



Exploiting the IT Value Stream

An Iterative Approach to Automation Success

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What we'll discuss today

The Why

- ▶ Challenges for Teams
- ▶ Challenges for Leaders

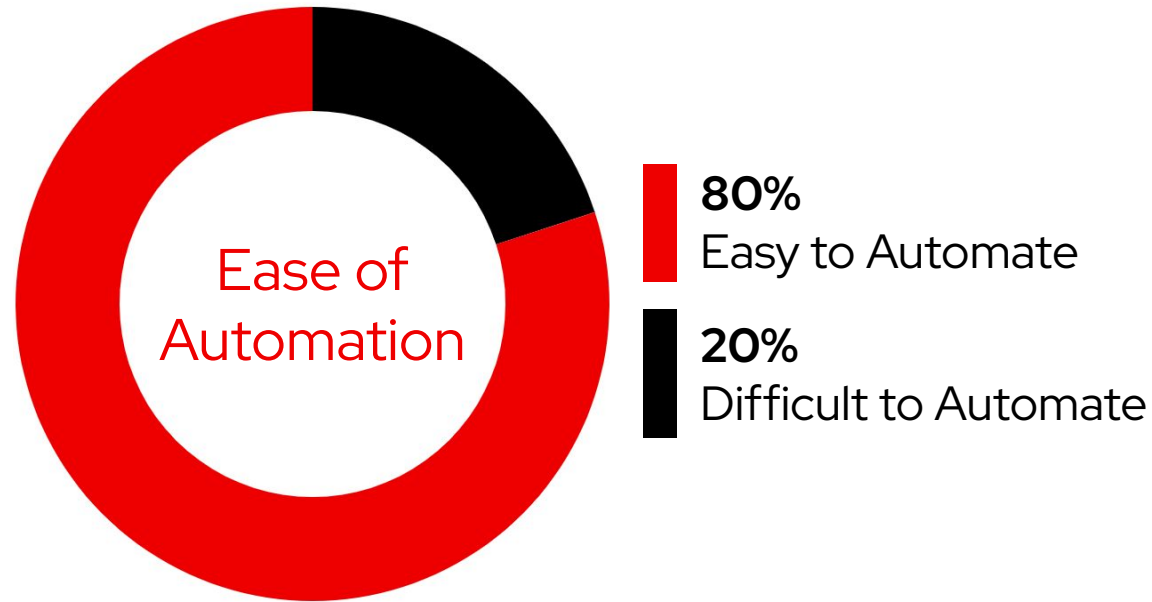
The How

- ▶ Shifting Focus to Value
- ▶ Scaling to the Enterprise

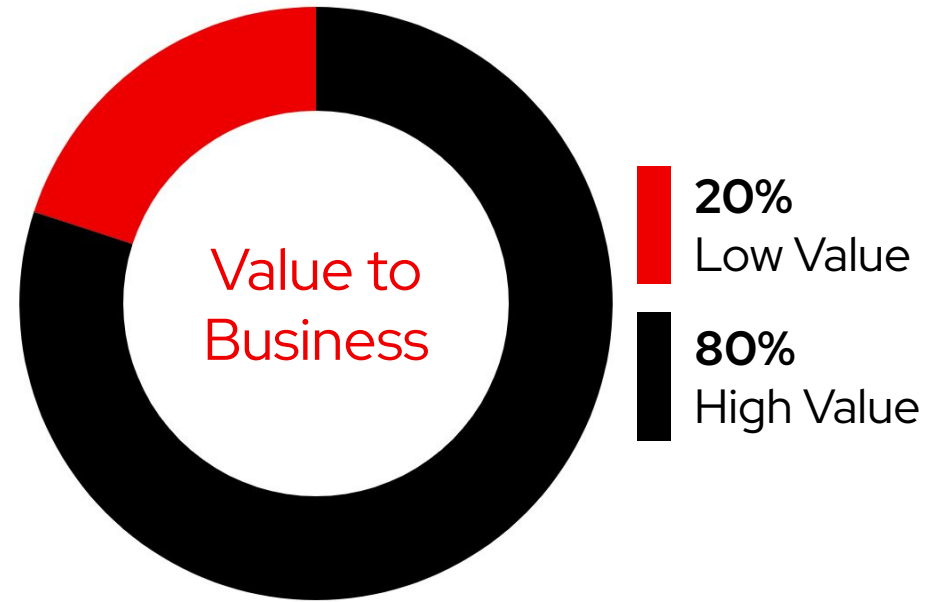
Why: Challenges for IT Teams And Leadership

The 80 Percent Trap

This fruit is tasty, but we can't let the rest die on the vine



Teams tend to focus on what is easy to automate



But the easy things don't provide as great a value

The Trouble with Toil

Let's backtrack just a minute...all those small things add up...in more ways than one



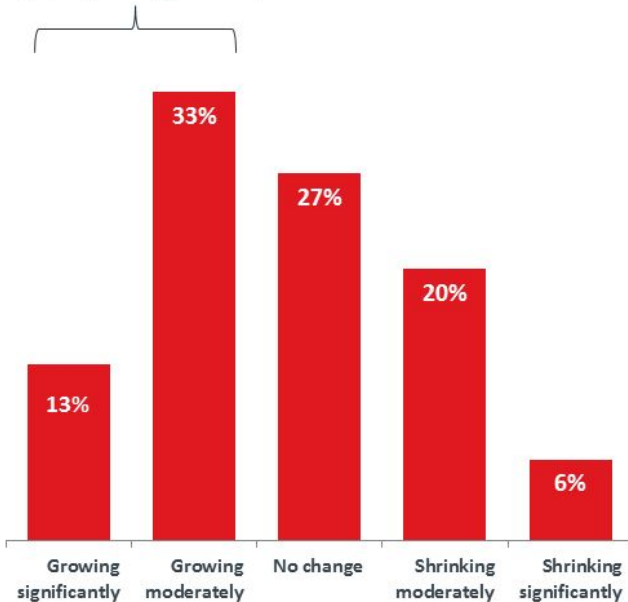
Who Moved my Cheese?

Rapid change and the widening skills gap

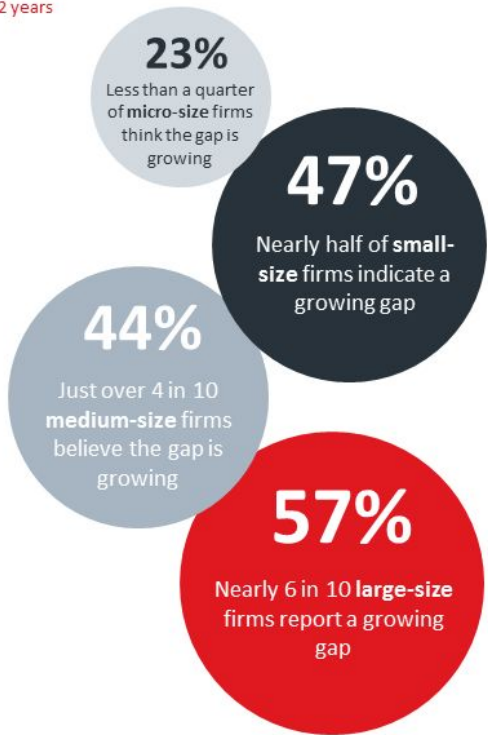
Overall Skills Gap Situation

Self-reported change in the scope / depth of skill gaps at organizations over past 2 years

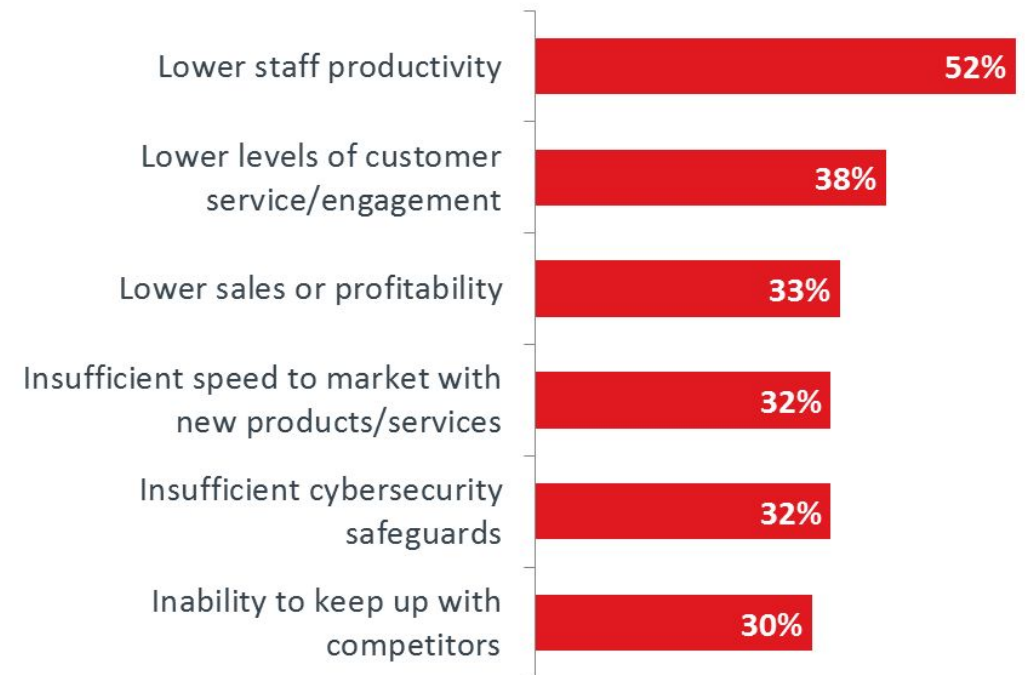
Nearly half believe the skills gap is growing (46% net)



[1% don't know results not shown]

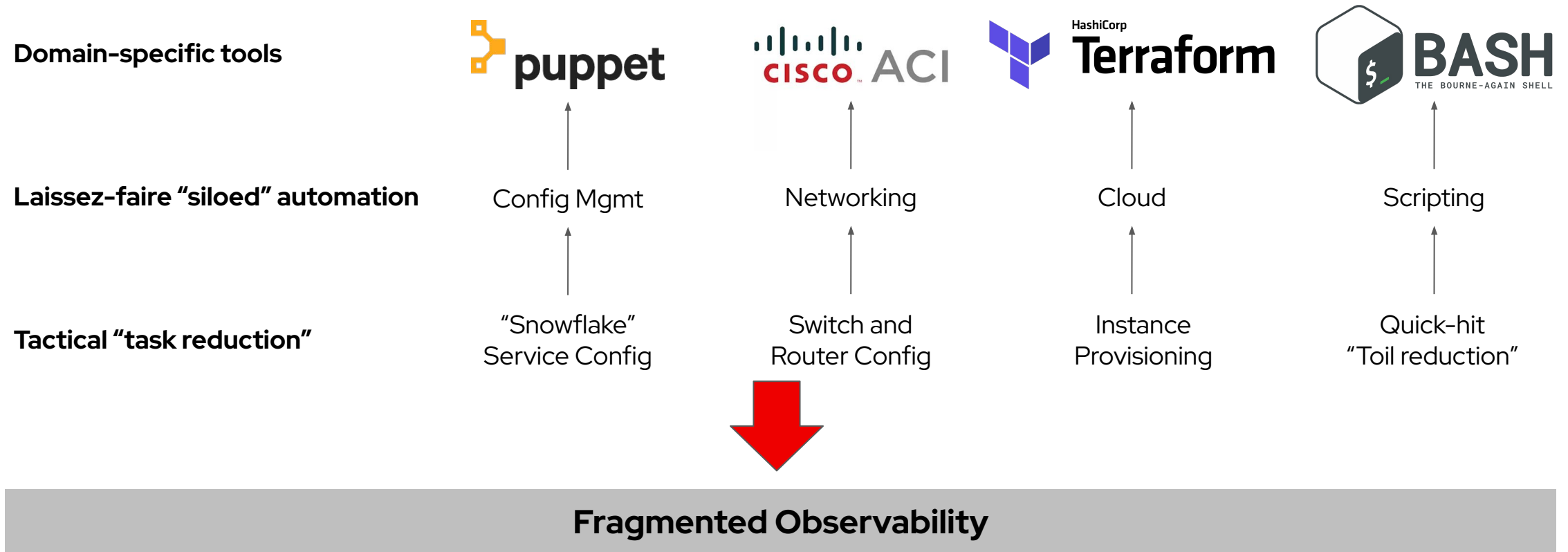


Ways Skills Gaps Negatively Impact Business



Automation Strategy

Where most IT leaders start isn't always best



These Aren't the Metrics You're Looking for

If you want to slow down...this is how you slow down



Incidents over X period



Number of Failed Changes



Count of Production Outages



Negative Impact on Progress and Engineers' Morale

Funding

We need the money...but don't have it



Talent budgets are stagnant and/or reduced



Tools cost money, too...and we already have a bunch!

PROOF

We've automated a lot already...but can't **prove** success



How: Shifting Focus to Value and Scaling to the Enterprise

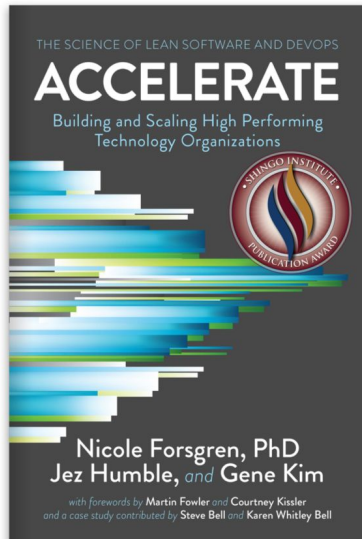
Isolating Constraints

Identifying types of waste in a process or task

D efects	Errors, rework, and troubleshooting of process, task, or outcome
O verproduction	Working ahead “just in case”
W aiting	“Lost” time spent waiting on input from a person, team, task, or system
N on-Utilized Talent	Lost knowledge or potential, utilizing “go-to” people or teams
T ransportation	Movement without value, process components with no requirement
I nventory	Excess available resources, having components “available” to use
M otion	Extra meetings, information quests, requirements gathering
E xcess Processing	Repeat or duplicate tasks or steps in a process

Alternative Metrics

Measure the right things...



Lead Time

Lower is better!

High value suggests Waiting, Transportation, and Motion



Change Failure Rate

Lower is better!

High value represents Defect in implementation or results



Change Frequency

Higher is better!

Low value indicates Excess Processing, Non-Utilized Talent and Overproduction



Mean Time to Restore

Lower is better!

Used as a gauge for overall improvement

The Automation Treasure Map

If we knew where we needed to go we would already be on our way

Identify Waste in tasks and overall processes

Improve **Quality** of work and **Standardization**

Optimize Process Flow and remove excess steps

Eliminate **Rework** and utilize **Talent**

Using **Metrics** to inform **Iteration**



A Value Stream Map

Visual representation of value and waste in a process we can use to inform progress



Process Flow

The main steps of the process which could include current tools used for the steps



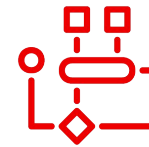
Timing

Lead Time and Value Added Time (execution time) of steps in a process



Completeness/Consistency

Percentage of accurate executions for each process task

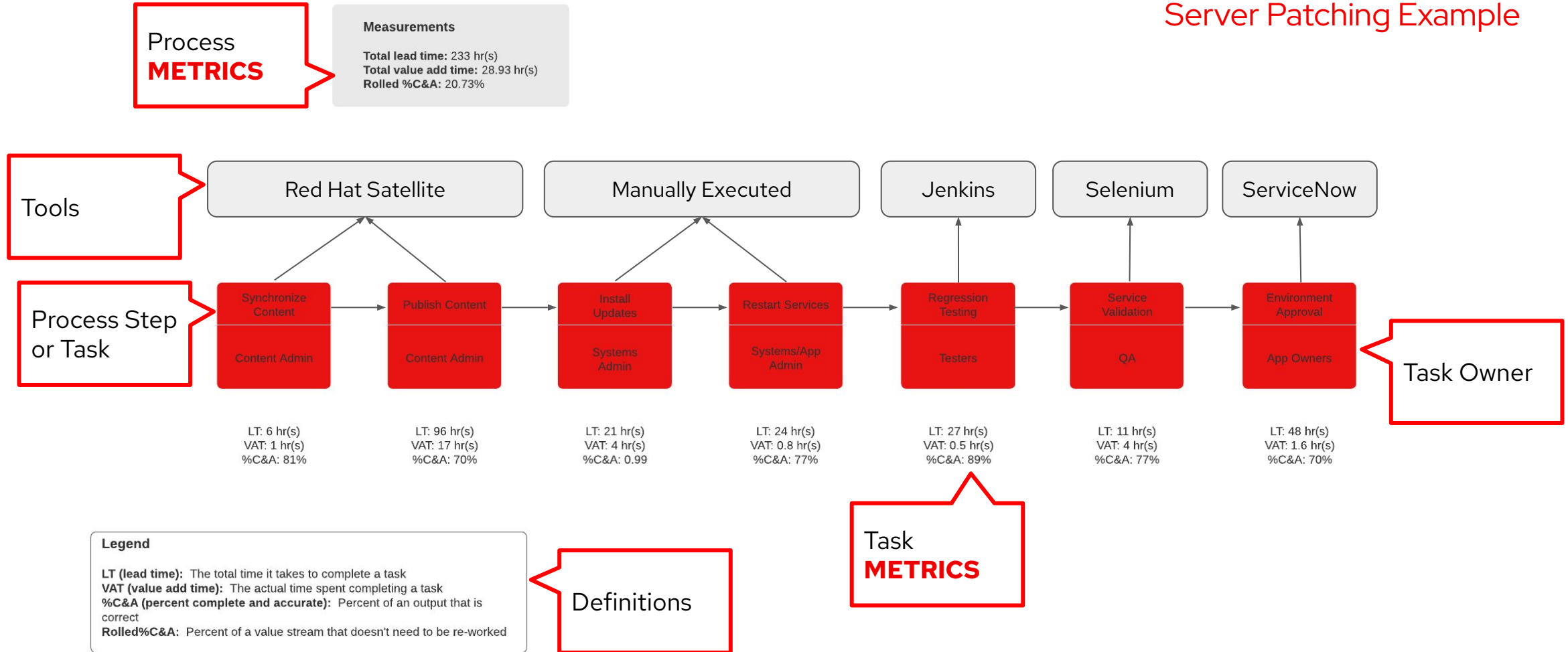


Interdependencies

Upstream and downstream dependencies within and across teams

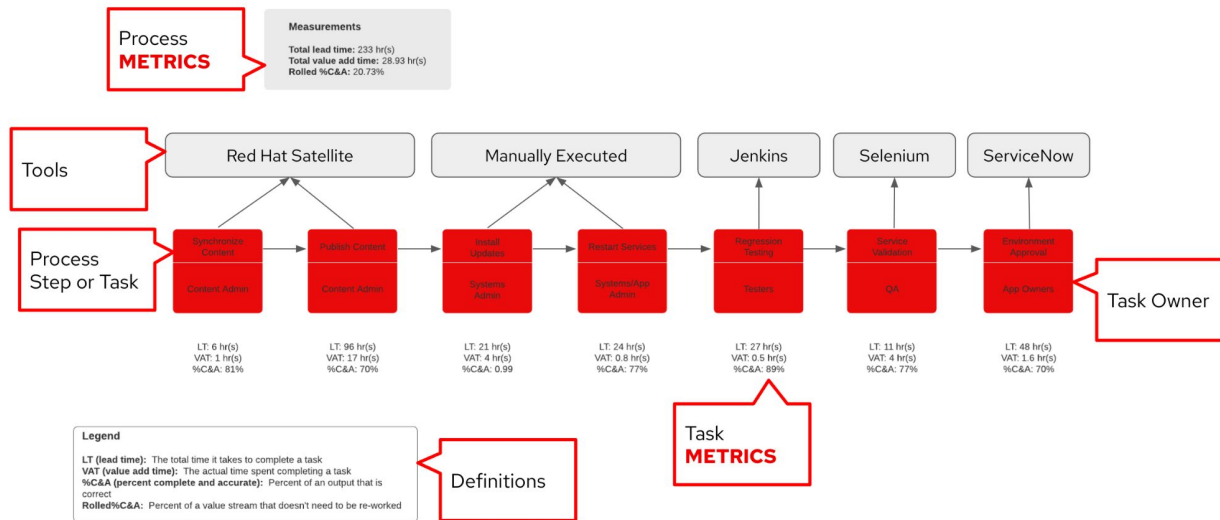
Components of a Value Stream Map

Server Patching Example



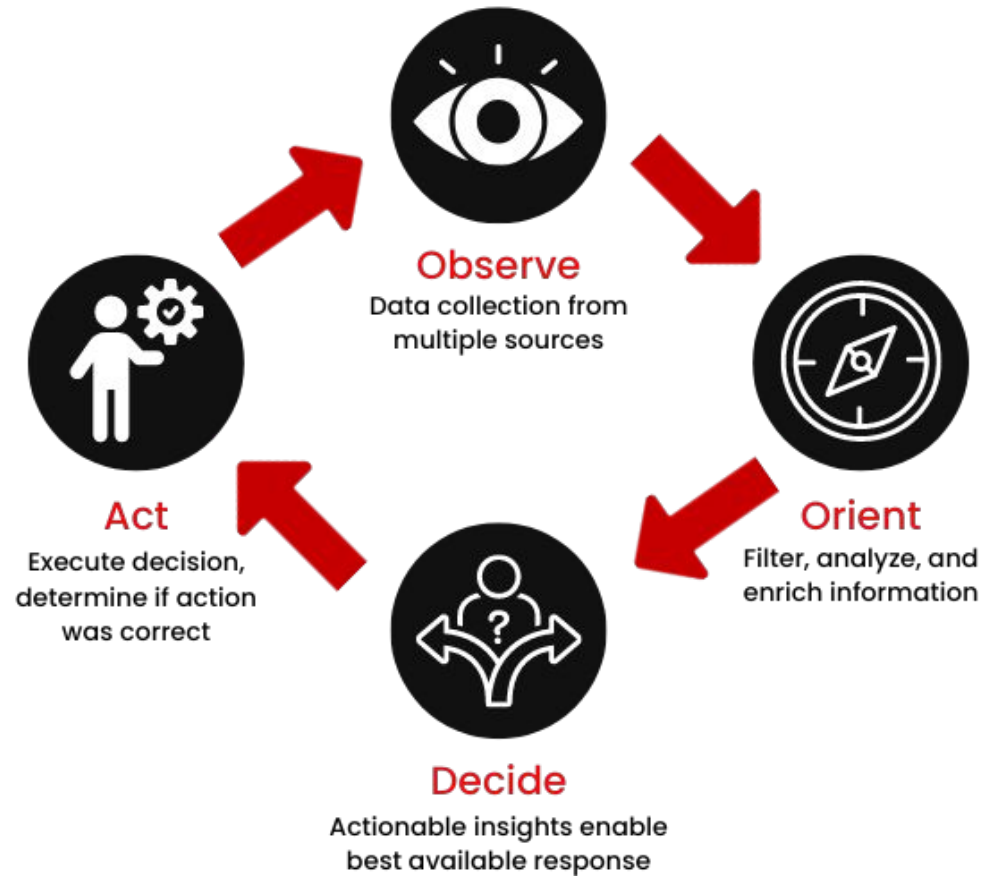
Being your own Cartographer

How to map value in your IT processes



- ▶ Pick a process to **analyse**
- ▶ **Chart** the flow of tasks and steps
- ▶ Collect task **timing** and **effort**
- ▶ Identify task **ownership** and **toolset**
- ▶ Call out **interdependencies**
- ▶ Compile task and process **metrics**
- ▶ **Remove** unnecessary tasks and steps
- ▶ Highlight opportunities for **standardization** and **automation**
- ▶ **Prioritize** tasks where **value** is lost
- ▶ Then **Automate** and ...

John Boyd's OODA Loop



Iteration is Imperative

Do it over and over again...and never stop

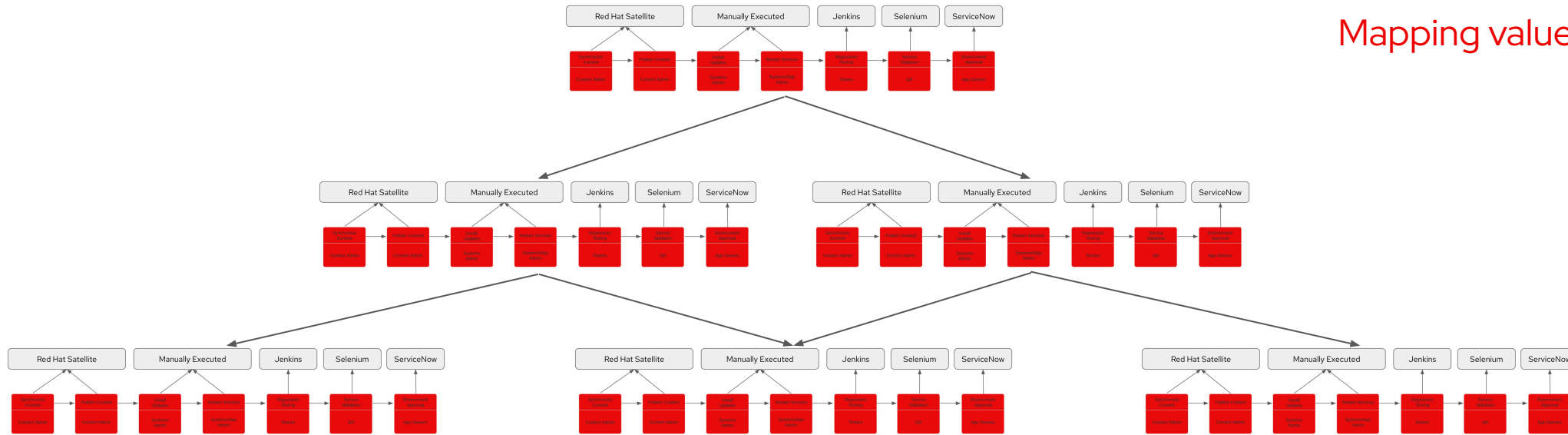
Developed by military strategist, USAF Colonel John Boyd, an OODA loop can be applied to the work we do in information technology just as well as it is applied to military strategy.

A Value Stream Map helps us with three of the four steps in the continuous OODA process.

- ▶ We observe our process, collecting data and metrics from the sources we have available.
- ▶ Then we orient to the process, filtering, analyzing, and enriching information we've gathered.
- ▶ Followed by deciding how to respond, prioritizing our next steps.
- ▶ And now we act, executing on our priorities, which starts the cycle again with refreshed data.

Scaling to the Enterprise

Mapping value holistically



- ▶ **Codify** the value mapping process
- ▶ Identify process **ownership**
- ▶ **Distribute** mapping effort across process domains
- ▶ Collect process **timing** and **effort**
- ▶ Chart process **interdependencies**
- ▶ Compile master process **metrics**
- ▶ Highlight **opportunities** for process improvement
- ▶ **Prioritize** processes where **value** is lost

The Importance of Transparency

Visibility into transformation accelerates the process further



“Quite simply, transparency helps keep people honest. It ensures that people in an organization own their decisions and actions.”



Jim Whitehurst

Former CEO, Red Hat and author of “The Open Organization”

Ways Transparency Encourages a Transformative Culture

Eliminates confusion between leadership, teams, and individuals

Builds trust between leadership and IT practitioners

Makes the work environment more satisfying for everyone

Increases employee engagement by recognizing effort

Empowers teams to make decisions and provides psychological safety

Creating Transparency in the Workplace

Some *not so* simple suggestions

How to Build Transparency and Honesty into Culture

Create open, public channels for communication

Share learnings and mistakes openly, honestly, and without blame

Openly show and tell results, and reward success in a community setting

Invite questions from the start of the hiring process

Document and share processes across all levels of the organization



“Honesty is the fastest way to prevent a mistake from turning into a failure. Honesty is step number one in learning from mistakes. Honesty is the way to rewind a failure into a mistake into a success.”

James Altucher

Author, Entrepreneur, and Angel Investor

Thank you

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