Why Red Hat® Ansible® Automation Platform?

Red Hat
Ansible Automation
Platform

Many organizations share the same challenge.

Differing skills, roles, and responsibilities

Devs/DevOps   IT ops   SecOps   Line of business   Network ops

Growing number of use cases

Multiple platforms and locations

Physical	Virtual	Cloud	Edge

Across multiple domains

Compute	Network	Storage	Security

Governance

3

Red Hat

Windows

Linux

SAP

AIX

Virtualization

Compliance & Security

Automation
Competence
Center

Storage

Cloud

System Z Power

Private Cloud

Network LAN

Network Edge

Red Hat

What is Red Hat® Ansible® Automation Platform?

Red Hat
Ansible Automation
Platform

A platform for the entire automation team.

Architecture

Flexible container-native architecture

Real-time analytics and reporting

Event-Driven Ansible

Containerized Installation

Available on all major cloud providers

Content creation

Ansible developer tools package

Integrated generative AI

Build automation communities

Large ecosystem of certified automation

Operations

Unified UI provides cohesive platform experience

Enterprise features: WebUI, API, role-based access control (RBAC), auditing and workflows for managing at scale

Red Hat

An integrated solution for the enterprise.

Automation creation

- Ansible Content Collections
- Ansible development tools
- Ansible plugins for Red Hat Developer Hub
- Ansible development workspaces
- Red Hat Ansible Lightspeed

Create

Automation administration

- Red Hat Ansible Automation Platform Operator
- Event-Driven Ansible
- Automation mesh
- Execution Environments

Manage

Scale

Automation Deployment

Red Hat Enterprise Linux   Red Hat OpenShift   aws   Azure   Google Cloud

Scale

Business Tools and Analytics

Red Hat Insights   Automation analytics

Manage

Red Hat

Ansible Automation Platform across architectures.

Deployable on mission-critical architectures

Full support for each of these architectures as of AAP 2.4

Support on
near-term roadmap

8
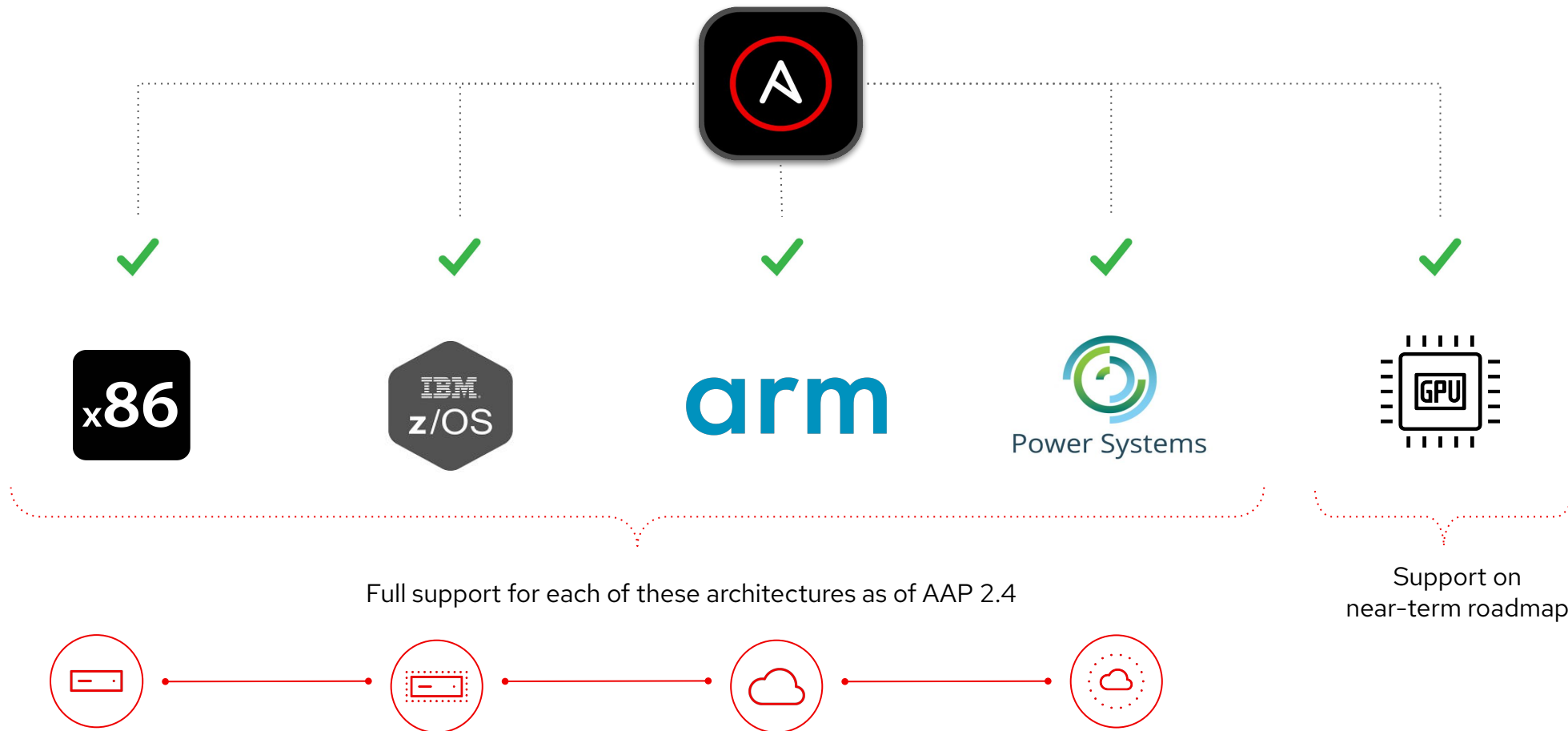
Ansible Automation Platform **installation options.**

RPM

‣ Suitable for traditional RHEL environments

‣ Deprecated with AAP 2.5 (removal TBD)

Containerized

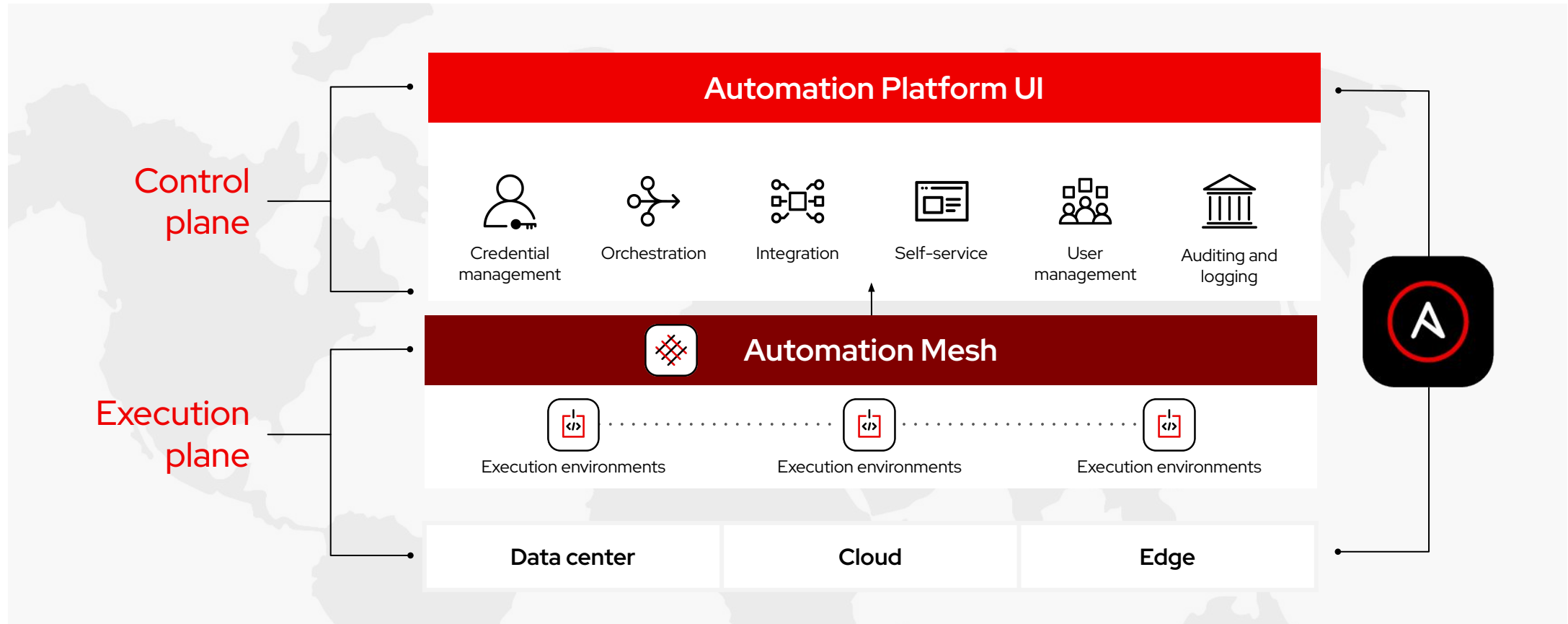‣ Ideal for flexibility and rapid scaling

‣ Simplifies dependency management

Openshift Operator

‣ Seamless integration with Openshift

‣ Automated lifecycle management

❯ RPM and containerized installers are available for customers through Red Hat Customer portal.

❯ AAP Operator is available through OperatorHub in Red Hat OpenShift Container Platform.

❯ For more information on installation, refer the documentation.

A distributed architecture built for scale.

Control plane

Execution plane

Automation Platform UI

Credential management

Orchestration

Integration

Self-service

User management

Auditing and logging

Automation Mesh

Execution environments

Execution environments

Execution environments

Data center

Cloud

Edge

Red Hat

Enabling your automation team to consistently…

Create

Manage

Scale

Red Hat
Ansible Automation
Platform

Create

Red Hat
Ansible Automation
Platform

Create with Ansible Automation Platform

Enable your automation community of practice

Ansible content collections

- Set automation projects into motion
- Ready-made roles, modules, plug-ins, and templates

Ansible development tools

- Suite of supported components
- Build, test, and deploy Ansible content

Ansible plugins for Red Hat Developer Hub

- Curated learning paths, push-button content creation, integrated development tools, and more
- Educate new users and boost experienced users

Ansible development workspaces

- Opinionated, integrated dev environment
- Includes Ansible development tools, VS code integration, and Ansible Lightspeed

Ansible Lightspeed

- Collaboration with IBM to bring generative AI to Ansible
- Faster and easier Ansible content creation

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Ansible Automation
Platform

Ansible content creator `(ansible-creator)`

Scaffold projects and content

What is it?

Command line utility integrated with Ansible VS Code extension for scaffolding Ansible automation projects and contents with leading practices.

- ▶ Integrated with Ansible extension to bypass CLI interactions

- ▶ Streamlines playbook project init process

- ▶ Streamlines collection init process

Welcome to Ansible content creator
Create Ansible content with ease

✓ **All the tools are installed.**
Your environment is ready and you can start creating ansible content.

Create

▣ Playbook with Ansible Lightspeed
Create a lists of tasks that automatically execute for your specified inventory or groups of hosts.

▦ Ansible playbook project
Create a foundational framework and structure for setting your Ansible project with playbooks, roles, variables, templates, and other files.

◈ Ansible collection project
Create a structure for your Ansible collection that includes modules, plugins, molecule scenarios and tests.

Red Hat

Ansible content navigator `(ansible-navigator).`

What is it?

It is a command line utility and text-based user interface (TUI) for running, testing and developing Ansible automation content

▸ Review EEs

▸ Develop collections

▸ Develop playbooks

▸ Troubleshoot problems

```
$ ansible-navigator run playbook.yml -i inventory.ini
```

Red Hat

Ansible sign (`ansible-sign`)

What is it?

A command-line utility designed to cryptographically sign and verify Ansible content such as playbooks and collections.

▸ Ensures the authenticity and integrity of automation content.

▸ Integrated with Ansible Automation Platform to help secure the distribution of trusted content.

▸ Verifies content signatures to prevent unauthorized modifications.

▸ Streamlines the process of signing Ansible collections and playbooks to meet compliance and security requirements.

```
$ ansible-sign
```

Red Hat

Content Collections.
Simplified, consistent content delivery.

What are they?

▸ Contains automation content, including modules, multiple roles ,and playbooks

▸ Portable, reusable, and versioned enabling better collaboration
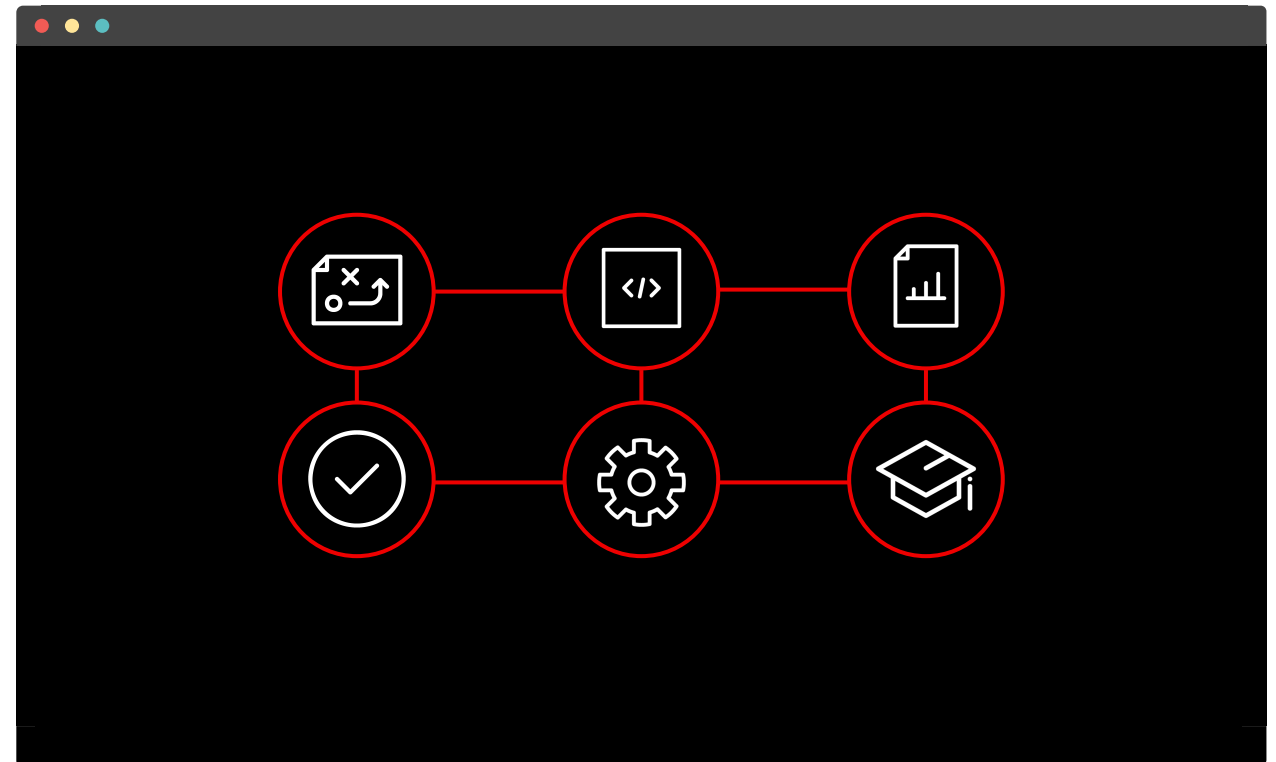
Many technologies, different life cycles.
How do I keep it all aligned?
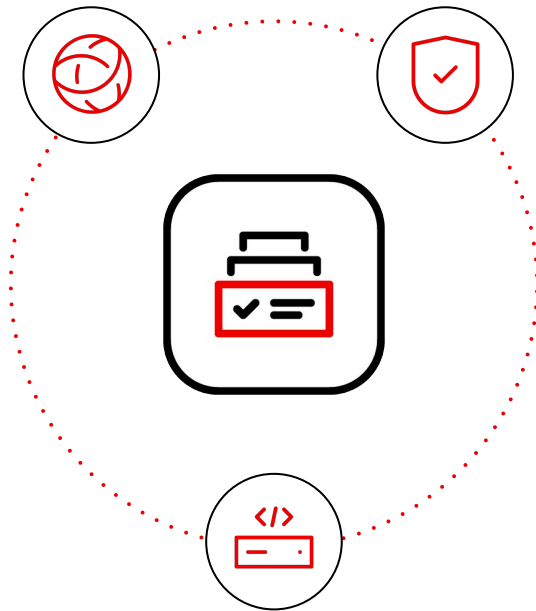
Collections

Dependencies

Runtime
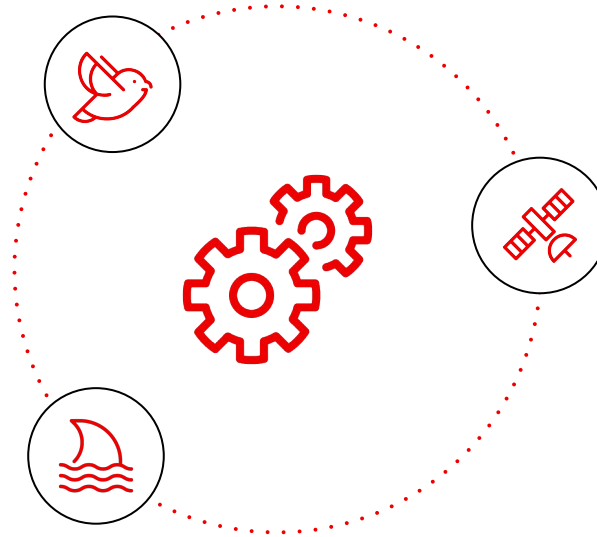
Red Hat
Ansible Automation
Platform
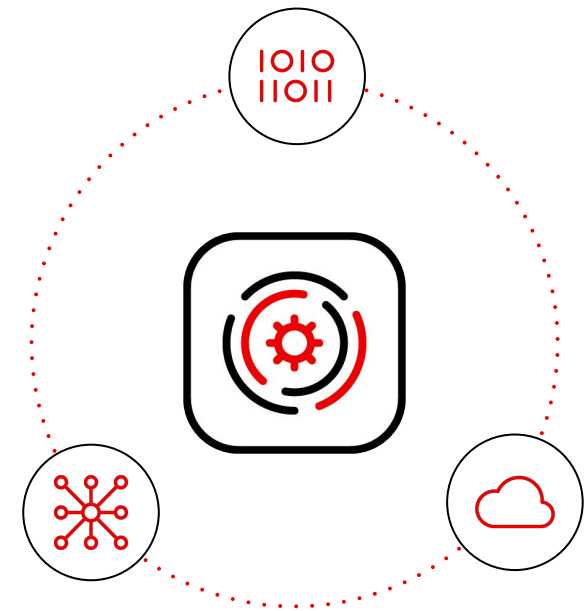
Automation execution environments.
Reuse and scale automation content.

Collections   Dependencies   Ansible Core

Red Hat Universal Base Image (UBI)

Automation
execution environments
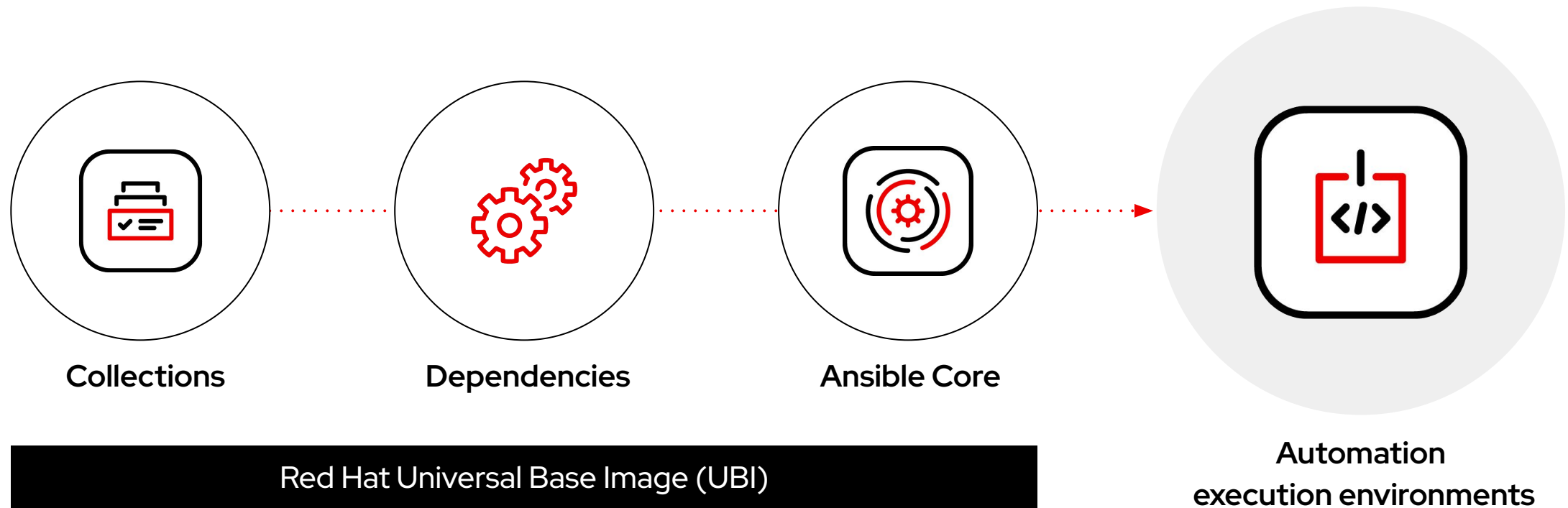
Private automation hub. Collaborate, sign, and publish.

Developer IDE

Custom enterprise content

Automation Hub
console.redhat.com

Ansible Galaxy

Automation Platform UI

Private Automation Hub

Build

Collaborate, sign, and publish

Trust

20

Red Hat
Ansible Automation
Platform
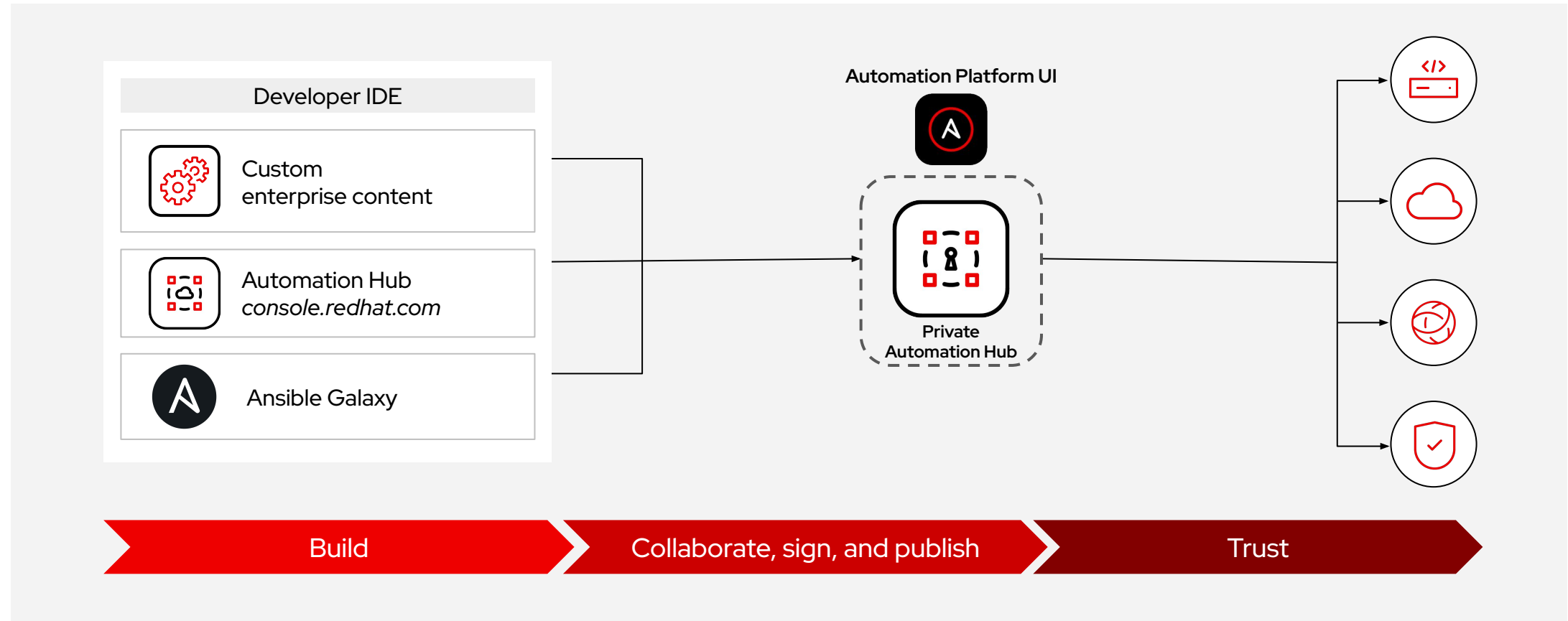
Ansible plug-ins for Red Hat Developer Hub (Backstage)

Tools for building and maintaining a vibrant automation Community of Practice

> An Ansible-specific portal experience featuring learning paths, labs, and other user onboarding resources, all designed to help your organization:

- ✓ Onboard new users faster

- ✓ Improve developer productivity

- ✓ Reduce friction, context switching, and frustration

- ✓ Get faster time-to-value from your automation investment

- ✓ Establish better governance, consistent control, and more trust

> Enables push-button Ansible Playbook and collection creation with opinionated best practices

> RBAC integration with Red Hat Developer Hub

> Optional integration with OpenShift Dev Spaces
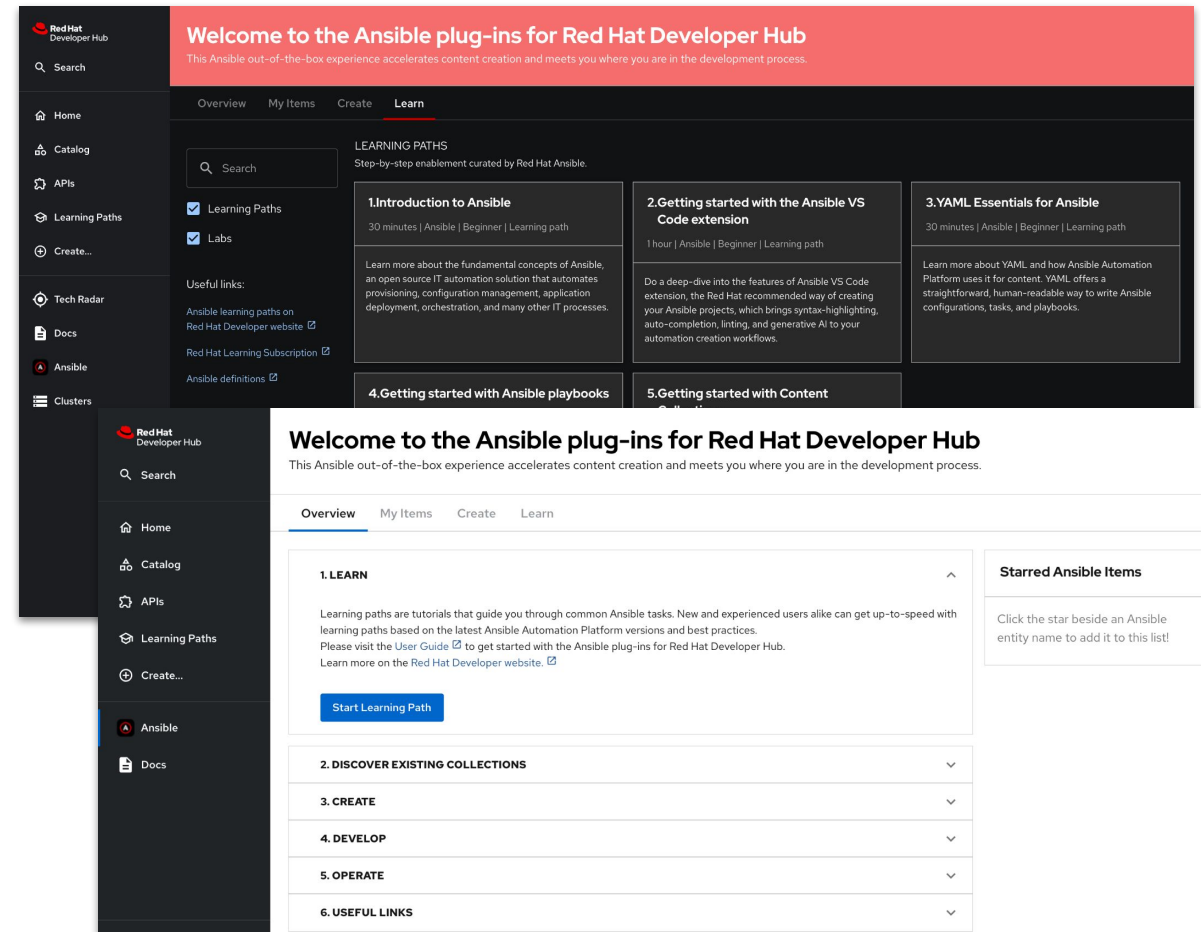
Ansible Lightspeed. Generative AI the Ansible way.
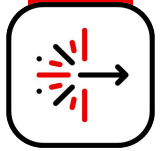
Features that span the full automation code life cycle

Create

Full playbook generation
Inline suggestions
Model customization / tuning
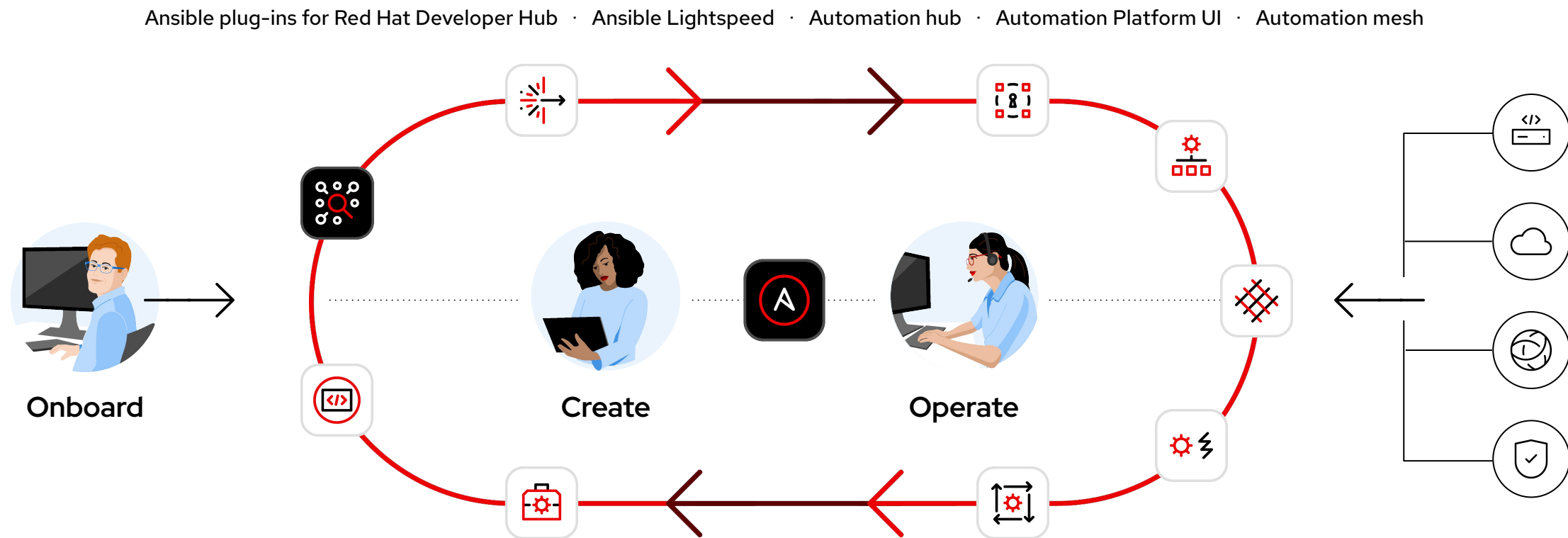Foundational model for Ansible
Easy 90-day trial setup
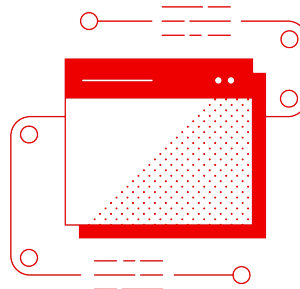
Adopt

Content source matching
Content Explanations
Post-processing capabilities
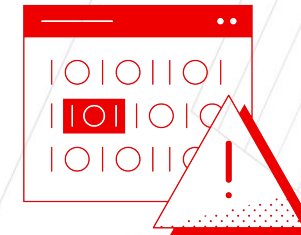
Maintain

Ansible code bot
Admin dashboard

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Ansible Automation
Platform

The automation content life cycle. Create.

Ansible plug-ins for Red Hat Developer Hub · Ansible Lightspeed · Automation hub · Automation Platform UI · Automation mesh

Onboard

Create

Operate

Ansible development workspaces · Ansible development tools · Event-Driven Ansible · Platform Operators

Manage

Creation to operations handover. Consistent and portable.

Content creation

Operations

Develop, run, and publish

Define, operate, and delegate

Ansible development tools

Content Collections

Execution environments

Private automation Hub

Content Collections

Execution environments

Red Hat
Ansible Automation
Platform
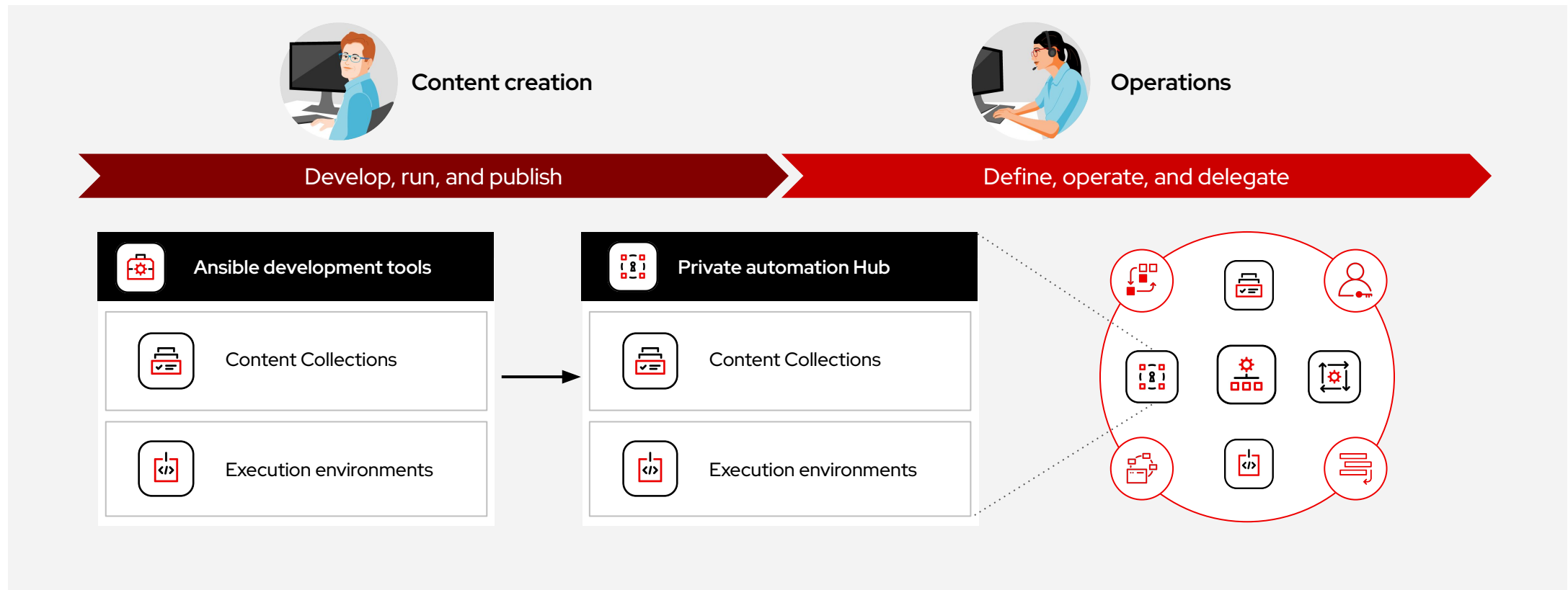
Automation controller. Define, operate, and delegate.

What is it?

Automation controller is the Ansible Automation Platform control plane which enables users to define, operate, and delegate automation across their enterprise

Unified UI provides:

▸ Centralized control

▸ WebUI and API

▸ Role-based access control

▸ Centralized logging

▸ Credential management

▸ Ansible analytics integration

Automation controller

Event-Driven controller

Private Automation Hub

WebUI

API

RBAC

Analytics

Audit

Red Hat
Ansible Automation
Platform
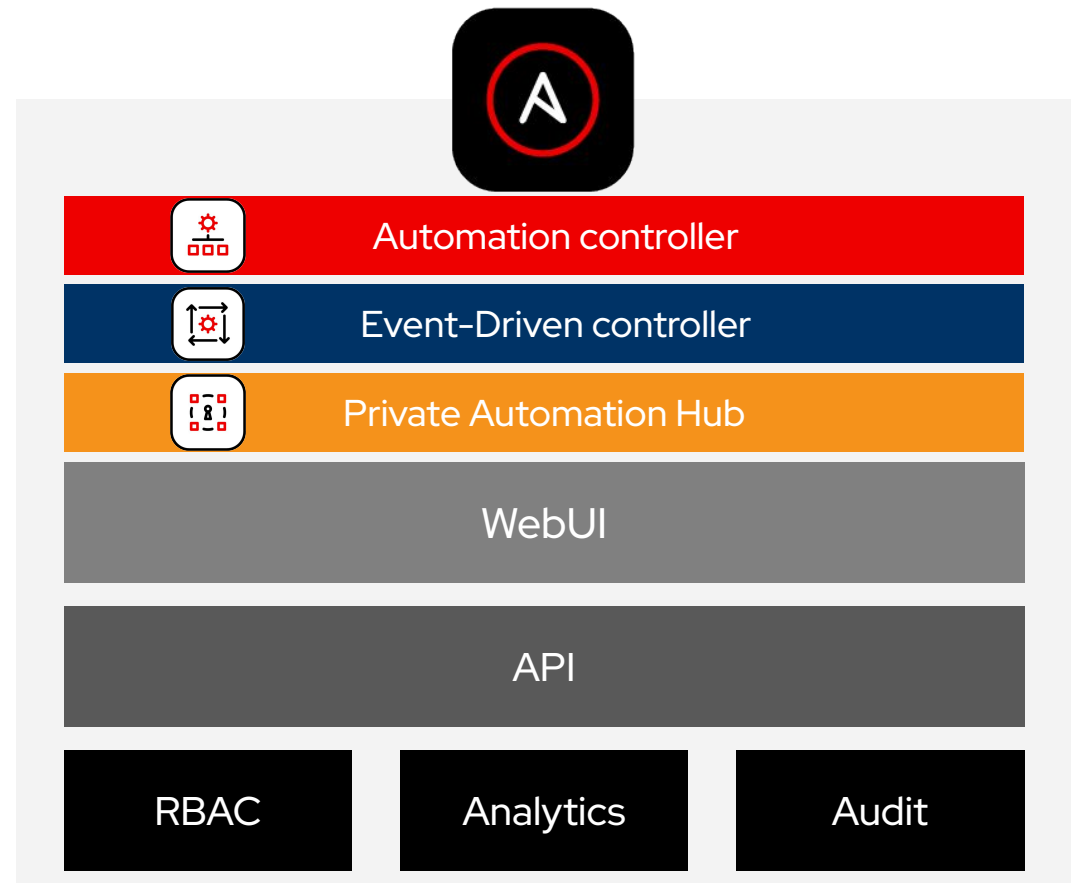
Defining how your content runs in automation controller.

Repository

Playbooks

Private automation hub

Execution environments

Content Collections

Automation controller

Content Collections

Credentials

Execution environments

Projects

Job template

Inventories

Data center

Cloud

Edge

Red Hat
Ansible Automation
Platform
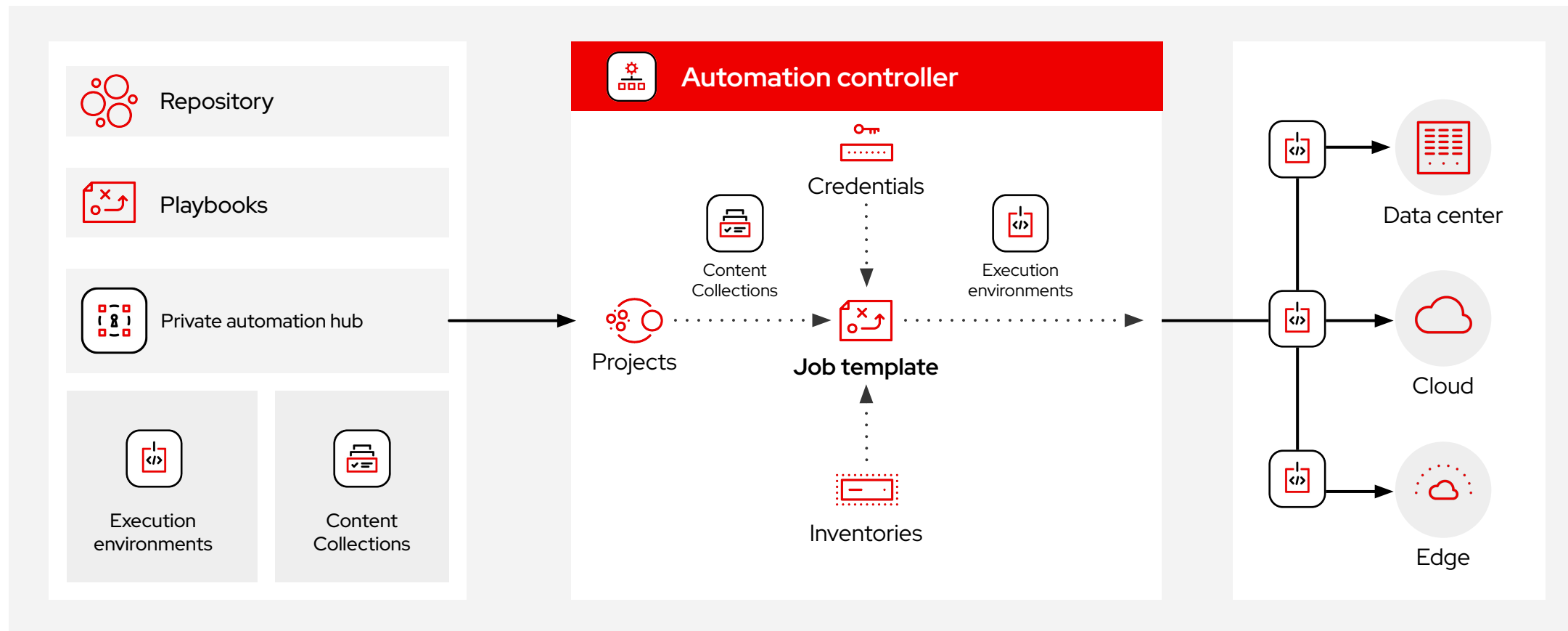
Event–Driven Ansible controller. Define and manage.
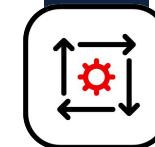
What is it?

▸ EDA Controller enables users to centrally manage Event–Driven Ansible across the enterprise.

EDA controller provides:

▸ WebUI.

▸ Rulebook activation.

▸ Event streams

▸ Role-based access control(part of Unified UI).

▸ Auditing trail.

EDA Controller
WebUI
Controller integration

RBAC	Audit

Red Hat
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Platform
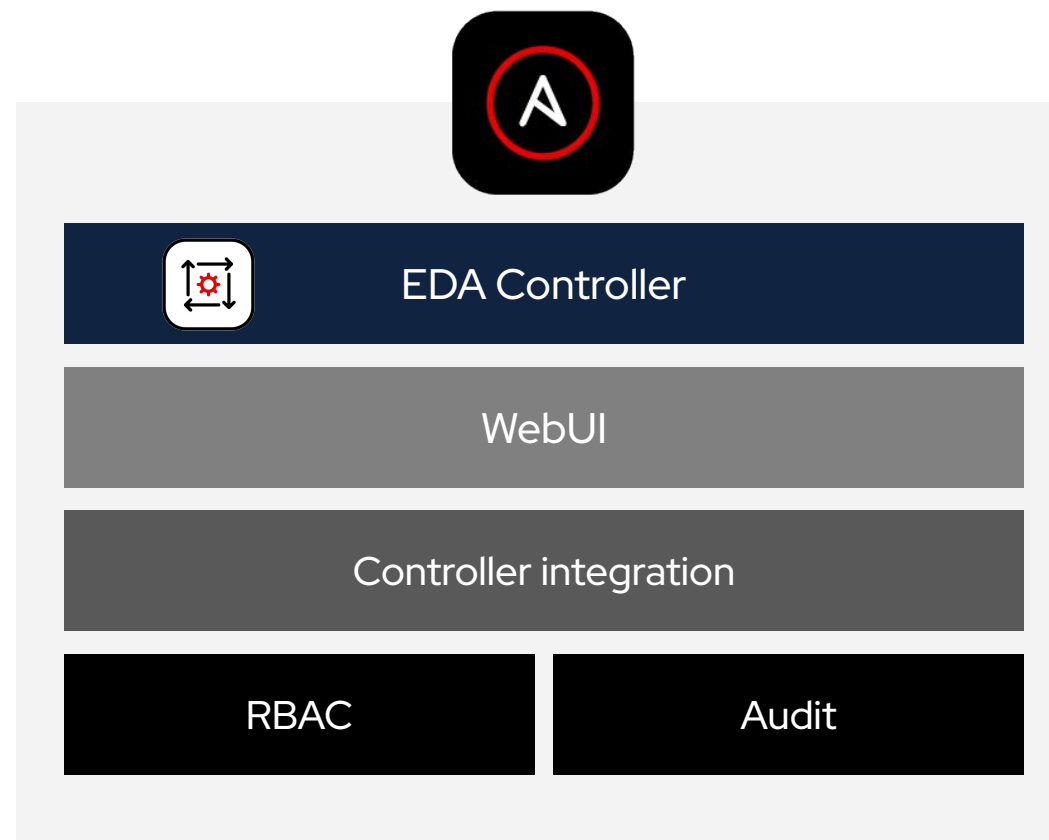
Event-Driven Ansible. Observe, evaluate, respond.
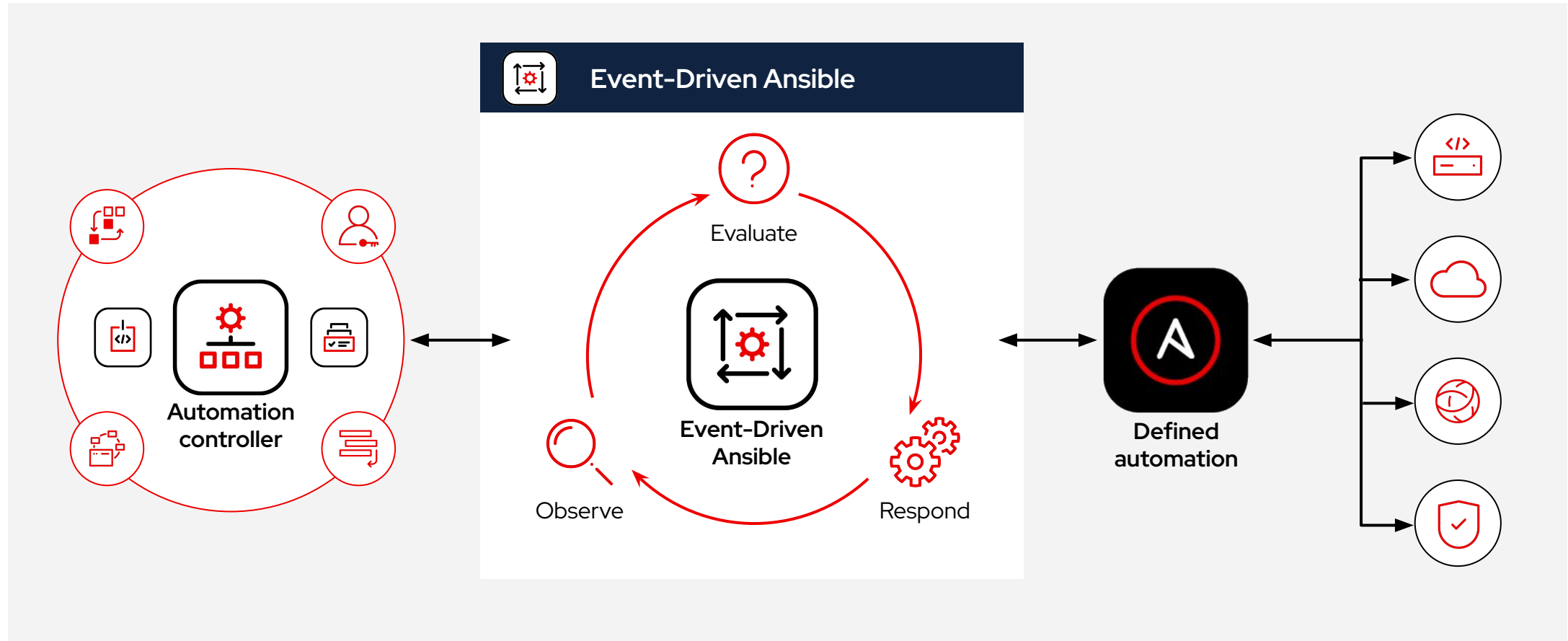
Scale
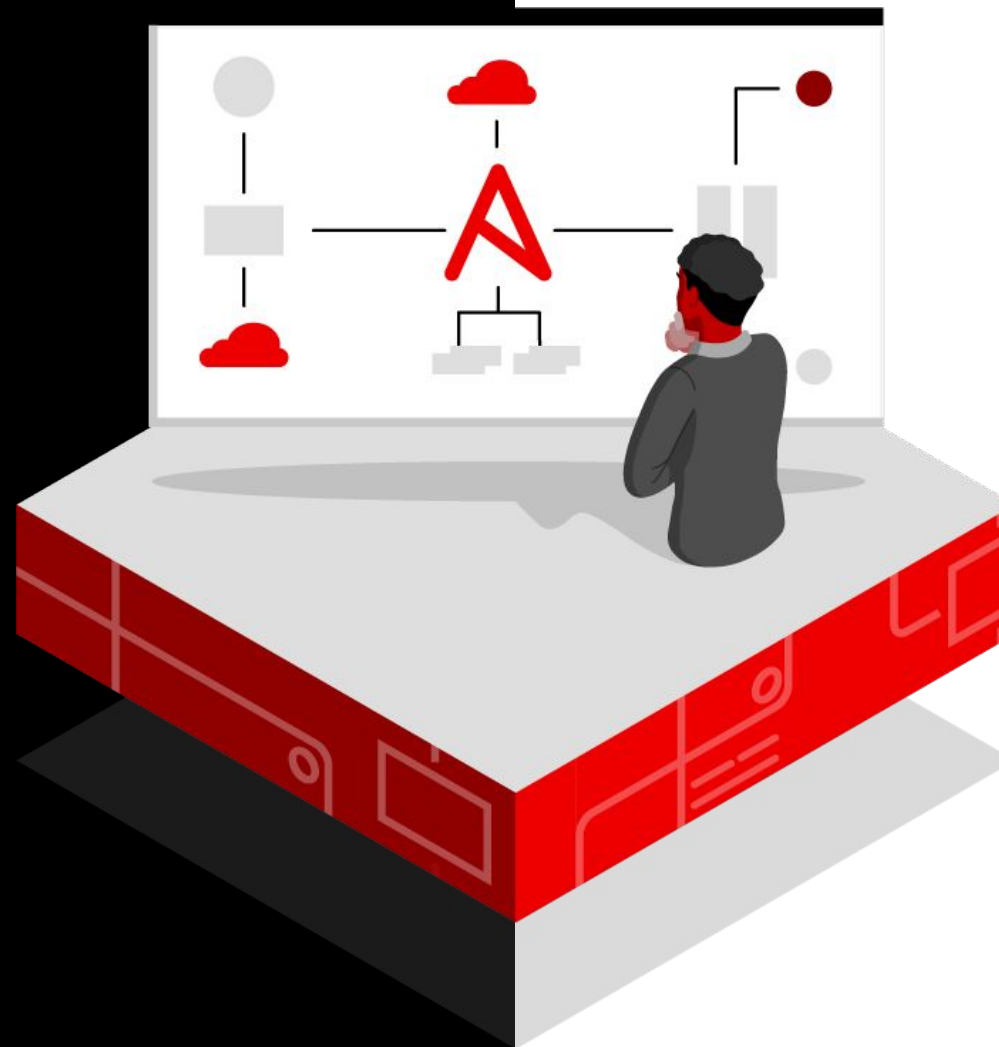
Workflows. Solve complex problems.
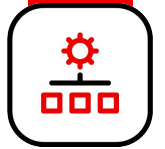
Automation controller approvals. Integrate and govern.
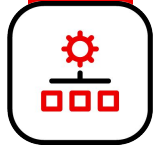
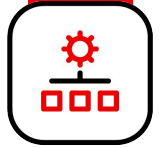## What is it?

▸ Adds human interaction to the automation for administration and governance

▸ Available at the operational level on the Automation Platform UI
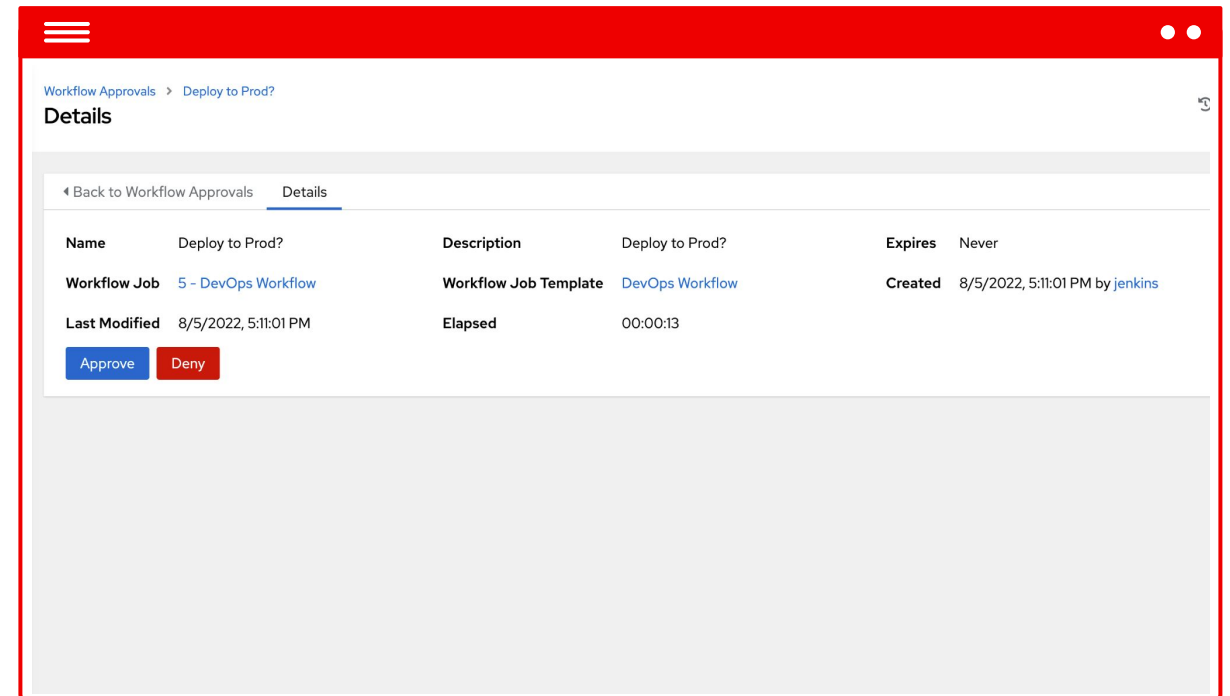
IT service management integration (ITSM).
Integrate and govern.

Incorporate automation into your ITSM

▶ Integrate high level workflows in existing ITSM toolsets with the automation platform.

▶ Apply organization governance and integrate your automation to larger business processes

▶ Have the automation platform reach out to the ITSM system whenever things are changing, including data transmission between the tools

Edit order process   ✕

Order process name *

ServiceNow!

Description

Create and close out IT service ticket

Before order

Remediación bajo demanda

After order

Remediación con aprobación

Save   Cancel

Red Hat
Ansible Automation
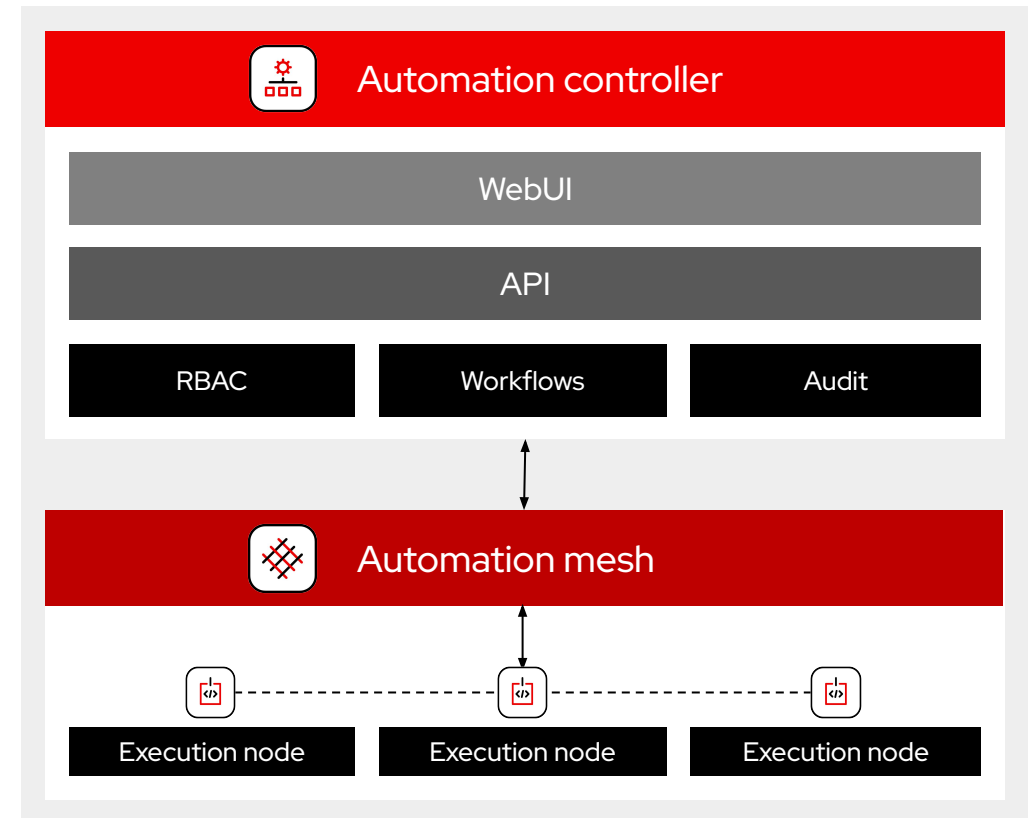Platform

Automation mesh. Design and expand.
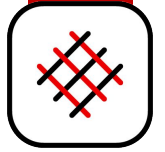
What is it?

▸ Simple, reliable framework to scale automation independently with little or no downtime

▸ Distributed and localized execution across worker nodes

▸ Scale across segmented and remote networks with native resiliency

▸ Flexible design choices to deliver automation across networks and design redundant topologies

Improved communication and security

▸ Worker node health checks

▸ Bi-directional, secured (TLS) communication between nodes

▸ Centralized, secured management with automation controller

Automation controller

WebUI

API

RBAC	Workflows	Audit

Automation mesh

Execution node	Execution node	Execution node

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Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

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