

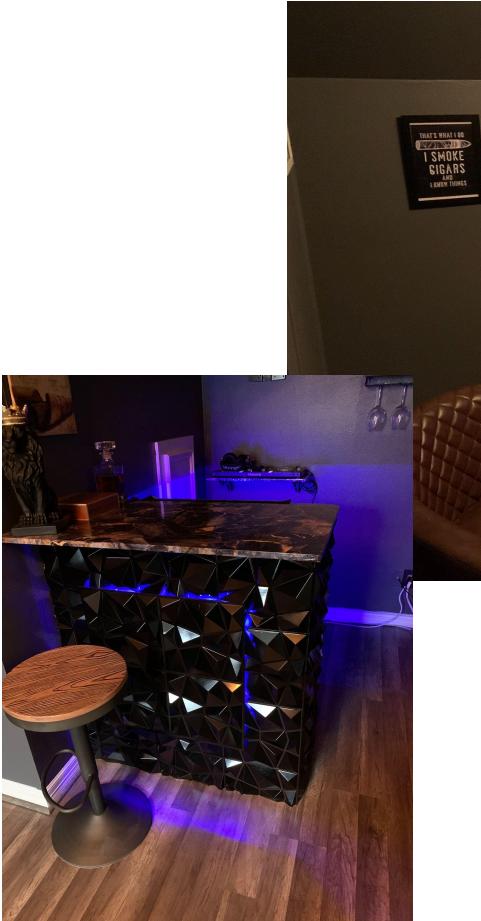
# Strategies for Adopting IT Automation Across Your Organization

# Walter Bentley

Director, Community Strategy, Ansible BU



@djstayflypro



# Talking Points

- ❑ Business Value
- ❑ Why Automation
- ❑ The Platform
- ❑ Tools Available

# Business Value

## Business value

### What is business value in IT?

Business value is the estimated health and well-being of a business by measuring concrete and abstract elements such as monetary assets and utility and employee, customer, supplier and societal value. These measurements vary between organizations and departments, but they can provide a better idea of a company's worth. In Information Technology, business value can be measured in elements such as usability, performance and security.

## Business value

### Why is business value important?

Determining business value is important because it can help companies determine opportunities and opportunity costs when planning for future growth and help them meet industry standards. Business value also helps companies analyze their strengths and weaknesses to set and achieve goals and improve the overall function, product delivery process and customer satisfaction rate. Questions about business value in IT often come from stakeholders and executives outside the department, so IT leaders need to understand this concept to help the company as a whole achieve its goals.

Business value

Usability

Functionality

Reliability

Performance

Security

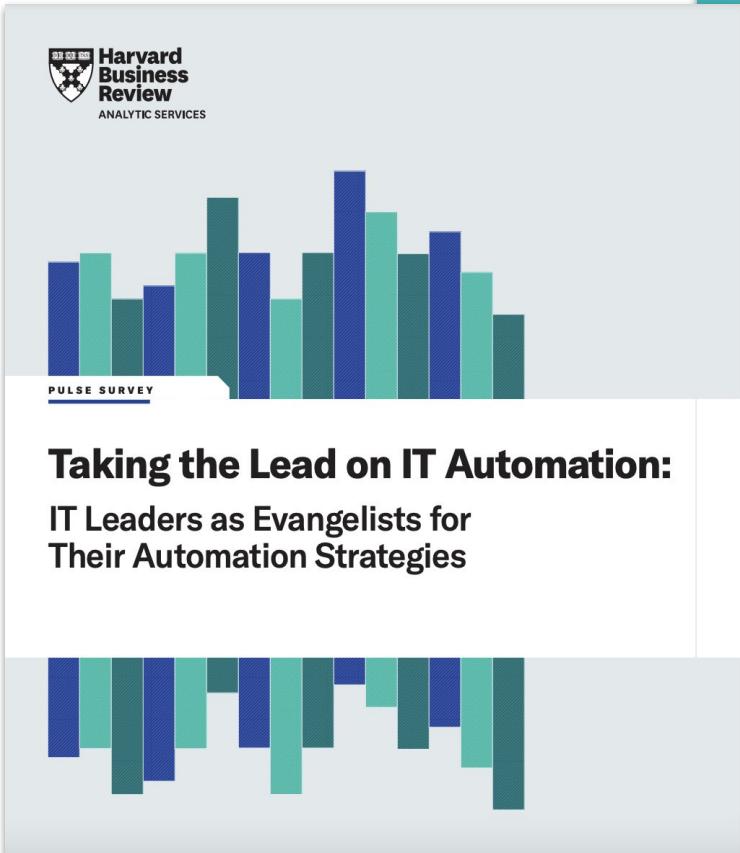
Agility

Tie Business Value to Automation Use Cases

# Why Automation

[Harvard Business Review](#)

## Why automation



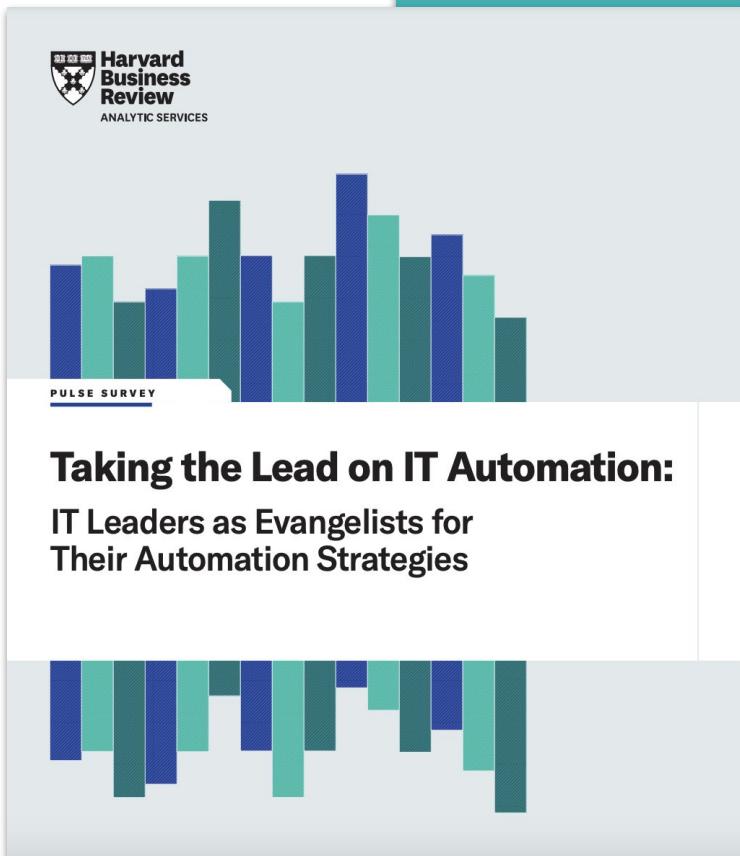
**Increased efficiency of business processes, cited by 75% of respondents, is the top business benefit organizations most aim to realize from their IT automation investments.**

**Implementing digital transformation strategies depends on using IT automation to speed development processes and relieve IT workers of manual, low-value tasks.**

**"If there's one thing IT leaders should do, it's provide clear, simple, consistent, regular communication of the strategy for IT automation," says Lee Howells, digital expert at PA Consulting.**

Source: Harvard Business Review Analytic Services sponsored by Red Hat

# Why automation



## Taking the Lead on IT Automation: IT Leaders as Evangelists for Their Automation Strategies

### HIGHLIGHTS



80% of respondents say **adopting IT automation** is "extremely important" or "very important" to the **future success** of their organization.



68% of respondents agree that in the past 12 months, **IT automation at their organization has shifted** from a "nice to have" to a "must have."



68% of respondents say IT leaders should be **developing and sharing a vision for how IT automation will benefit** the organization and IT workers' jobs—but only 34% say IT leaders are doing this now.

Due to rounding, some figures in this report may not add up to 100%.

### Looking for Vision

Companies challenge IT leaders to set IT automation priorities and promote culture change

What roles should IT leaders at your organization play in adopting IT automation? [SELECT ALL THAT APPLY]

What roles do IT leadership at your organization currently play in adopting IT automation? [SELECT ALL THAT APPLY]

■ What IT leaders should be doing ■ What IT leaders are doing

68%	34%
-----	-----

Developing and sharing a vision for how IT automation will benefit the organization and IT workers' jobs

61	48
----	----

Setting IT automation priorities/strategies

53	26
----	----

Serving as a proponent of culture change to ensure automation is accepted

44	47
----	----

Deciding the level to which IT tasks will be automated

44	29
----	----

Seeking buy-in from the broader executive team for IT automation

40	49
----	----

Determining which automation vendors/technologies to use

35	36
----	----

Being hands-on in implementing the technology

25	22
----	----

Seeking buy-in from IT teams for IT automation

Source: Harvard Business Review Analytic Services survey, November 2021

## Why automation

- See the value of automation
- Build an automation strategy
- Drive adoption of automation

### User stories/Use Cases

Set the standard

Onboarding to AAP 2.x

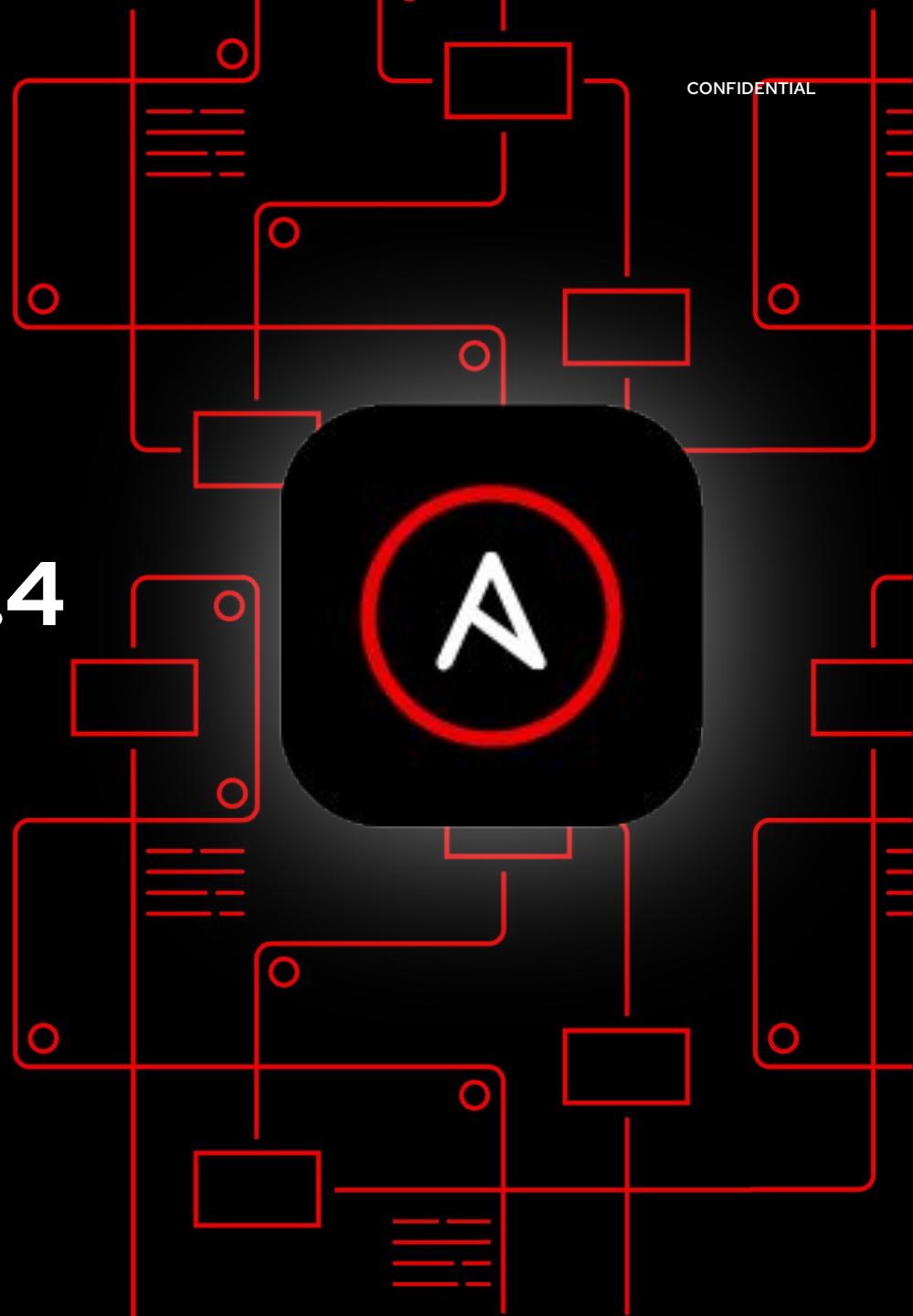
Leadership buy-in

Remove silos, drive collaboration

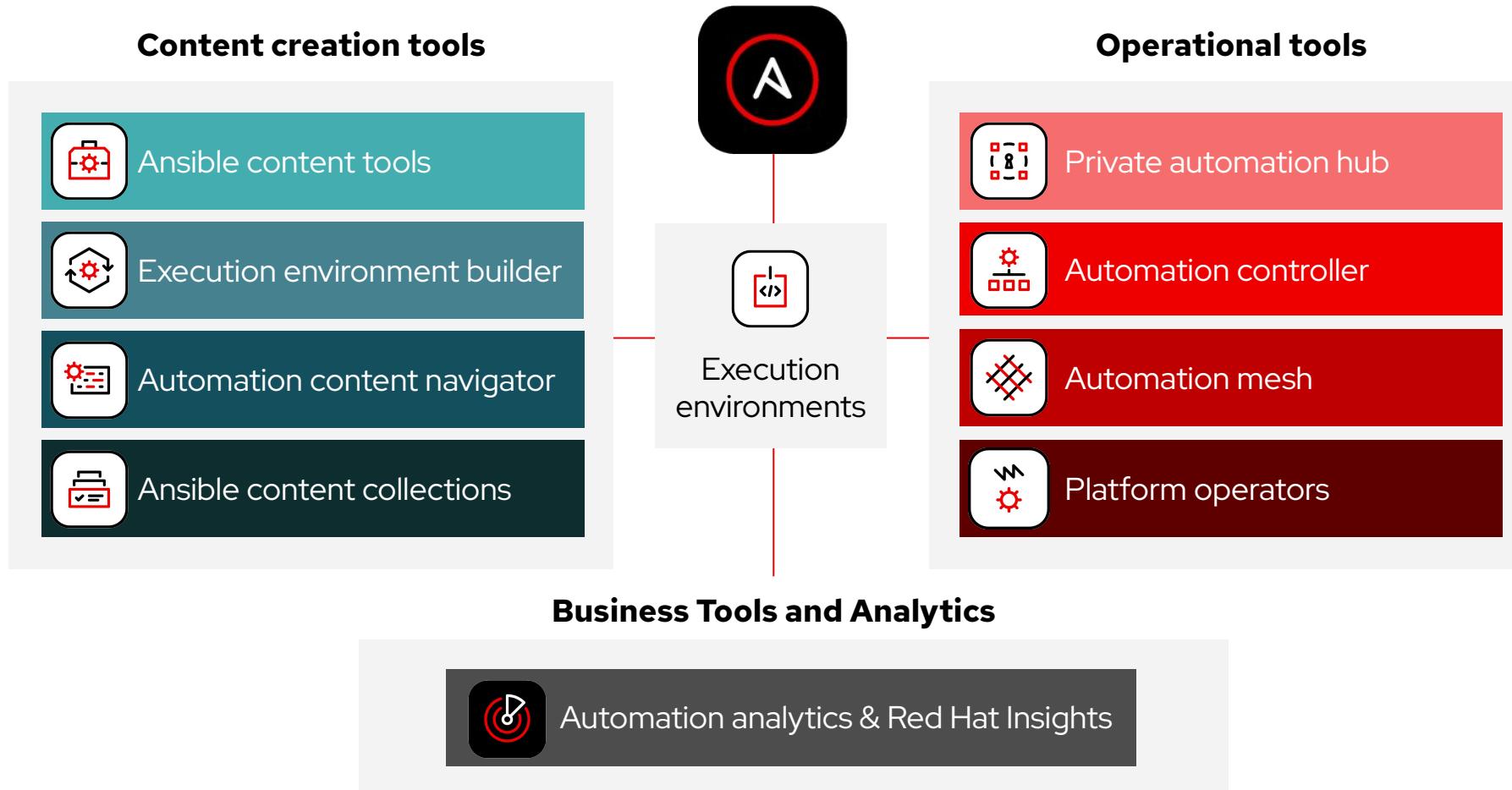
Training

# The Platform

# Ansible Automation Platform 2.4 and beyond



# An integrated solution for the enterprise.



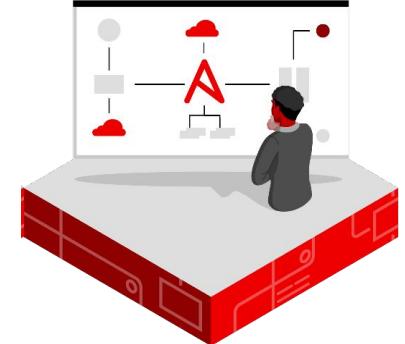
# Enabling your automation team **to consistently...**



**Create**

**Manage**

**Scale**



# Create



**Content developer experience**



**Ansible Content Ecosystem**

# Manage



**Automation management experience**



**Automation content supply chain**



**Flexible automation everywhere**



**Event-driven automation**



# Create

 Content developer experience

 Ansible Content Ecosystem

# Manage

 Automation management experience

 Automation content supply chain

# Scale

 Flexible automation everywhere

 Event-driven automation

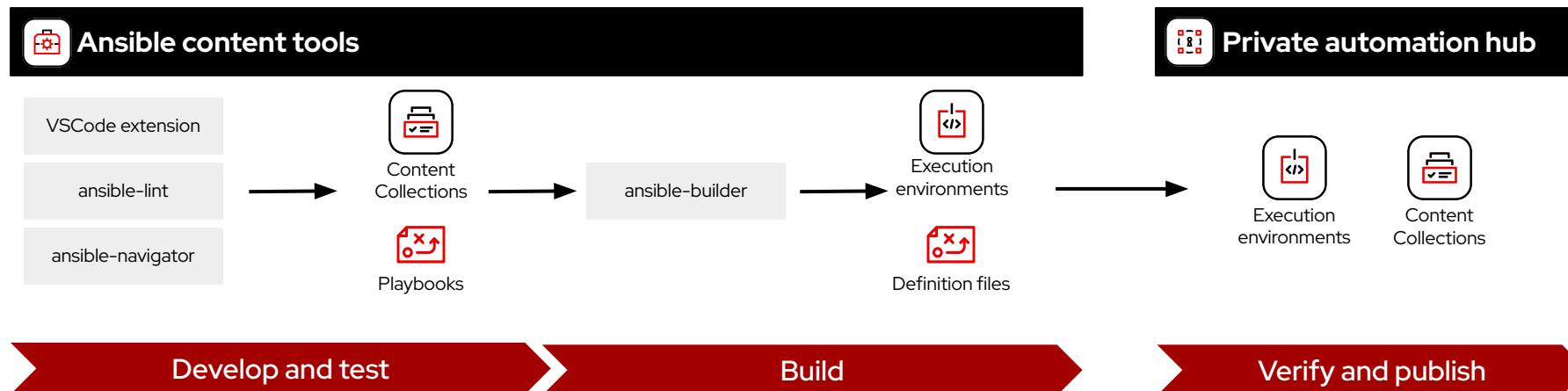


# Content developer experience



## Solution & Business Value

- ▶ Help automation creators **standardize and reduce friction** between team members
- ▶ **Increase automation content creation** by lowering barrier to entry
- ▶ **Consistent execution** across the automation life-cycle



# Red Hat Ansible Certified Content

**What** do I want to automate?



- ▶ Establishes **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 automation hub ([console.redhat.com](http://console.redhat.com))

# Ansible Validated Content

**How** should I automate my systems?



- ▶ Provides an **expert-led path for performing operations** in Red Hat and 3rd-party platforms
- ▶ From Red Hat and trusted industry partners
- ▶ Customizable for customer's unique requirements
- ▶ Curated and tested for security, quality, and reliability
- ▶ Available in automation hub (**2.4**) and pre-loaded into private automation hub (for air-gapped environments)

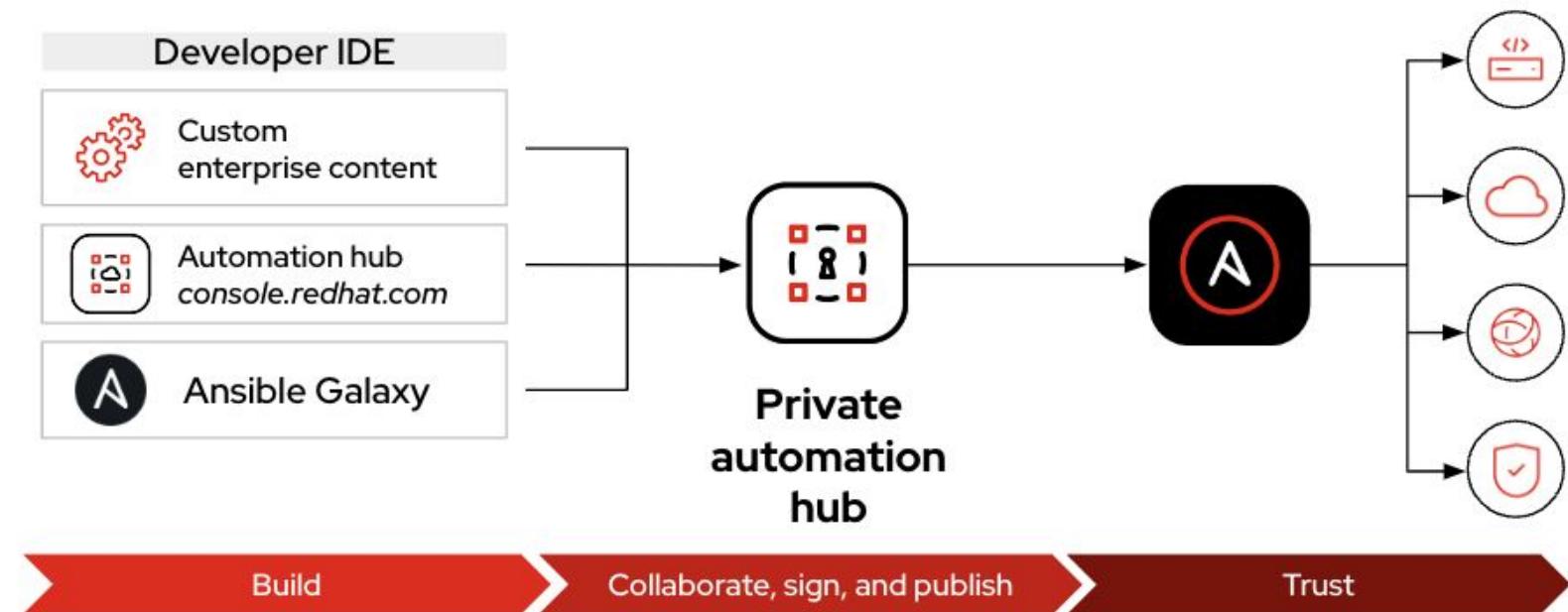
**New!**



## Ansible validated content

### Solution & Business Value

- ▶ Customers can **get up and running quicker** with their automation initiatives, validated content focuses on turn-key use-cases to assist customers with adopting automation for their products and solutions
- ▶ Customers can **create better, more reliable automation content that is easier to support** as they expand their use-cases.
- ▶ Automation tooling can provide scaffolding and testing for custom content, or help **automatically generate modules for new systems and products** if none already exists.





Create

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# Automation content supply chain (tools)

Now

Near term

Long term

- ▶ **Automation content navigator**  
includes integration with ansible-builder, ansible-lint, and Visual Studio Code
- ▶ **ansible-lint support**  
command-line tool for linting playbooks, roles and collections.
  - ansible-lint profiles
- ▶ **VS Code extension**  
provides language support for creating Ansible content
- ▶ **Ansible Validated Content**  
Red Hat created content distributed with the Ansible Automation Platform

- ▶ **Ansible Lightspeed with Watson Code Assistant - Closed Beta**  
AI to help Ansible developers be more productive and reduce errors
- ▶ **Ansible validated content**  
Contributions by Red Hat partners
- ▶ **Ansible Molecule support**  
aid in the development and testing of Ansible content
- ▶ **Collection Repo Management**  
create and publish to custom repos in private automation hub
- ▶ **Ansible content generator for REST API**  
quickly create Ansible plugins from a standardized REST API

- ▶ **Ansible Lightspeed**  
Product commercialization
- ▶ **Developer Container**  
Bundled developer environment with all the Ansible content tools
- ▶ **Content Type: Workflows**  
Write workflows as code and add to content collection to be used within the automation controller
- ▶ **Dynamic Surveys**  
Create variable structures and data types for dynamic survey generation in automation controller
- ▶ **Automation Applications**  
Reduce time to automating by providing ready to use content



# Automation content supply chain (Ecosystem)

Now

- ▶ **Ansible Certified Content**
  - 46 certified Partners
  - 141 certified content collections
- ▶ **Ansible Validated Content**
  - available in Private Automation Hub
  - **Hybrid Cloud Automation**
    - common troubleshooting and ops use cases for AWS and Azure
  - **Infrastructure**
    - Ansible Automation Platform configuration automation
  - **Network & Edge**
    - ▶ common use cases including bgp and vpn configuration;
    - ▶ OSbuilder for RHEL at the edge
  - **Security Automation**
    - firewall policy automation

Near term

- ▶ **Ansible Certified Content**
  - New collections for**
    - Microsoft AD
    - Git Operations
  - Enhancements to**
    - AWS (amazon.aws)
    - Terraform (cloud.terraform)
- ▶ **Ansible Validated Content**
  - available in Automation Hub
  - **Hybrid Cloud Automation**
    - common use cases for Google Cloud
  - **Infrastructure**
    - Red Hat Middleware common use cases
  - **Network & Edge**
    - OSPF, interfaces and ACLs for multi vendor configuration and operational state
- ▶ **Automation hub UX improvements**
  - The webUI in console.redhat.com will present a more integrated Certified / Validated Content UX
- ▶ **Partner ecosystem for Ansible validated content**
  - Tooling, documentation and automation will assist easy onboarding of additional content to help joint customers
- ▶ **Event Driven Ansible**
  - Rulebooks available into validated content collections;
  - Automation Hub ability to show rulebooks
- ▶ **Resource Based Ansible Content**
  - Extend content capabilities to declare and manage non-host-based resources



# Create

 Content creator experience

 Ansible Content Ecosystem



# Manage

 Automation management experience

 Automation content supply chain



# Scale

 Flexible automation everywhere

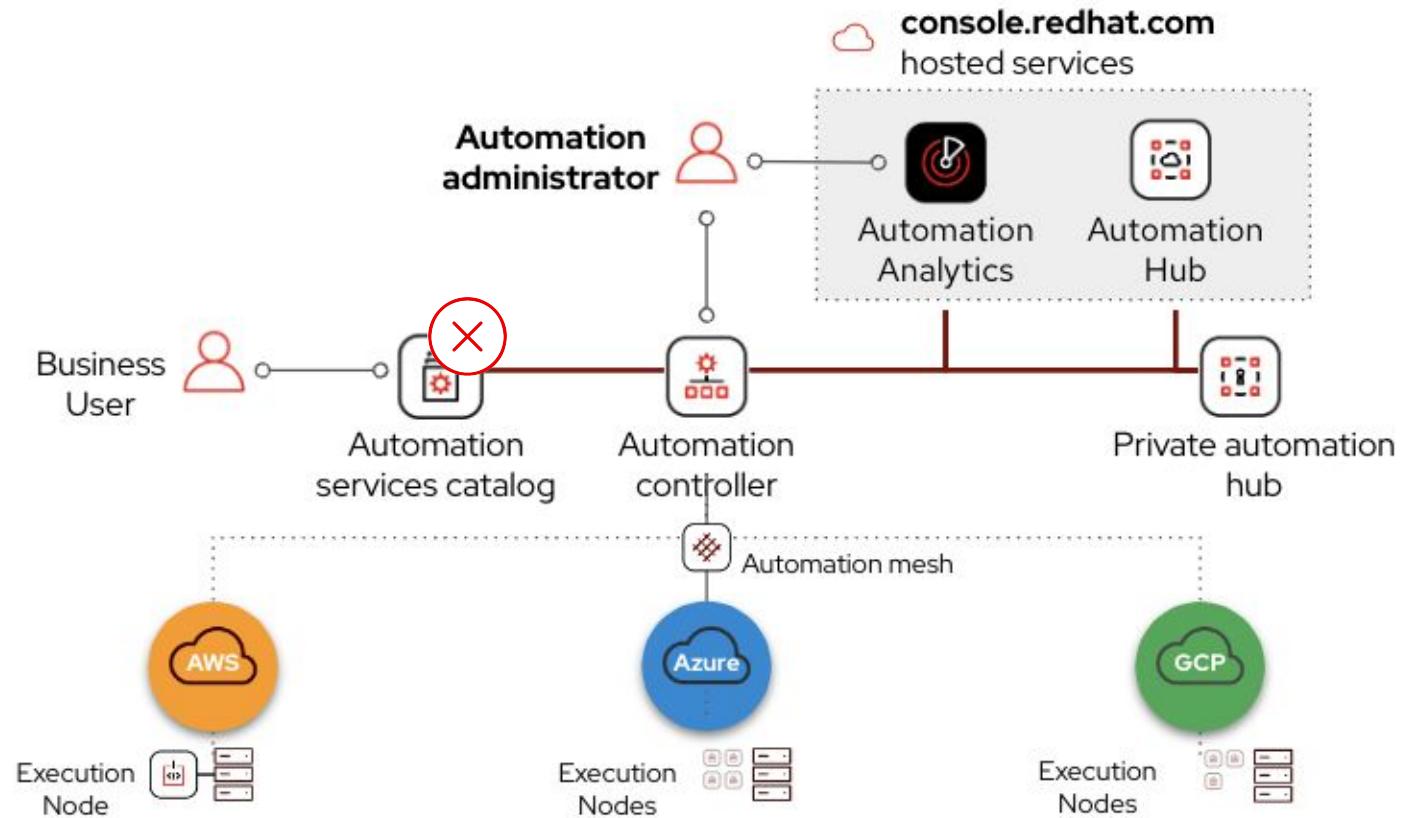
 Event-driven automation



# Automation management experience

## Solution & Business Value

- ▶ Help automation creators **standardize** and **reduce friction** between team members
- ▶ Increase **automation content velocity** by lowering barrier to entry
- ▶ **Onboard new platforms quickly** without waiting for an Ansible content collection to be built





# Automation management experience

Now

Near term

Long term

- ▶ **Direct LDAP support with RBAC**  
Private automation hub can directly integrate with your LDAP system and provide RBAC

- ▶ **New Web User Interface**  
Automation controller will feature a new and improved WebUI that administrators can optional enable
- ▶ **Integrated automation analytics**  
The Automation Controller UI will display data and reports from automation analytics without the need for users to log in separately to [console.redhat.com](http://console.redhat.com)
- ▶ **Usage and Subscription Utility**  
New utility to help customers understand their automation environment managed node usage and their automation footprint including in disconnected environments

- ▶ **Unified UX Experience**  
Automation controller, Private automation hub, and Event-Driven Ansible will all feature a unified platform gateway server, with centralised authentication.

- ▶ **Containerized AAP**  
Closer alignment across platform deployment options. Lighter, more flexible scaling, easier upgrades, ability to load config-as-code at install time

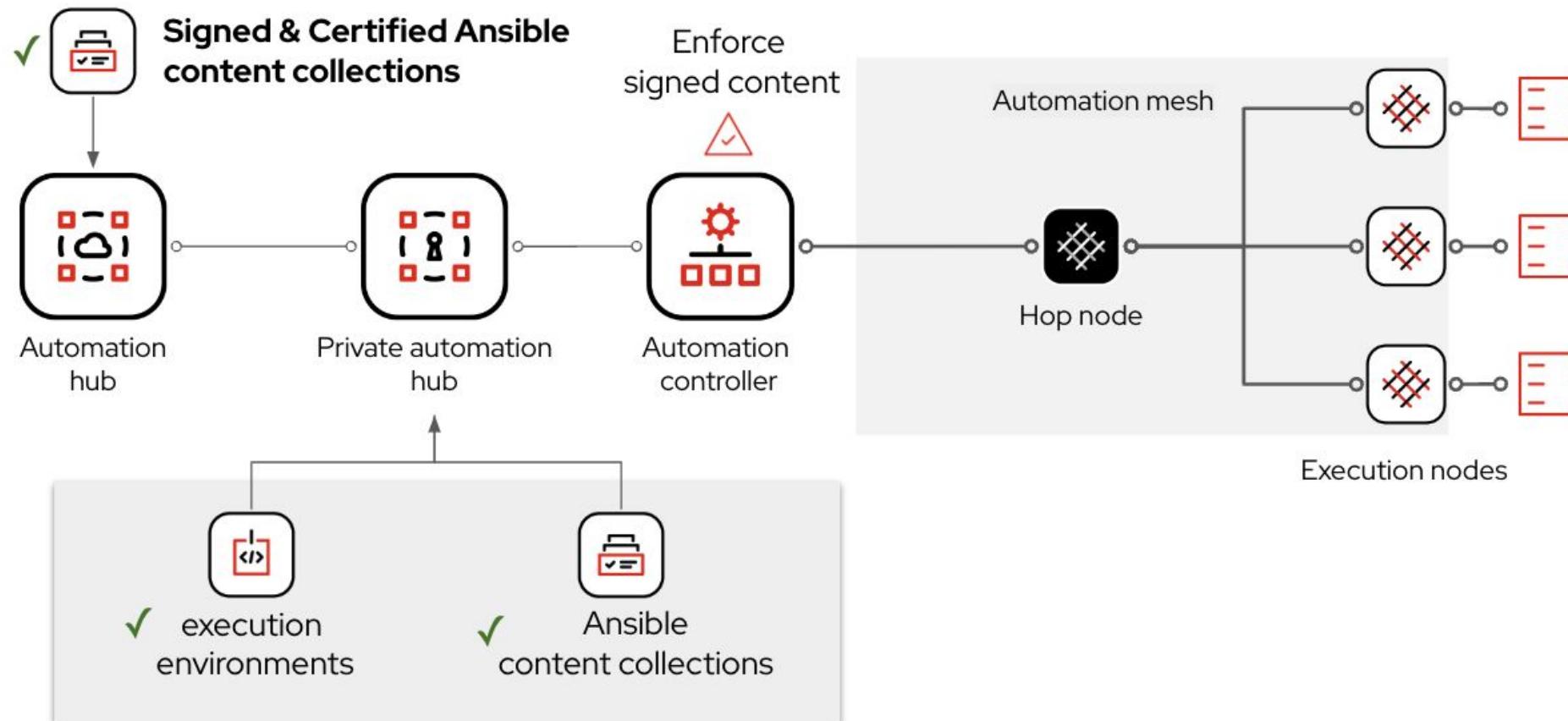


# The automation content supply chain



## Solution & Business Value

- Organizations can create an **end-to-end trusted software supply chain** for their automation content





# The automation content supply chain



Now

Near term

Long term

▶ **Ansible content collection signing**

Sign collections when you publish to private automation hub.

▶ **Certified Content Collections with signatures**

Certified content from Red Hat on automation hub will come with accompanying signatures

▶ **Builder UI Wizard**

Create execution and decision environments directly within the Automation hub UI

▶ **New content discovery user-experience**

Easily find content within Automation hub from a dashboard, with rich filtering and categorisation.

▶ **Simplified Signing Experience**

Single tool **ansible-sign** to sign content across execution environments, collections and projects

▶ **End-to-end content supply chain**

Enforcement of signed content across execution environments, collections and projects for full framework of chain of custody

▶ **Sigstore Integration**

Red Hat is pushing Sigstore as the standard for signing across products. Currently content signing depends on GPG signing and will support Sigstore in future keeping backwards compatibility with GPG intact.

▶ **ProdSec Digicert Integration**

Signing Ansible content collections on Public hub using ProdSec's Digicert instance.



# Create



Content creator experience



Ansible Content Ecosystem



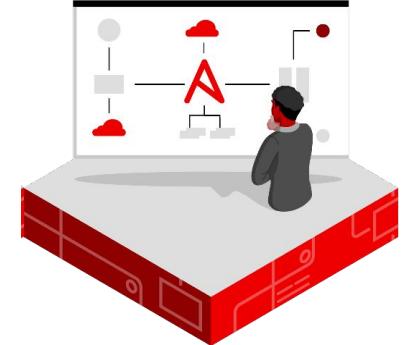
# Manage



Automation management experience



Automation content supply chain



# Scale



Flexible automation everywhere



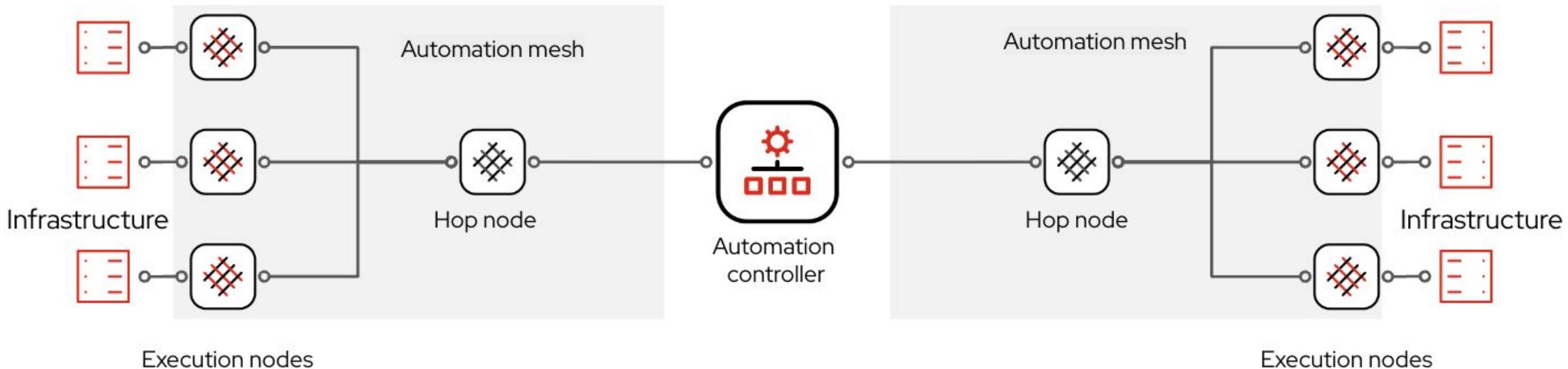
Event-driven automation



# Flexible automation everywhere

## Solution & Business Value

- ▶ Simplify execution node deployments to **accelerate automation adoption**
- ▶ **Encourage good practices** by automating as close to what is being automated
- ▶ Increase automation resiliency and **make automation mission critical**



# Ansible Automation Platform hosting options



Red Hat Enterprise Linux 8.3+  
x86\_64 (physical, virtual)



Red Hat OpenShift via dedicated Ansible  
Automation Platform operator (physical,  
virtual)



On Microsoft [Azure marketplace](#)



On Amazon [AWS marketplace](#)



On Google [GCP marketplace](#)

Self Managed (on-premises or cloud)

Customer deployed  
Managed by Red Hat

Customer deployed  
Self-Managed



# Flexible automation everywhere



Now

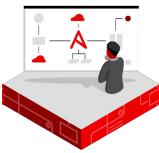
Near term

Long term

- ▶ **Automation mesh**  
Gives customers maximum flexibility in planning distributed, remote or otherwise complex automation deployments, along with visibility, control and reporting.
- ▶ **Hyperscaler Supported Deployments**
  - **Amazon Web Services (AWS)**: Customer deployed, Self-Managed
  - **Microsoft Azure**: Customer deployed managed by Red Hat
  - **Google Cloud**: Customer deployed, Self-Managed
- ▶ **Topology Viewer**  
View existing topologies including hop nodes, execution nodes and controller nodes across multiple sites
- ▶ **Support external execution nodes** Ansible will allow external execution nodes from deployments on Ansible Automation Platform on Azure and Red Hat OpenShift

- ▶ **Bulk API Improvements**  
Features for job launching and inventory creation/deletion en masse
- ▶ **Introduce Constructed Inventory**  
The successor to the existing Smart Inventory feature, now allows filtering by host, group and inventory vars
- ▶ **Single Node Edge Deployments**  
Lightweight install for Edge deployments
- ▶ **Task-level telemetry**  
Know more about what automation actions are being taken in your environment and produce reports based on the information.

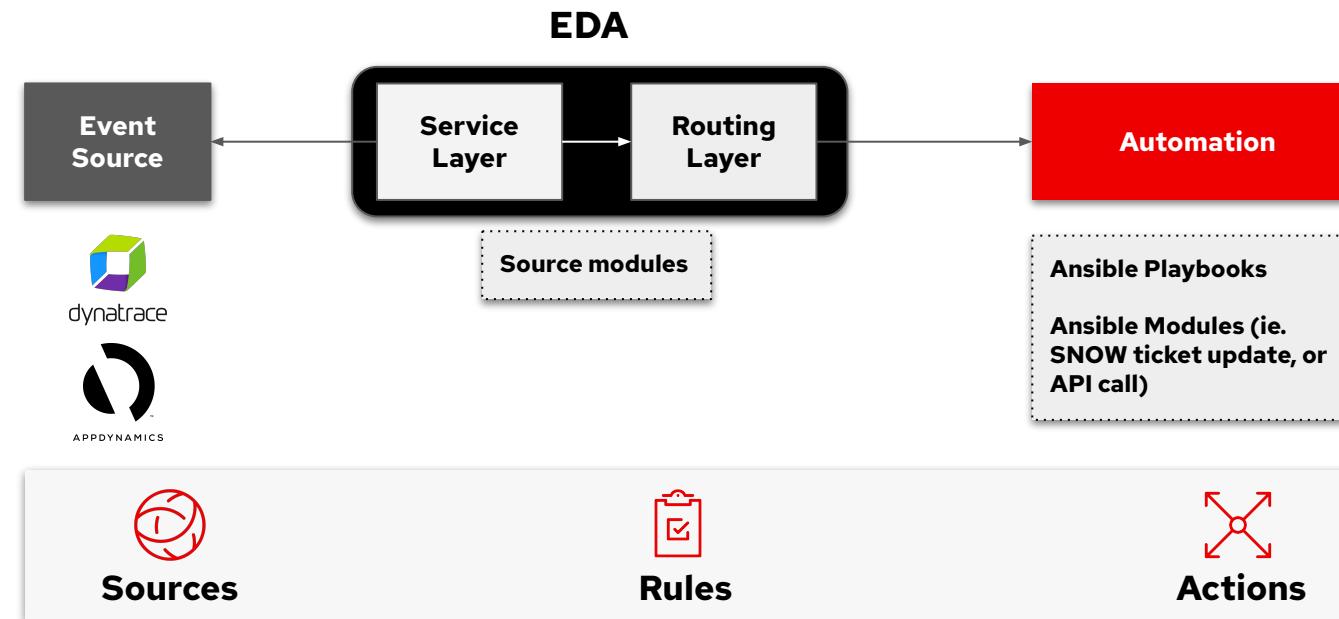
- ▶ **Enhancements for job scheduling, utilization and performance**  
Services/component health awareness through observability, ability to scale independently. Better job handling when operating at significant scale
- ▶ **Ansible for Edge Automation**  
Ability for operators to schedule automation jobs at mesh nodes for ease of use in unstable or disconnected environments



# Event-Driven Ansible

## Solution & Business Value

- ▶ **Correct human error:** Event-driven Ansible consistently and accurately implements the same solution to avoid these types of errors.
- ▶ **Increase resilience.** Event-driven Ansible can be used to identify and address festering problems before they become full-blown issues that cause downtime, slow IT services, or other issues.
- ▶ **Eliminate boring and repetitive tasks,** so employees can focus on higher value tasks.





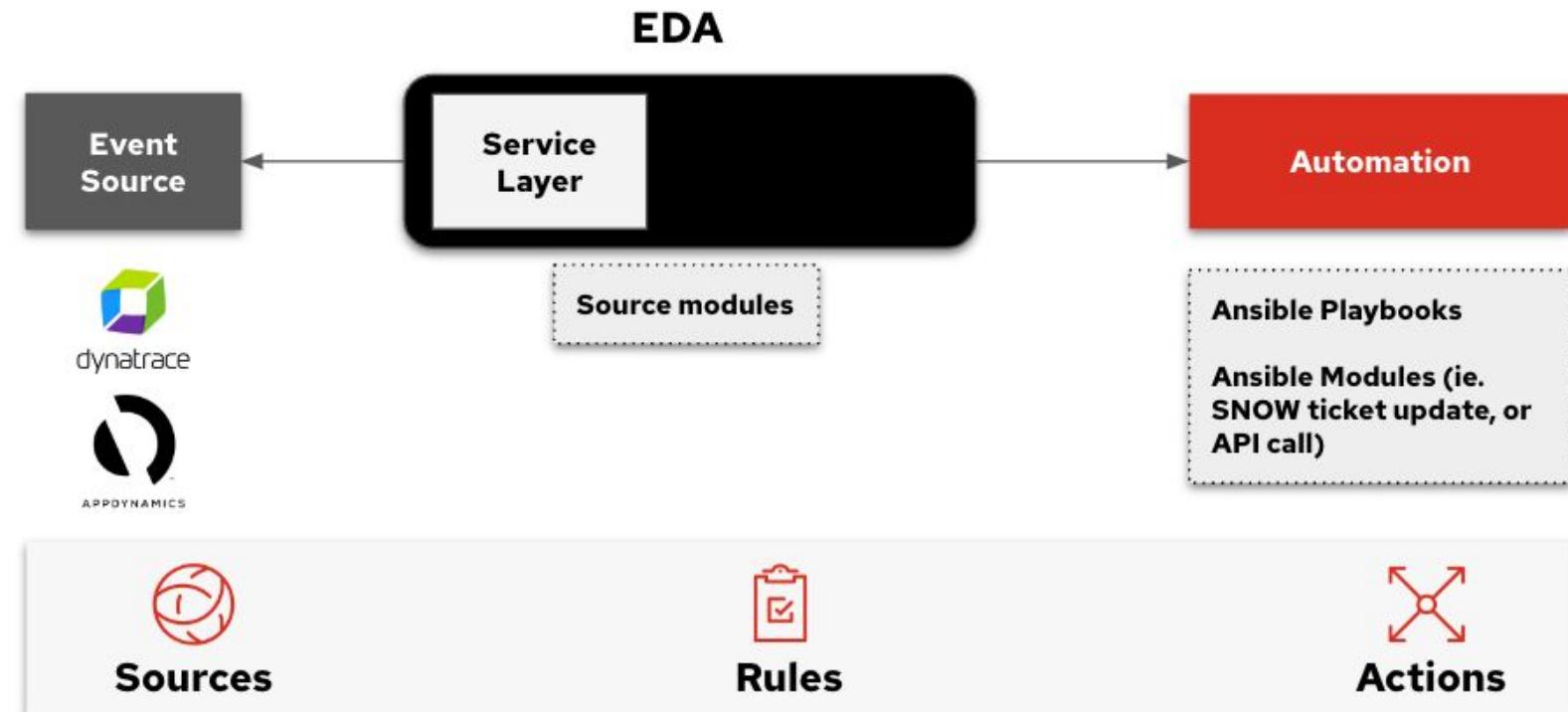
## Scale

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# Event-Driven Ansible

## Solution & Business Value

- ▶ **Correct Human Error:**  
Event-Driven Ansible consistently and accurately implements the same solution to avoid these types of errors.
- ▶ **Increase resilience.**  
Event-Driven Ansible can be used to identify and address festering problems before they become full-blown issues that cause downtime, slow IT services, or other issues.
- ▶ **Eliminate boring and repetitive tasks,** so employees can focus on higher value tasks.



# It's going GA

## Ansible Automation Platform 2.4

- ▶ Currently on-track for **27 June!**
- ▶ **Components:**
  - **Event-Driven Ansible controller**
  - Ansible **Rulebooks** and the CLI
  - Certified/Validated **Collections** with event source plugins and rulebooks
- ▶ AAP's move to async releases for Event-Driven Ansible enables ability to deliver fixes and updates as we have them ready to go.



Event-Driven  
Ansible  
Controller

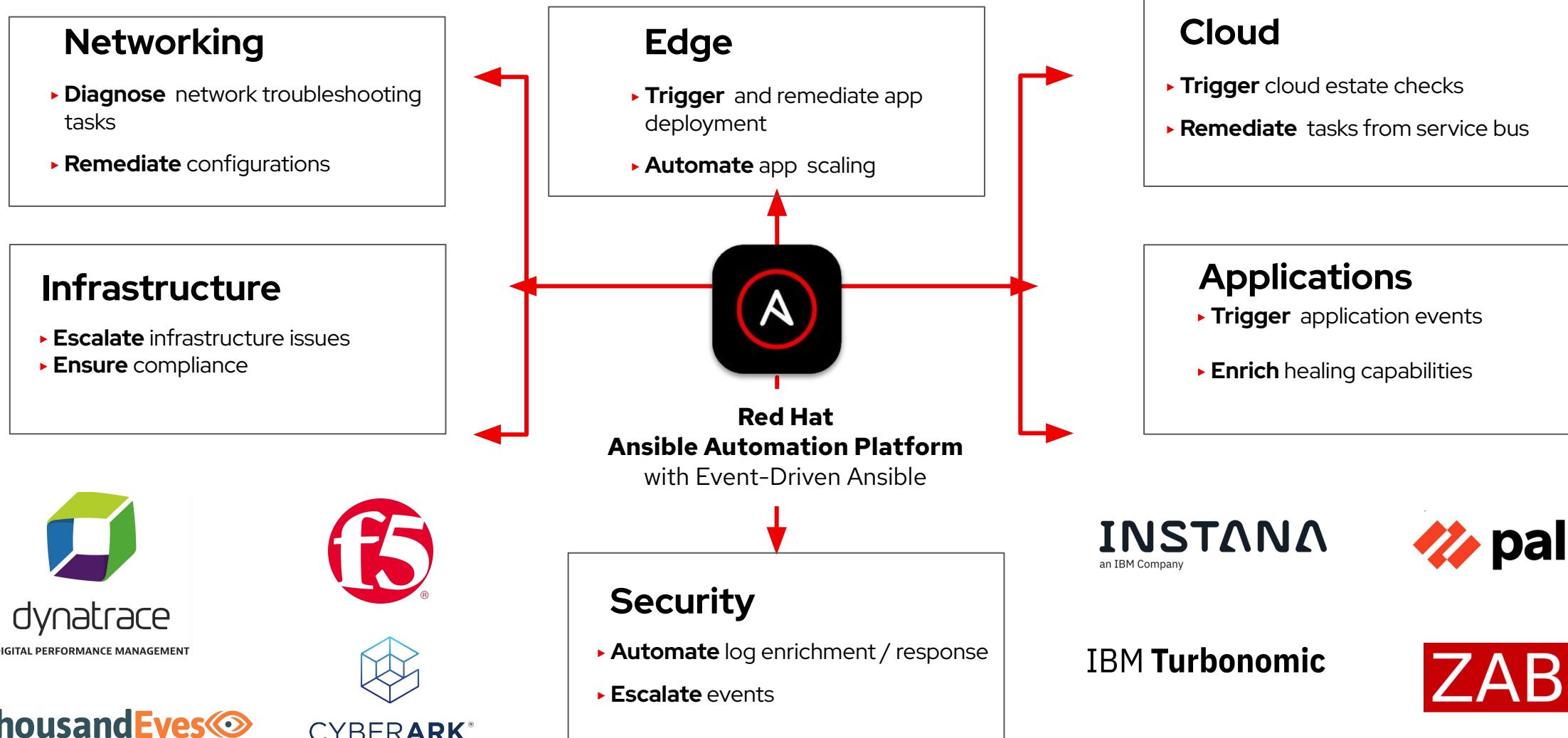
Ansible  
Rulebook



Ansible Content  
Collections



# Event-Driven Ansible is **use case-friendly**.



**IBM Turbonomic**

**ZABBIX**

**CROWDSTRIKE**

**Red Hat**  
Ansible Automation  
Platform



# Event-Driven Ansible



Now

- ▶ **API driven automation**  
Full integrated RESTful API to automate automation jobs and workflows.
- ▶ **WebHooks**  
Full integrated webhook support with Github and Gitlab to provide automation into existing GitOps workflows
- ▶ **Community Release / Ansible developer preview**  
A community driven CLI to run the rules files (rulebooks) and server to manage the execution

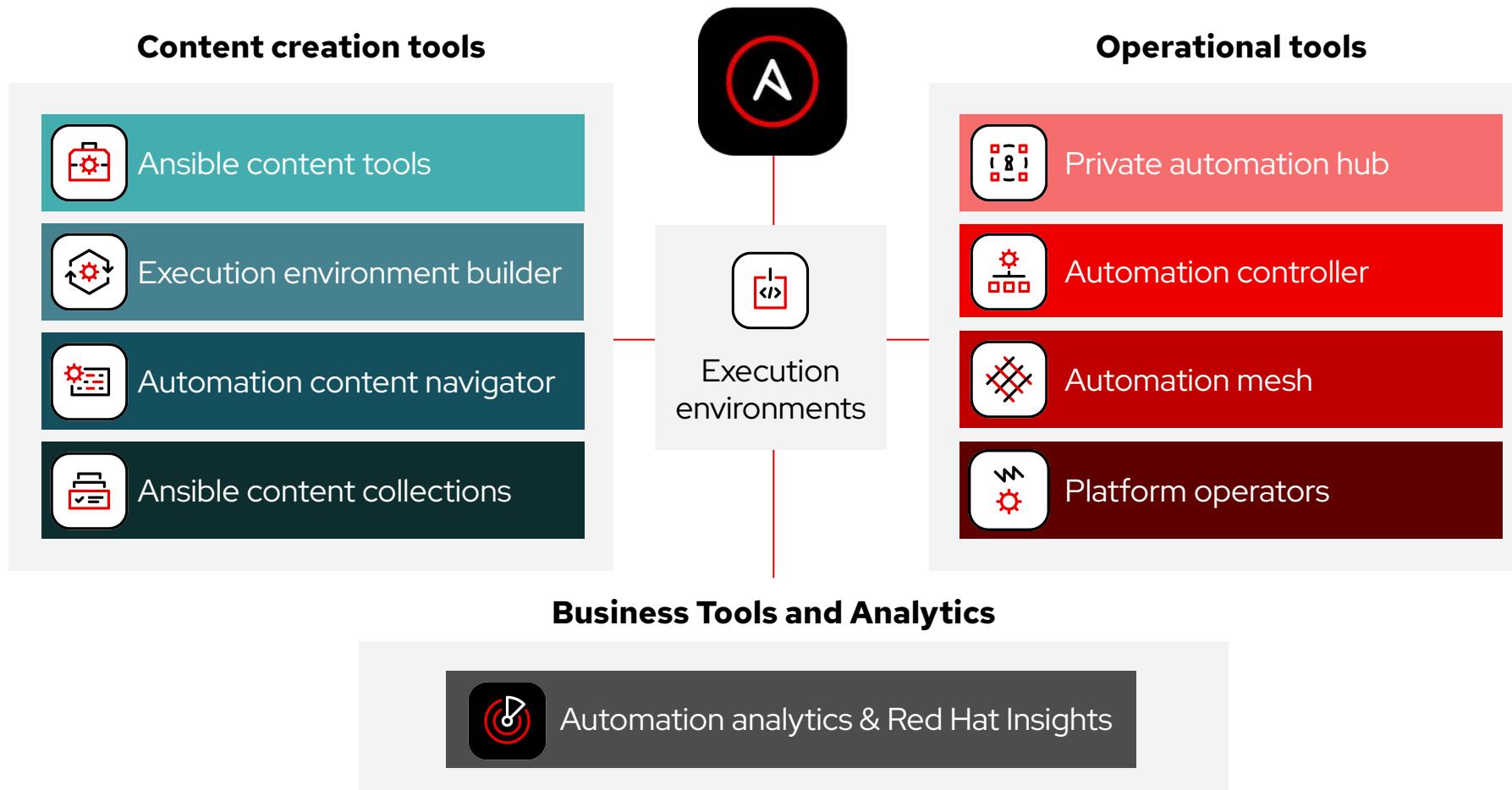
Near term

- ▶ **General Availability of Event-Driven Ansible for Ansible Automation Platform**
  - Covers all installation methods (AWS, Azure, Google Cloud, On-premises, self hosted, etc)
- ▶ **Throttling capabilities**
  - Handle event storm cases and limit actions
- ▶ **Event Sources:**
  - Kafka
  - Prometheus/ Alertmanager
  - Generic Webhooks
  - Syslogd
  - Arista
  - Azure Service Bus
  - Dynatrace

Long term

- ▶ **Event Sources:**
  - LogicMonitor
  - Appdynamics
  - ServiceNow
  - Splunk
  - Crowdstrike
  - F5
  - IBM Instana and Turbonomic
- ▶ **Ansible Wisdom Integration**  
Help develop rulebooks with the help of artificial intelligence
- ▶ **Action reporting**  
Programmatic reporting of events based of event rules

# An integrated solution for the enterprise.



# Call to Action



Red Hat

# 2023 Community Vision

## 1. Strong & Focused Mission

Rally the community around desired work streams by creating a centralized space to attract more community involvement and accelerate their impact.

## 2. Cultivation of Inclusiveness

Harvest the wide knowledge of the community to further create an environment of independence and assist in crafting ways of working that resolve disagreements and dissolves roadblocks quickly.

## 3. Inspiration, Creativity, & Collaboration

Encourage sustained focus, shared problem-solving, remove boundaries and support all ideas (no idea is too impossible).

## 4. Failure Is Not Fatal/Recognize Success Often

Try new approaches, create new capabilities, and identify inflection points quickly-then pivot when needed. Call out, reward, and celebrate the wins of the community members often.



# Ansible Project mission statement

The Ansible Community is refreshing its mission statement!

We want to know what Ansible means to you, please fill out this short survey:

<https://www.surveymonkey.co.uk/r/DLBZPP5>



# The Bullhorn

Subscribe!

- <https://bit.ly/subscribe-bullhorn>

Contribute!

- join #social:ansible.com on Matrix,  
mention `newsbot` with your  
message/post



# Matrix

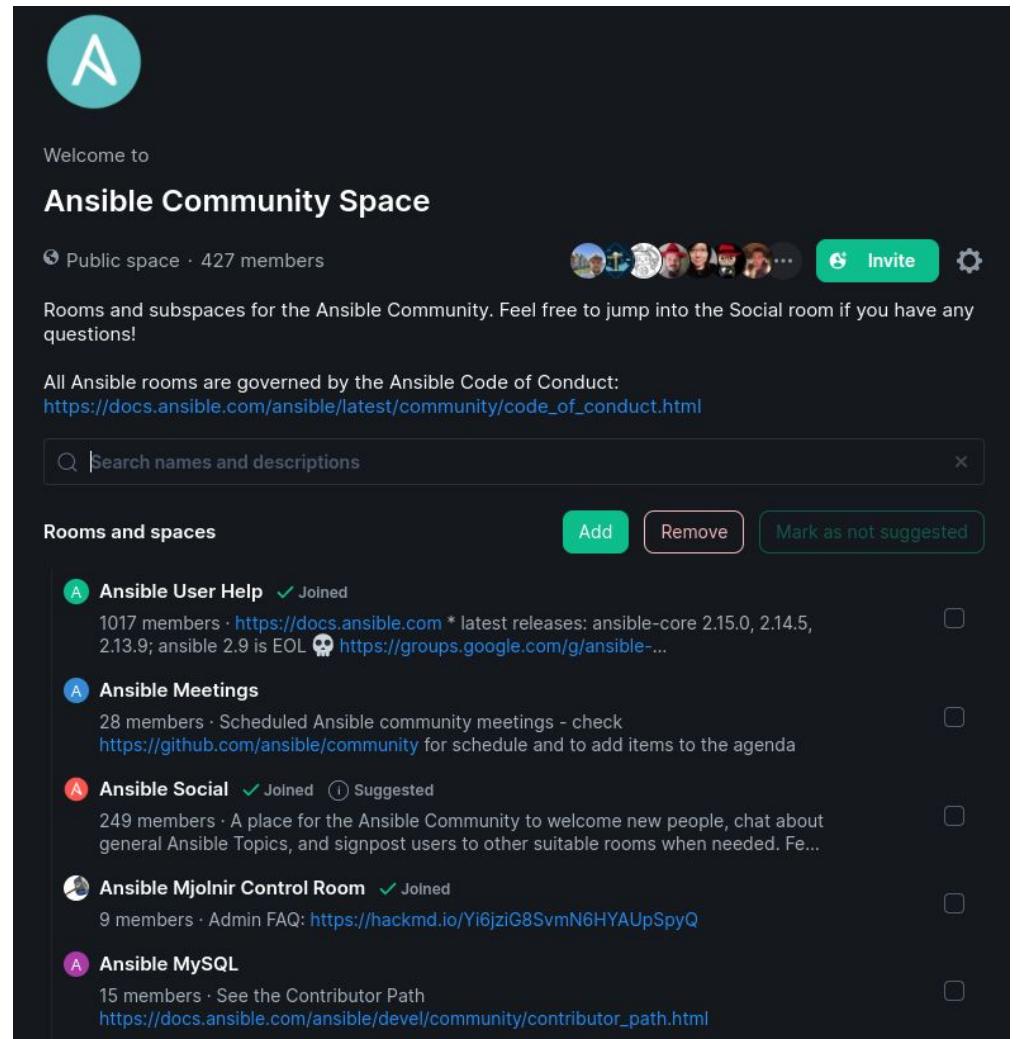
To join the community using Matrix, you need:

- a Matrix account (@name:matrix.server)
- a Matrix client (we recommend Element)

Check out: #space:ansible.com

More details:

<https://docs.ansible.com/ansible-devel/community/communication.html#real-time-chat>



## Call to action

- Take time to review/document your current workflows
- Treat automation like you would Enterprise

## Architecture

- Look for ways for each part of your organization to automate their worlds

## Tools available

- ▶ Automation Acceleration Assessment Program
- ▶ Discovery Sessions
- ▶ Executive Briefing Center

- ▶ Workshops
- ▶ Executive Dinners

# Thank you



[linkedin.com/company/red-hat](https://linkedin.com/company/red-hat)



[youtube.com/AnsibleAutomation](https://youtube.com/AnsibleAutomation)



[facebook.com/ansibleautomation](https://facebook.com/ansibleautomation)



[twitter.com/ansible](https://twitter.com/ansible)



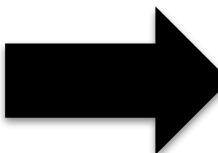
[github.com/ansible](https://github.com/ansible)

# Red Hat + IBM have developed a generative AI service for IT automation



## Project Wisdom has evolved.

The partnership between Red Hat and IBM continues, but the companies are focusing on unique, but complimentary generative AI capabilities.



## Ansible Lightspeed with IBM Watson Code Assistant.

A generative AI service for Ansible automation content creators, that speeds up with Playbook development process, while making it easier for automation experts to turn their domain expertise into clean and compliant YAML code.

# Overview: Ansible Lightspeed with IBM Watson Code assistant

## Ansible Lightspeed with IBM Watson Code

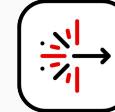
**Assistant** is a generative AI service accessed via the Ansible VSCode extension, allowing users to accept and run recommended code directly in their code editing environment while creating Ansible Playbooks.

A *Tech Preview* for the service will be available for all Ansible users in late June, with a commercial offering to follow this fall.

The **IBM Watson Code Assistant** integration is infused with IBM's Ansible foundation model. This foundation model combines Ansible Galaxy data and Red Hat subject matter expertise to deliver highly relevant code automation recommendations that adhere to Ansible best practices.

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

## Ansible Lightspeed with IBM Watson Code Assistant



## IBM Watson Code Assistant



## IBM Watsonx



Red Hat  
OpenShift  
Data Science



Red Hat  
OpenShift

