

# The Future of Ansible and the Ansible Automation Platform



**Richard Henshall**

Red Hat

Senior Manager Ansible

Product Management

# Collaboration is the key:

Unlocking potential,  
accelerating adoption,  
and preparing for the next wave of  
automation with Red Hat Ansible.

**Richard Henshall**  
Director of Ansible Product Management



## Does any of this feel familiar?

*"How do we go faster?"*

*"We need to automate across on premises and cloud."*

*"How do we build automation communities?"*

*"We can't hire."*

*"We already have too many tools to maintain"*

### **Operational challenges**

### **Skills gaps**

### **Budgetary pressures**

*"Is automation secure?"*

*"How do we scale?"*

*"Our team is overworked."*

*"People are leaving for other opportunities."*

*"Budgets are shrinking."*

# "70% of digital transformations fail"

—  
BCG

Organizations are making technology investments and getting limited results because they aren't prepared to **change their behaviors.**

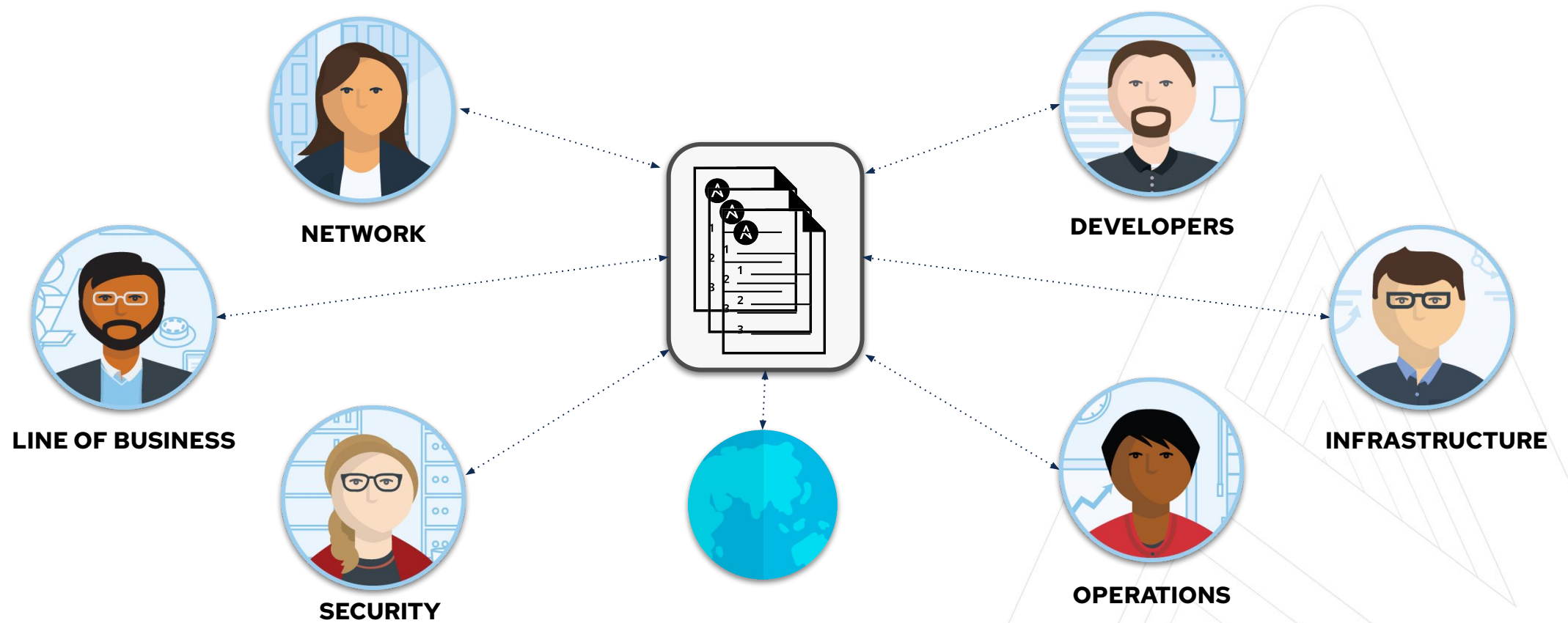
The **bad** news? **It's tough out there.**

The **good** news: **You are not alone.**

The **real** news: **You can't do it alone.**  
**No one can do it alone.**

**Collaboration** is the key.

# Collaboration is the key to automation



End-to-end transformation is made possible by **collaborative and coordinated** automation.

# ...and automation is the key to acceleration

INFRASTRUCTURE & OPERATIONS



**68%** more productive infrastructure management teams

DEVELOPERS



**135%** more applications developed per year

SECURITY



**25%** more efficient IT security teams

NETWORK



**53%** reduction in unplanned downtime

I.T. LEADERSHIP



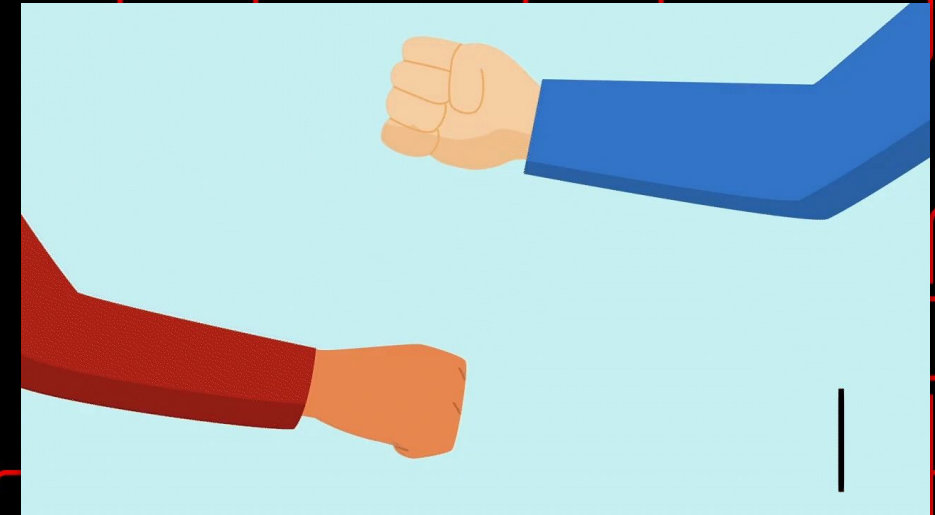
**498%** five-year ROI with 5 months to payback

LINE OF BUSINESS



**\$1.13M** in new revenue per year

# Vision and strategy matter: **3 approaches for more collaborative automation**





Think like **software developers** do.

Build a culture of modern development.




*"We had to **change our mindset** in how we're managing and deploying our global network, which included not only modernizing our platforms but **modernizing our skill sets.**"*

- Principal Software Engineering Group Manager**  
Fortune 15 technology company

Have an **automation-first** cultural mindset.

*CHANGE STARTS AT THE TOP. IT STARTS WITH YOU.*





*“We used to do things in silos; now we're pushing **Extreme Automation** as a whole, and driving towards the same mission.”*

**– Director**  
Financial Services customer



# Leverage and share **individuals'** skills and experience.

Fill the talent gap and up-skill your teams.





*“Automation helped support a positive cultural shift,  
**resulting in better collaboration between teams.**  
Red Hat is collaborating with us to implement best  
practices and **learn from their expertise across our  
entire organization.**”*

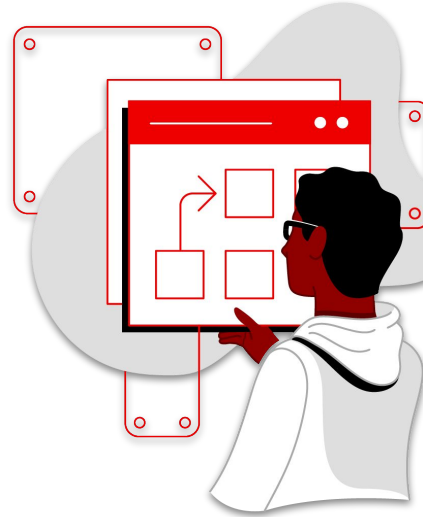
**- Automation manager**  
European energy company

# You are the IT (automation) factor

Which approach feels like the best fit for your organization?



Think like software  
developers



Have an automation  
first cultural mindset



Leverage and share  
individuals' skills and  
experience



**Optimize**

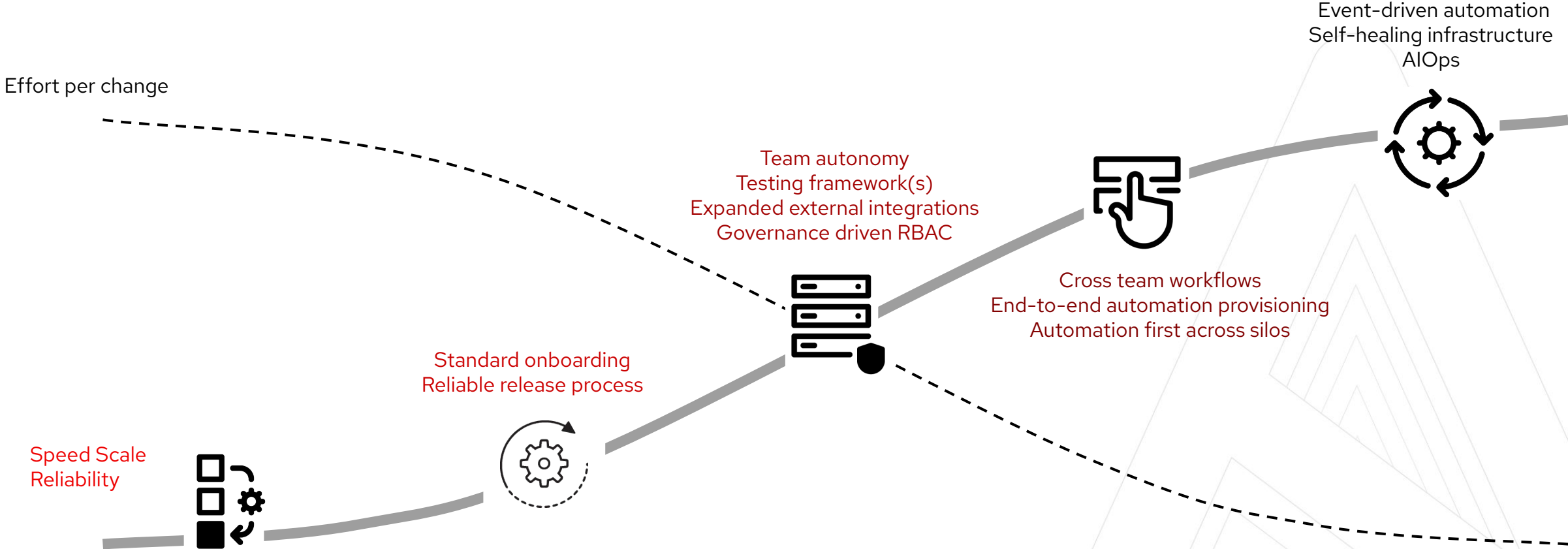
**OR**

**Transform**





# Automation Maturity Curve



**Crawl**

**Walk**

**Run**

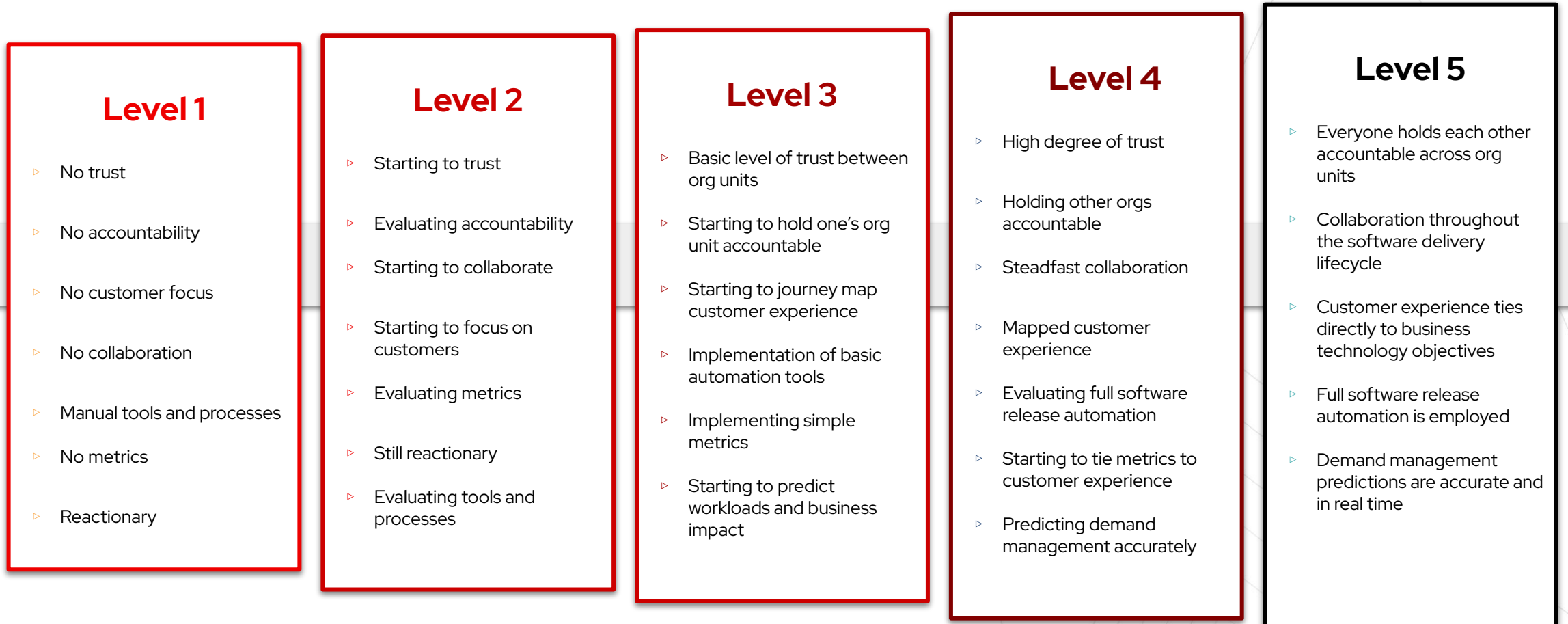
▶ Simplify a task

▶ Centralize domain automation

▶ Orchestrate across domains

# Where are you on that journey to optimize or transform?

Every automation journey starts somewhere



Source: Forrester maturity model

# Being ready for the next wave of automation



## The next wave of automation

Can I **extend my automation** beyond Day 0/1?

Can I use automation to **reduce the time it takes** between identifying a problem and fixing it?

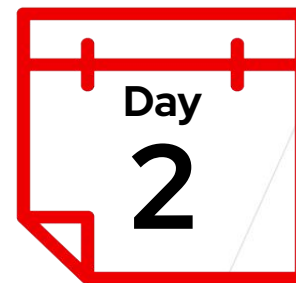
Should I put automation, and the capabilities it allows, in the hands of as many users as possible in order to **maximize the benefits** for the entire organization?

**Yes.**

## Where we see the market going



+



### Infrastructure as Code

- ▶ *"Build, Provision, Configure, Deploy"* - with a more focused, automation-first mindset.
- ▶ Extend and leverage "legacy knowledge"
- ▶ Expand into additional IT domains and footprints (network, edge, cloud, etc)

### Operations as Code

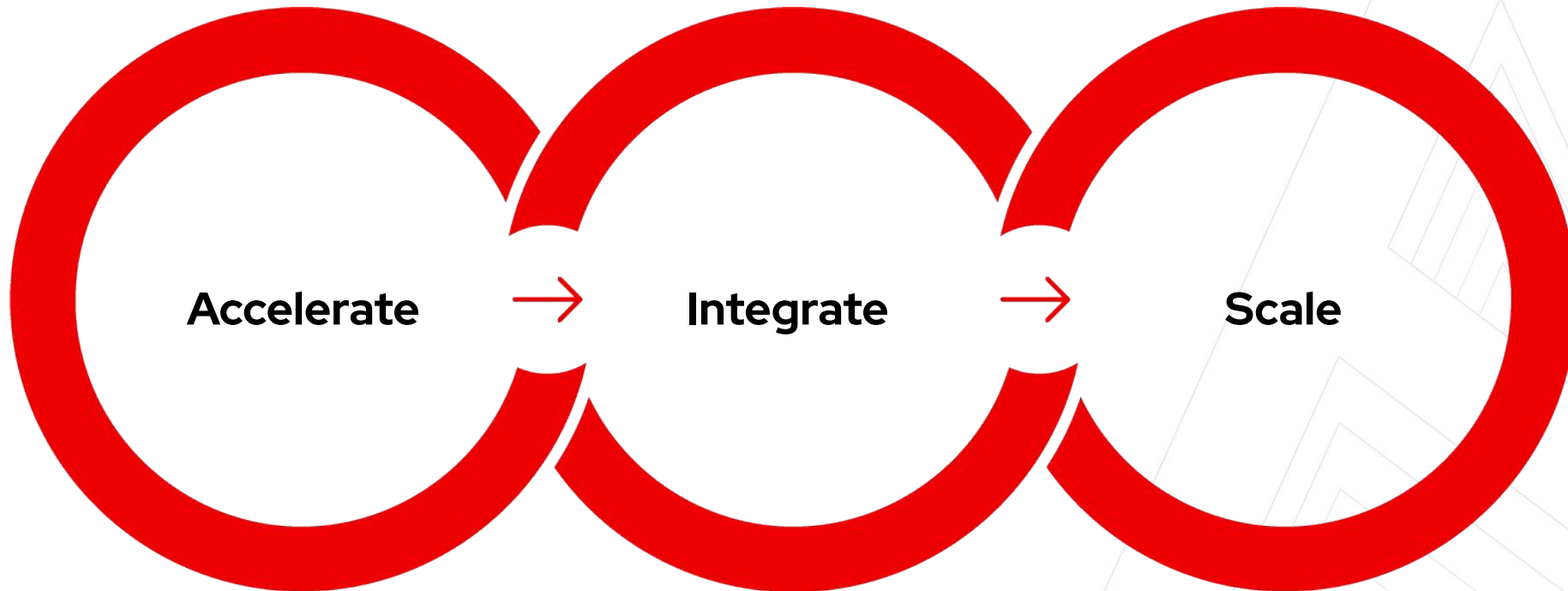
- ▶ Standardize operations processes IT-wide
- ▶ Observability is easy, remediation is hard
- ▶ A skills vacuum is coming soon

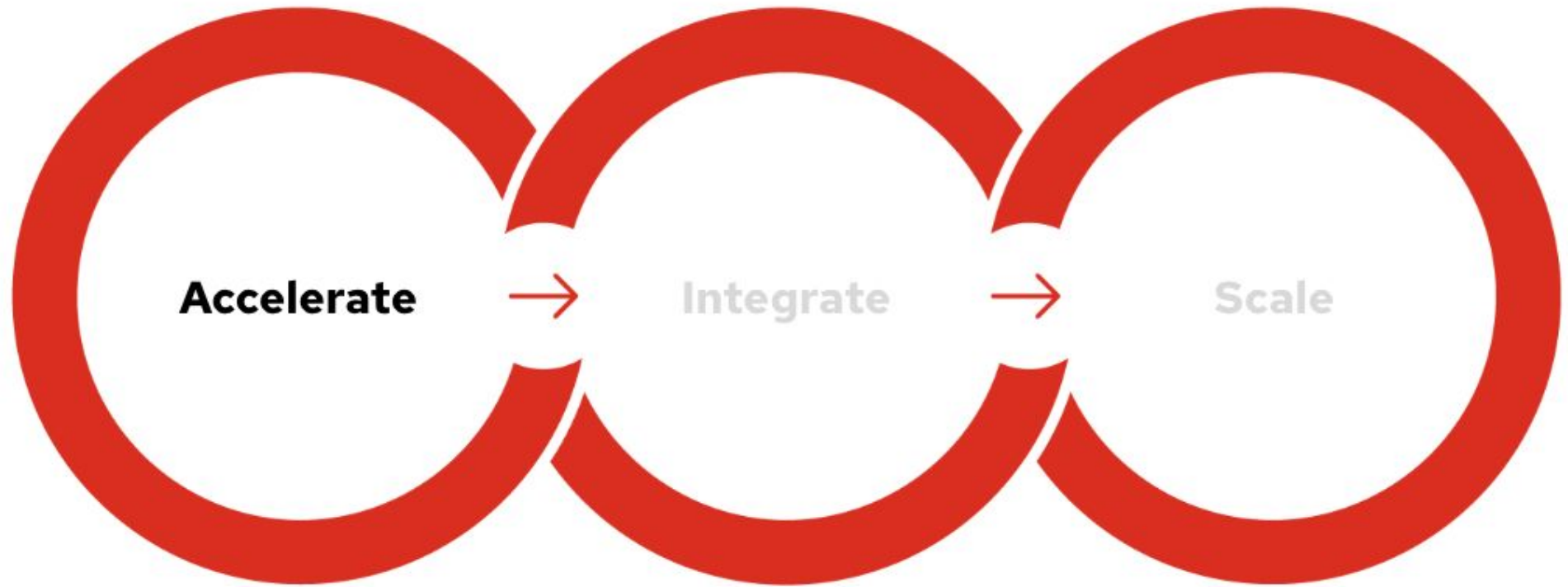
**Growth in end-to-end automation across the entire lifecycle**

# The Ansible product strategy



A **connected** experience engineered to deliver **trusted end-to-end automation**





# Collaborative automation across your ecosystem

140+

Certified Content Collections

55+

Certified Technology partners

100+

Systems integrators + Resellers


55,000

GitHub stars

1000+

Active open source contributors

### Infrastructure




### Network

Routers	Switches
IPAM	LBs

### Security

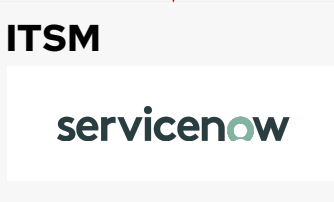
PAM	SEIM
IDPS	Firewalls

### Edge




**Red Hat Ansible Automation Platform**


### ITSM




### Cloud native



### Private cloud



### Public cloud





# Certified + Validated automation content from the ecosystem

## Red Hat Ansible Certified Content

*What do I want to automate?*



**Established** integration with Red Hat and 3rd-party platforms

**From Red Hat** and trusted industry partners

**Tested and supported** for security, quality, and reliability

**Available** through [console.redhat.com](https://console.redhat.com)

## Ansible Validated Content

*How should I automate it?*



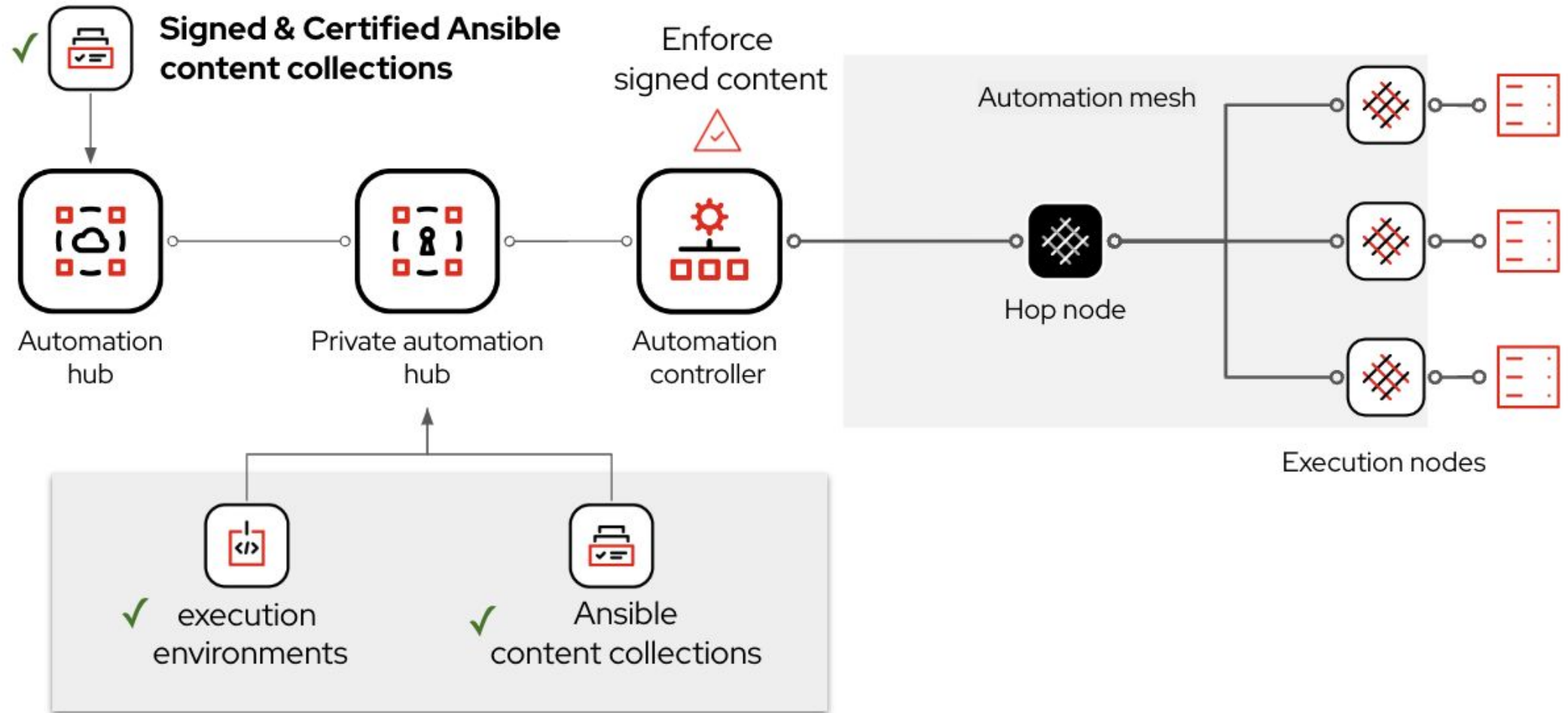
**Provides** an opinionated path for performing operations on Red Hat and 3rd-party platforms

**From Red Hat** and trusted industry partners

**Tested** for security, quality, and reliability

**Now preloaded** in private automation hub

# The end-to-end trusted automation supply chain



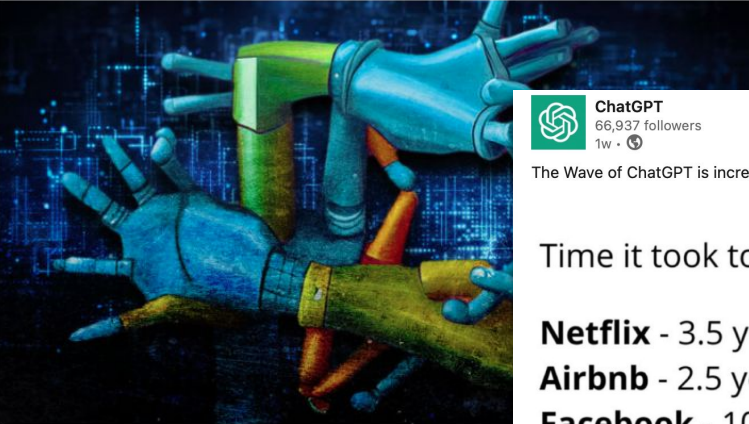
# The generative AI inflection point is upon us

**ars TECHNICA** SUBSCRIBE 🔍 SIGN IN

**INFLECTION POINT —**  
**The generative AI revolution has begun—how did we get here?**

A new class of incredibly powerful AI models has made recent breakthroughs possible.

HAOMIAO HUANG · 1/30/2023, 7:00 AM



**Forbes**

## The Generative AI Revolution Is Creating The Next Phase Of Autonomous Enterprise

**The New York Times** SUBSCRIBE FOR \$1/WEEK

## A New Area of A.I. Booms, Even Amid the Tech Gloom

An investment frenzy over “generative artificial intelligence” has gripped Silicon Valley, as tools that generate text, images and sounds in response to short prompts seize the imagination.

Give this article 🔄 📌 💬 229



**ChatGPT**  
66,937 followers  
1w · 🌐

The Wave of ChatGPT is incredible!! WoW 😲

...see more

Time it took to reach **1 million users**:

- Netflix** - 3.5 years
- Airbnb** - 2.5 years
- Facebook** - 10 months
- Spotify** - 5 months
- Instagram** - 2.5 months
- iPhone** - 74 days
- ChatGPT** - 5 days


**ChatGPT** is one of those rare moments in technology that **will reshape everything** going forward.

**WORLD ECONOMIC FORUM** Join us

DAVOS 2023

## Generative AI: a game-changer that society and industry need to be ready for

Jan 9, 2023



# Red Hat + IBM are partnering to bring AI to Ansible

Artificial Intelligence  
meets Ansible  
with **Project Wisdom**



**Red Hat**



# Project Wisdom brings generative AI to Playbook development

> Generate a  
playbook or role  
from a natural  
language request

**Content  
Generation**

> Find me a  
playbook or role  
similar to what  
I'm writing

**Content  
Discovery**

> Review my  
playbook and  
help make it  
better

**Content  
Optimization**

> Tell me what  
this playbook is  
doing - and it's  
impact

**Content  
Explanation**

# The Project Wisdom experience

## Enhancing Playbook creation

```
File Edit Selection View Go Run Terminal Help
cloudops.yml 1, M X
playbooks > cloudops.yml
1 ---
2 - name: AWS EC2 Cloud operations
3   hosts: localhost
4   connection: local
5
6   tasks:
7     - name: Create a virtual network
8
9     - name: Create a cloud instance
10
11
12
```

1. Ansible Wisdom is accessible via VSCode extension

2. Type in a task directly into the VSCode editor. Wisdom NLP takes over.

```
File Edit Selection View Go Run Terminal Help
cloudops.yml 1, M X
playbooks > cloudops.yml
1 ---
2 - name: AWS EC2 Cloud operations
3   hosts: localhost
4   connection: local
5
6   tasks:
7     - name: Create a virtual network
8       ec2_vpc_net:
9         name: "{{ vpc_name }}"
10        cidr_block: "{{ vpc_cidr }}"
11        region: "{{ region }}"
12        state: present
13        aws_access_key: "{{ aws_access_key }}"
14        aws_secret_key: "{{ aws_secret_key }}"
15        register: vpc
```

3. Ansible Wisdom will make a code recommendation for the developer to consider

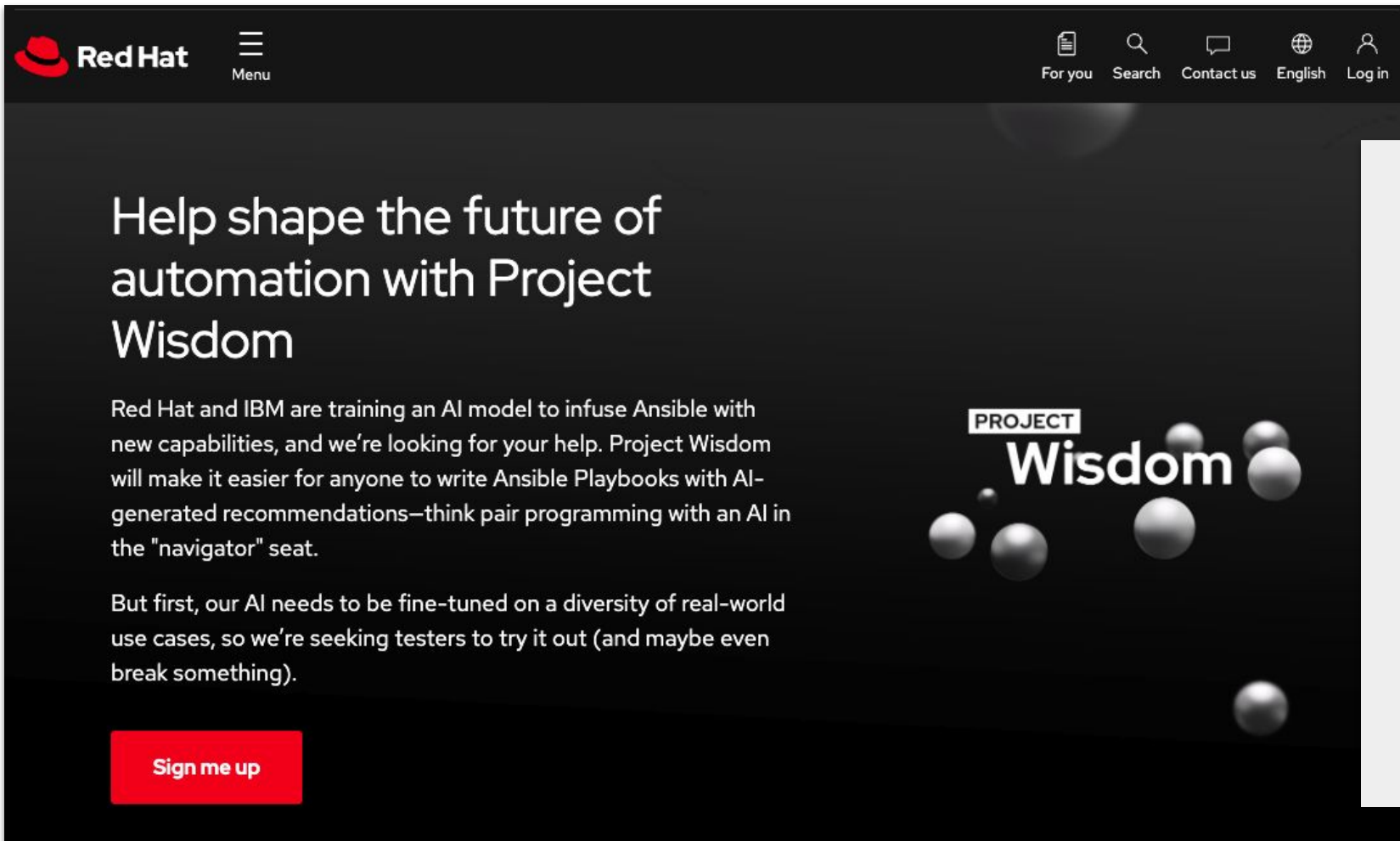
4. User has option to Accept, Ignore, or Modify recommended code snippet

```
File Edit Selection View Go Run Terminal Help
cloudops.yml M X
playbooks > cloudops.yml
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11        region: "{{ region }}"
12        state: present
13        aws_access_key: "{{ aws_access_key }}"
14        aws_secret_key: "{{ aws_secret_key }}"
15        register: vpc
16
```

5. If "accepted," playbook is automatically populated and user can move on to the next task

6. User prompted to provide feedback; this is important for helping to train the model.

# Get involved with Project Wisdom: Join the Private Preview



The screenshot shows the top navigation bar with the Red Hat logo, a menu icon, and links for 'For you', 'Search', 'Contact us', 'English', and 'Log in'. The main content area features a large heading 'Help shape the future of automation with Project Wisdom' and a sub-heading 'PROJECT Wisdom'. Below this is a paragraph describing the project and a 'Sign me up' button.

Red Hat and IBM are training an AI model to infuse Ansible with new capabilities, and we're looking for your help. Project Wisdom will make it easier for anyone to write Ansible Playbooks with AI-generated recommendations—think pair programming with an AI in the "navigator" seat.

But first, our AI needs to be fine-tuned on a diversity of real-world use cases, so we're seeking testers to try it out (and maybe even break something).

[Sign me up](#)

[redhat.com/wisdom](https://redhat.com/wisdom)

### Sign up to test Project Wisdom

**How would you like to participate? \***

I want to test out the project, and get email updates

Just send me email updates

**First name \***

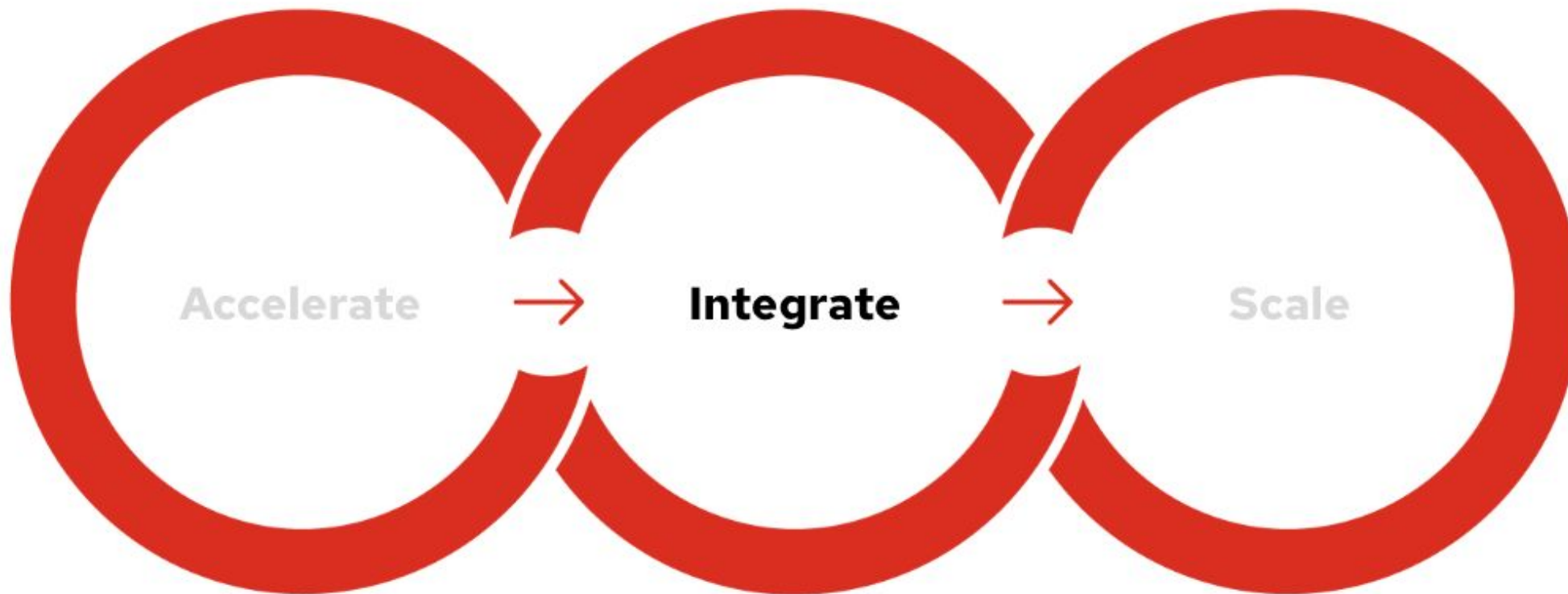
**Last name \***

**Work email \***

**Work phone \***

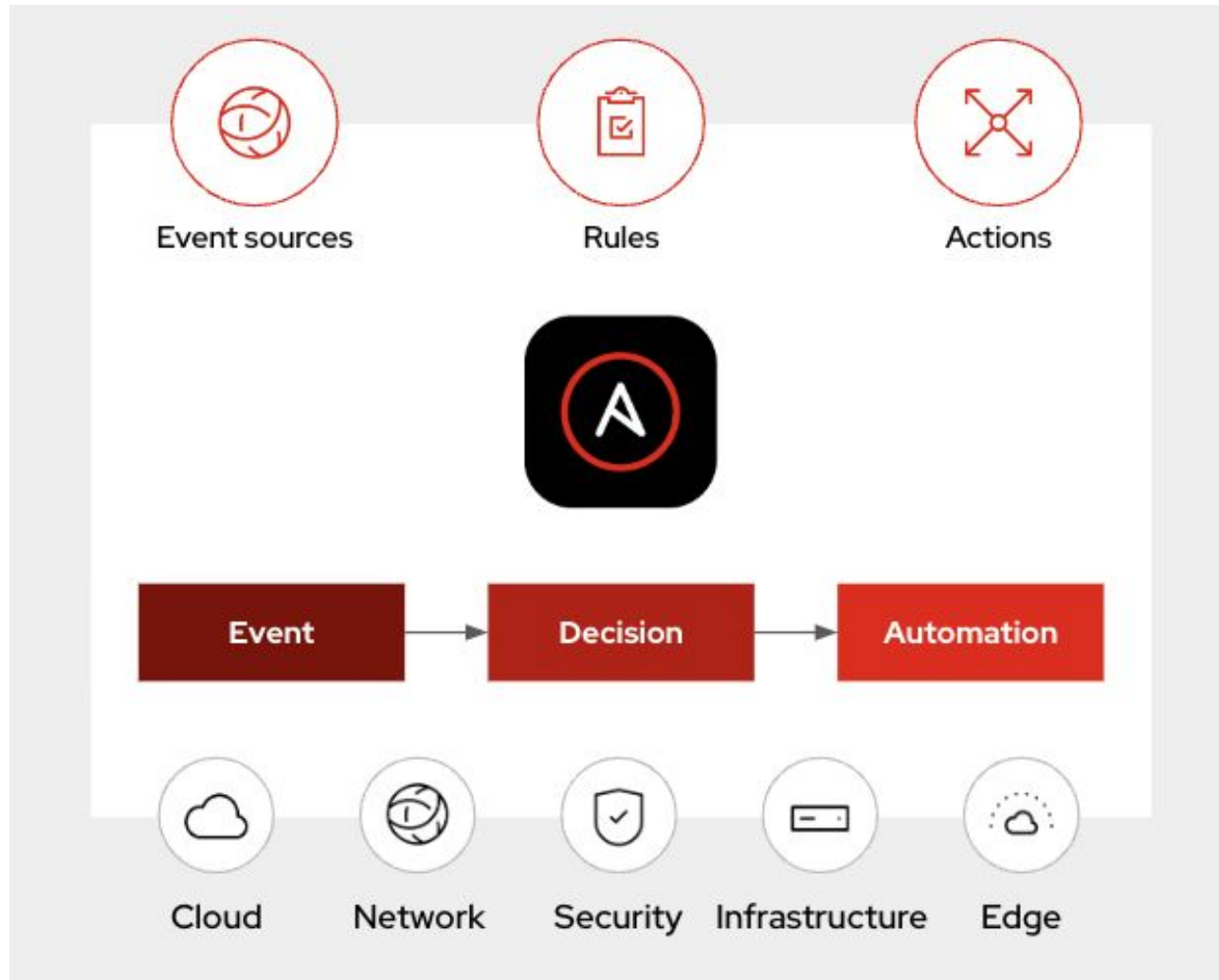
**Company \***

**Department \***





# Introducing: Event-Driven Ansible



## Observation + remediation

- ▶ Instead of running playbooks on a regular schedule, **trigger them on-demand** by a specific event.
- ▶ **Drastically reduce the time** it takes to observe, plan, and react to events.
- ▶ Gain the flexibility to **identify** important events and **resolve** them with rules-based actions.

# Event-Driven Ansible has a range of valuable use cases

## Networking

- ▶ **Basic** network troubleshooting tasks
- ▶ **Remediate** configuration issues based on port events
- ▶ **Infrastructure** awareness based on routing events

## Edge

- ▶ **Remediate** application deployment issues
- ▶ **Trigger** edge app redeployments
- ▶ **Automate** application scaling

## Cloud

- ▶ **Trigger** cloud estate check from instance creation events
- ▶ **Automate** remediation tasks from service bus events

## Infrastructure

- ▶ **Escalate** infrastructure issues for improved observability
- ▶ **Ensure** compliance post change events

## Security

- ▶ **Automate** log enrichment from a security event
- ▶ **Automate** security responses from incidents
- ▶ **Escalate** events for human intervention

## Applications

- ▶ **Allow** applications to trigger remediation of issues from patterns
- ▶ **Enrich** healing capabilities of applications and their dependencies

# Event-Driven Ansible: Event Source Plugins + Integrations

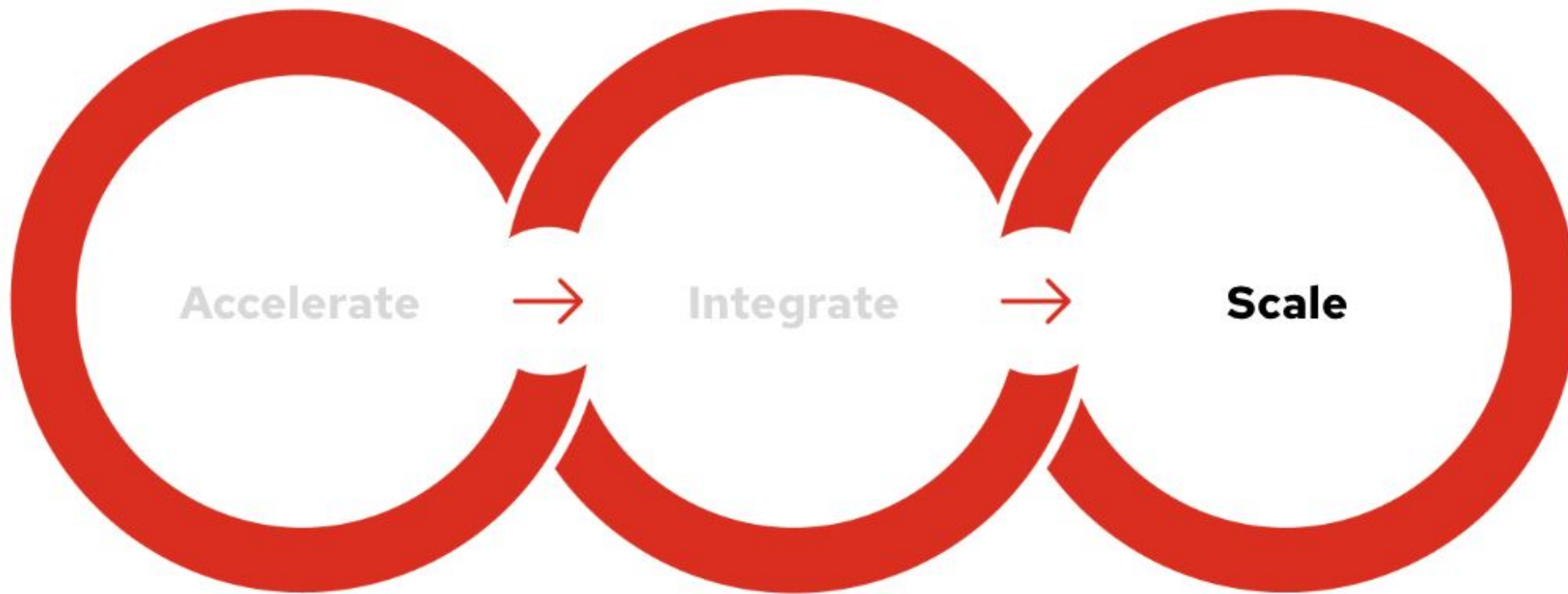
## Partner source plugins in roadmap

- ▶ AppDynamics
- ▶ Dynatrace
- ▶ Splunk
- ▶ IBM Instana
- ▶ LogicMonitor
- ▶ Sumologic
- ▶ GCP Pub/Sub
- ▶ AWS EventBridge

And More...

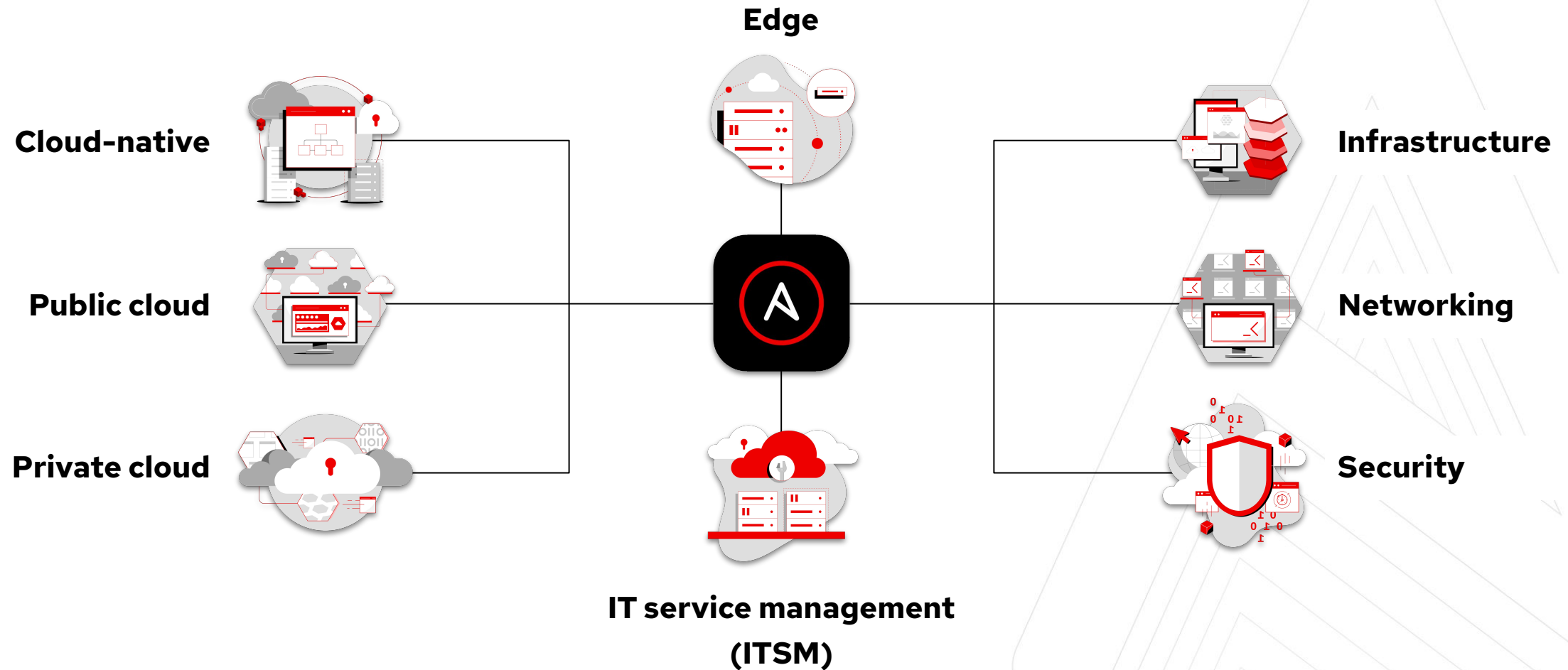
## Ansible Maintained Event Source Plugins

- ▶ Kafka
- ▶ Webhooks (generic)
- ▶ Prometheus/Alertmanager
- ▶ Azure Service Bus
- ▶ watchdog (file system watcher)
- ▶ url\_check (url status check)
- ▶ range (event generation plugin\_)
- ▶ file (loading facts from yaml)

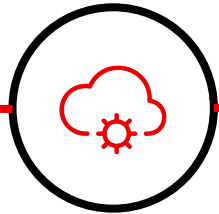


# A common platform for scaling automation across environments

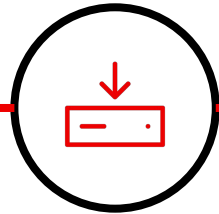
Orchestration, coordination, and governance from a single solution



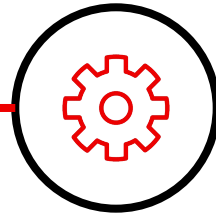
# Red Hat Ansible Automation Platform on the public cloud



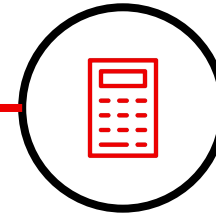
Runs in your public cloud



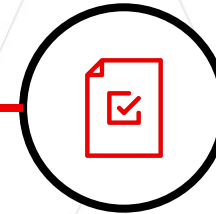
Fully installed and integrated



Fully supported by Red Hat



Integrated into public cloud billing



Counts toward spend agreements

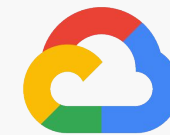
**AVAILABLE NOW ON 3 LEADING MARKETPLACES!**



Customer deployed,  
Managed by Red Hat

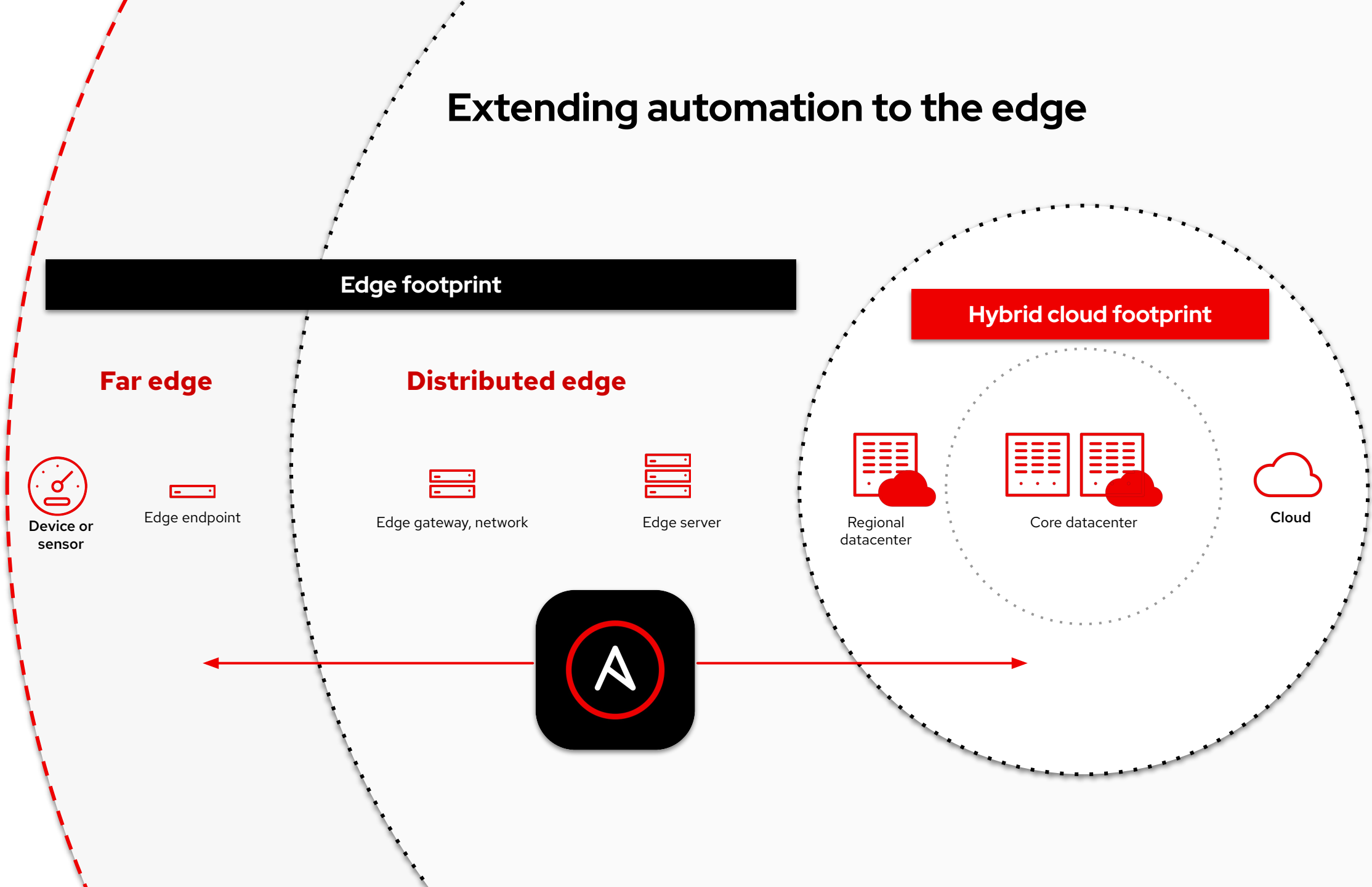


Customer deployed, Self-managed

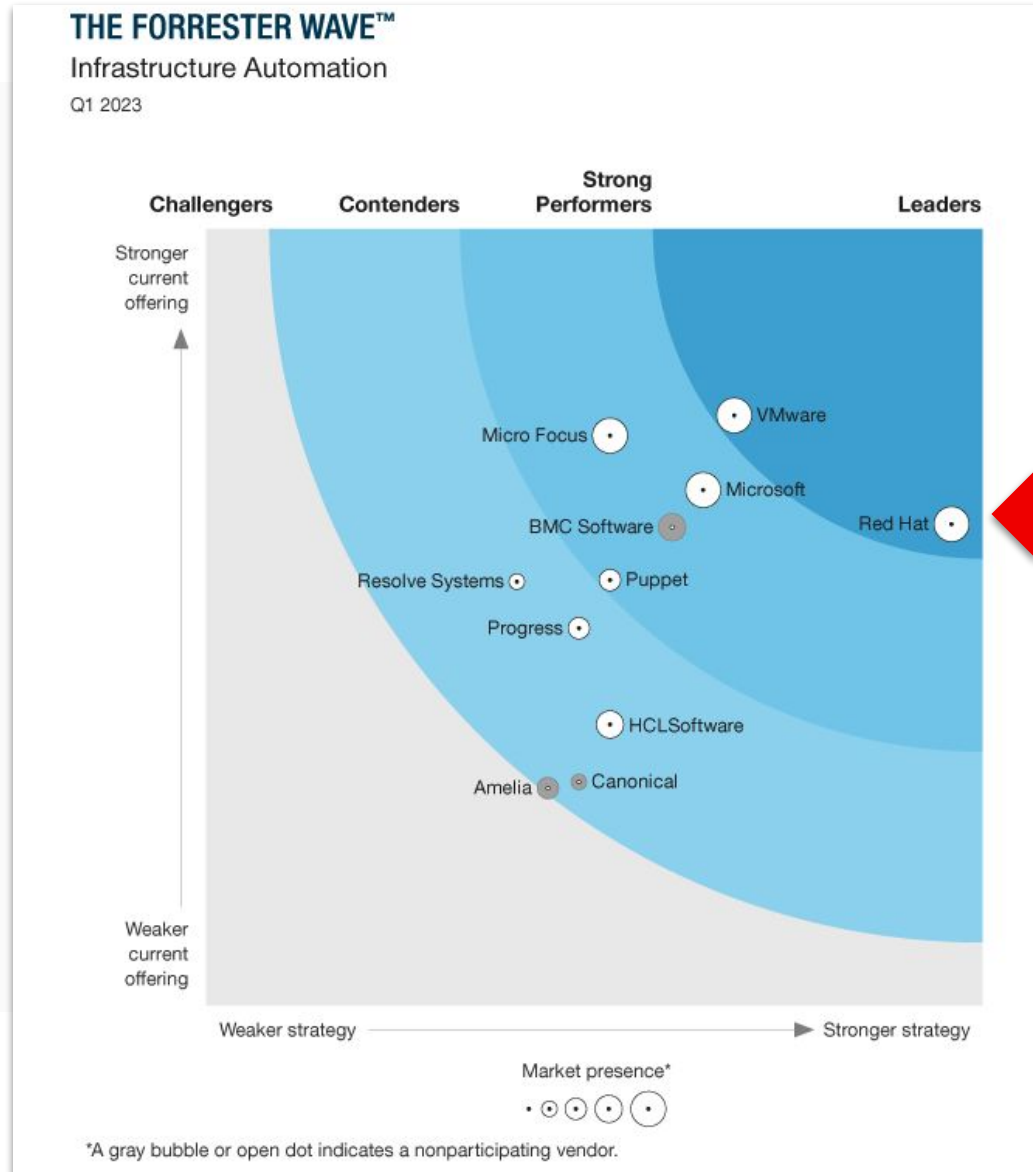


Google Cloud

# Extending automation to the edge



# Red Hat is a leader in the 2023 Forrester Wave™: Infrastructure Automation



## Vendor Profiles

Our analysis uncovered the following strengths and weaknesses of individual vendors.

### Leaders

- **Red Hat leverages its strong open source community to power innovation.** Red Hat is well-known for commercializing open source software for enterprises. It adds capabilities to upstream Ansible via its Ansible Automation Platform; this solution includes Automation Hub, Automation Services Catalog, and Insights for Ansible. Red Hat sets the pace of the market by addressing operational challenges, skill gaps, and budgetary pressures. Its strength lies in its community, which has led to solid partnerships and supporting services. Red Hat capitalizes on this ecosystem by adopting and embracing the work of contributors. Key upcoming features include trusted automation supply chain, Event-Driven Ansible, and AI-led automation through Project Wisdom.

Ansible has strengths in configuration management, integration with configuration management database (CMDB), analytics, and community support. It can clearly handle scale: Large global systems integrators lean on it to deliver managed services. Ansible's minimal support for storage contrasts with its strong server and network capabilities; it also lacks multilayered service blueprints, infrastructure templates, and complex orchestration (handling incidents with automated resolutions or remediation). Reference customers find the upgrade path and process troublesome despite their best efforts. They also want more flexibility and better capabilities for business continuity and disaster recovery. Red Hat is a great fit for firms seeking consolidated automation across many infrastructure technologies and vendors.

Source: Forrester Research. "[The Forrester Wave™: Infrastructure automation Q1 2023](#)," 2023.



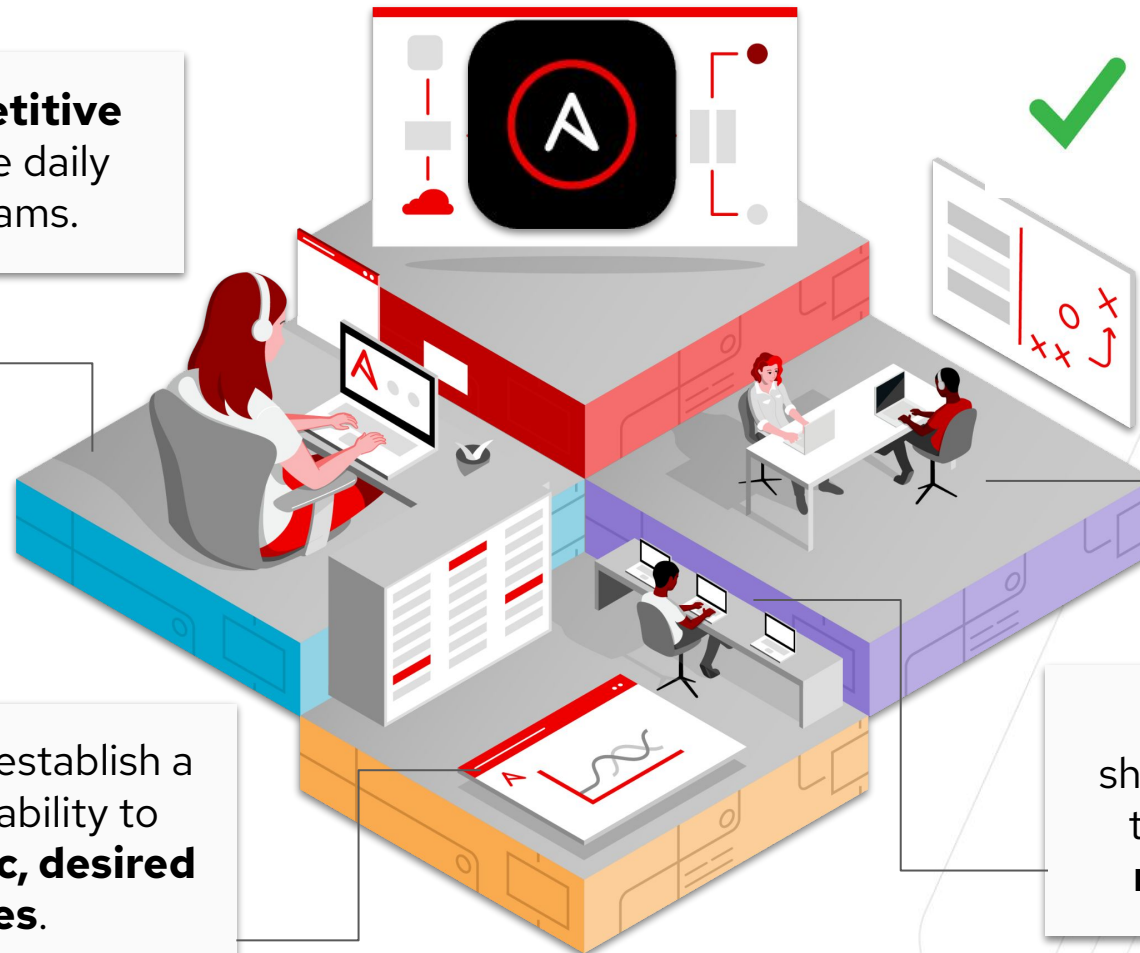
# Red Hat Ansible is the automation platform for what's next



**Removes repetitive tasks** from the daily work of IT teams.



**Fosters collaboration among and across IT teams;** a single platform around which the entire organization can align and grow.



Allows teams to establish a consistent capability to **achieve specific, desired outcomes.**

Delivers the ability to shape the shared solution to **meet the nuanced needs of each team.**



# Thank you



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