Red Hat Summit

Connect
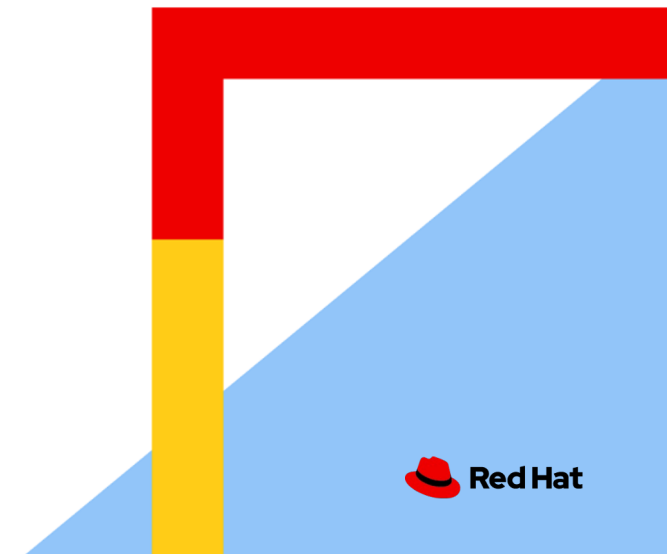
Mission Critical Automation

How we build the mission-critical mindset

Nuno Martins

Principal Technical Marketing Manager

Ansible Business Unit
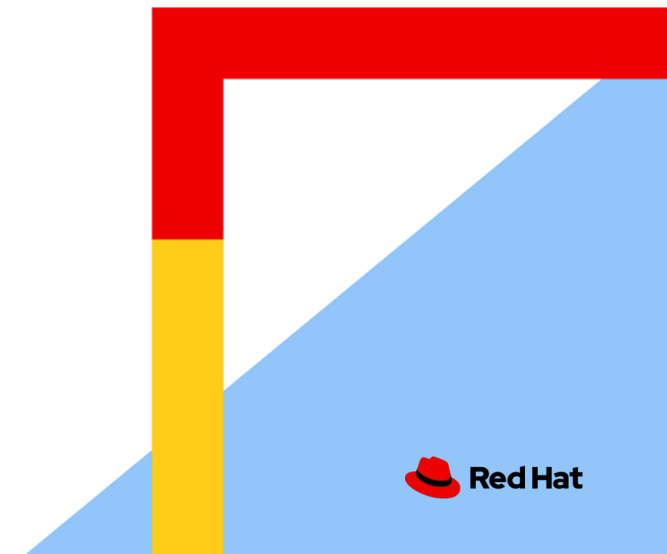
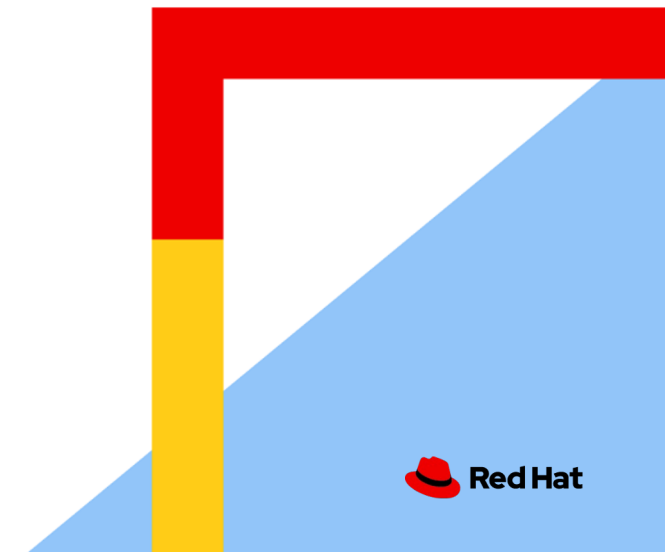**Red Hat**

Observation # 1

Automation is being
taken for granted

Observation # 2

Ansible has come a long way

Ansible

made automation

more accessible

Edge

Containers

Datacenter

Private cloud

HYBRID

Public cloud

Red Hat
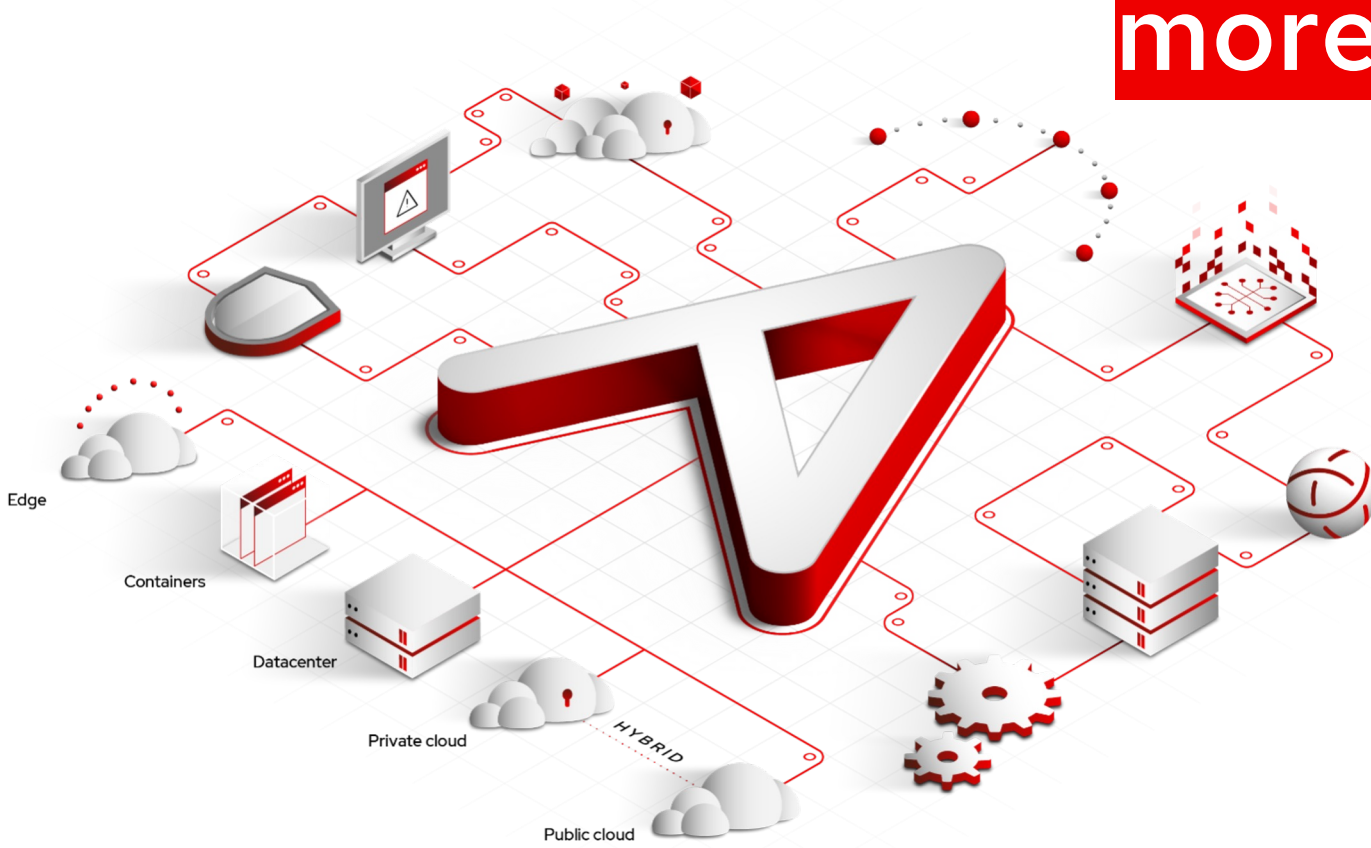
Ansible

made automation
shareable

Edge

Containers

Datacenter

Private cloud

HYBRID

Public cloud

Red Hat
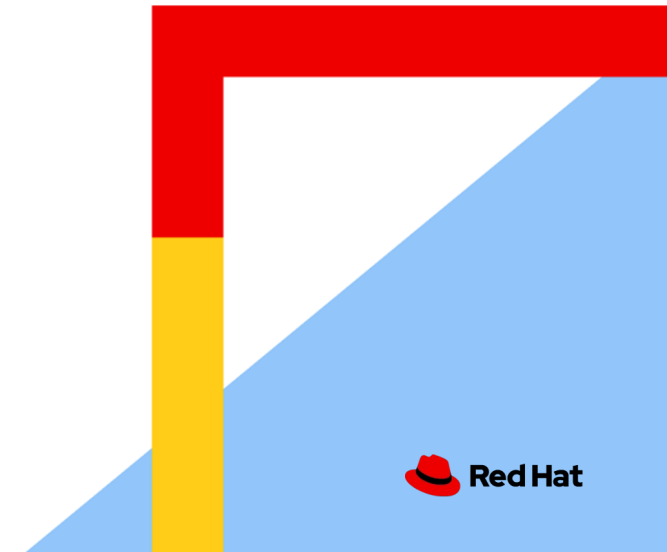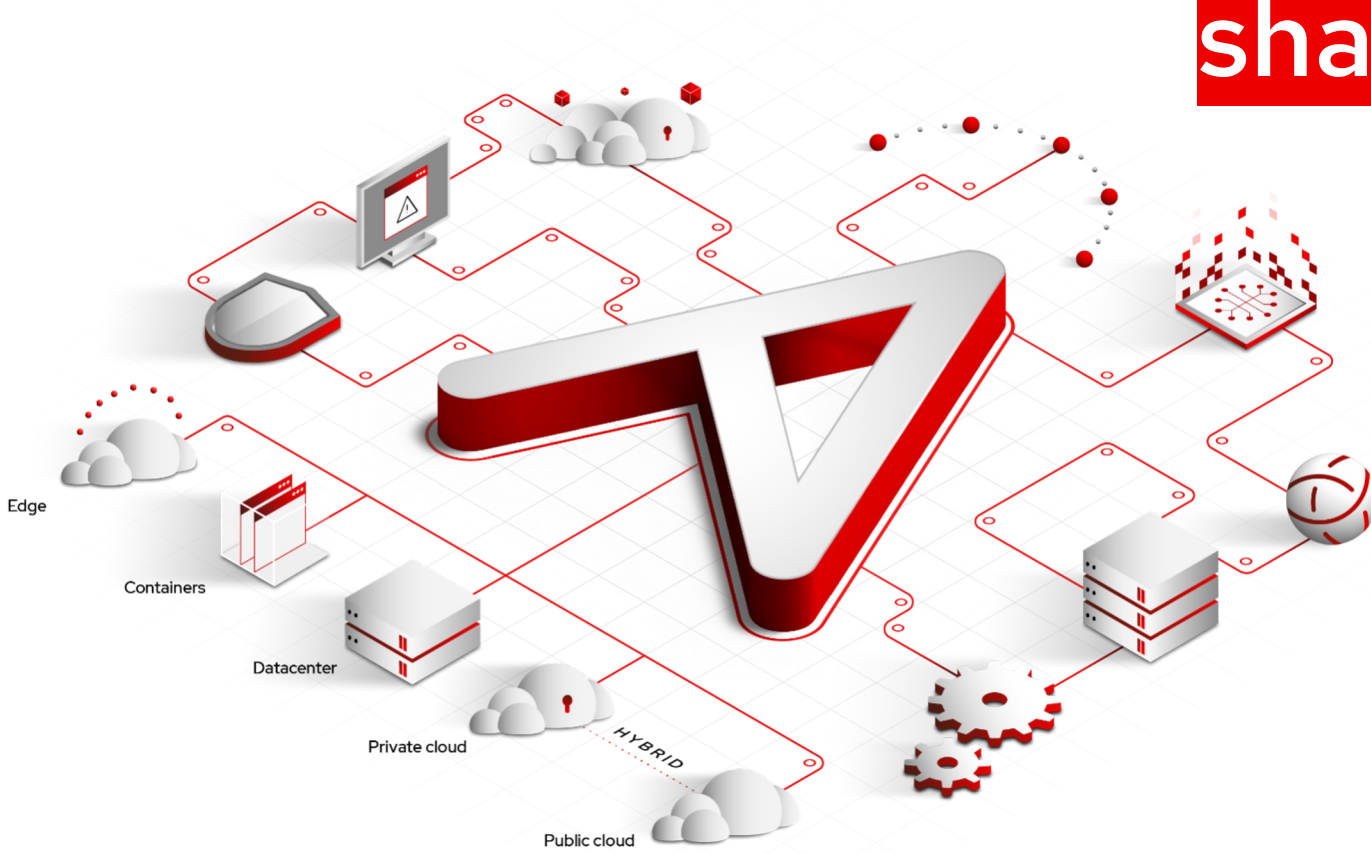
Ansible
made automation
consumable

Edge

Containers

Datacenter

Private cloud

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Public cloud

Red Hat
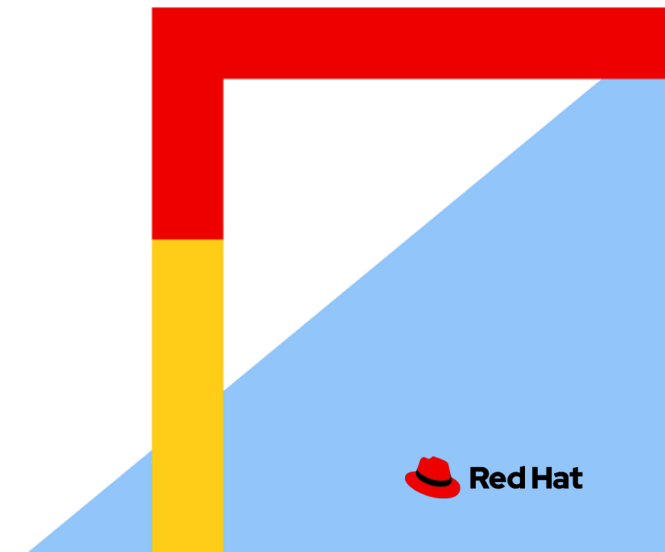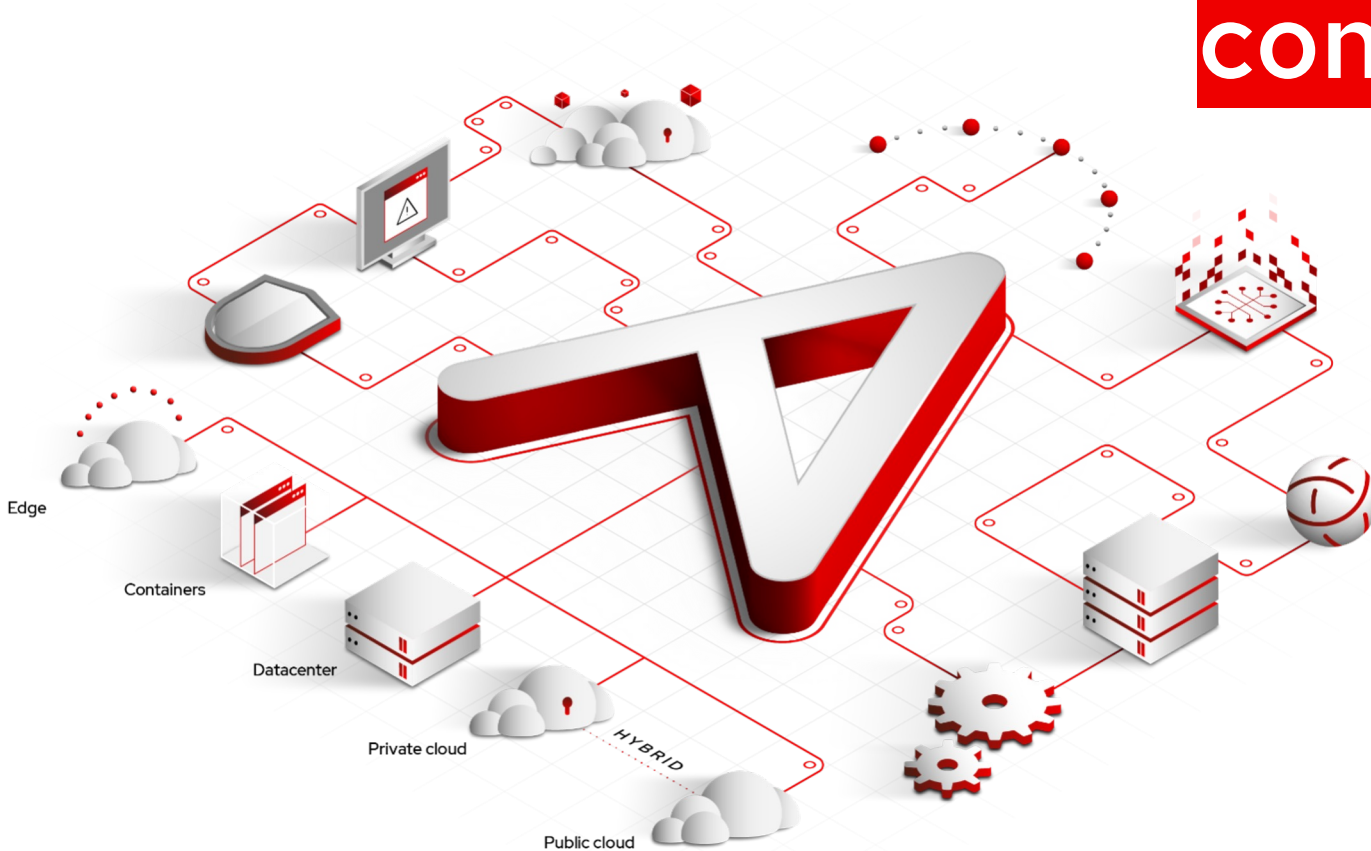
Observation # 3

AI is a
natural progression
of automation

Red Hat
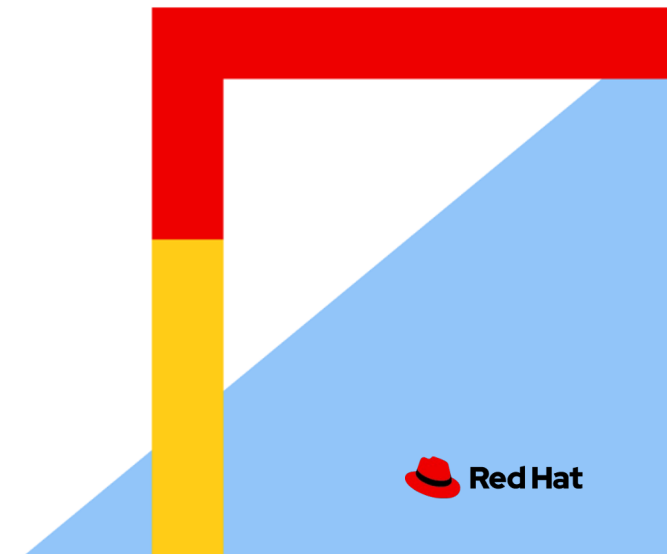
AI means
machines:

- **Automating** processes

- **Connecting** infrastructure and tools

- **Making** decisions
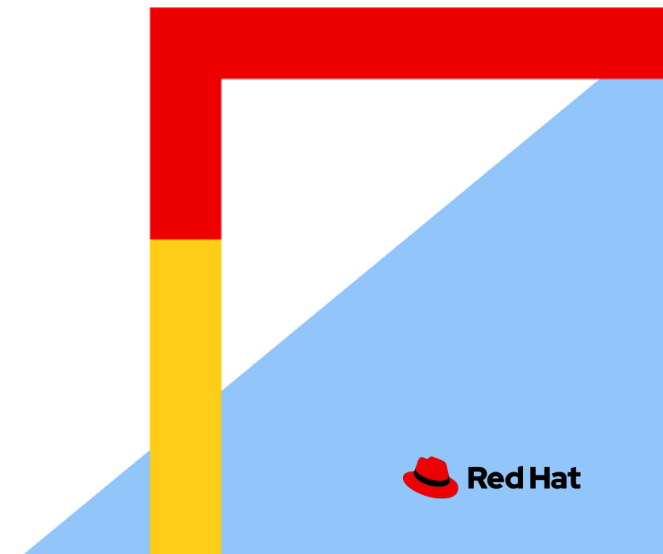
Automation is
Mission Critical

For organisations that:

> Need to drive **consistent**, **reliable** and **compliant IT ops** workflows across domains in order to keep pace with the needs of the business

> Need help making **essential tools**, workflows and **IT investments** more **actionable**?

> Need your **teams** and **technology** to be **better prepared** for enterprise-wide, **AI-driven workflows**

Red Hat
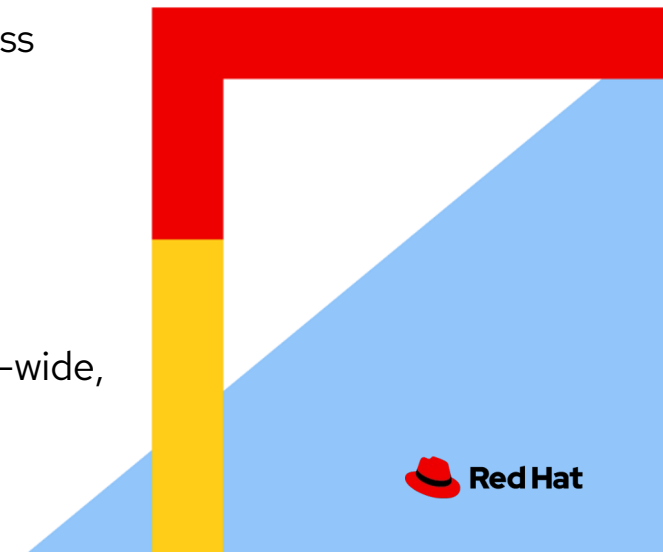
"**<u>How</u>** do you bring mission-critical automation to your organization?"
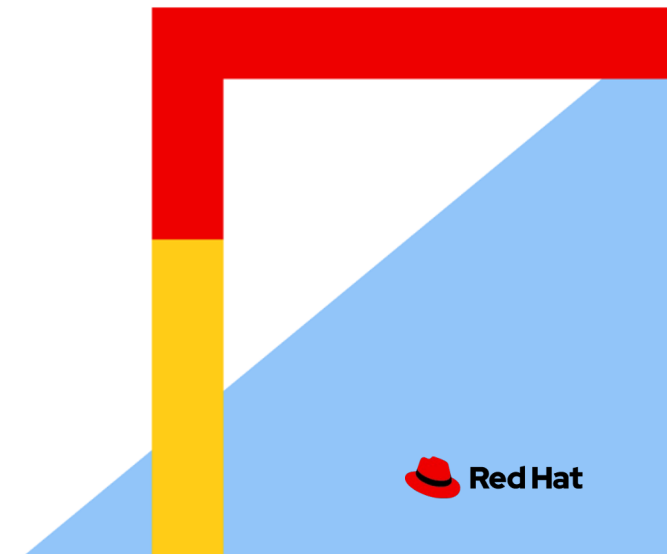
Making automation mission-critical to the organization

Success highly achievable – but it is not a given!

Strategy → Platform → Mindset

Red Hat
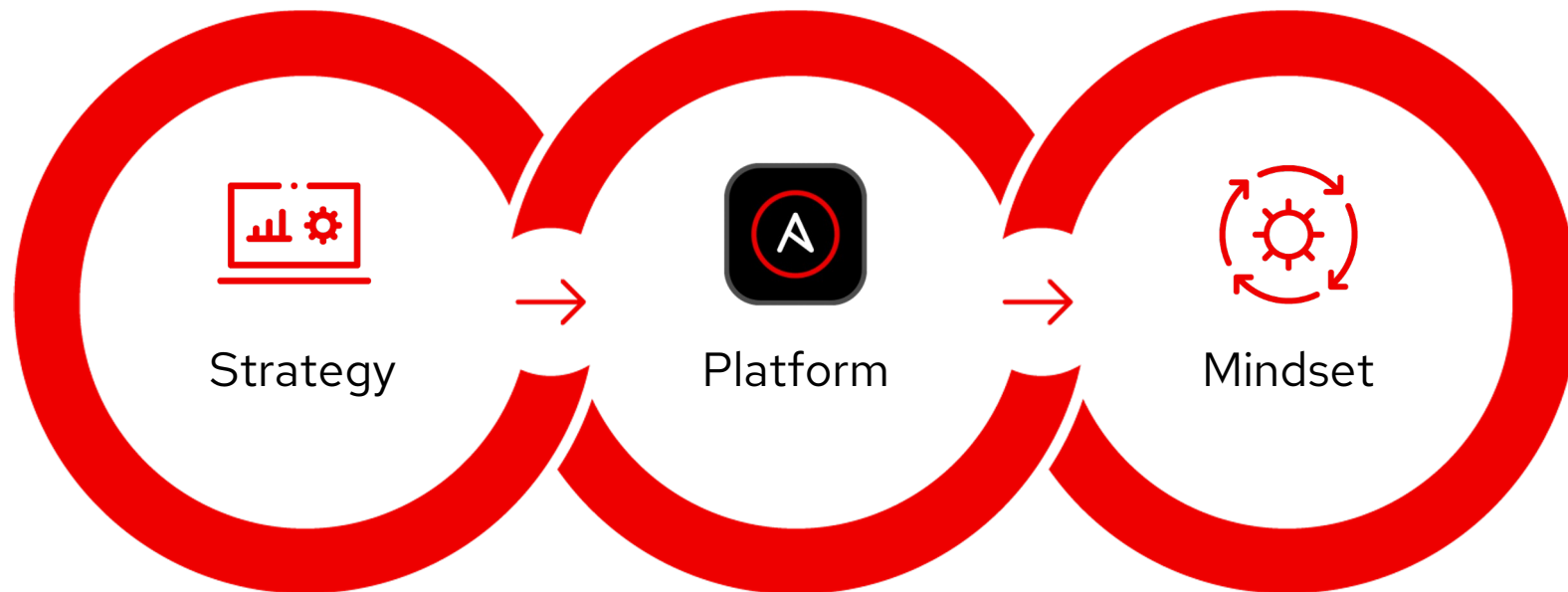
Strategy

Are your barriers to automation **technical or cultural** ?

Platform

Mindset

Red Hat
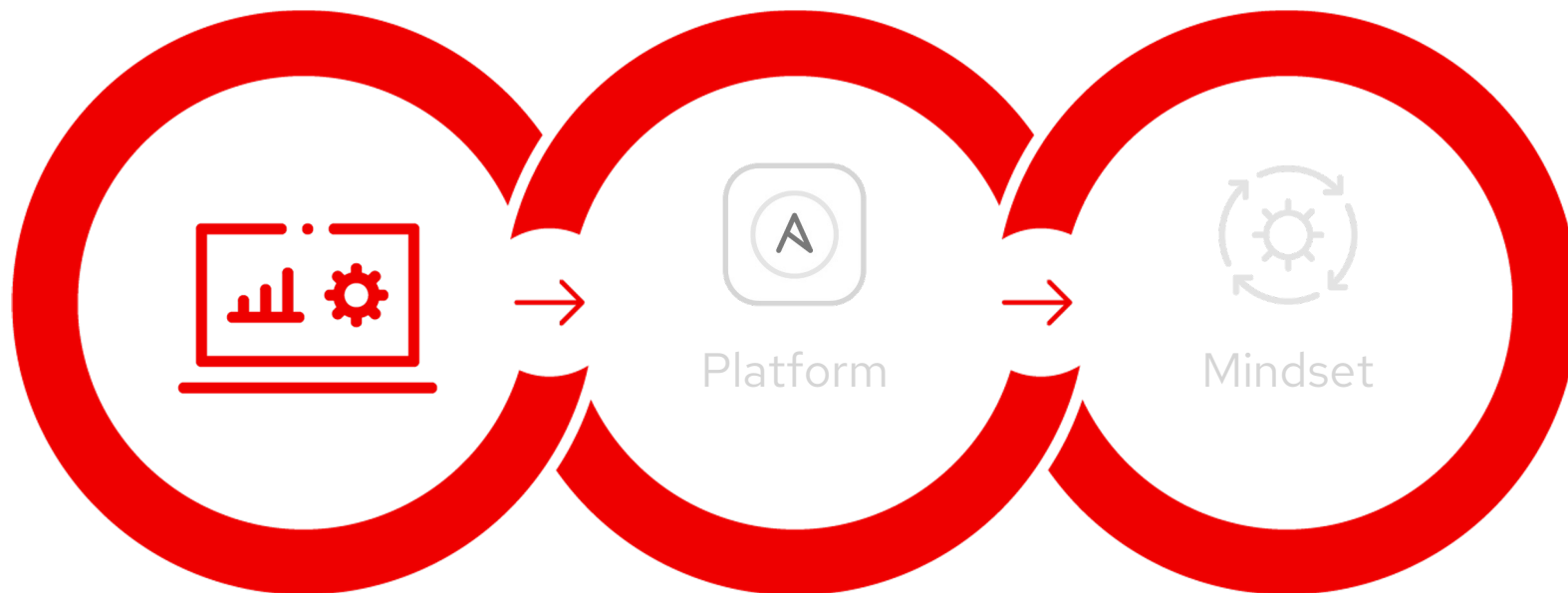
89% of executives surveyed say success comes from addressing all three components.

Harvard Business Review findings validate their necessity

$\rightarrow$

Right culture   84%[2]

Right process   82%[2]

Right technology   79%[2]

Red Hat

Successful automation takes strategic commitment

The automation maturity curve

Effort per change

Speed Scale
Reliability

Standard onboarding
Reliable release process

Team autonomy
Testing framework(s)
Expanded external integrations
Governance driven RBAC

Cross team workflows
End-to-end automation provisioning
Automation first across silos

Federated Self-Service Automation
Event-driven automation
Self-healing infrastructure

Level 1
Aware

Level 2
Standardized

Level 3
Proactive

Level 4
Institutionalized

Level 5
Optimized

Most organizations don't get past here

The foundation for successful AI adoption is built here!

Success Metrics

From there we identified success metrics that map to each facet.
These are an initial set of success metrics and more could be added over time.

Utilization

Platform-driven

Subscription Utilization/Consumption
Cluster Count
Active Users / Teams
% Workloads vs Target

Performance

Delivery

Lead Time for Change
Deployment Frequency
Mean Time to Restore
Change Failure Rate

Reliability

Traffic
Latency
Error Rate
Saturation

Proficiency

Organizational Knowledge

Completed Training
Skills Assessments
Advocacy Events
Onboarded Teams

Perception

People-driven

Value
Compatibility
Complexity
Observability
Trialability

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Platform

How do you envision **taking your IT ops to the next level ?**

Strategy

Mindset
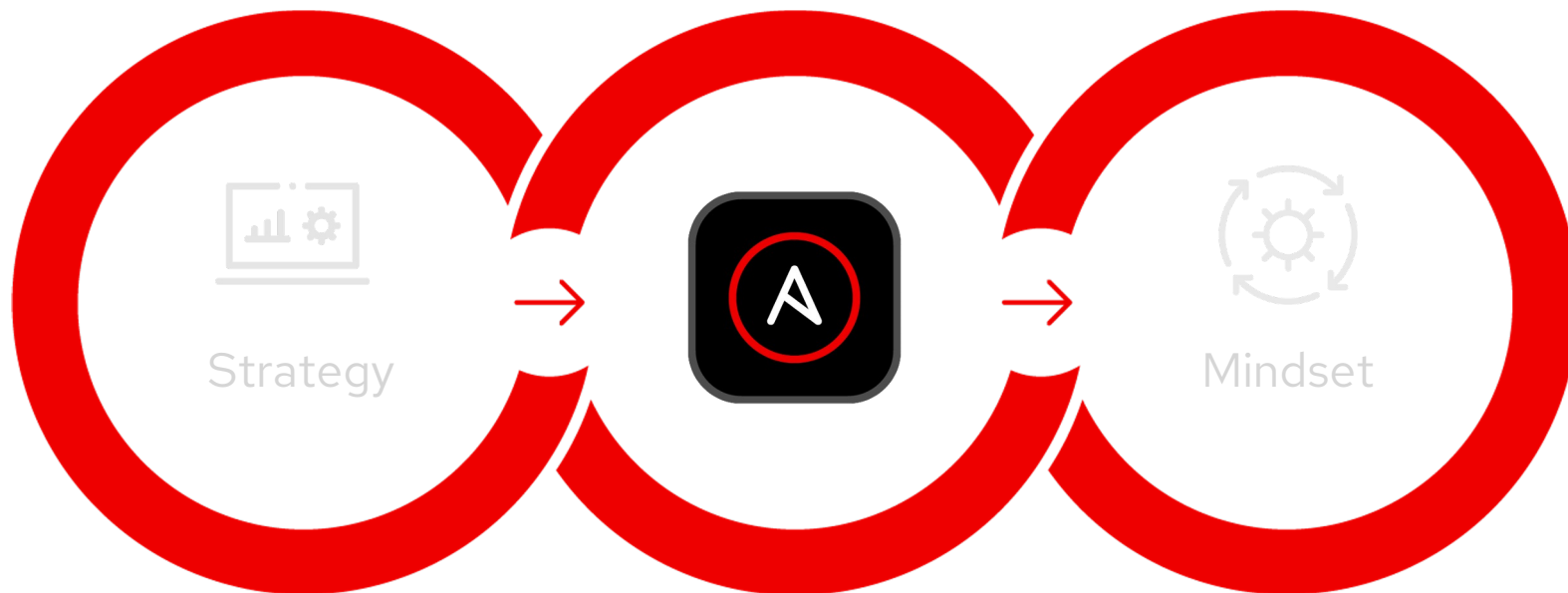
Red Hat

It takes a mission-critical automation **platform**

Red Hat Ansible is a force multiplier for IT teams
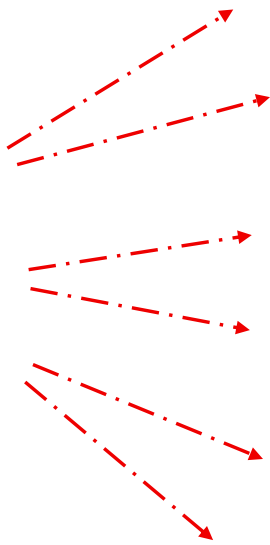
Maximize ROI on existing technology investments by making essential tools more actionable with Event-Driven Ansible.

Operate with more flexibility across environments for true open hybrid cloud automation.

Accelerate time to value, while extending automation SME across your workflows for greater operational impact, with Ansible certified and validated content.

Red Hat

The reality of **hybrid infrastructure**

Infrastructure

Red Hat Enterprise Linux · Linux · Windows · nimble storage · NetApp · Hewlett Packard Enterprise · PURESTORAGE

Edge

podman · inductive automation · Red Hat Enterprise Linux · RA Rockwell Automation · OPC UA

Cloud native

Red Hat OpenShift · kubernetes

Network

Routers	Switches
IPAM	LBs

It's Day 2 Now what?

Private cloud

Red Hat OpenStack Platform · NUTANIX · vmware

Security

PAM	SIEM
IDPS	Firewalls

ITSM

servicenow

Public cloud

AZURE RESOURCE MANAGER · AWS CloudFormation · Cloud Deployment Manager · Terraform · Azure · aws · Google Cloud

Red Hat

Choosing the right automation platform means you have options

Infrastructure

Red Hat Enterprise Linux · Linux · Windows · nimble storage · NetApp · Hewlett Packard Enterprise · PURESTORAGE

Edge

podman · inductive automation · Red Hat Enterprise Linux · Rockwell Automation · OPC UA

Cloud native

Red Hat OpenShift · kubernetes

Ansible Automation Platform
Ansible Playbooks

Initiate planned automation across domains

Red Hat Ansible Automation Platform

Event-Driven Ansible
Ansible Rulebooks

Automatically respond to changing conditions

Security

PAM · SEIM · IDPS · Firewalls

ITSM

servicenow

Public cloud

Azure Resource Manager · AWS CloudFormation · Cloud Deployment Manager · Terraform · Azure · aws · Google Cloud

Red Hat

Seamless integration with other mission-critical tools

Build and operate essential workflows across the open hybrid cloud ecosystem

Applications	Networking	Edge	Cloud	Security	Infrastructure
CYBERARK®	ARISTA	ARISTA	aws	Check Point SOFTWARE TECHNOLOGIES LTD	Red Hat Enterprise Linux
DATADOG	aruba NETWORKS	aruba NETWORKS	Azure	CYBERARK®	NetApp®
dynatrace	CISCO	CISCO	Google Cloud	FORTINET	NUTANIX
IBM	Infoblox	f5	IBM Cloud	IBM Security	vmware®
splunk>	f5	JUNIPER NETWORKS	Red Hat OpenStack Platform	paloalto NETWORKS	Windows Server
	JUNIPER NETWORKS	NetApp®		Resilient an IBM Company	
		vmware			

Red Hat

Mindset

Do your teams clearly understand how they can **benefit from automation** ?

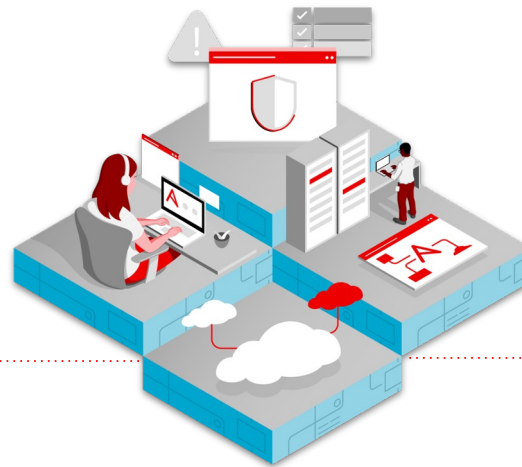Strategy → Platform →

Red Hat
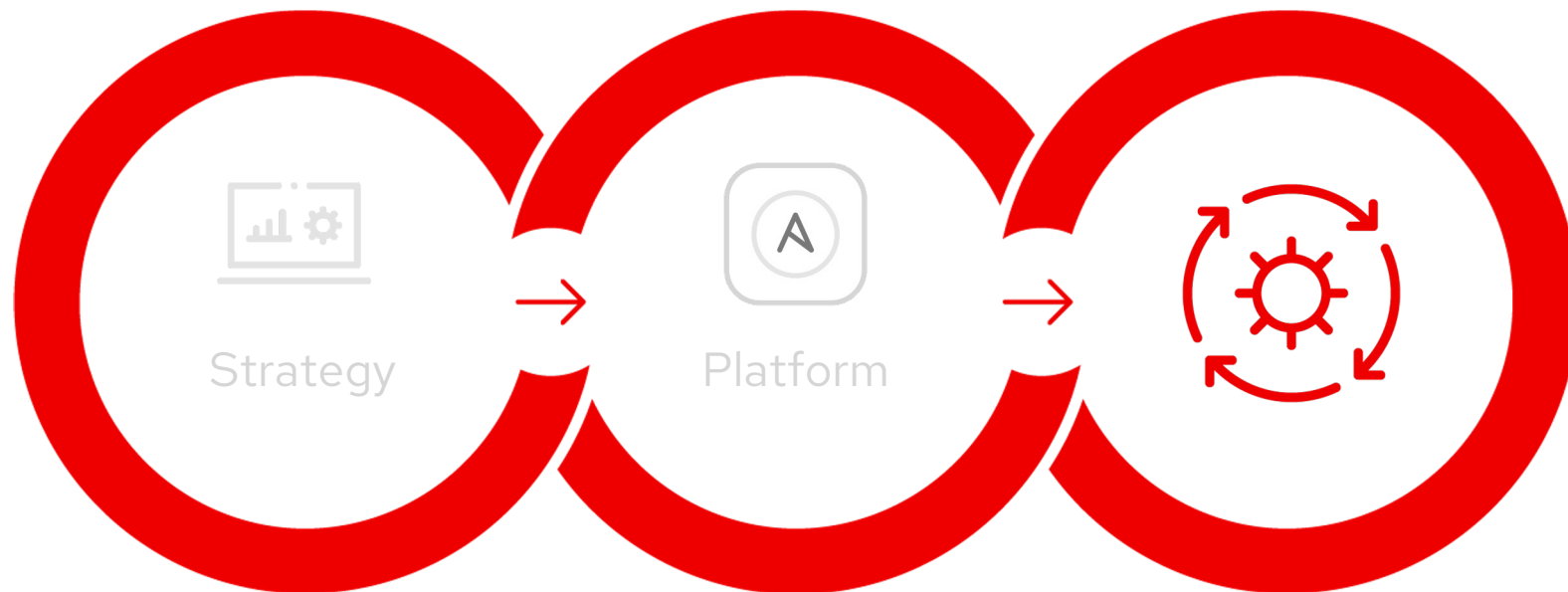
It takes a mission-critical automation mindset

Maximizing automation adoption across domains

3000+
customers

170+
Certified
Content
Collections

70+
Certified
Technology
partners

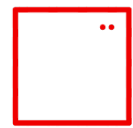**110+**
Systems
integrators +
Resellers

**Network +
Edge**

Security

Virtualization + OS

Cloud

Applications

Red Hat

Red Hat Ansible as a force multiplier

Making your entire stack more secure, actionable, and compliant with automation

	Operating Systems	Cloud	Network	Application Delivery	Virtualization
Security					
More Secure	❑ Securely automate RHEL, Windows, and more ❑ Certified content offers security from Red Hat and OS vendors	❑ Automate securely with support by Red Hat and Cloud Providers ❑ Red Hat-managed +self-managed options for your security needs	❑ Consistent standard configuration mitigates misconfiguration risk ❑ Respond faster to vulnerabilities via configuration changes	❑ Automate security checks ❑ Create audit trails ❑ Manage access privileges	❑ Build in security requirements ❑ Notify and/or remediate alerts or threats
Event-driven automation					
More Actionable	❑ Fact gathering and notification ❑ Basic to advanced remediation ❑ Configuration and drift management ❑ Address security faster	❑ Trigger cloud estate checks ❑ Remediate tasks from the service bus ❑ Automated troubleshooting ❑ Coordinate deployment actions	❑ Automated critical incident management to open tickets with relevant data at the moment of the failure ❑ Trigger troubleshooting workflows for known operational issues	❑ Automate testing ❑ Respond to observability alerts (hardening etc,)	❑ Automatically respond to service requests including ticket enrichment, self-service, user access needs ❑ Scale up or down as conditions change
Governance, Risk, Compliance					
More Compliant		❑ Leverage Red Hat and Cloud provider support for compliance ❑ Reduce compliance risk by migrating to cloud	❑ Schedule compliance checks and remediation actions ❑ Integrate with network Identity Services, enforce predefined policies across devices.	❑ Enforce standards (internal, security, etc.) ❑ Verification of SSL certificates	❑ Enforce standard configurations and security ❑ Control provisioning criteria (e.g size of VM limits) ❑ Audit and report to identify compliance stance / drift
Edge					
More Distributed	❑ Securely automate RHEL, Windows, non RH Linux on edge devices ❑ Certified content offers security from Red Hat and OS vendors	❑ Consistency in configuration from cloud to the edge ❑ Support data collected by edge devices transfer and analysis in the cloud	❑ Branch updates + patching ❑ Integrate and automate SDN cloud managed systems (SASE and SD-WAN)	❑ Deliver and manage edge devices ❑ Ensure edge device security, e.g patch when device is online	Checking what makes sense here