Platform Operating Model

Red Hat's prescriptive path to adaptive capacity

Jason Horn

Agenda

The "WHY"

Theory

Approach

Practice

Measuring Impact

Open to
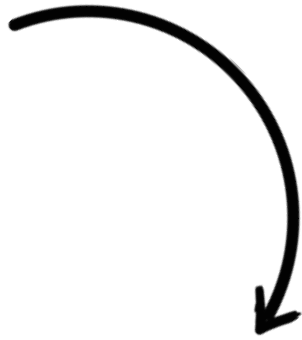**the world**
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Platform Operating Model

The Why

The Platform Operating Model enables the attainment of Business Objectives

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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.
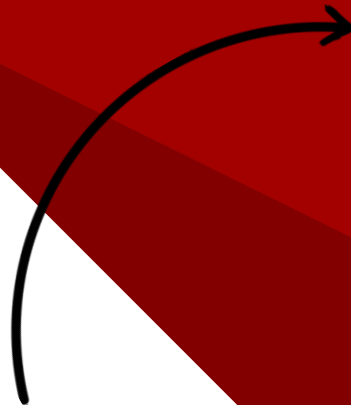
Decrease process friction & toil

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.

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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

As a developer I want
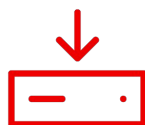
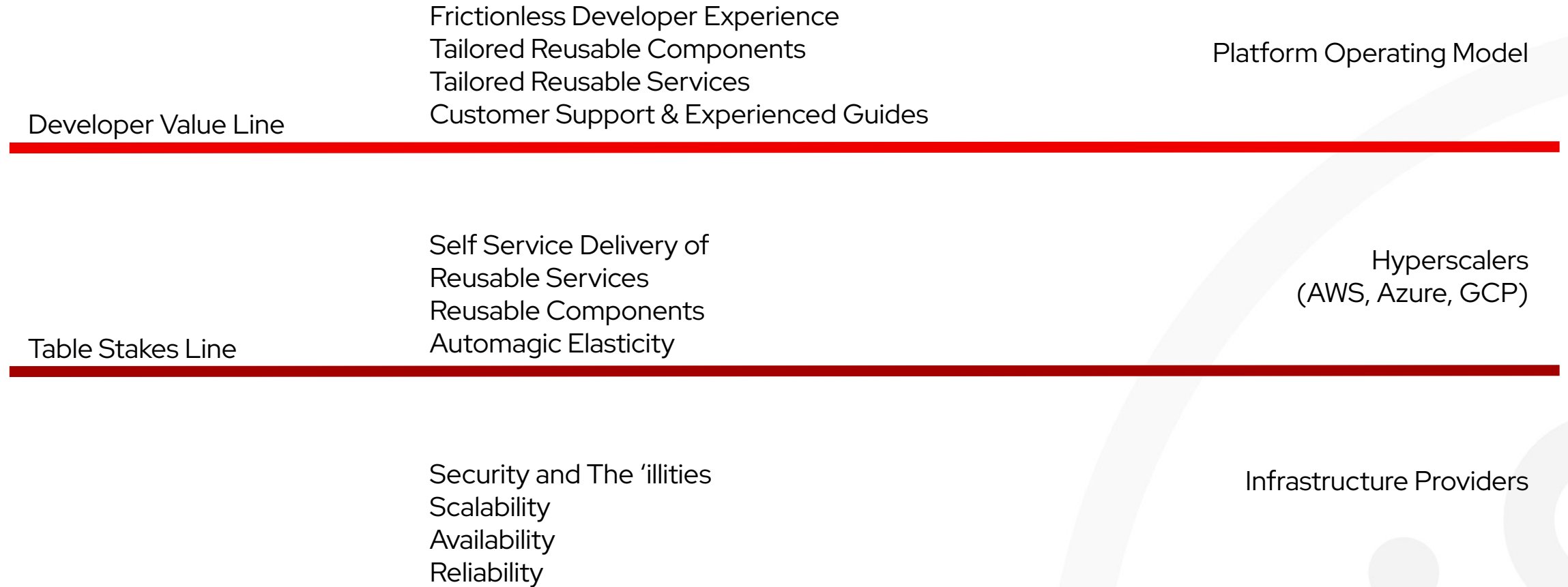Self service consumption
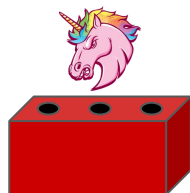
Git clone & Make it my own

Automated Testing & Verification

Automated Deployment

So that I can focus on delighting my end users

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Operating above the Developer Value Line

Developer Value Line

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

Platform Operating Model

Table Stakes Line

Self Service Delivery of
Reusable Services
Reusable Components
Automagic Elasticity

Hyperscalers
(AWS, Azure, GCP)

Security and The 'illities
Scalability
Availability
Reliability

Infrastructure Providers

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

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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 about the developer value line

- ▶ Leverage **Product Teams** to deliver software based digital products to delight customers
- ▶ Leverage **Conway's law** as an enabling constraint to develop better systems
- ▶ Leverage **Scope Economy** to escape the dichotomy of differentiation and scale
- ▶ Leverage **Five Elements** and **ReCommoning** to develop and maintain reusable components to make it easy for development teams to reduce time to market, focus on innovation and increase compliance
- ▶ Leverage **Platform as a Product** teams to continuously deliver quality platforms that reduce cognitive load for development teams and accelerate the organization's DevOps journey

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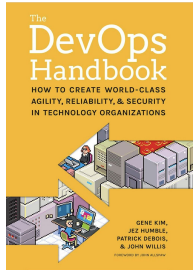
...we typically define our technology value stream as *the process required to convert a business hypothesis into a technology-enabled service that delivers value to the customer.*

Value Stream

Team A   Team B   Team C   Team D   Team E
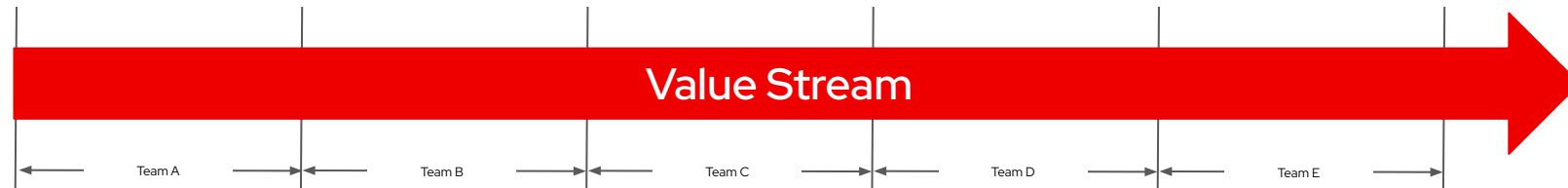
Why take a value stream approach?

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
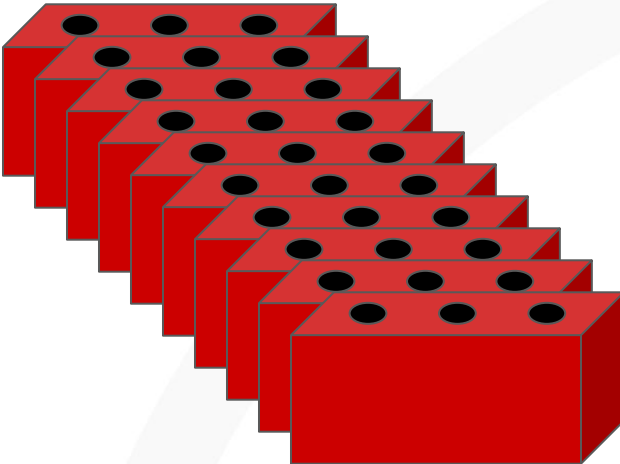
Working with value streams

- 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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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

Escaping the dichotomy of Differentiation & Scale

Differentiation

Scale

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

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Five Elements (Capabilities) of IT Organizations

Development

Tactical

Operations

Change

Leadership

Stability

Product

Strategic

Architecture
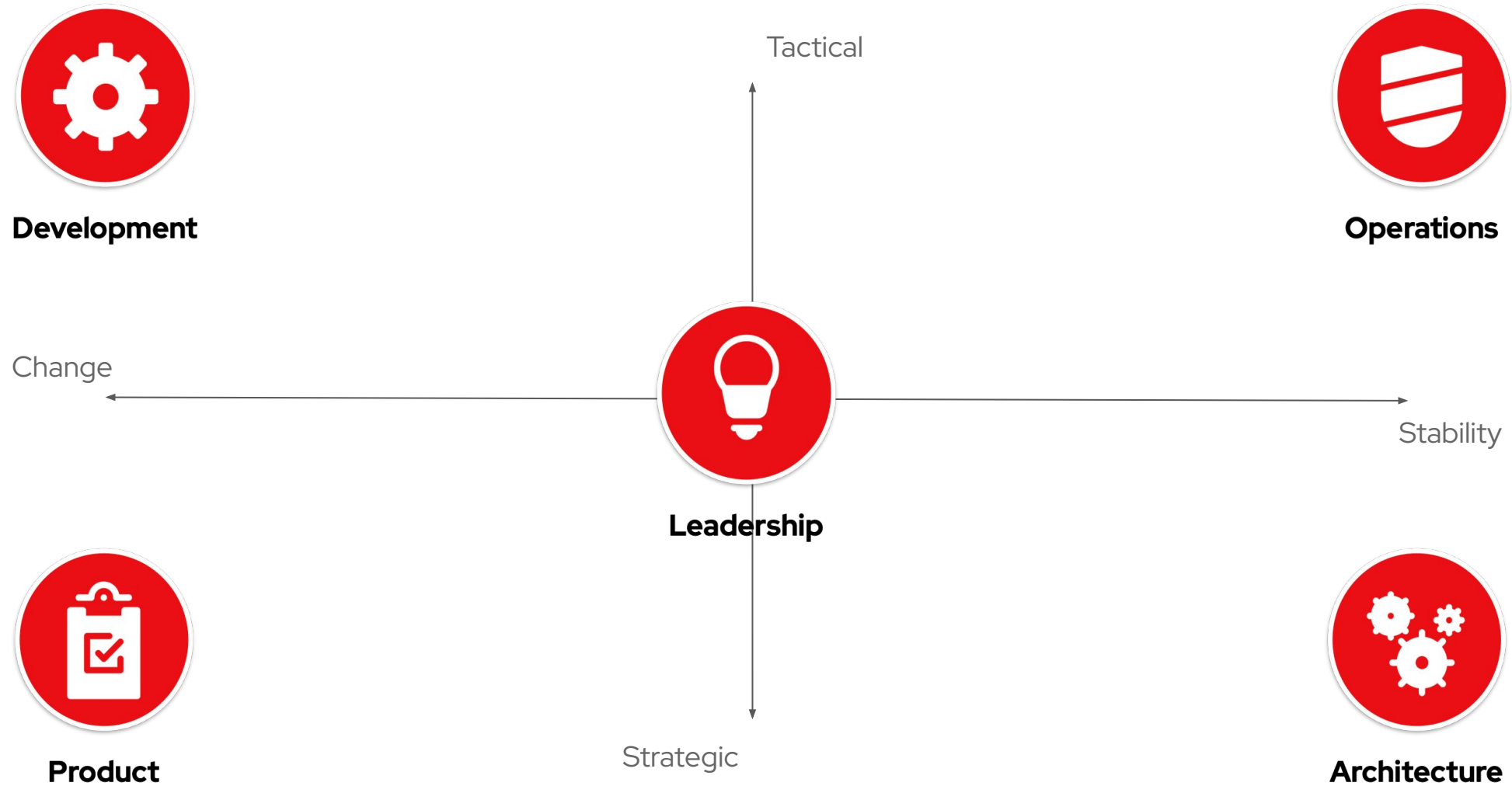
ReCommoning

ReCommoning

What is reCommoning?

Commons – Resources that are shared by, cared for and accessible to all members of a community.

ReUsable Component – A reUsable component is a solution or part of a solution that can be used more than once. The value of a reUsable component increases with each additional use.

ReCommoning – The act of transitioning ownership of something with roots in the commons, often that has been enhanced, back to the community.

ReCommoning is a negotiation between the owner of something and the commoners to which the thing is being presented for care. The commoners must be sure the value of the thing being recommoned is worth the time and effort required to keep it in the commons.

A simple **example of ReCommoning** is a user cloning a git repository that contains an automation module, enhancing the code in some way, and contributing the enhancement back into the git repository.

https://www.onafuwa.com/recommoning
https://www.youtube.com/watch?v=mGNEbDhT1Hw

Importance of Platforms and Platform Teams

State of DevOps Report

On the impact of Platforms and Platform Teams

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

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

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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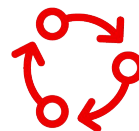# Platforming Empowers Differentiation at Scale

Simplicity
Easy to Onboard
Easy to Start
Easy to Contribute

ReUse
ReCommon –> Leverage those that need something to build it and make it available to the community

Community
Communities evolve
Focus on the future,
Implement the present,
Informed by the past

Differentiation
Enables Velocity, Variability and Variety

Scale
Controls Velocity, Variability and Variety

Platform

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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
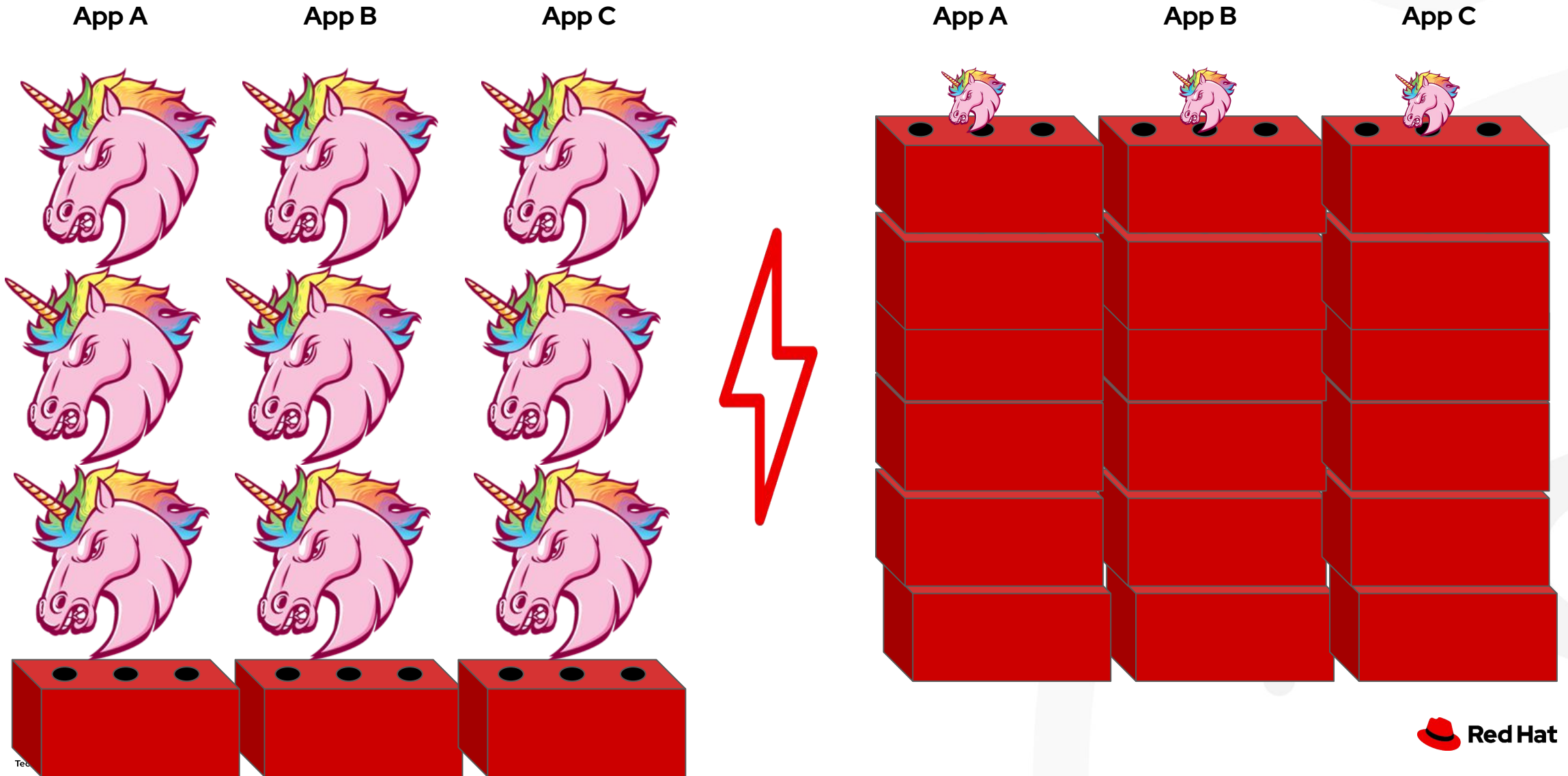
      Incentivize & enable customer transition to ReUsable Components

      Stop producing Unicorns

      Continue to iteratively grow the consumption of ReUsable Components and shrink the Unicorns to meaningful differentiation
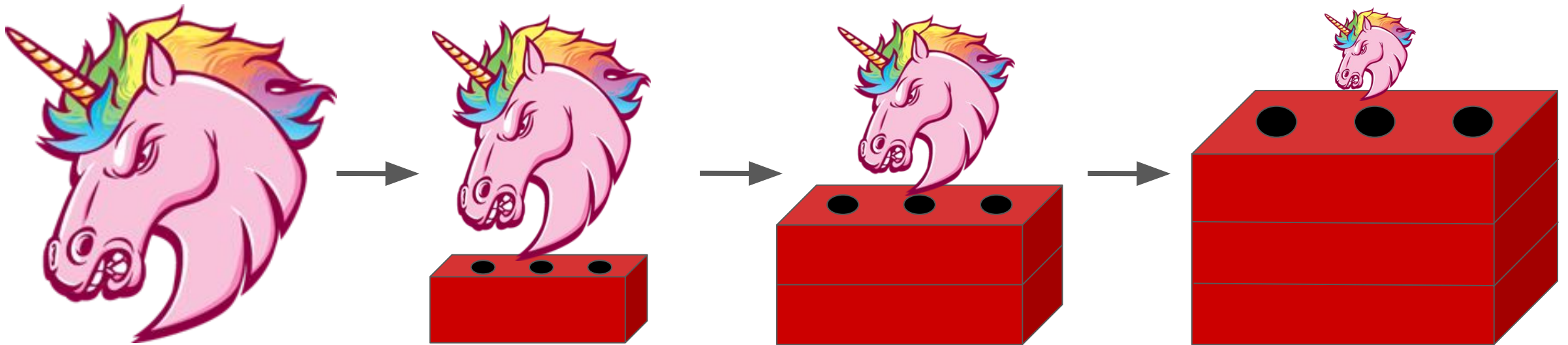
From ALL UNICORNS to small unicorns

App A App B App C

App A App B App C

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Platform Operating Model

High Performing Organizations

Built on the Shoulders of High Performing Teams

Coalition of the Willing / Steering Committee

Center of Excellence

Dojo

SRE

Value Stream Aligned Delivery Team

Value Stream Aligned Delivery Team

Value Stream Aligned Delivery Team

Platform Teams

Communities of Practice

Mentor Leadership

20

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Holistic Approach: Intent

Product Teams

Continually deliver the right value

With a focus on the customer

Tailored Reusable Components

Focus on differentiation and

ReCommoning, not duplicative

efforts

Team Adoption

Prioritize the humans

Enable team transitions and their

workloads follow

Community Collaboration

Instill a collaborative

'work-together' culture focused

on holistic improvement

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Approach each opportunity to improve flow purposefully
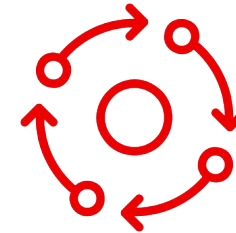
Awareness

Options

Solve

Operate

Advocate

Identify, clarify, prioritize problems

Awareness enables creation of feedback loops

Enumerate options for solving highest priority problems

Understanding options in context allows us to choose where to experiment

Solve problems via pairing, mobbing, and coaching
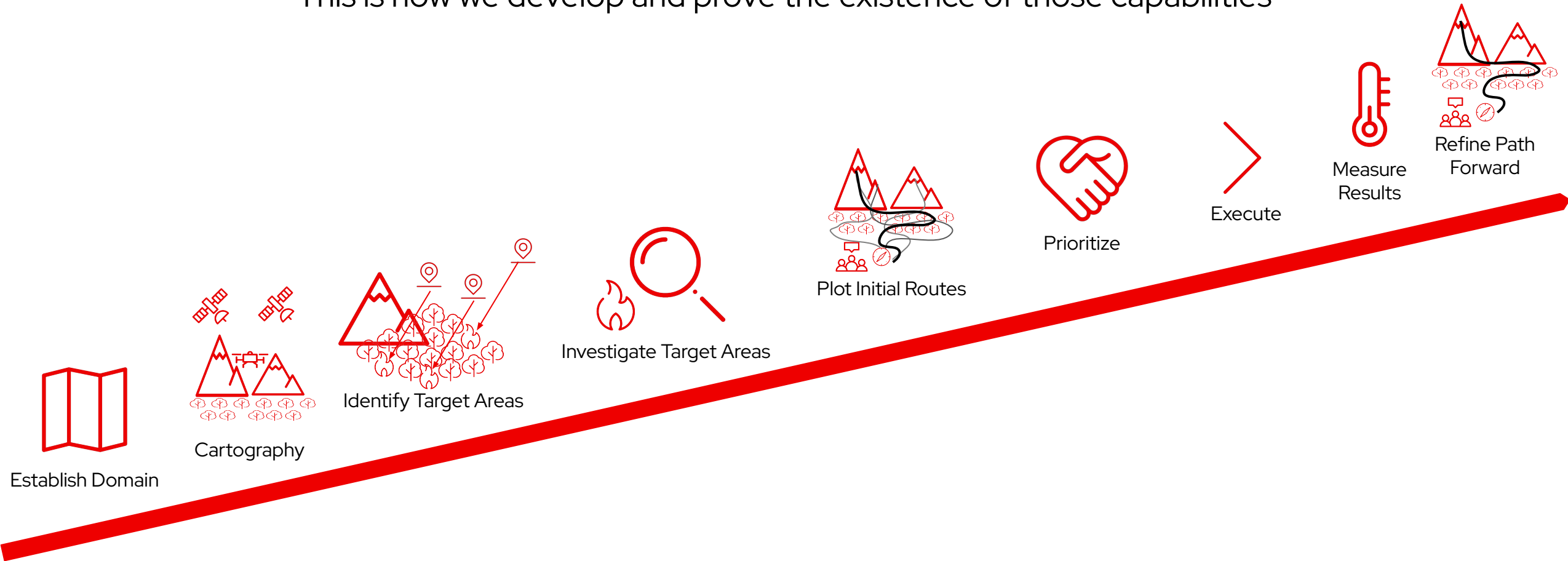
Feedback loop: new practices solve specific problems

Minimize operational burden of solutions and create resilience

Create champions, coaches, leaders and communities to enable the new operating model at scale

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Continually focused on the path forward

Climbing mountains requires capabilities to observe, plan, execute and triangulate location.
This is how we develop and prove the existence of those capabilities

Refine Path Forward

Measure Results

Execute

Prioritize

Plot Initial Routes

Investigate Target Areas

Identify Target Areas

Cartography

Establish Domain

Preliminary Discovery
Targeted Investigation
Executable chunks to prove results
Redefine Program path forward

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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~~Technology~~

Making the Right Things Easy

Easy Buttons → ⬆cNPS

ReUsable Components → ⬆ReUse

Diverse Landing Zones

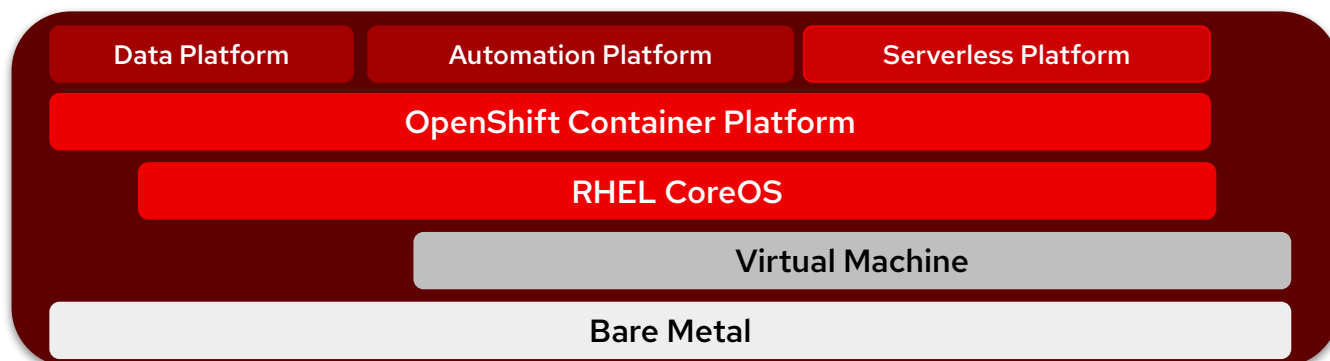A work load's SLA and required lead time to deployment identifies the landing zone

SLA and Lead Time Requirements

Decision Point

Landing Zones

Bare Metal

Virtual Machine

Container(s)

Serverless
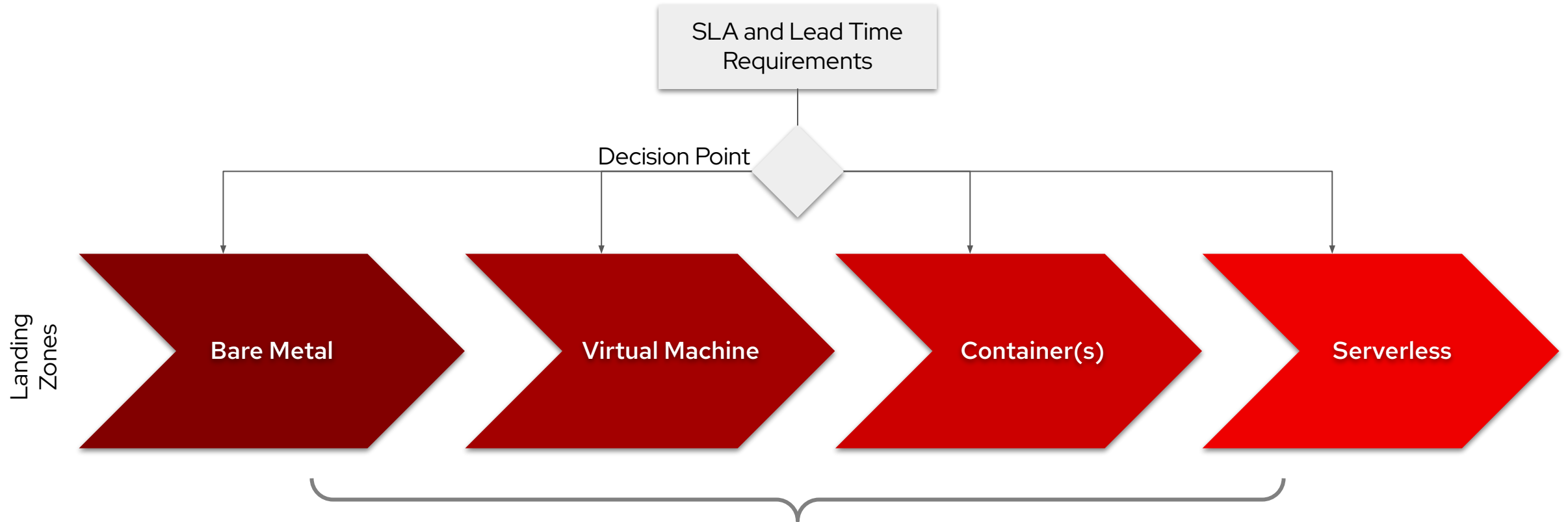
Multiple landing zones *are possible*, based on the workload diversity and differentiated needs in the enterprise

Highly evolved, comprehensive platform

Built on the Shoulders of High Performing Teams

Data Platform	Automation Platform	Serverless Platform

OpenShift Container Platform

RHEL CoreOS

Virtual Machine

Bare Metal

*.Cloud

Data Platform	Automation Platform	Serverless Platform

OpenShift Container Platform

RHEL CoreOS

Virtual Machine

Bare Metal

Data Center | Co-lo

Automation Execution Zone

MicroShift	AEZ

RHEL for Edge	Virtual Machines
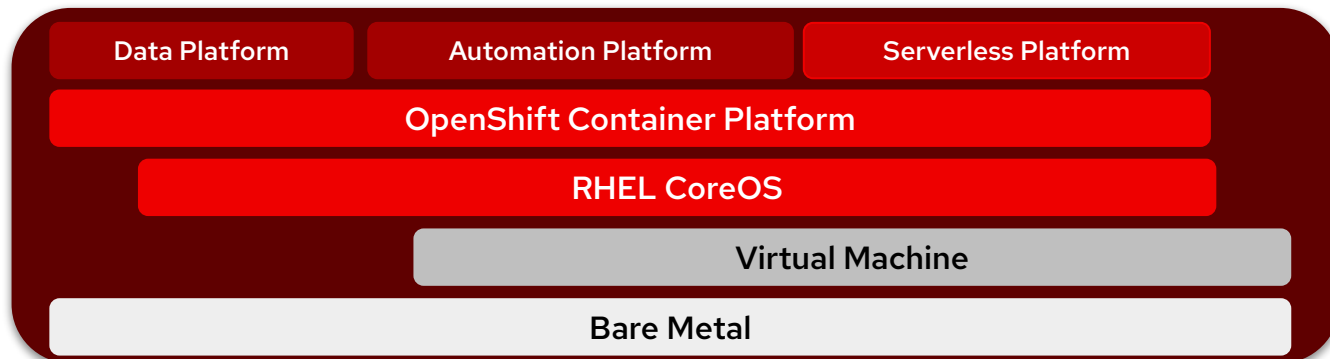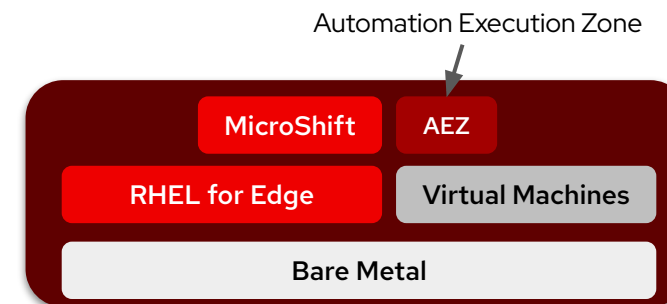
Bare Metal

Edge

Self-Service Consumption of:

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

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Platform operating model roadmap

Organizational Impact

Acceleration

Sustaining community contributions

ReCommoning of reusable components

Accelerated team onboarding at scale

Scale

Community growth & expansion

Holistic prioritization of reusable components

Scaled team onboarding

Traction

Initiate community

Initial reusable components

Initial team onboarding

Team Adoption

Rationalize the workloads

Initialization

Rationalize the teams

Platform inception

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Enabling the transition to a platform operating model via new ways of working

How might we enable the transition to a platform operating model?
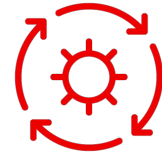
Transformation Office

Vision

Change Management

Coaching

Leadership

Mentor Leadership

Psychological Safety

Intent
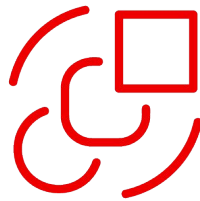
Product

Customer Focus

Steering Committee

MVP
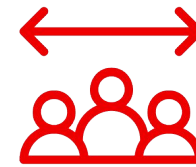
Teams

Empowered

Dedicated

Understand purpose

Communities

Organizational Learning

Advocacy

Giveback

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How might we start the transition to a Platform Operating Model?

Observe & Understand

Leverage appropriate exercises to observe flow to understand options for moving forward

Identify Target Slice

Select slice of functionality to split off and transition

Instantiate Teams

Stand up cross-functional teams to continuously deliver value to the right
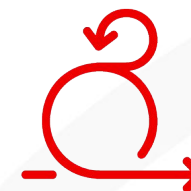
Empower & Enable Teams

Empower teams to own their delivery of value and enable them for success

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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

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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?
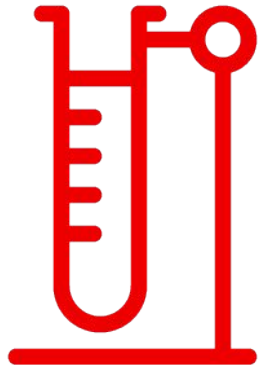
Customer NPS (cNPS)
How likely are your customers to recommend the platform to friends?

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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Platform Operating Model Portfolio Hub

The Platform Operating Model

Geo Solution on Portfolio Hub

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Platform Operating Model

https://search-portfolio-hub.6923.rh-us-east-1.openshiftapps.com/serviceskit/platform_operating_model

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▶	youtube.com/user/RedHatVideos	🐦	twitter.com/RedHat

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