



# Welcome to Ansible Automates London

2023

Joanna Hodgson  
Country Manager, UK

## Three emerging things to consider

**1.**

**How Enterprises Will Align IT Spending with Business Conditions**

**2.**

**Filling the IT Skills Gap**

**3.**

**Accelerating the digital transformation**

## Collaboration is the key:

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

**Massimo Ferrari**  
Distinguished Product Manager  
Ansible Automation



## 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."*

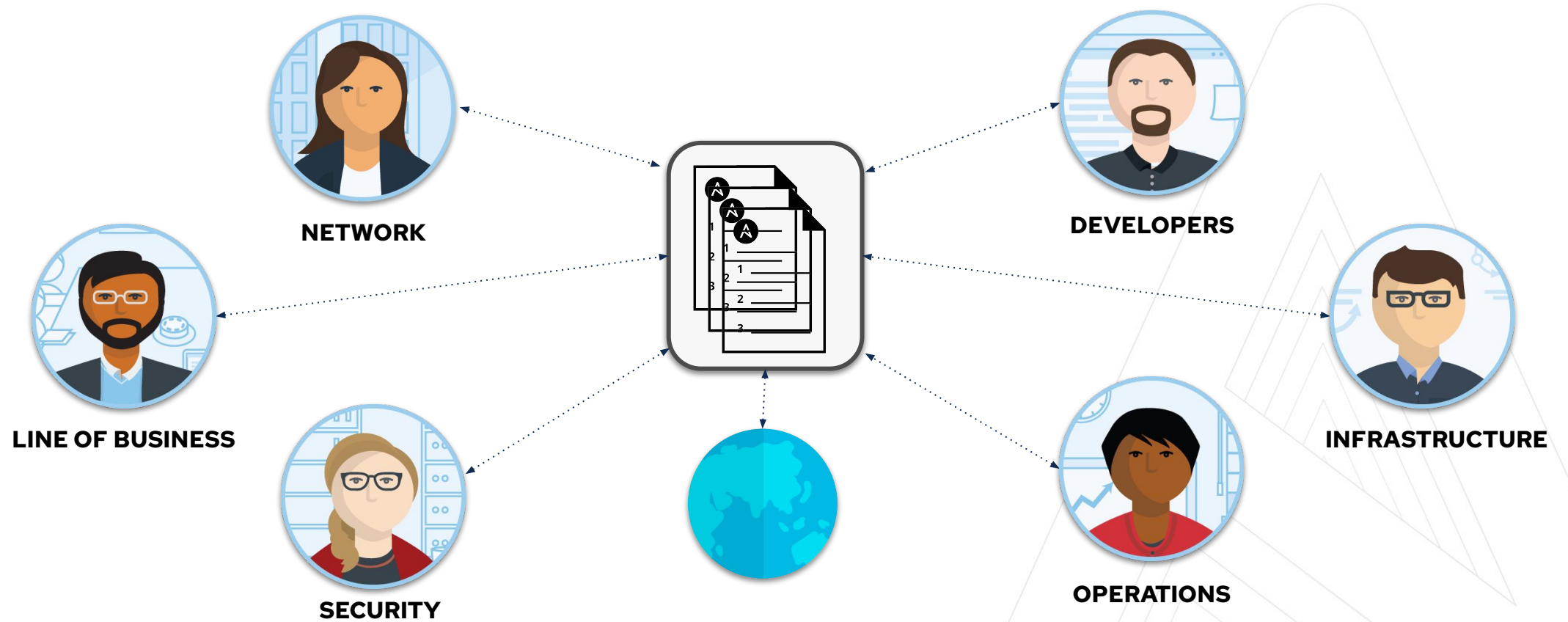
The **bad** news? **It's tough out there.**

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



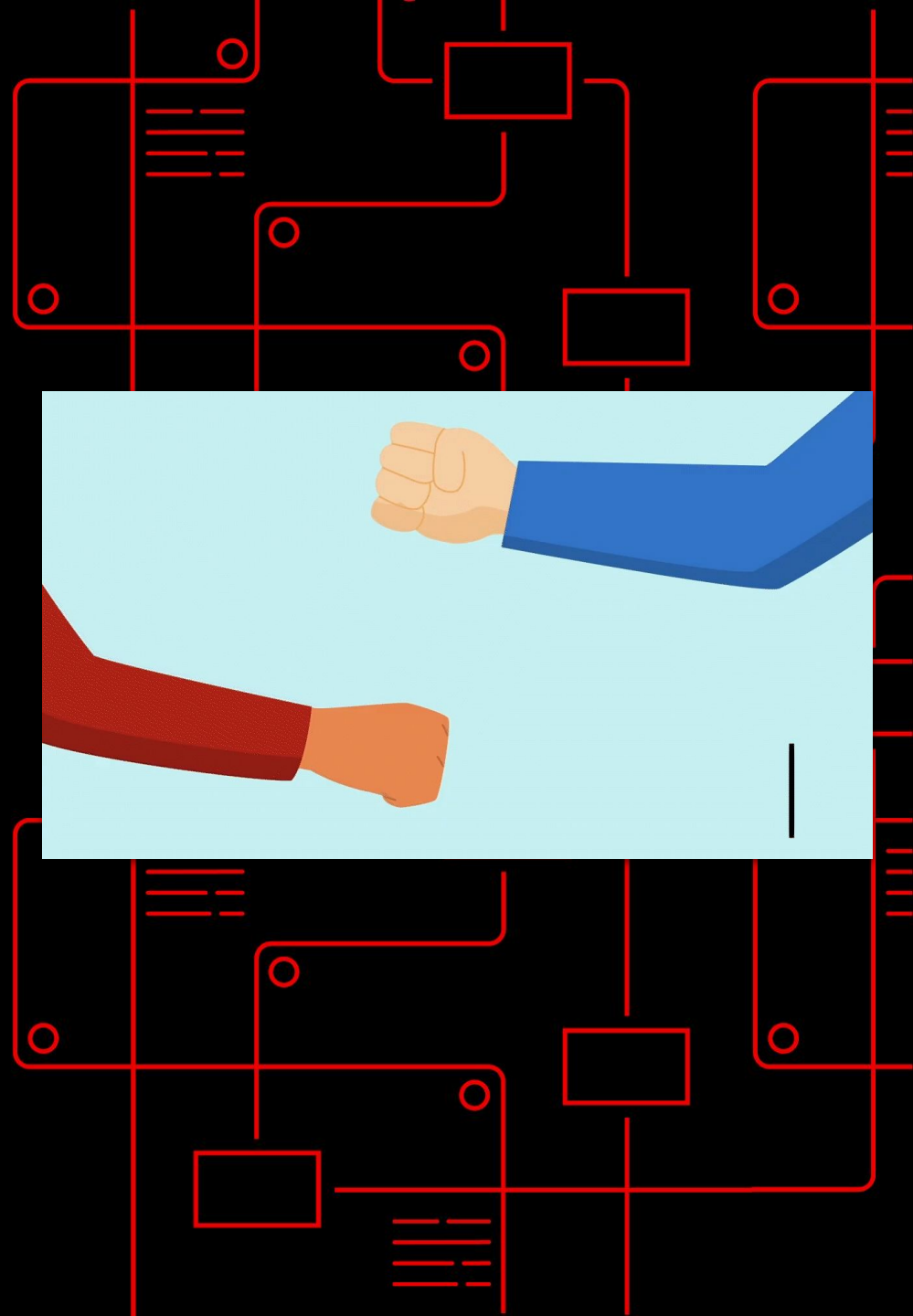
**498%** five-year ROI with 5 months to payback

LINE OF BUSINESS



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

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






*"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



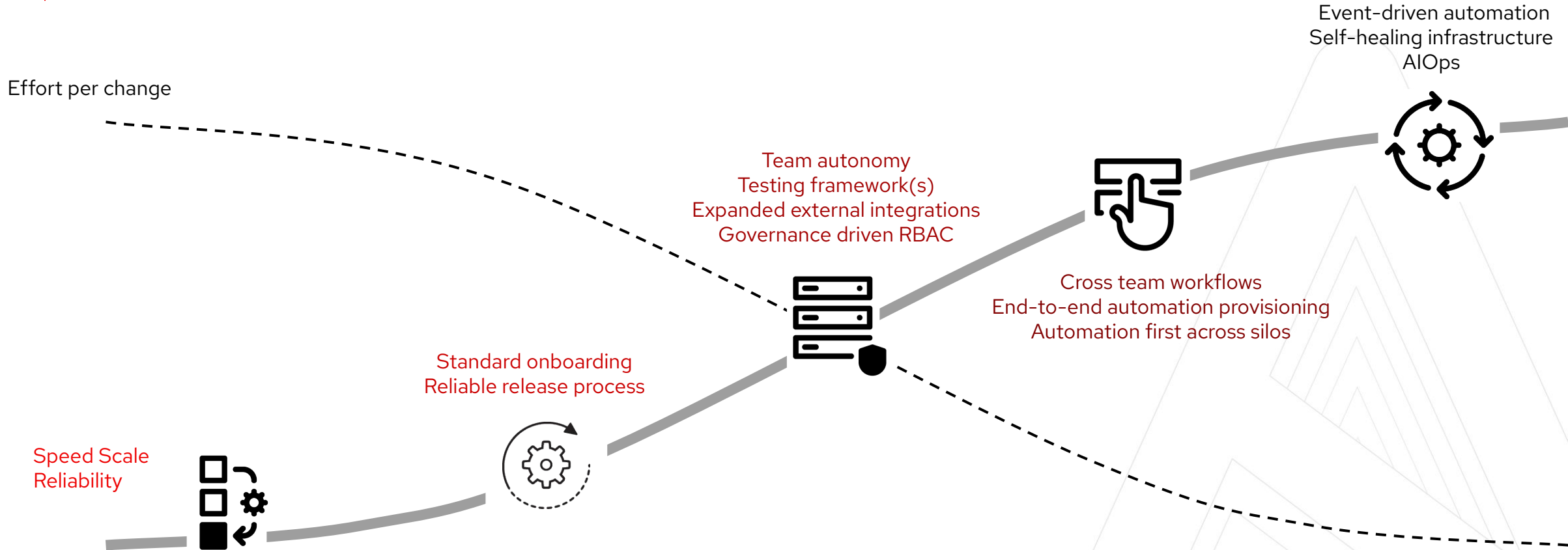
**Optimize**

**OR**

**Transform**



# Automation Maturity Curve



**Crawl**

▶ Simplify a task

**Walk**

▶ Centralize domain automation

**Run**

▶ Orchestrate across domains

# 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**

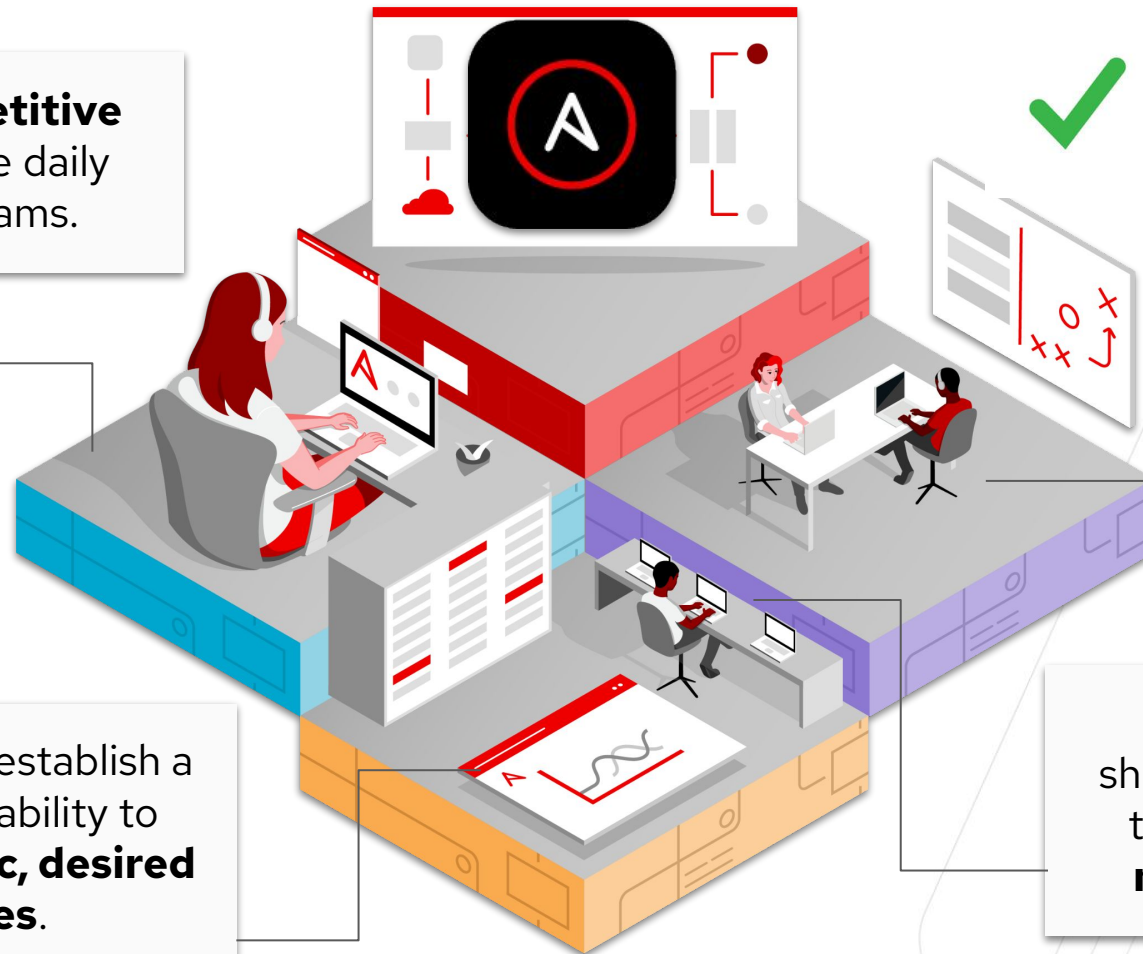
# Red Hat Ansible is the automation platform for what's next



**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.**

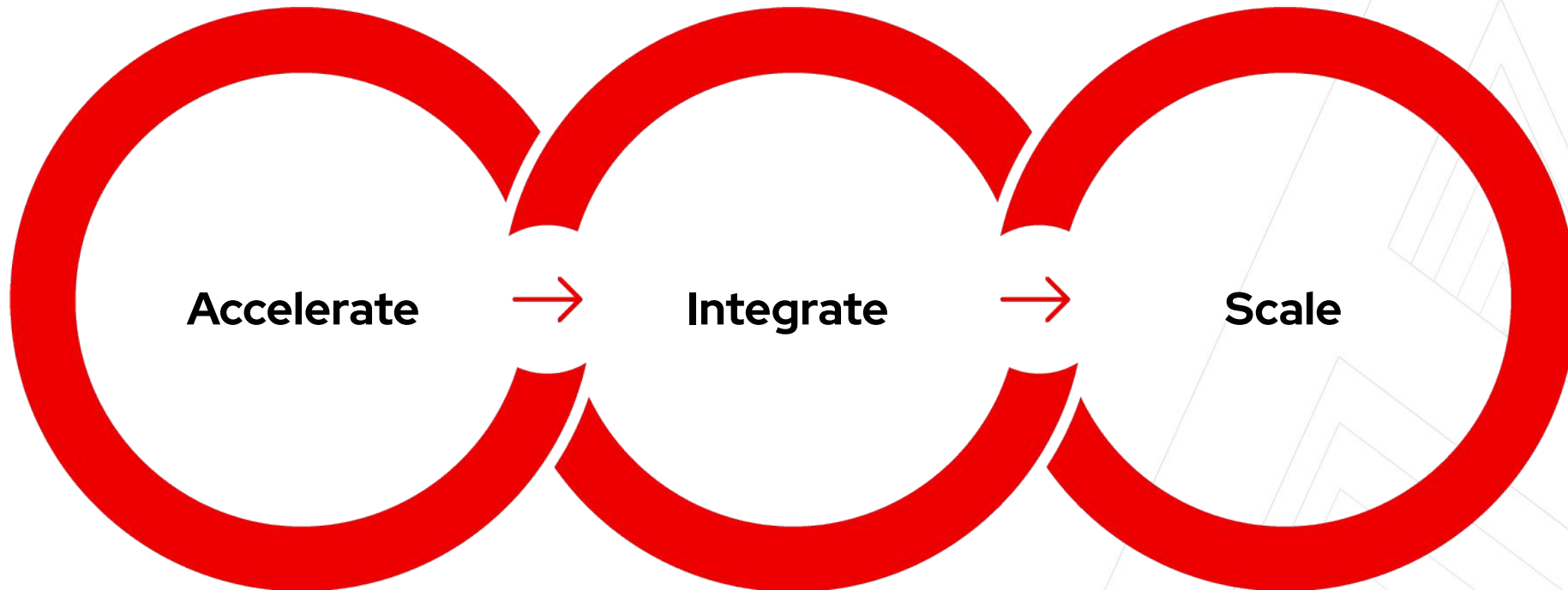
Delivers the ability to shape the shared solution to **meet the nuanced needs of each team.**



# The Ansible product strategy



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



# 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

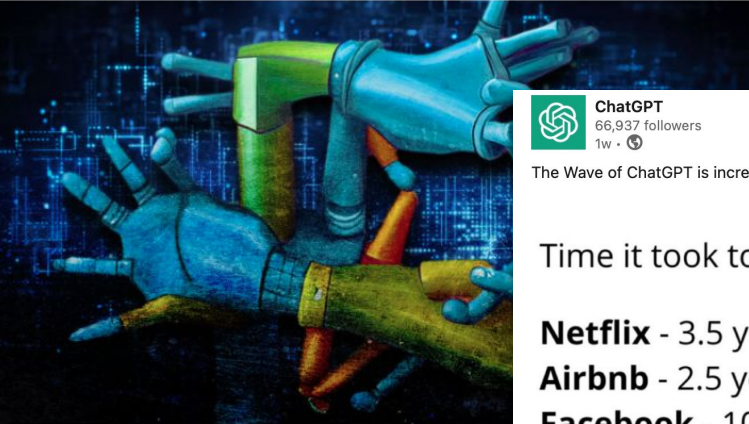
# The generative AI inflection point is upon us

**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



**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

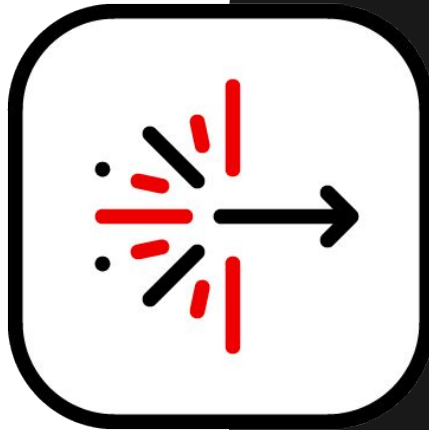
DAVOS 2023

## 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



**Ansible Lightspeed with IBM Watson Code Assistant** brings trusted generative AI into the automation creation experience.

It is built on three key pillars:

**Transparency**

**Collaboration**

**Choice**

# The Ansible Lightspeed experience

## Enhancing Playbook creation

**Ansible Lightspeed with IBM Watson Code Assistant** is a generative AI service accessed via the Ansible VSCode extension.

**A Tech Preview of the service is now available to all Ansible users**

The **IBM Watson Code Assistant** integration is infused with IBM's watsonX foundation model for Ansible automation.

IBM Watson Code Assistant is built on the **Red Hat OpenShift AI** platform.

**Ansible Lightspeed**  
with IBM Watson Code Assistant



```
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
```

**WatsonX.ai**



Watson Code Assistant



**Red Hat**  
OpenShift AI



**Red Hat**  
OpenShift





# Ansible Lightspeed brings generative AI to Playbook development

```
> Generate playbook  
content 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**

**Features on roadmap for upcoming commercial offering**

# Get involved with Ansible Lightspeed: Join the Technical Preview

## How does generative AI fit into automation?

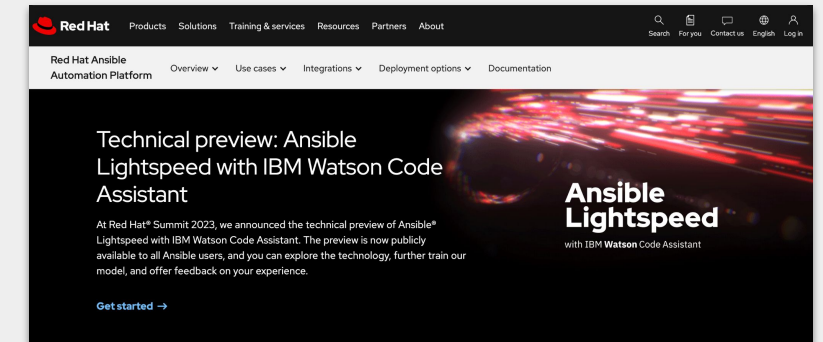
Businesses need to do more with less, and it takes time and resources to stand automation up before it delivers value. Generative AI can help close skills gaps and drive efficiency, resulting in faster time to value.

## What does the generative AI revolution mean for automation developers?

Generative AI is changing the way developers automate. Red Hat Ansible and IBM partnered together to tackle this question through Ansible Lightspeed

## Where do we go from here?

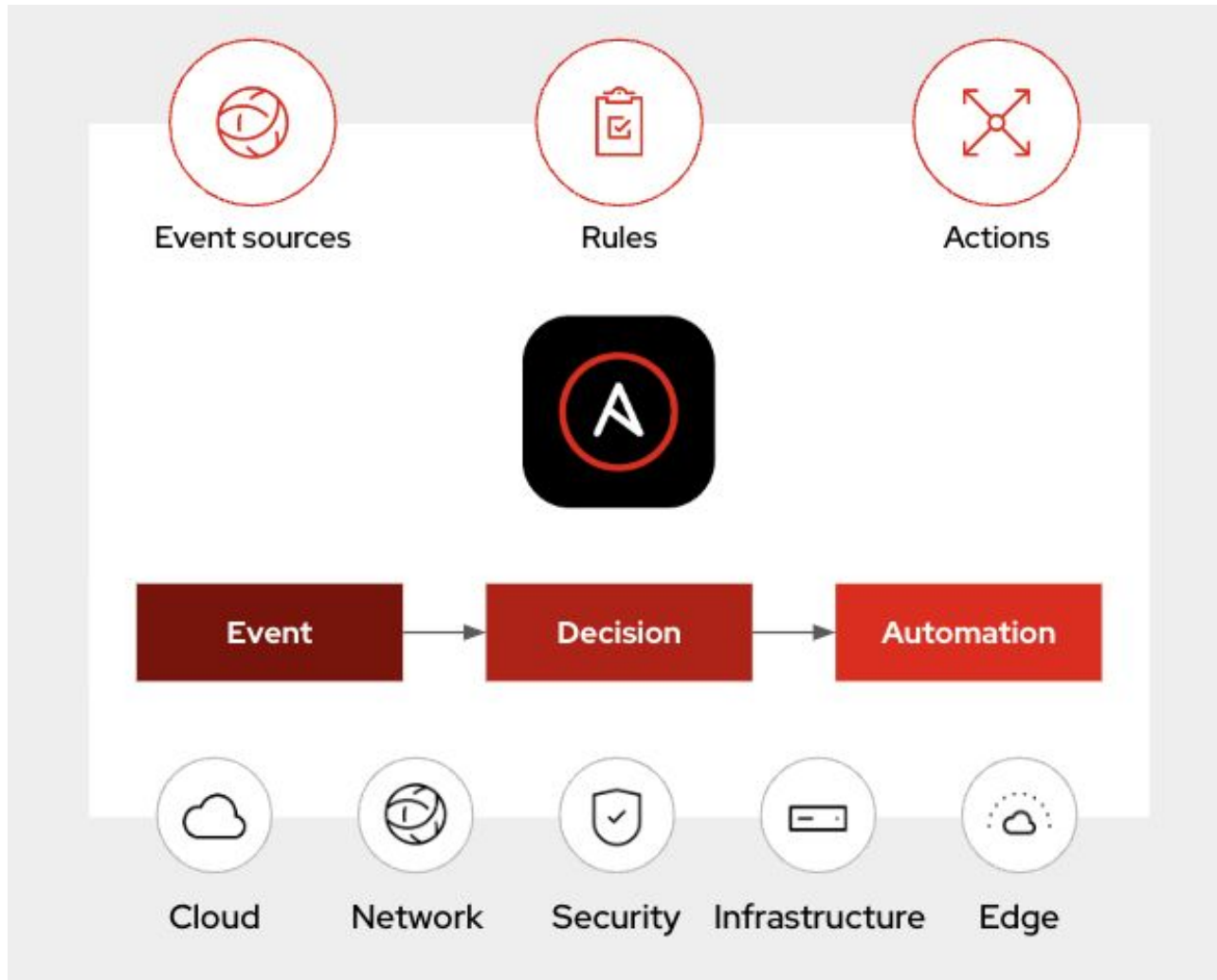
**Ansible Lightspeed with IBM Watson Code Assistant** provides Automation, powered by generative AI, that organizations and users can trust to deliver results



[redhat.com/ansible-lightspeed](https://redhat.com/ansible-lightspeed)

- ▶ Get started with the service
- ▶ [Community docs](#)
- ▶ [Technical Preview video](#)
- ▶ [Technical preview blog](#)

# 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)

# 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







Logos for Red Hat Enterprise Linux, Linux, Windows, nimble storage, NetApp, Hewlett Packard Enterprise, and PURE STORAGE.

### Network

 Routers	 Switches
 IPAM	 LBs


### Security

 PAM	 SEIM
 IDPS	 Firewalls

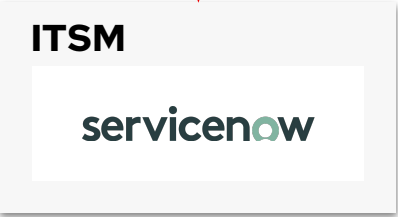
### Edge



Logos for podman, inductive automation, Red Hat Enterprise Linux, Rockwell Automation, and OPC UA.




**Red Hat Ansible Automation Platform**




**ITSM**  
servicenow

### Cloud native



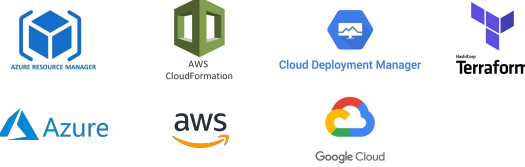
Logos for Red Hat OpenShift and kubernetes.

### Private cloud



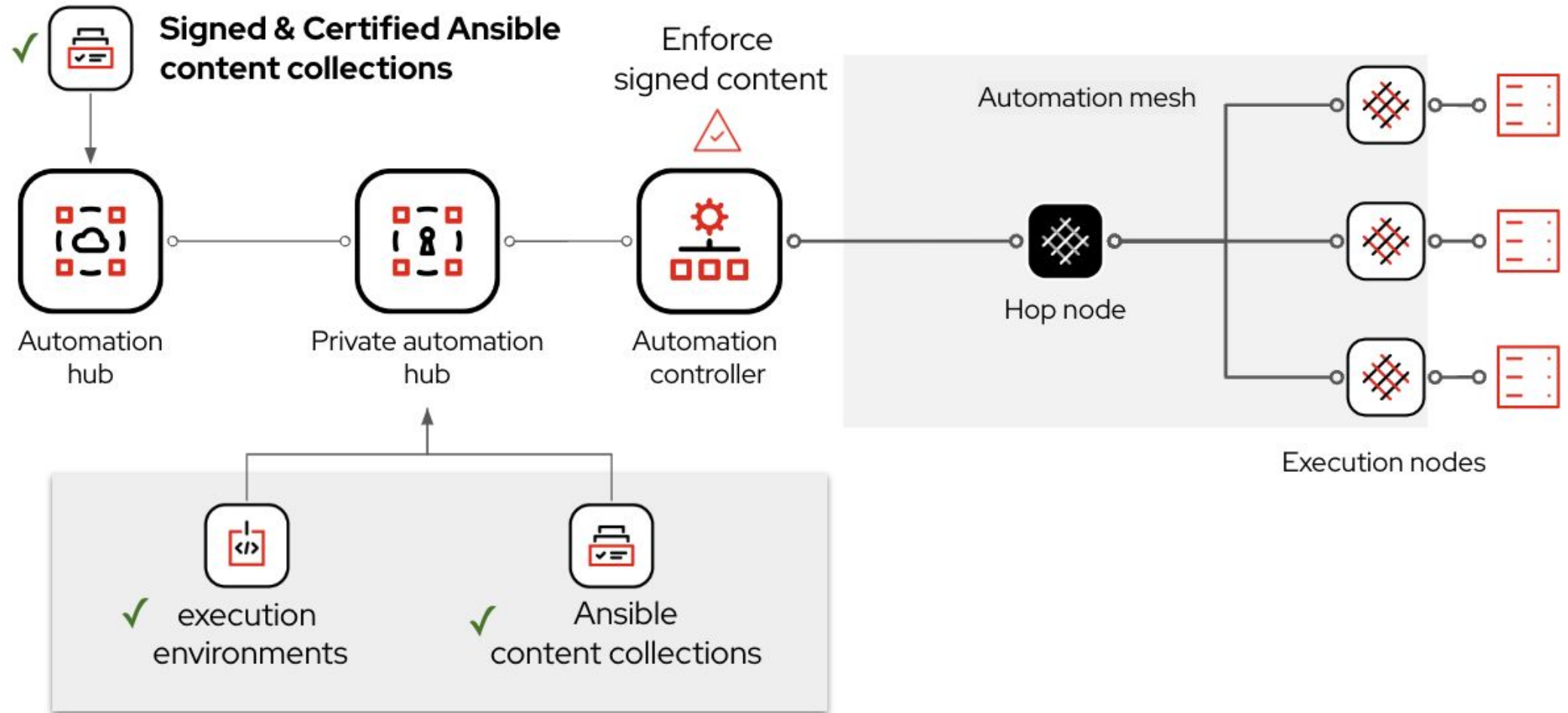
Logos for Red Hat OpenStack Platform, NUTANIX, and vmware.

### Public cloud

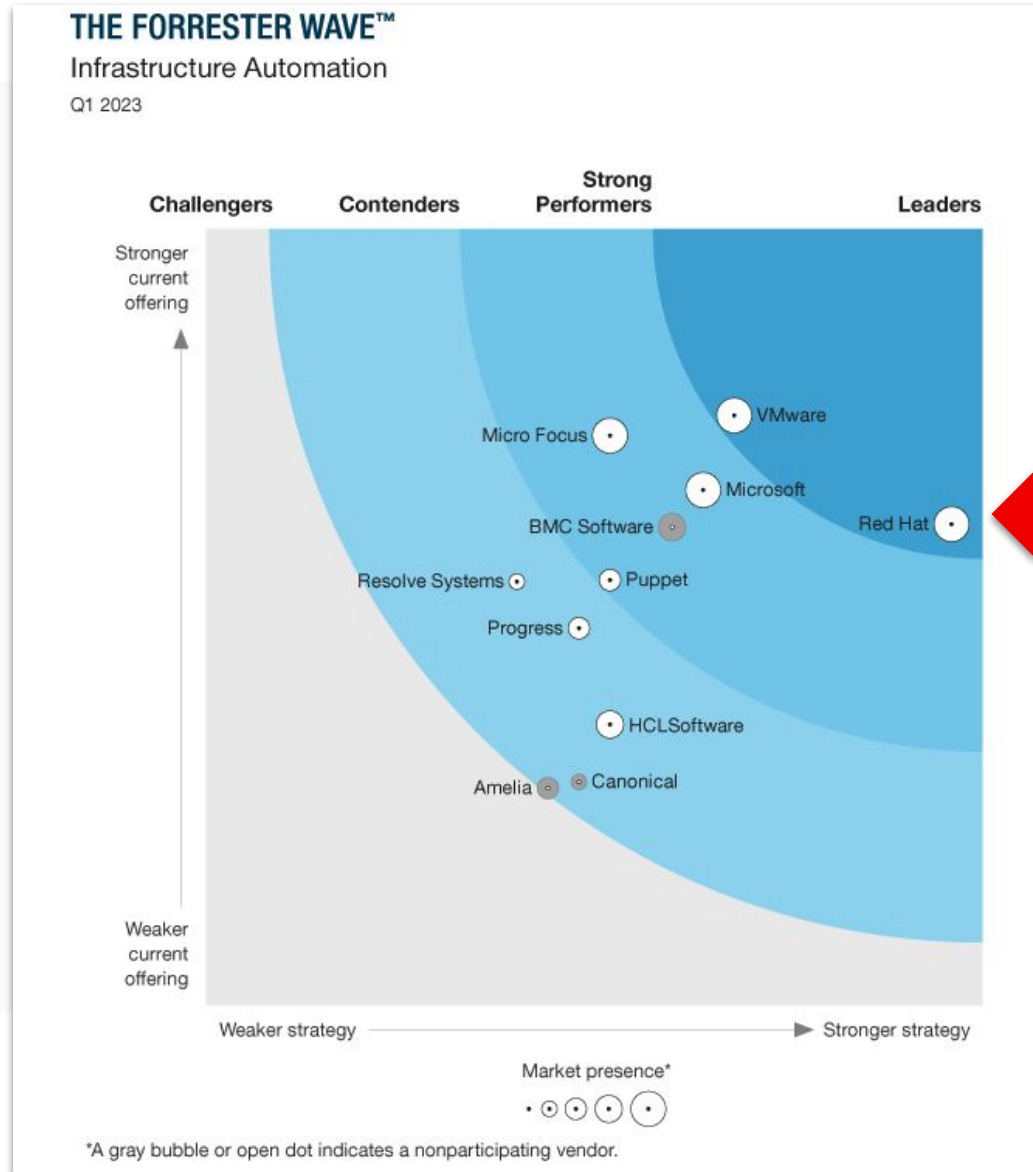


Logos for Azure Resource Manager, Azure, AWS CloudFormation, AWS, Cloud Deployment Manager, Google Cloud, and Terraform.

# The end-to-end trusted automation supply chain



# 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.





**Dave Hellewell**

Chief Technologist – Financial Services  
EMEA

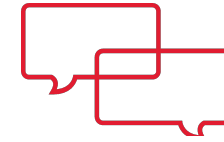




over

**25**

Years of  
Partnership



Collaborate



Build



**Deliver**

## Why Enterprise Automation & The Value of A Good Tool

- Enterprise computing is complex
  - Automation is a strategy to help us deal with complexity
- Project time = Total time - BAU work
  - Automation helps us transform this equation in favour of value adding projects
- Surveying our estate at scale can be impossibly hard
  - Automation with the right tools helps record and define what we have
- Enterprise computing is the cornerstone of any organisation. It needs to be dependable and flexible
  - The best Enterprise Automation suites encourage user engagement, they enhance reliability and they integrate easily with other tools

# Contributions to Ansible

Intel's contributions to ansible generally come in 1 of 3 forms

- **Contributions to the Ansible core:**

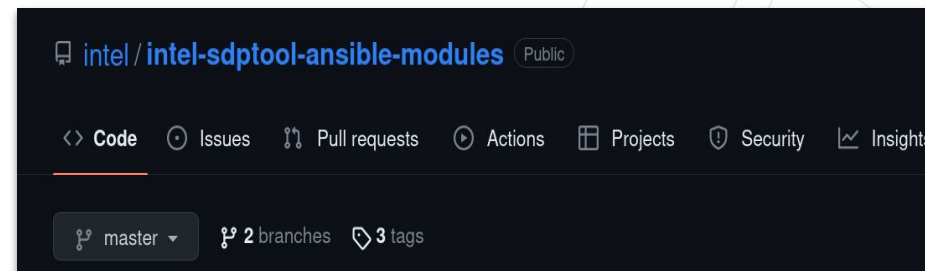
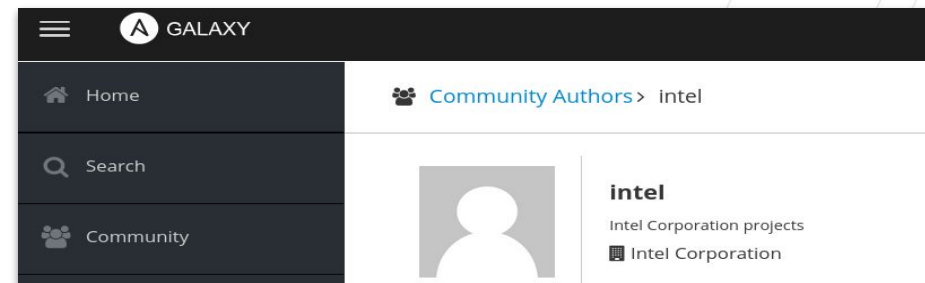
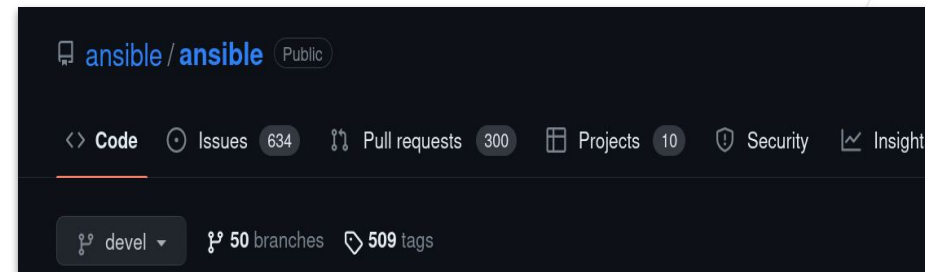
Patches and additions to core functionality and design

- **Contributions to Ansible Galaxy:**

Stand alone modules and playbooks as well as contributions to existing community projects

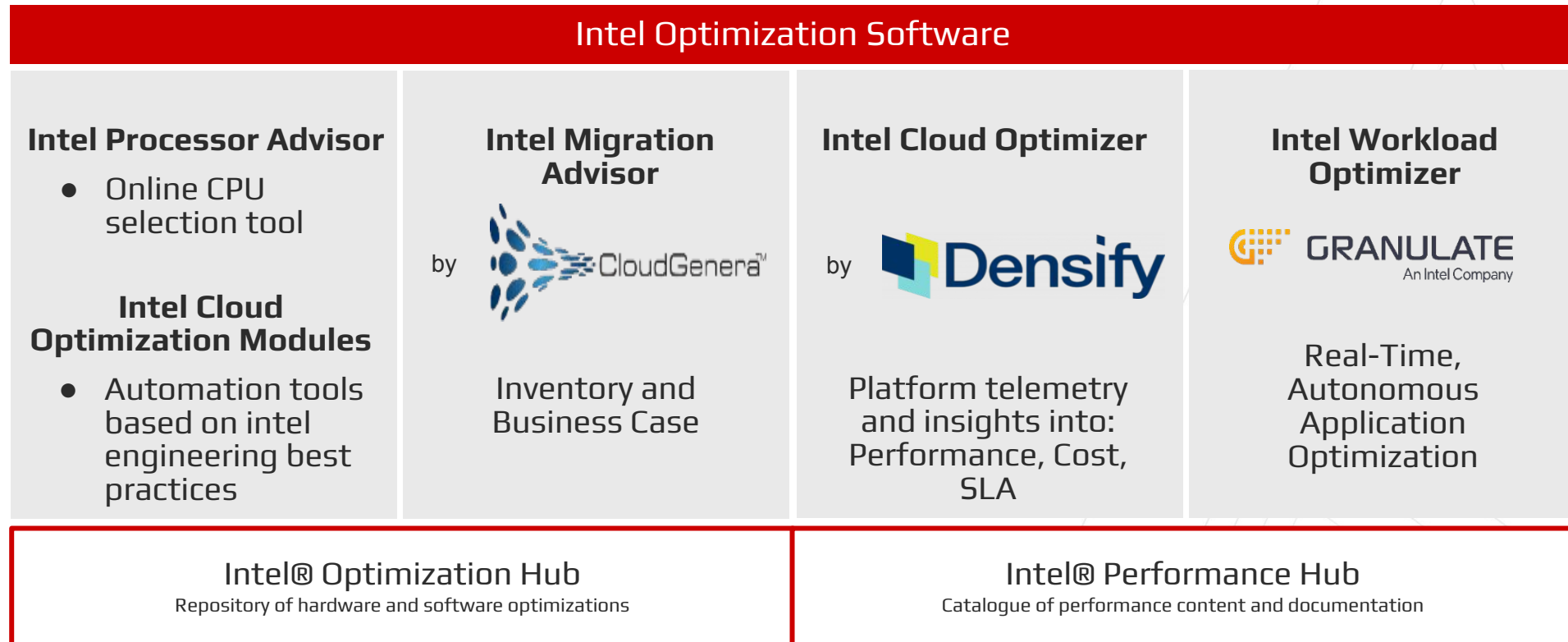
- **Stand alone modules:**

Proto offerings or specialised modules based on Intel IP



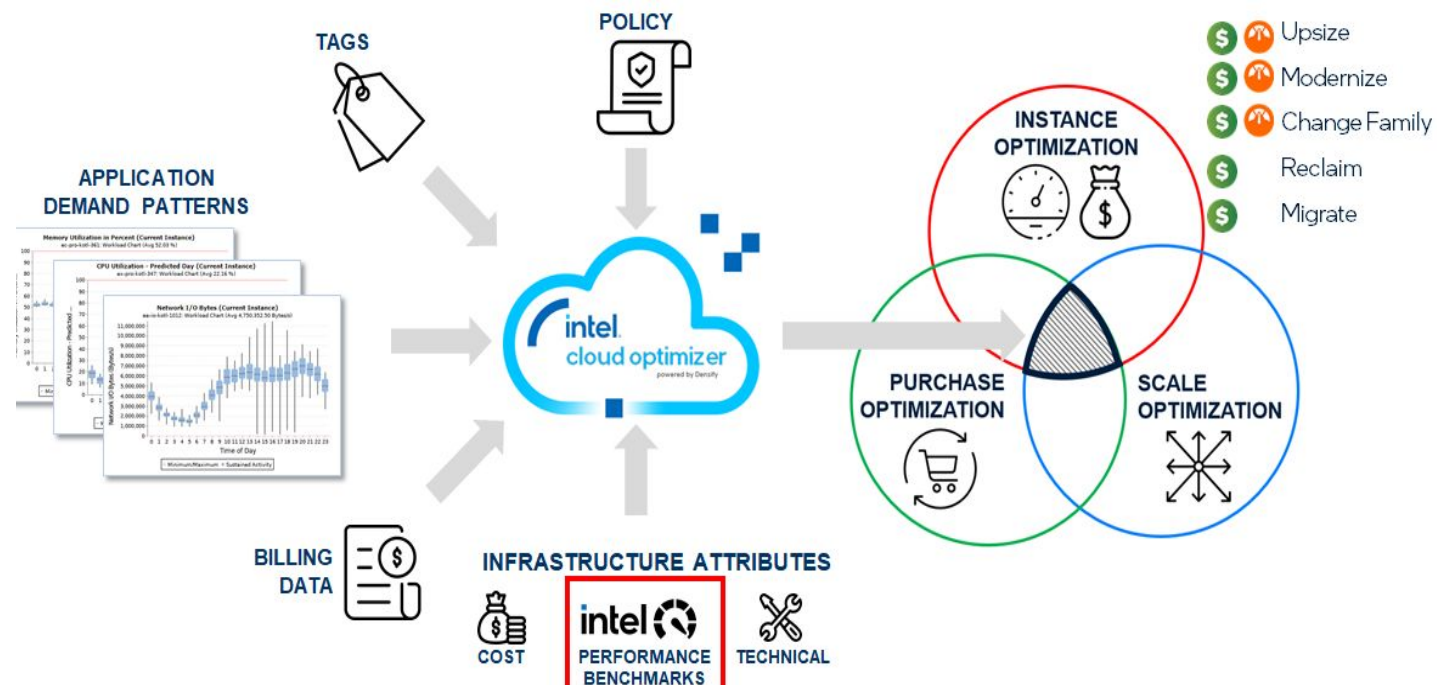
# Augmenting Enterprise Automation

Before we automate we need to understand what and how to deploy.  
Once deployed we can extend possibilities for automation from platform, VM, container and application feedback



# Intel Cloud Optimizer by Densify

- ML-based analysis of workload patterns and configurations, generate precise recommendations to optimize the size and type of infrastructure in use
- Densify provides visibility into your VMs or OpenShift containers and recommends application resource selection— enabling improved performance, stability, and lower cloud spend.



# Intel Cloud Optimizer by Densify

## Infrastructure Optimization

- Cloud-level analysis of instance and scale group workload

PUBLIC CLOUD CONTAINERS PRIVATE CLOUD DEMAND PLANNING AUTOMATION MY REPORTS

EC2 Instance Optimization Details

Sort by Overall Status & Optimization Type 6 Instances \$294 Savings/Month

Account	Environment	Cluster	System	System ID	Overall Status	Optimization Type	Recommendation Reason/Observations	Current Instance Type	Current RI Coverage (%)	Recommended Instance Type	Defer Recommendation Until Current RI Coverage Expires
General Services (922390019409)	922390019409 (Mobile_Dev)	us-east-1a	<a href="#">ex-prepro-imco-216</a>	i-0fac1c66d709b8770	Savings Opportunity	Terminate	System is idle and should be considered for termination	t2.large-Linux	0	-	No
General Services (922390019409)	922390019409 (Mobile_Dev)	us-east-1a	<a href="#">ec-pro-emsg-1220</a>	i-00bc37973411bc18	Savings Opportunity	Modernize	-	r4.2xlarge-Linux	0	r5.2xlarge-Linux	No
General Services (922390019409)	922390019409 (Mobile_Dev)	us-east-1a	<a href="#">ex-pro-fifo-1252</a>	i-00bc49919120bc86	Savings Opportunity	Downsize - Optimal Family	Less expensive Instance Type can be used for this system	c4.2xlarge-Linux	0	r5.large-Linux	No
General Services (922390019409)	922390019409 (Mobile_Dev)	us-east-1c	<a href="#">ex-prepro-rai5-523</a>	i-00bc16989292bc54	Savings Opportunity	Downsize - Optimal Family	Less expensive Instance Type can be used for this system	c4.xlarge-Linux	0	m5.large-Linux	No
General Services (922390019409)	922390019409 (Mobile_Dev)	us-east-1d	<a href="#">ec-tst-emsg-1103</a>	i-00bc33574809bc11	Optimal	Just Right	-	i3.large-Linux	0	i3.large-Linux	-
General Services (922390019409)	922390019409 (Mobile_Dev)	us-east-1c	<a href="#">ex-prepro-expl-591</a>	i-00bc75825963bc90	Identified Risk	Upsize - Optimal Family	-	m3.medium-Linux	0	c5.large-Linux	No