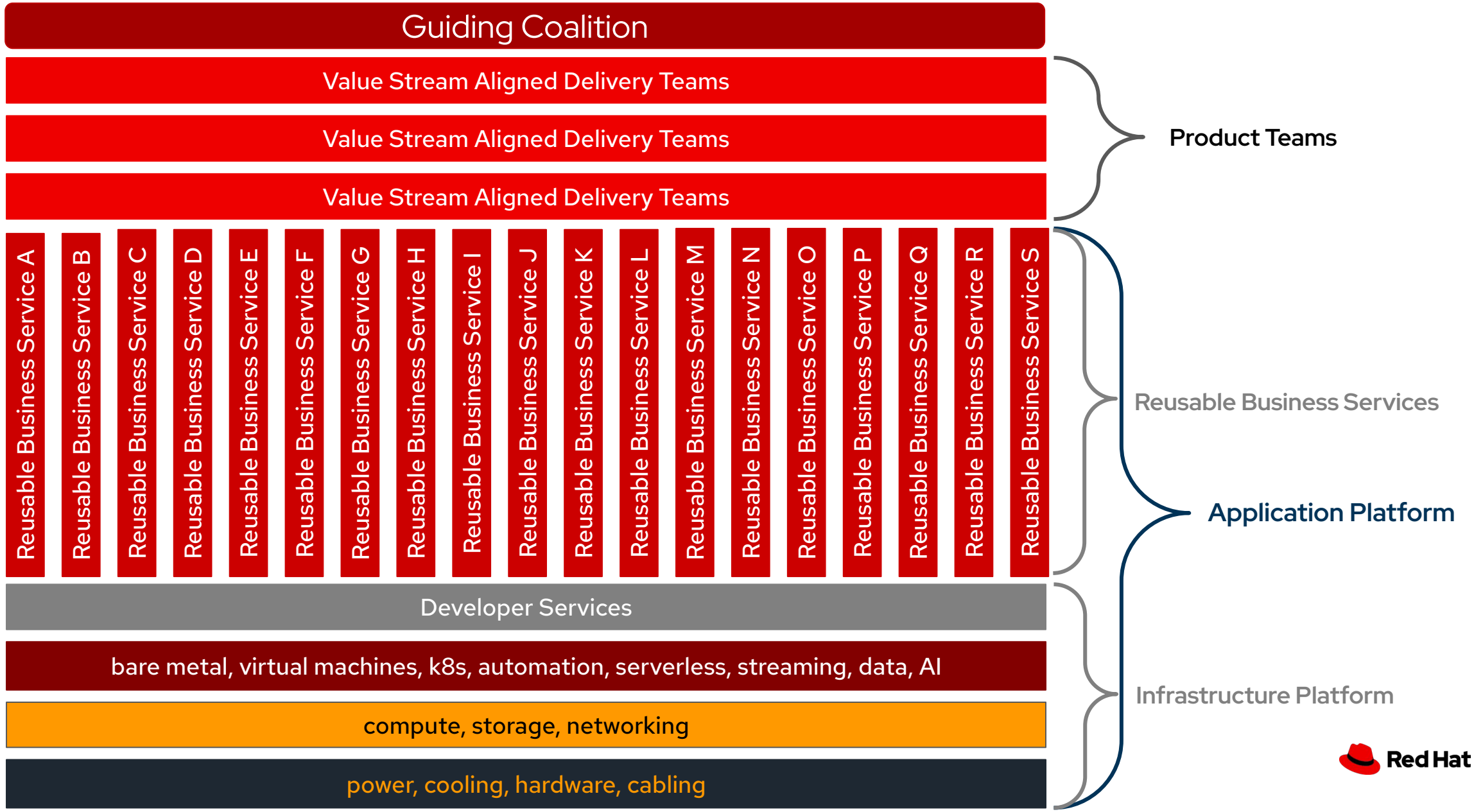
Business extracts value from Value Stream Aligned Delivery Teams

Value Stream Aligned Teams extract value from the Platform



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A Multitiered, Multi-tenant, Product Delivery Organization



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Platform Operating Model Principles

An Evolution of Lean, Agile, DevOps and SRE

Operational Excellence	Frictionless Developer Experience
Standardized Policies and Consumption Patterns	Self Service 1st
Observability, Automation and Self-healing	ReUsable Business Logic
Hardened for GRC profile	ReUsable Components
Infrastructure as Code	ReCommoning

SLI / SLO / SLA agreed between platform, developers and business

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Platform Operating Model
The Practice

"We are what we

repeatedly do"

- Will Durant's interpretation of Aristotle

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Successful organizations invest a majority of time and effort into

~~Technology~~

People & Process

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Successful IT organizations focus on

~~Technology~~

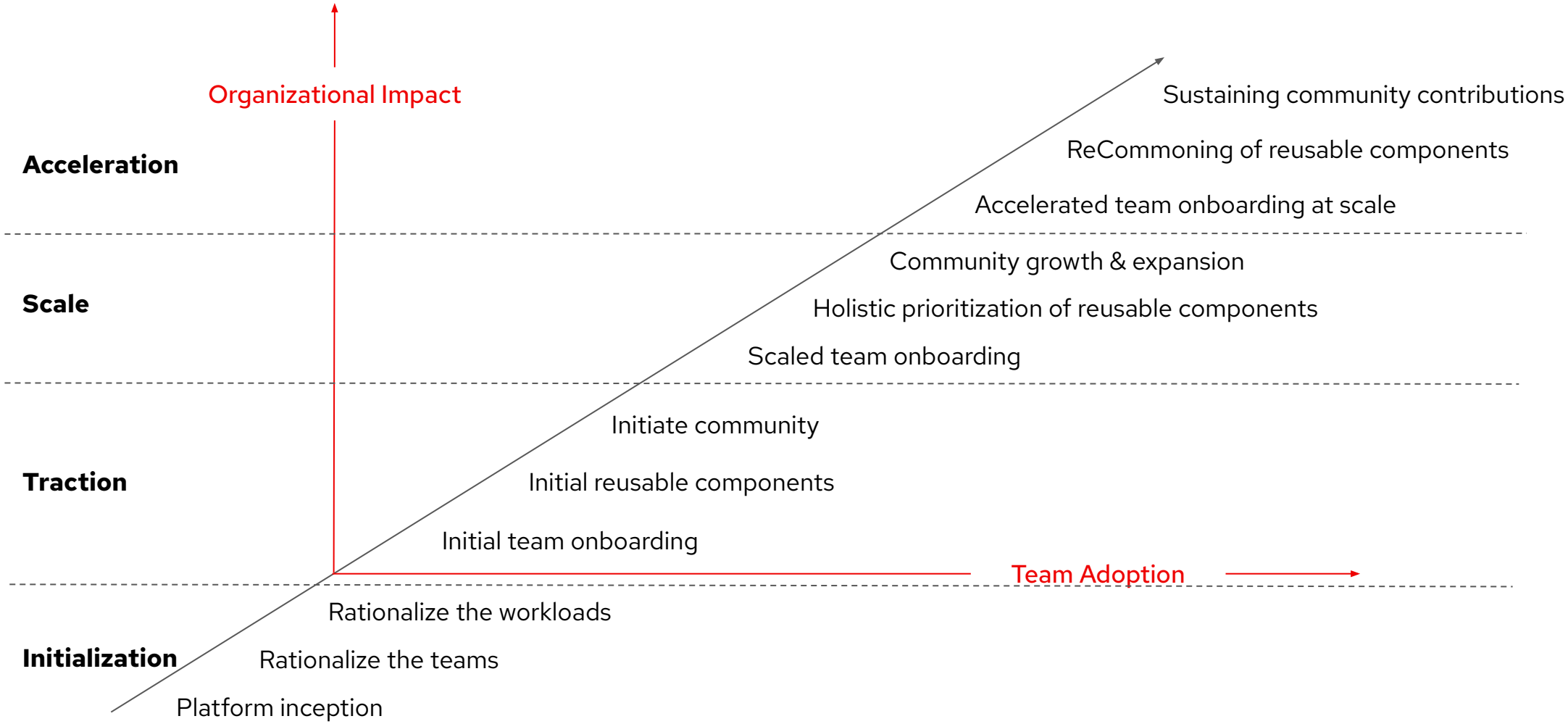
User Journeys

Making the Right Things Easy

ReCommoning

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Platform operating model roadmap



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Platform Operating Model Measuring Impact

The Platform Operating Model leverages a balanced approach to metrics

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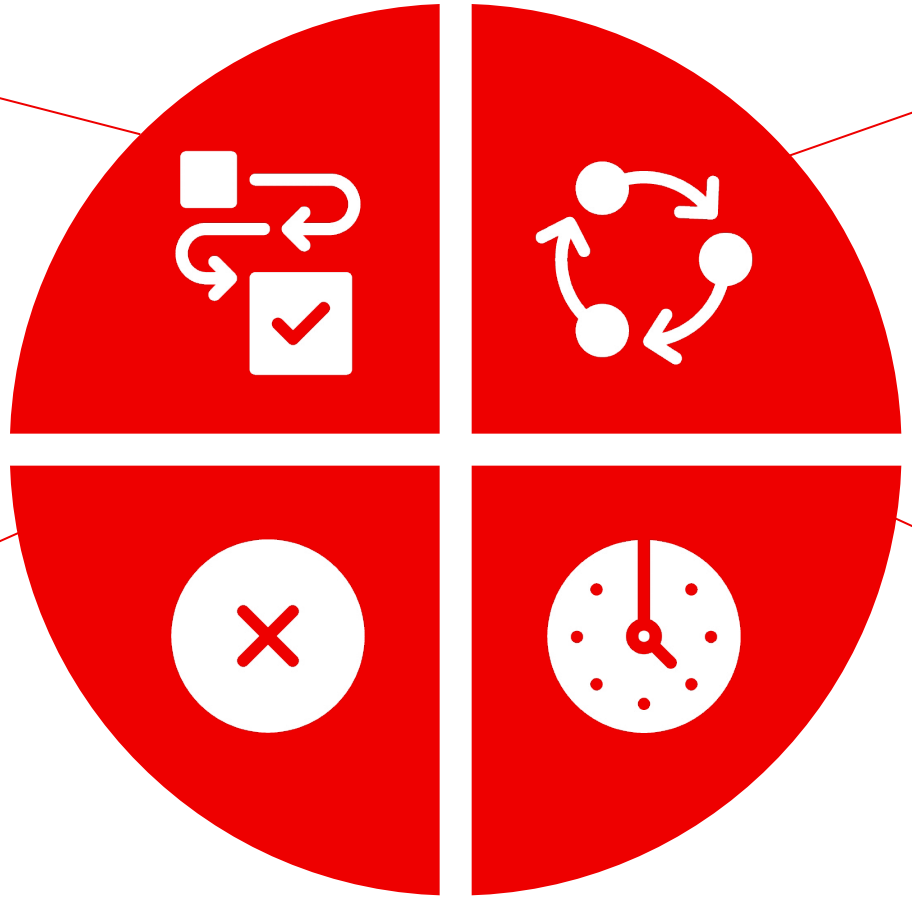
Software Delivery Metrics

Lead time to change

Time from code committed to deployed to production

Deployment frequency

How often does an app deploy to production



Change failure rate

Percentage of deployments requiring rollback and/or fixes

Mean time to restore

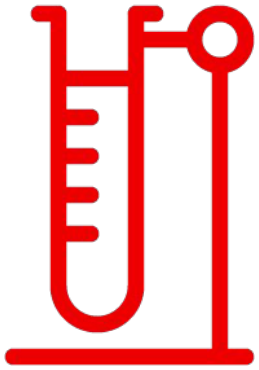
How long it takes systems to restore after a failure in production

As defined by Nicole Forsgren, PhD, Jez Humble and Gene Kim in ***Accelerate***

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Platform Metrics

How might we understand how our platform is performing?



Customer NPS (cNPS)

How likely are your customers to recommend the platform to friends?

Adoption Rate

How often do new teams onboard?

Lead time to Provision

How long does it take to hand over an environment to a customer?

Lead time to Onboard

How long does it take to onboard a new team?

Abandonment Rate

How often do teams leave the platform?

Team Efficiency

of customers / # of Platform Team members

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Thank you

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