

Introduction & Demo: Ansible Automation Platform

Götz Rieger

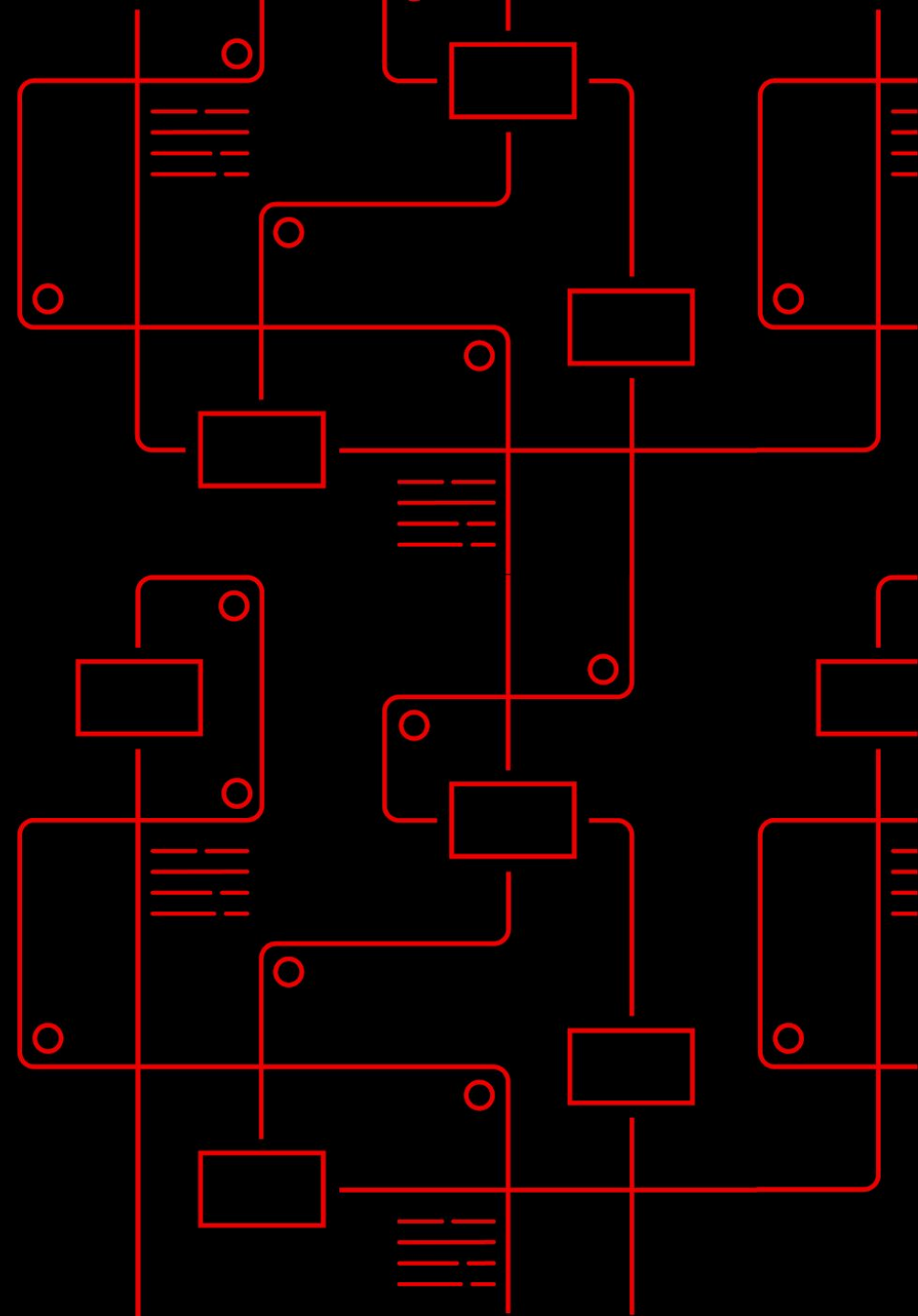
Principal Solution Architect, Red Hat

Christian Jung

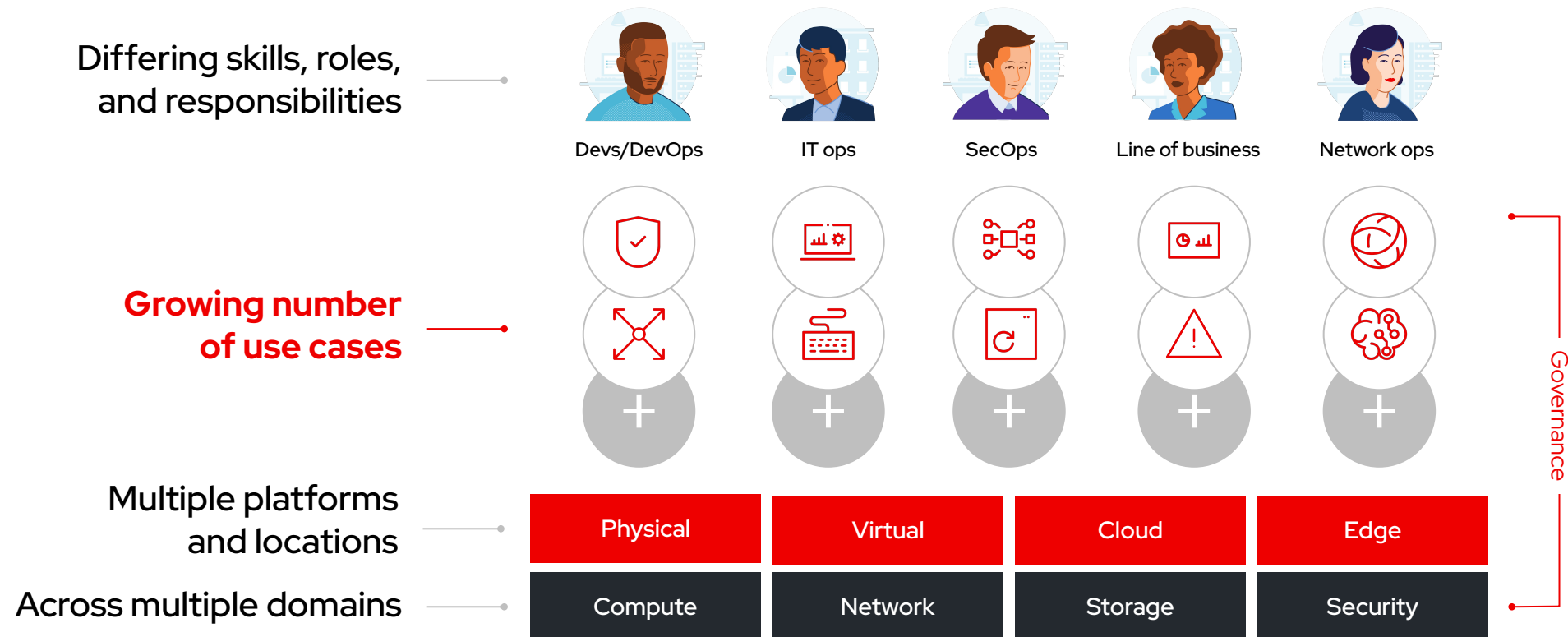
Principal Specialist Solution Architect, Red Hat



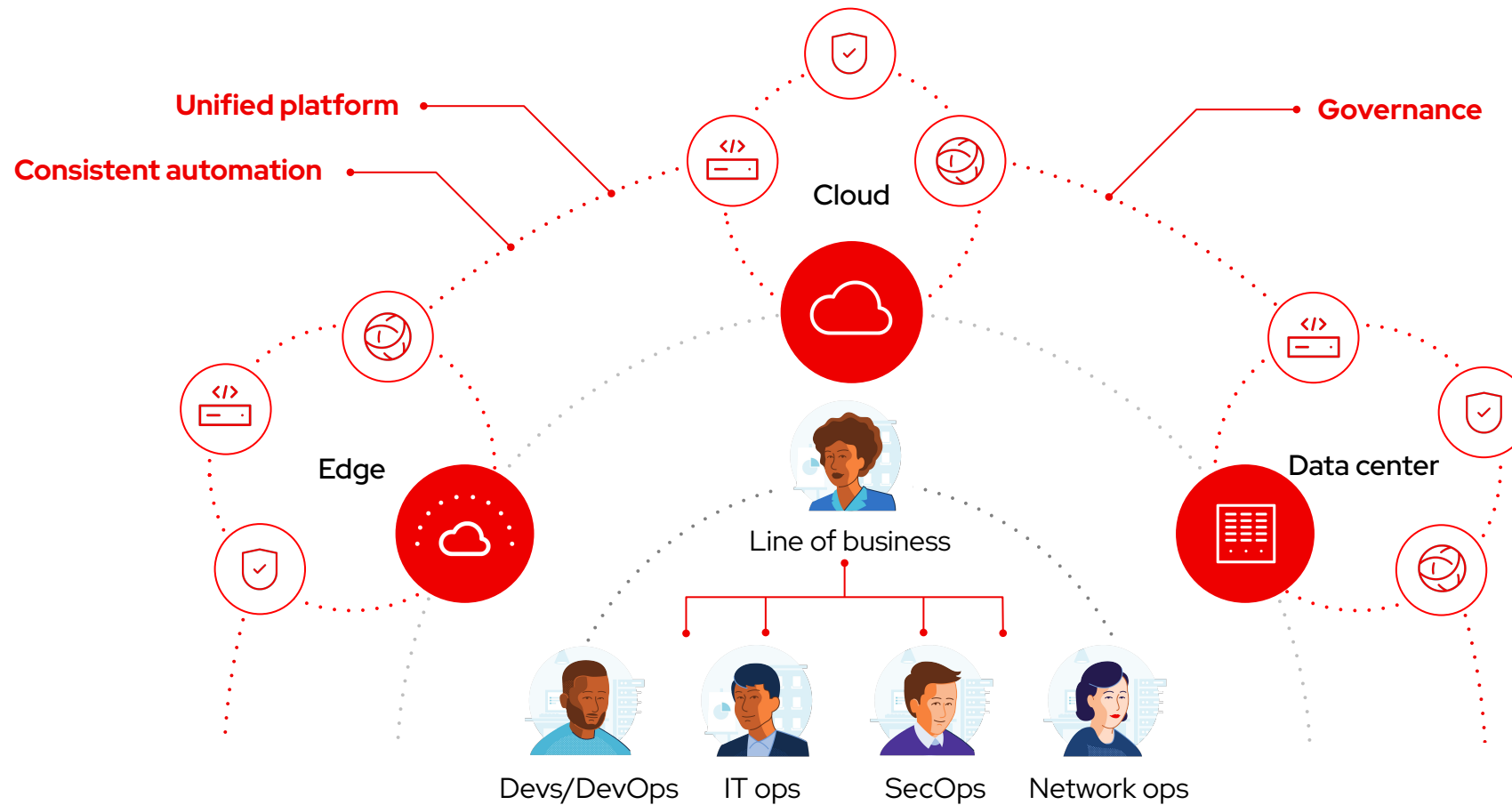
Why Red Hat[®] Ansible[®] Automation Platform?



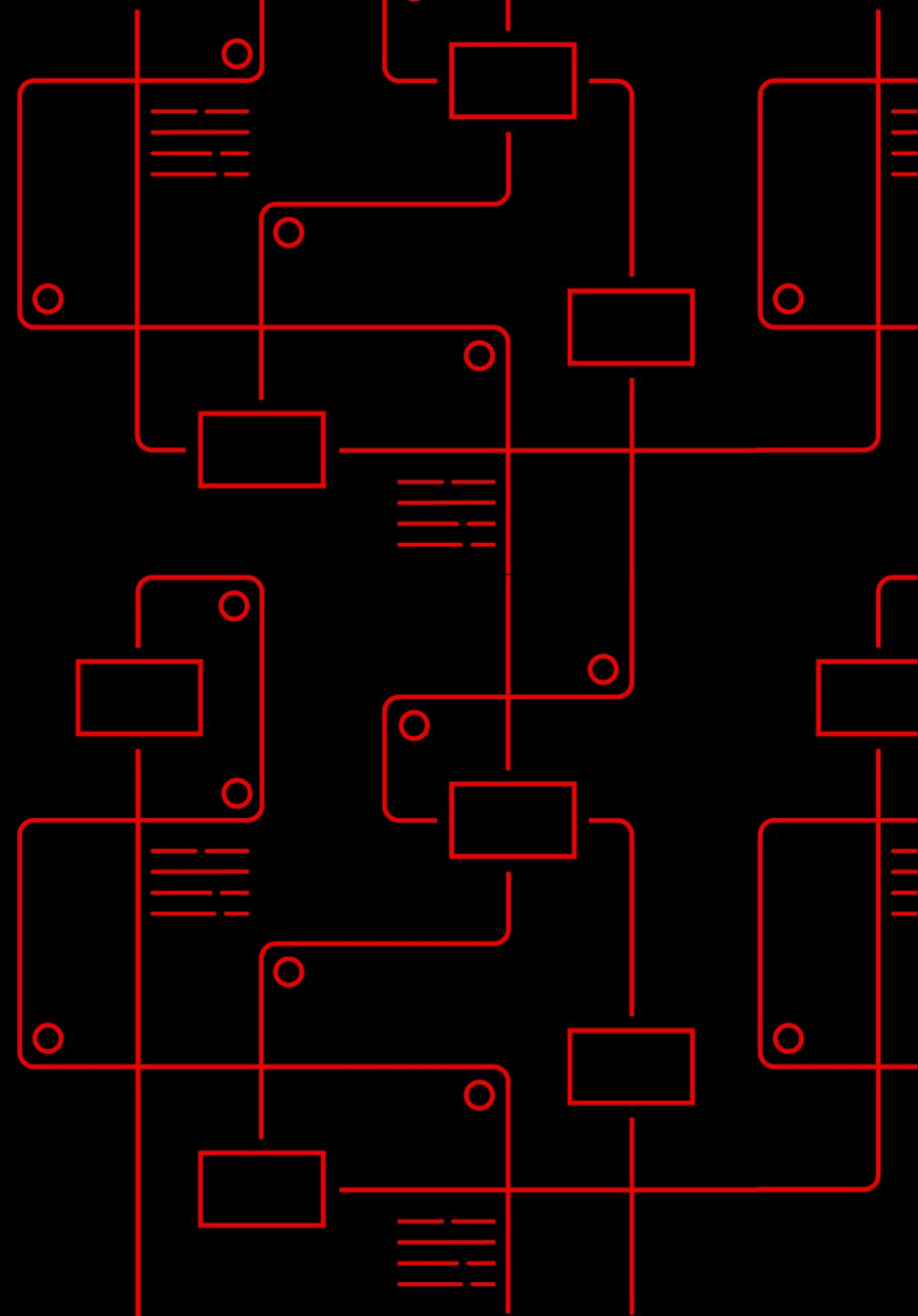
Many organizations **share the same challenge.**



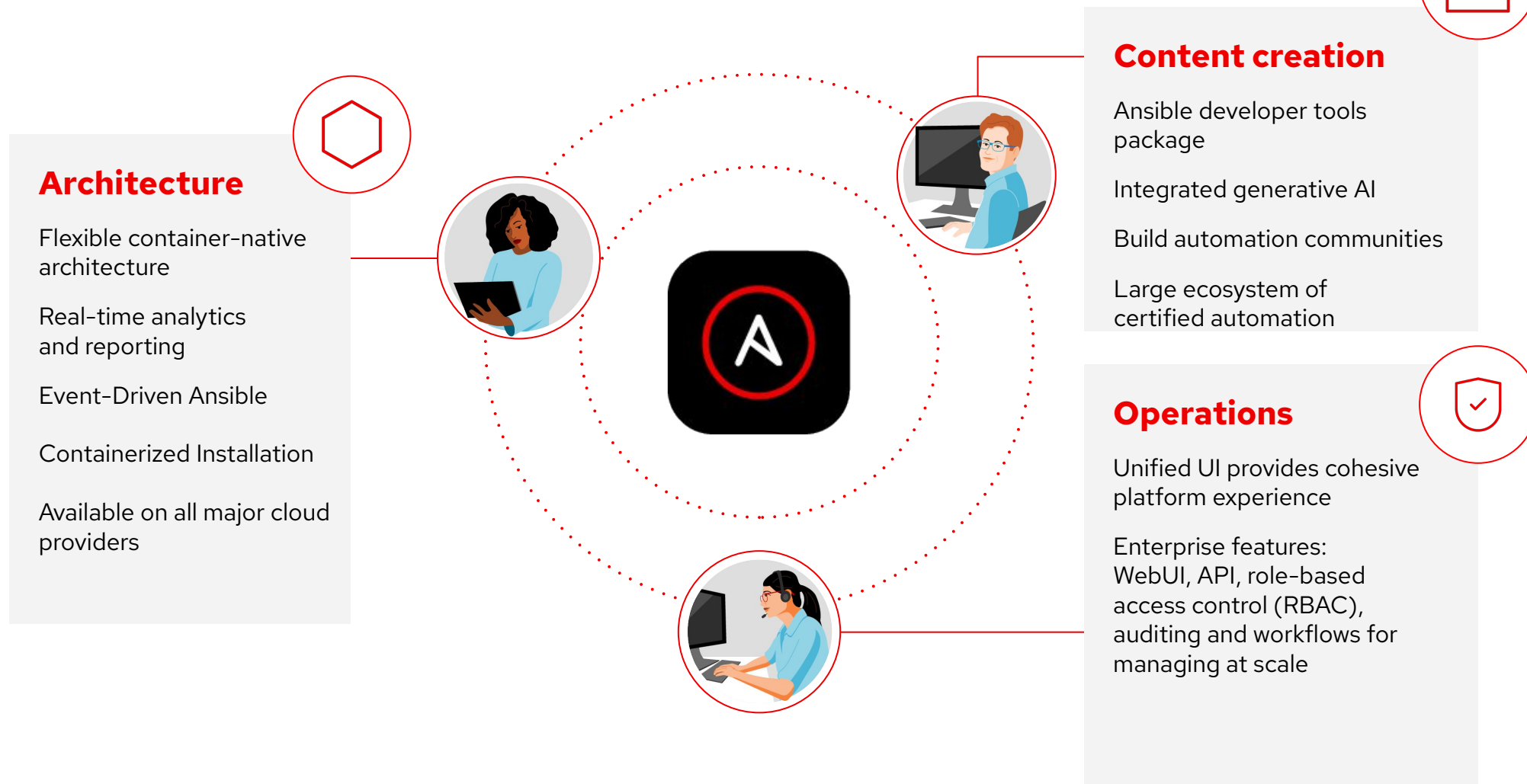
The solution? **Break down the silos.**



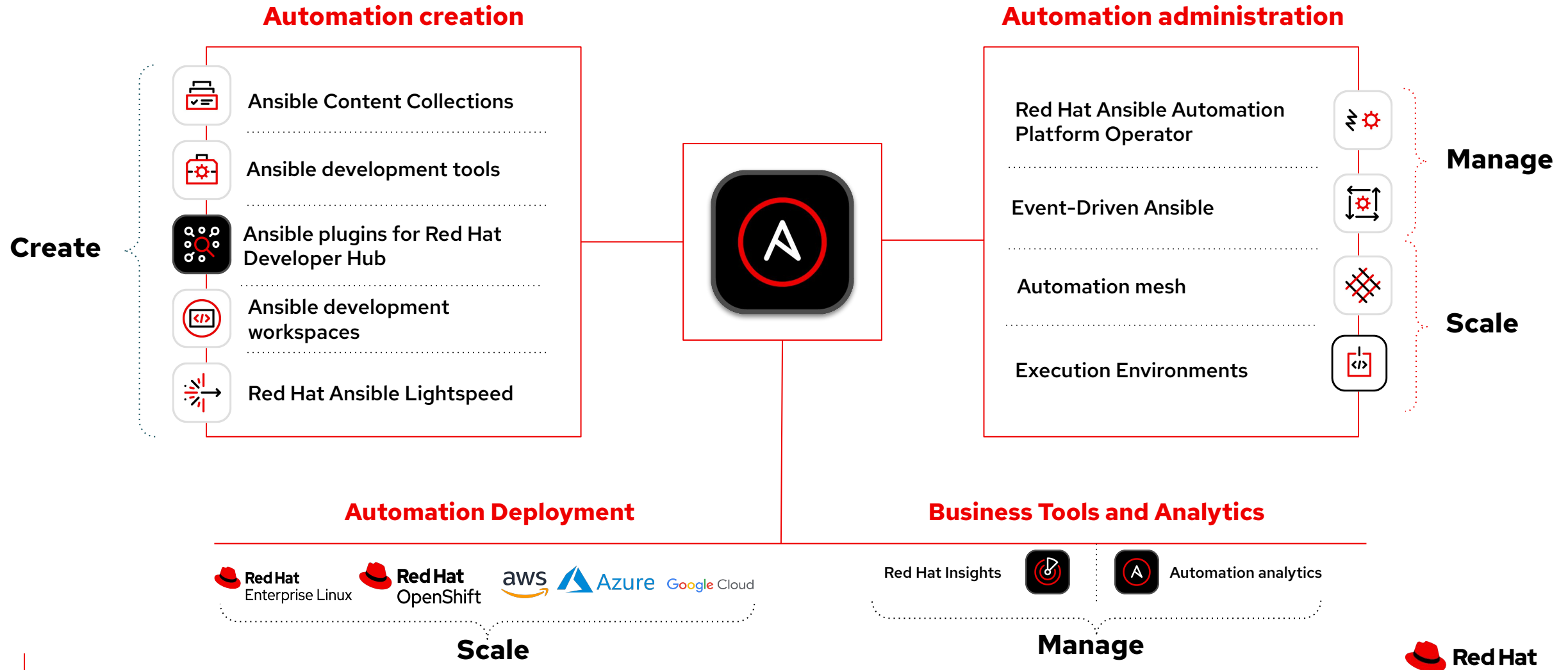
What is Red Hat[®] Ansible[®] Automation Platform?



A platform for the **entire automation team.**

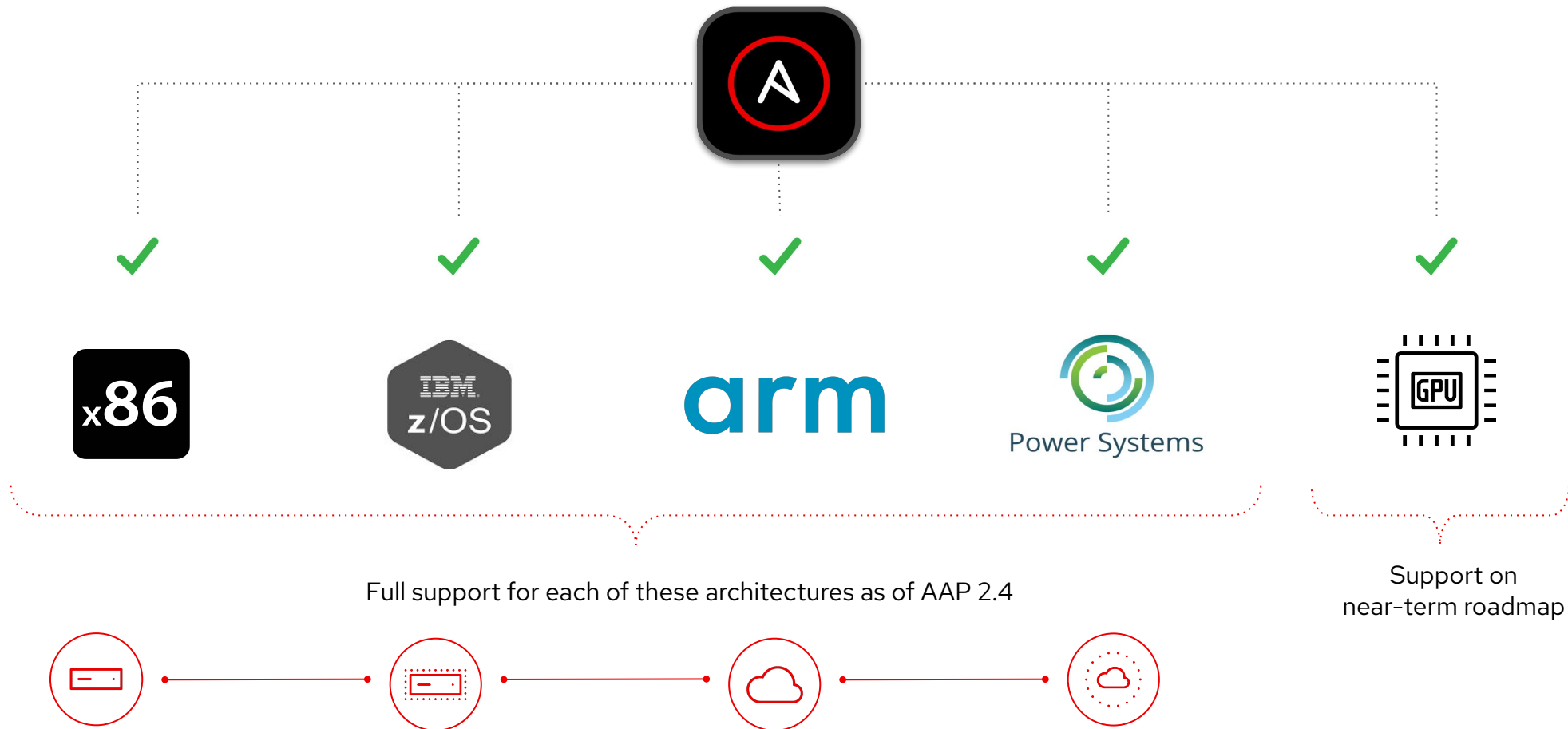


An integrated solution **for the enterprise.**



Ansible Automation Platform **across architectures.**

Deployable on mission-critical architectures



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](#).

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



Create

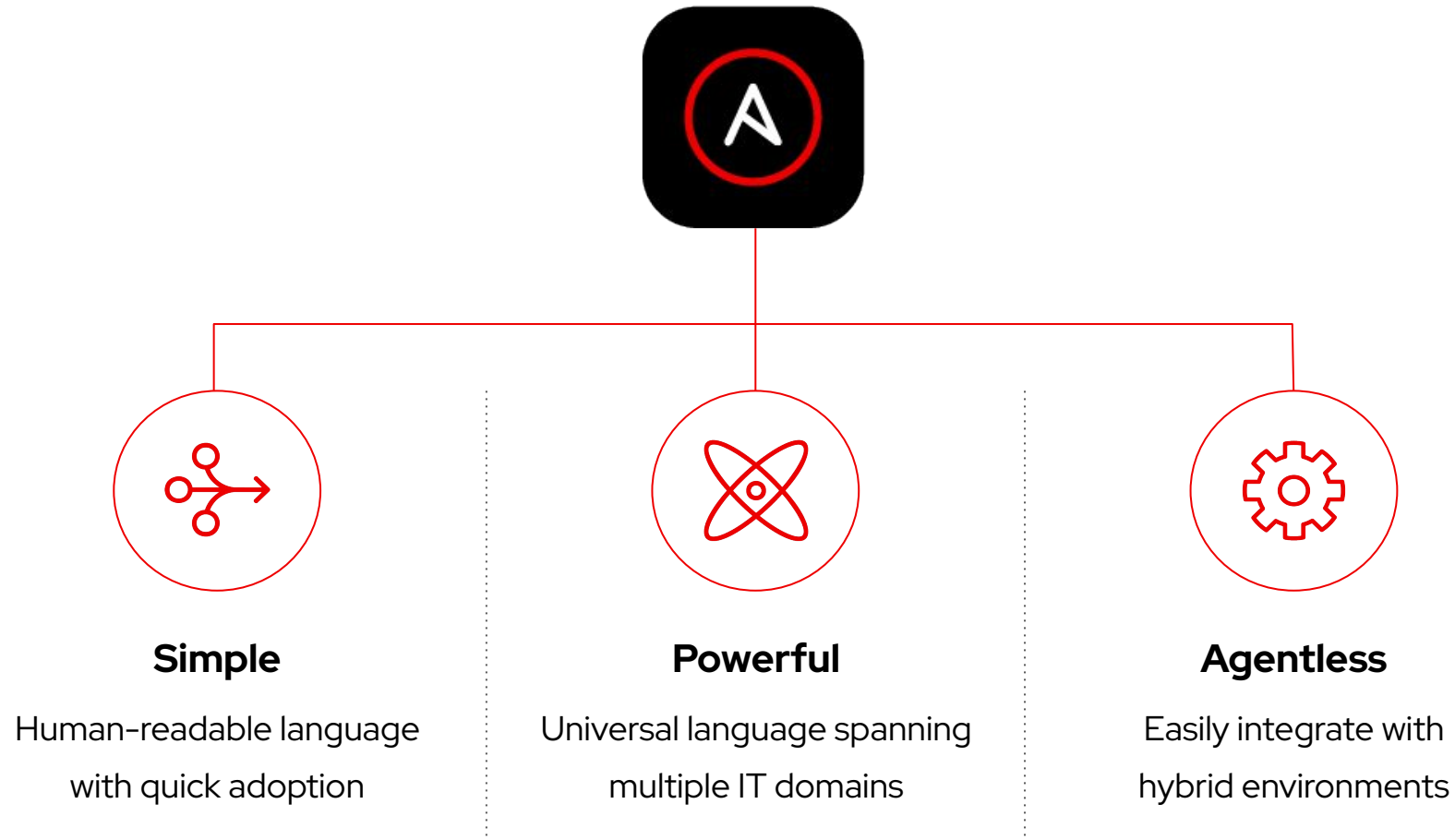
Manage

Scale

Create

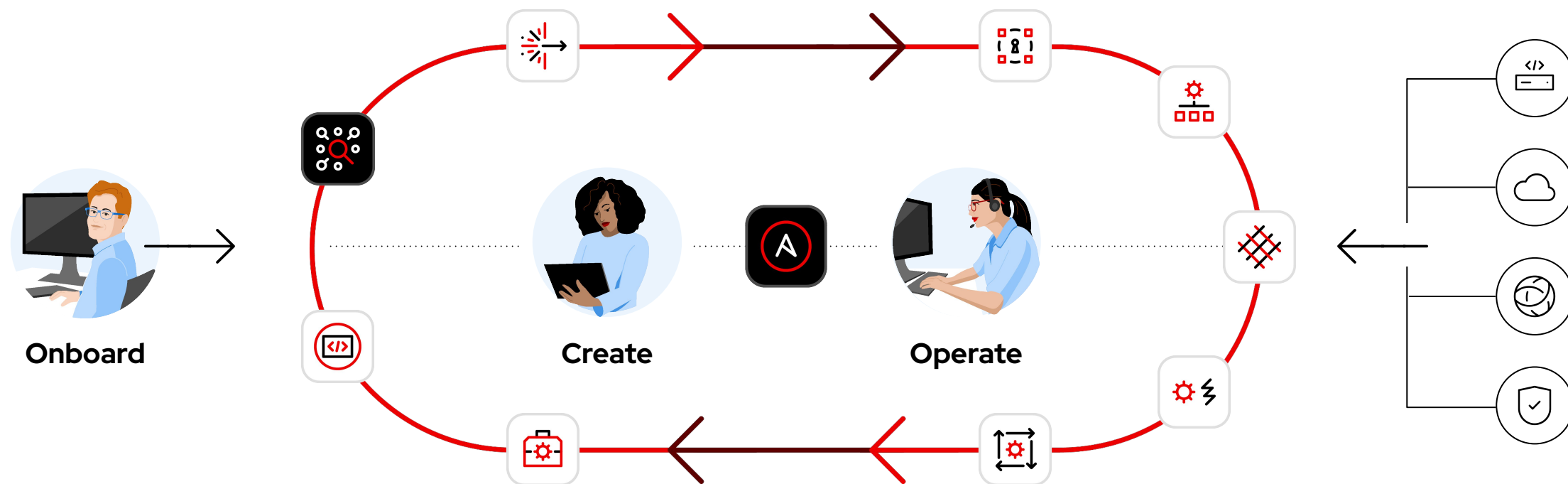


Ansible is the **de facto automation language**.



The automation content life cycle. **Create.**

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



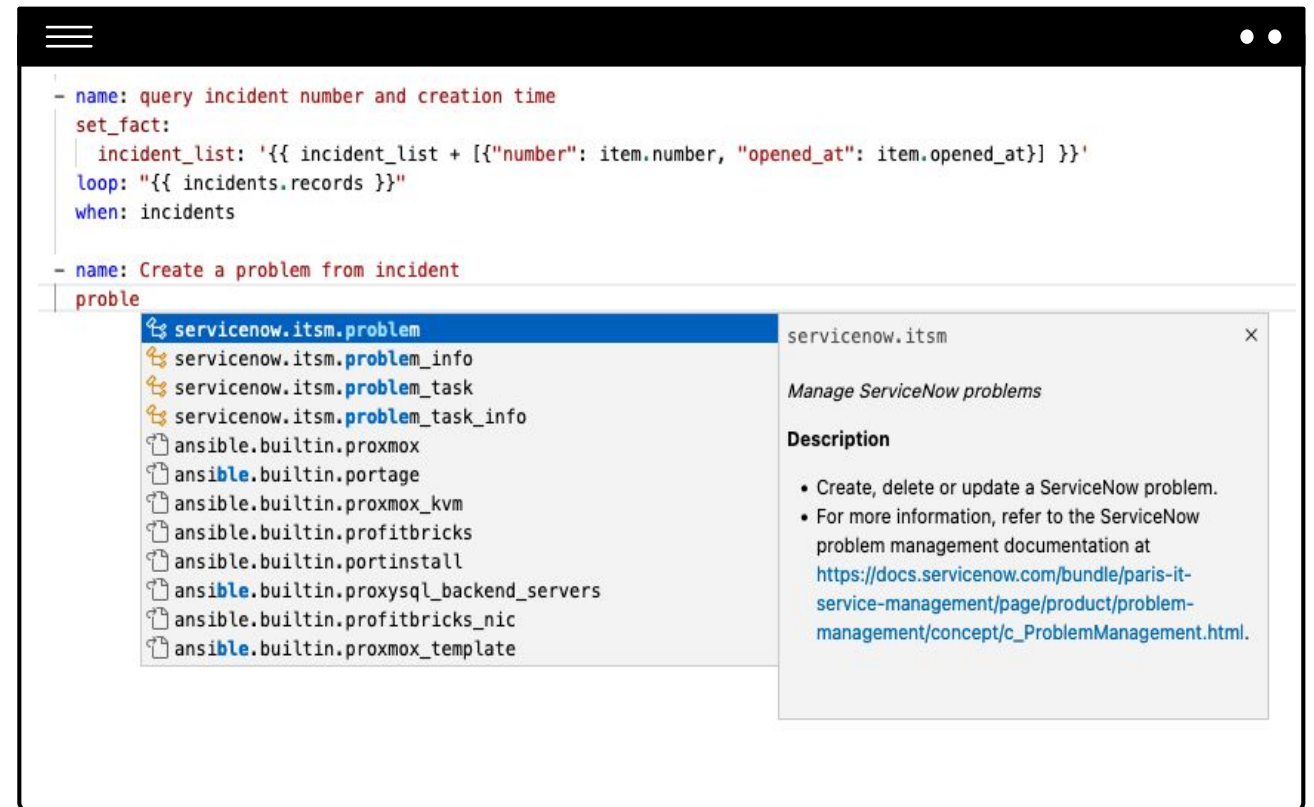
Ansible development workspaces · Ansible development tools · Event-Driven Ansible · Platform Operators

Ansible VS Code extension. Simplifying content creation



What is it?

- ▶ Syntax highlighting of keywords
- ▶ Live validation of your code while you type
- ▶ Hover and goto functionality
- ▶ Auto-completion on play, block, or task contents, hosts, etc
- ▶ Supports Ansible content development on Windows and Mac OS workstation

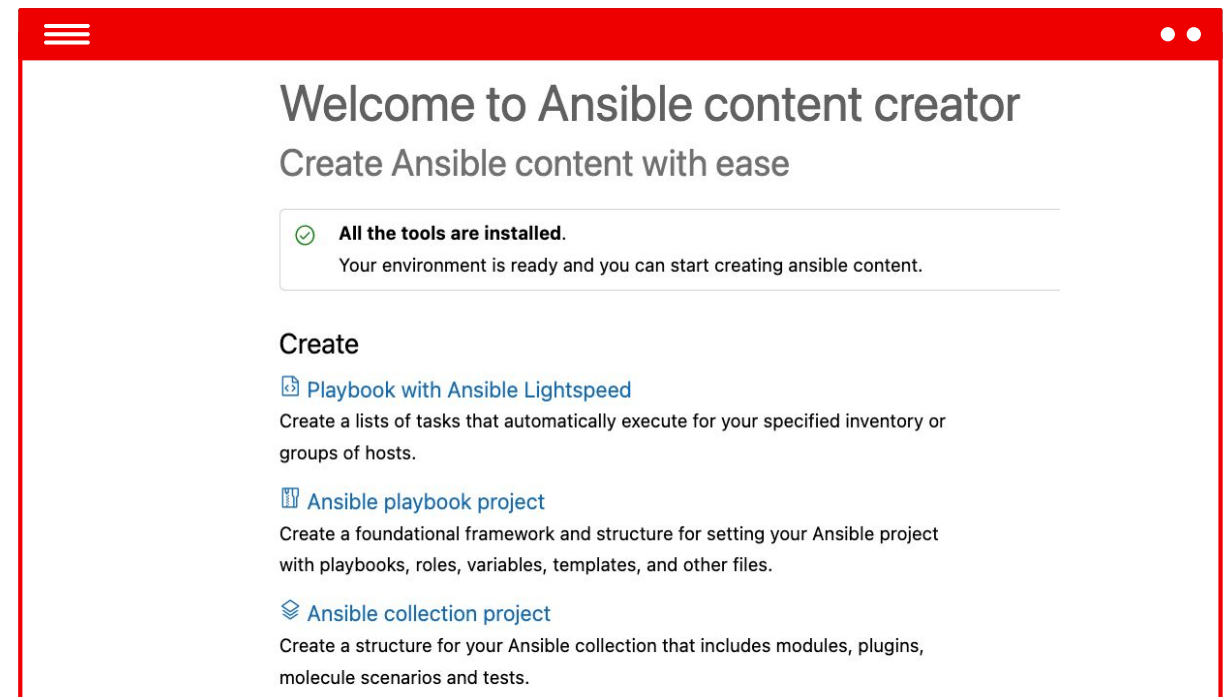


Ansible VS Code extension. Simplifying content creation



What is it?

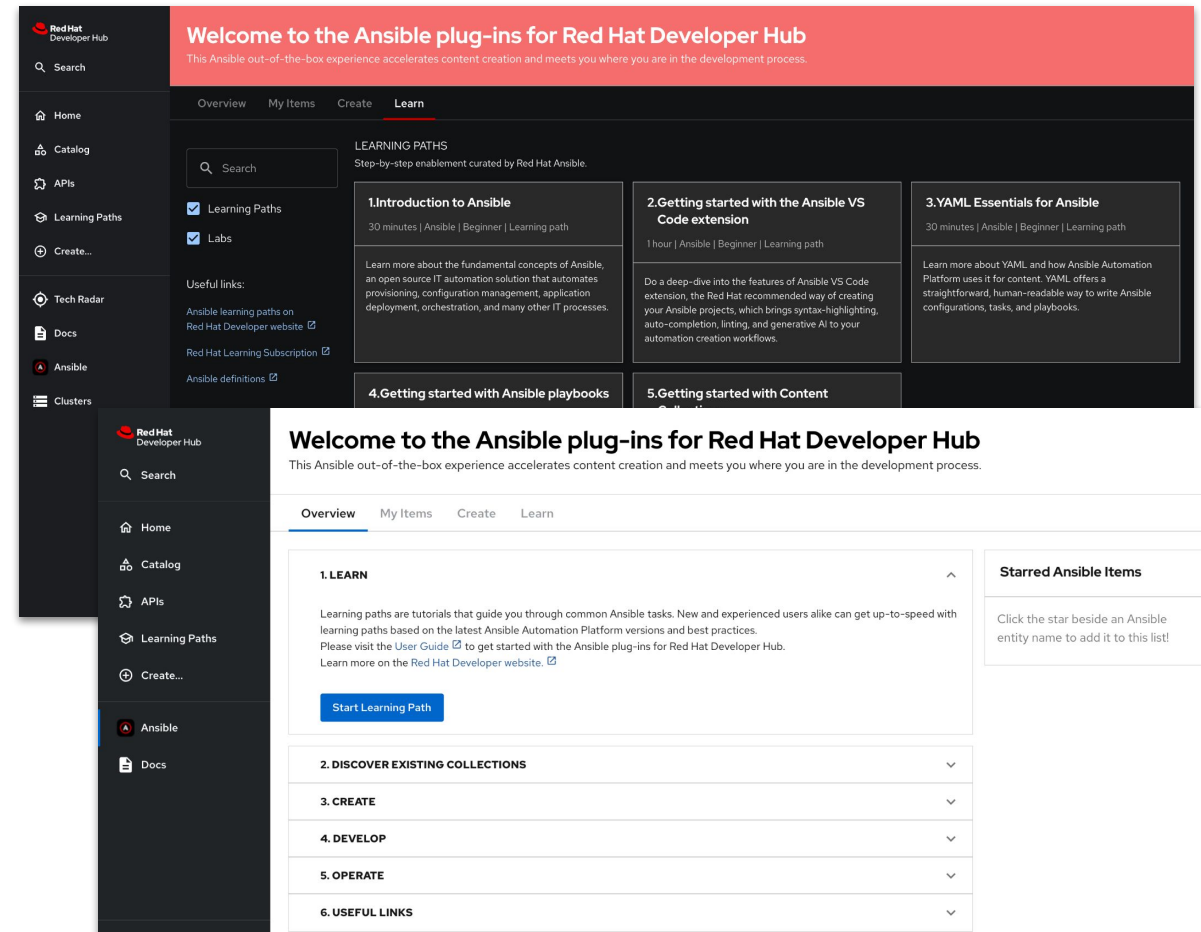
- ▶ Supports full playbook generation with Ansible Lightspeed.
- ▶ Playbook explanation, content attributions, inline suggestions.
- ▶ Integrated with ansible-dev-tools package.
- ▶ Scaffold playbook and collection projects with Ansible best-practices



Ansible plugins 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



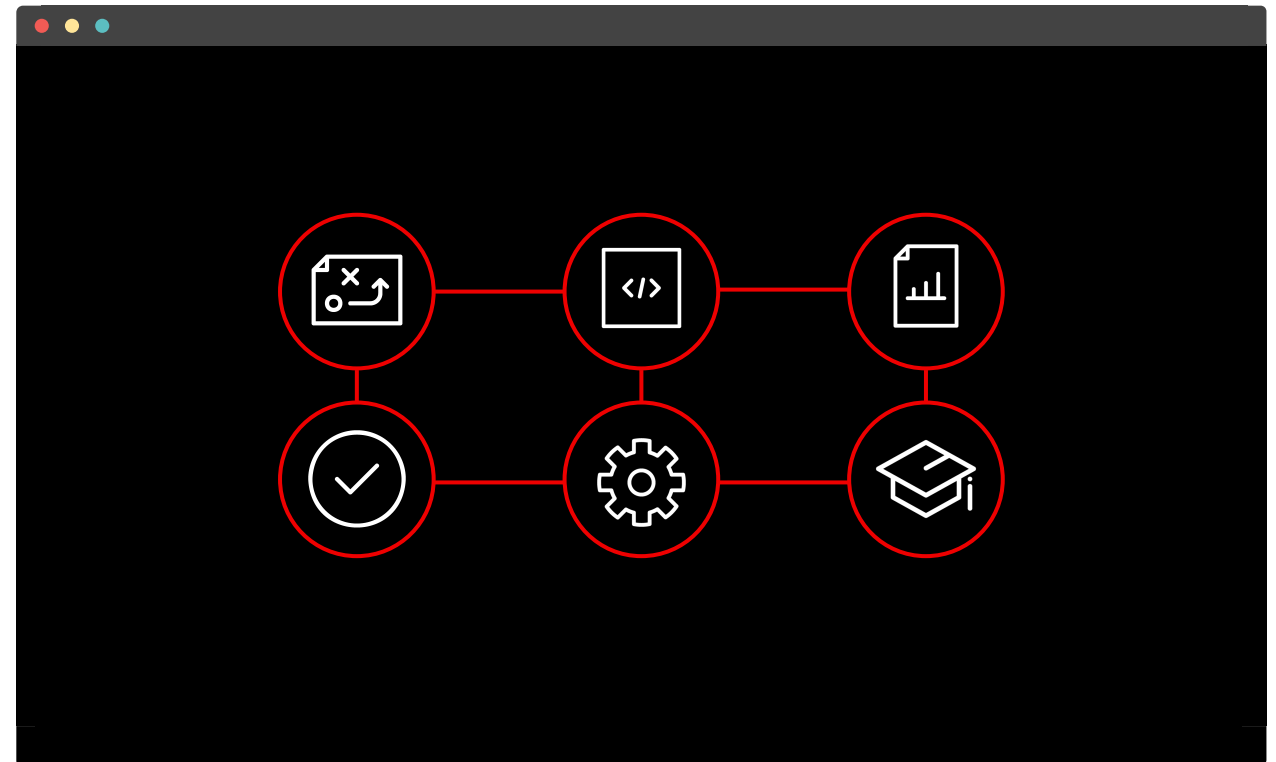


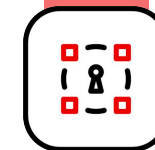
Content Collections.

Simplified, consistent content delivery.

What are they?

- ▶ Contains automation content, including modules, multiple roles ,and playbooks
- ▶ Portable, reusable, and versioned enabling better collaboration



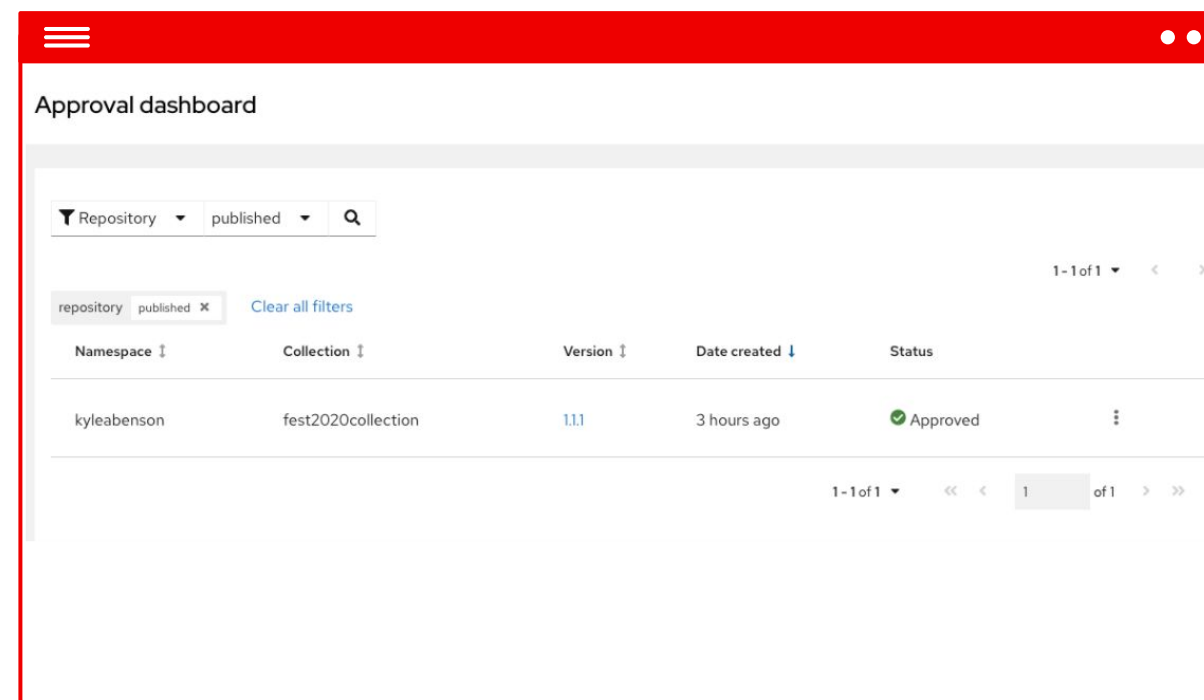


Automation hub. Trusted automation content.

console.redhat.com

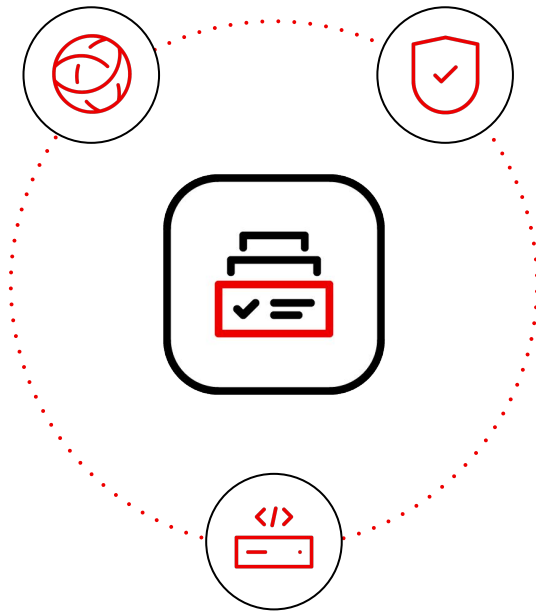
What is it?

- ▶ Hosted source of trusted Red Hat, Validated and Certified Partner Content Collections
- ▶ Integrated documentation and examples
- ▶ Configurable as primary content collection source for your automation environment
- ▶ Access to hosted automation hub and content Included in subscription

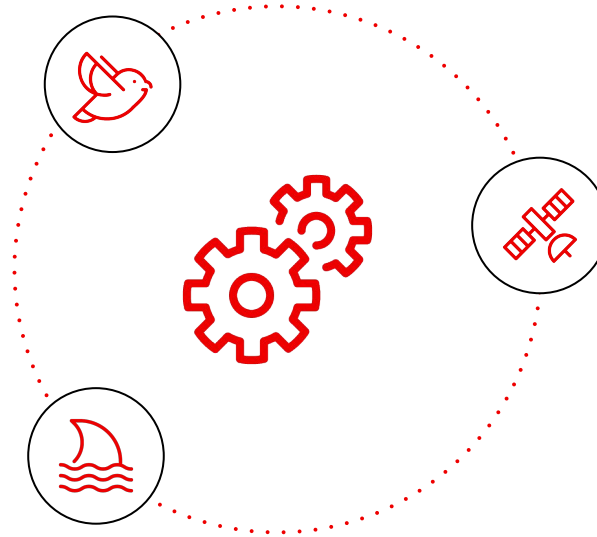


Many technologies, different life cycles.

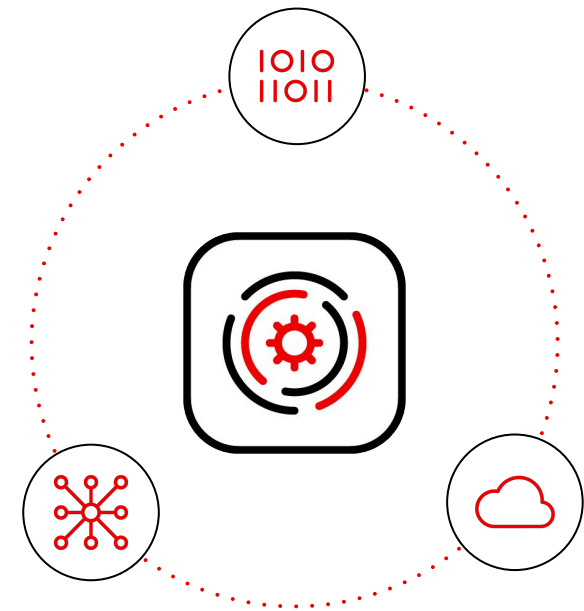
How do I keep it all aligned?



Collections

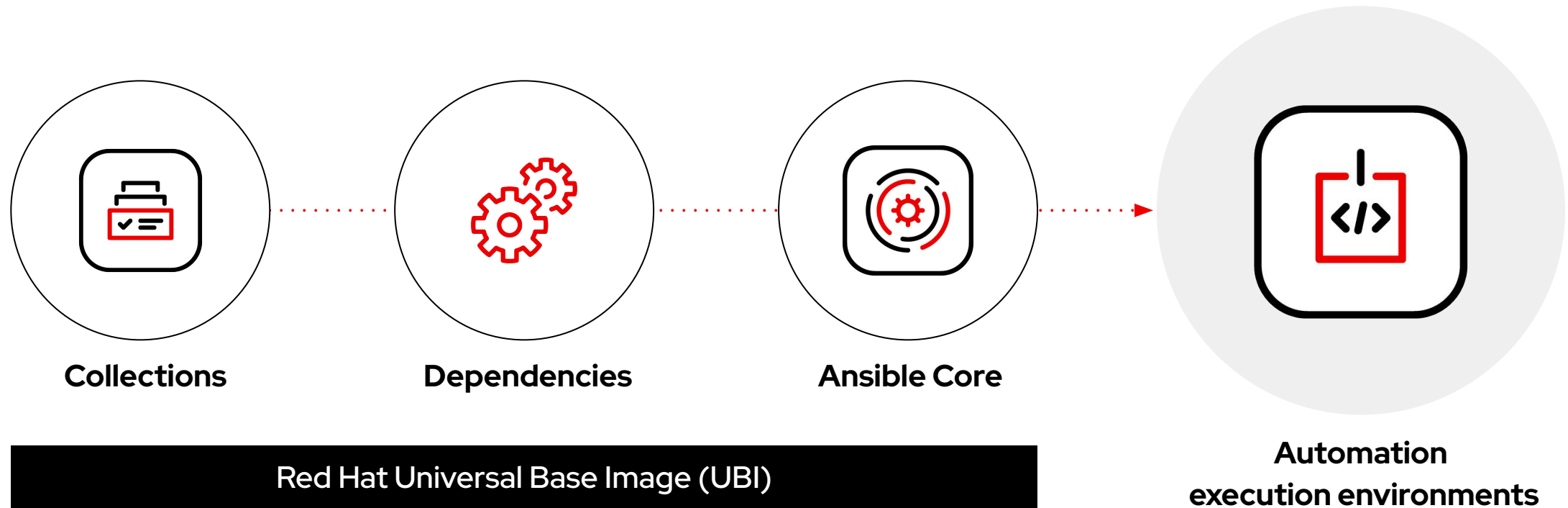


Dependencies

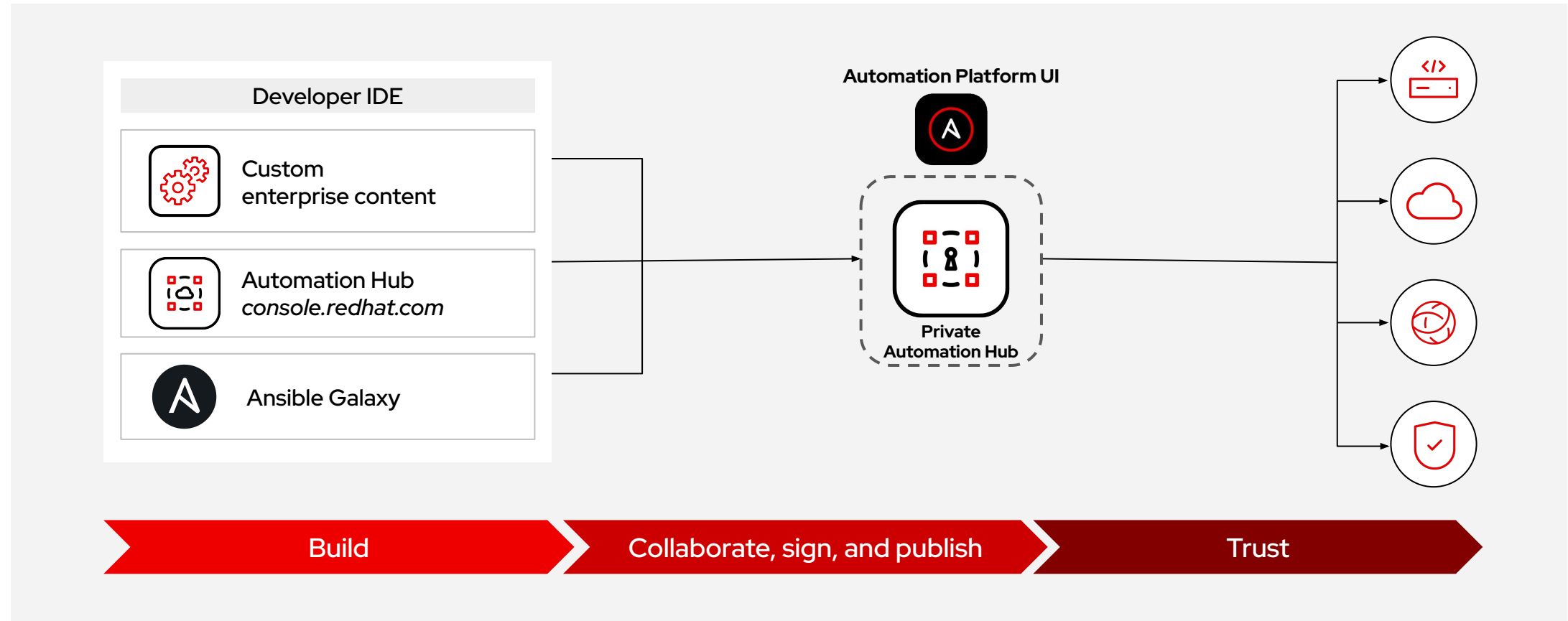


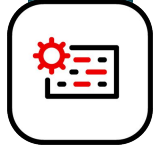
Runtime

Automation execution environments. Reuse and scale automation content.



Private automation hub. Collaborate, sign, and publish.





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
```



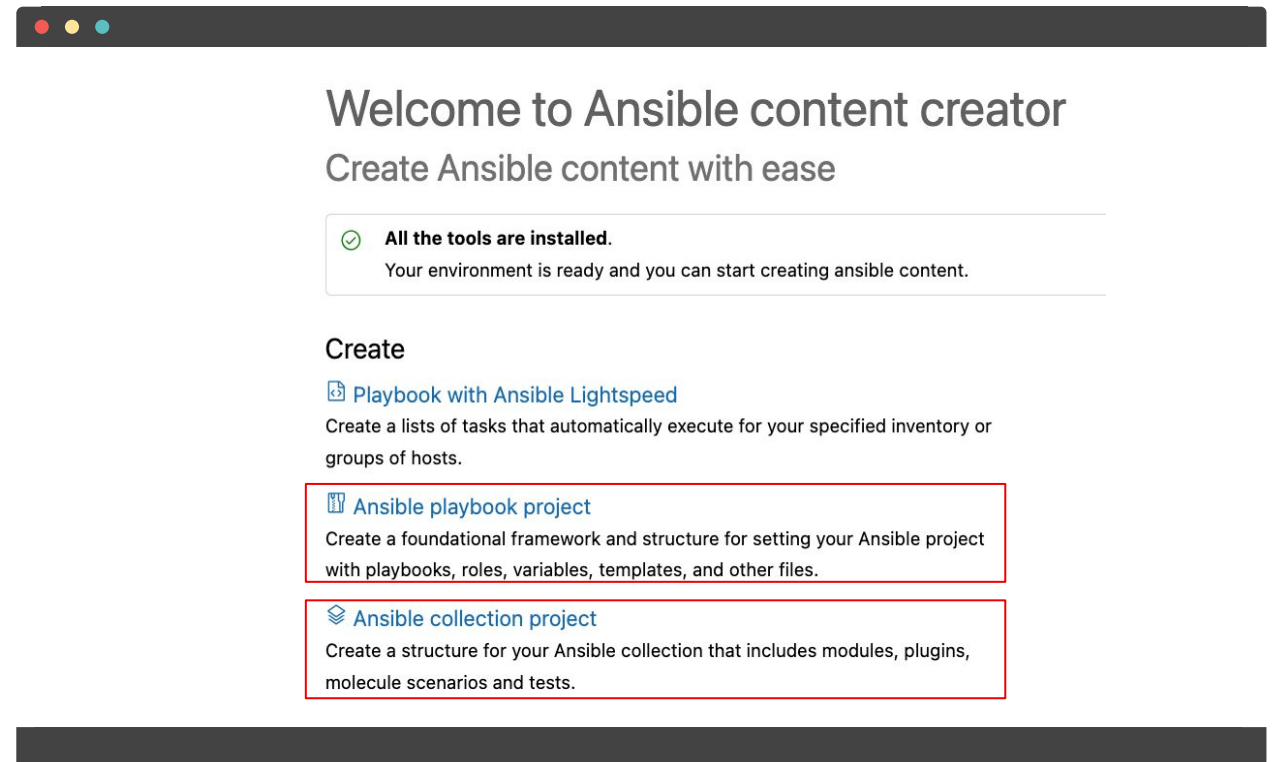
Ansible content creator (ansible-creator)

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





Ansible sign (`ansible-sign`)

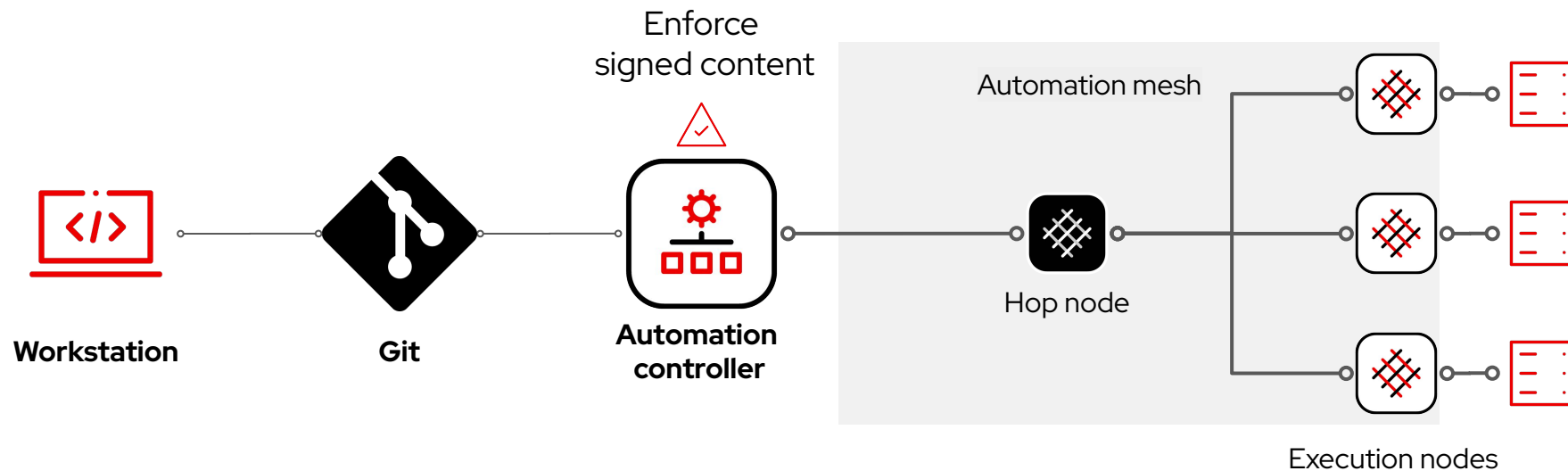
What is it?

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.

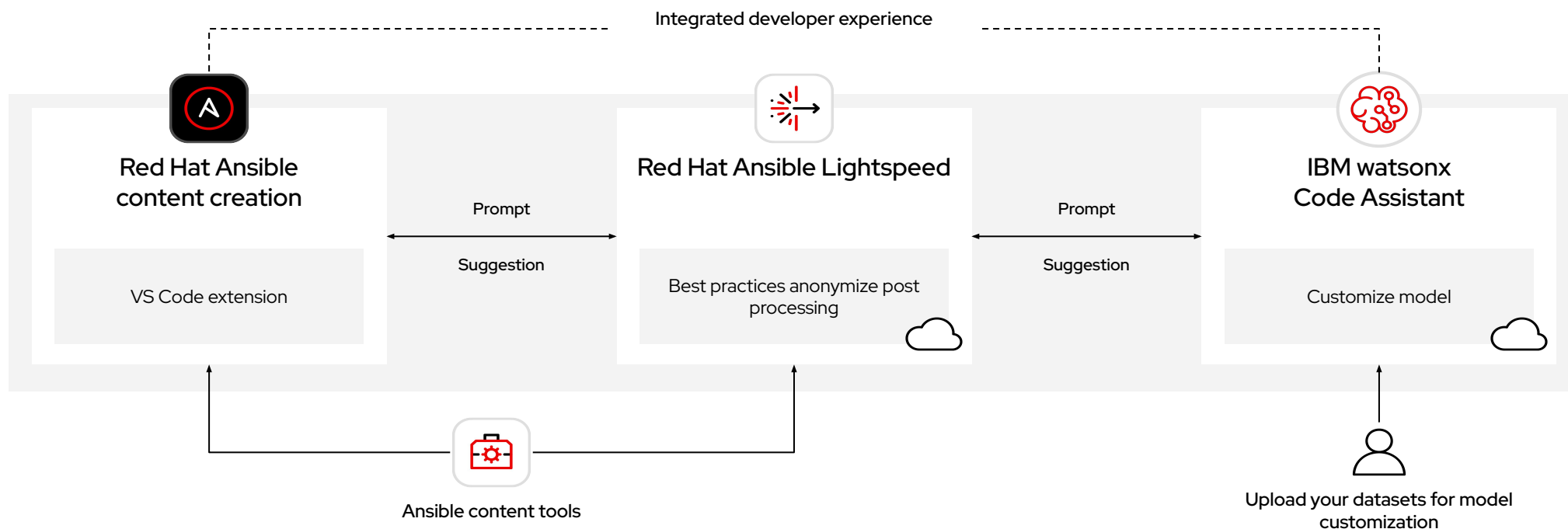
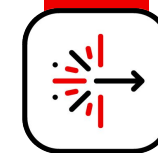
```
$ ansible-sign
```


Project signing in Automation controller



- 1 Create GPG key pair
- 2 Create an ASC file (armored ASCII)
- 3 Create a MANIFEST.in for your Git project
- 4 Use `ansible-sign` utility to create signature for project
- 5 Create a GPG credential in Automation controller
- 6 Sync Project (will be enforced!)

Ansible Lightspeed. Generative AI the Ansible way.



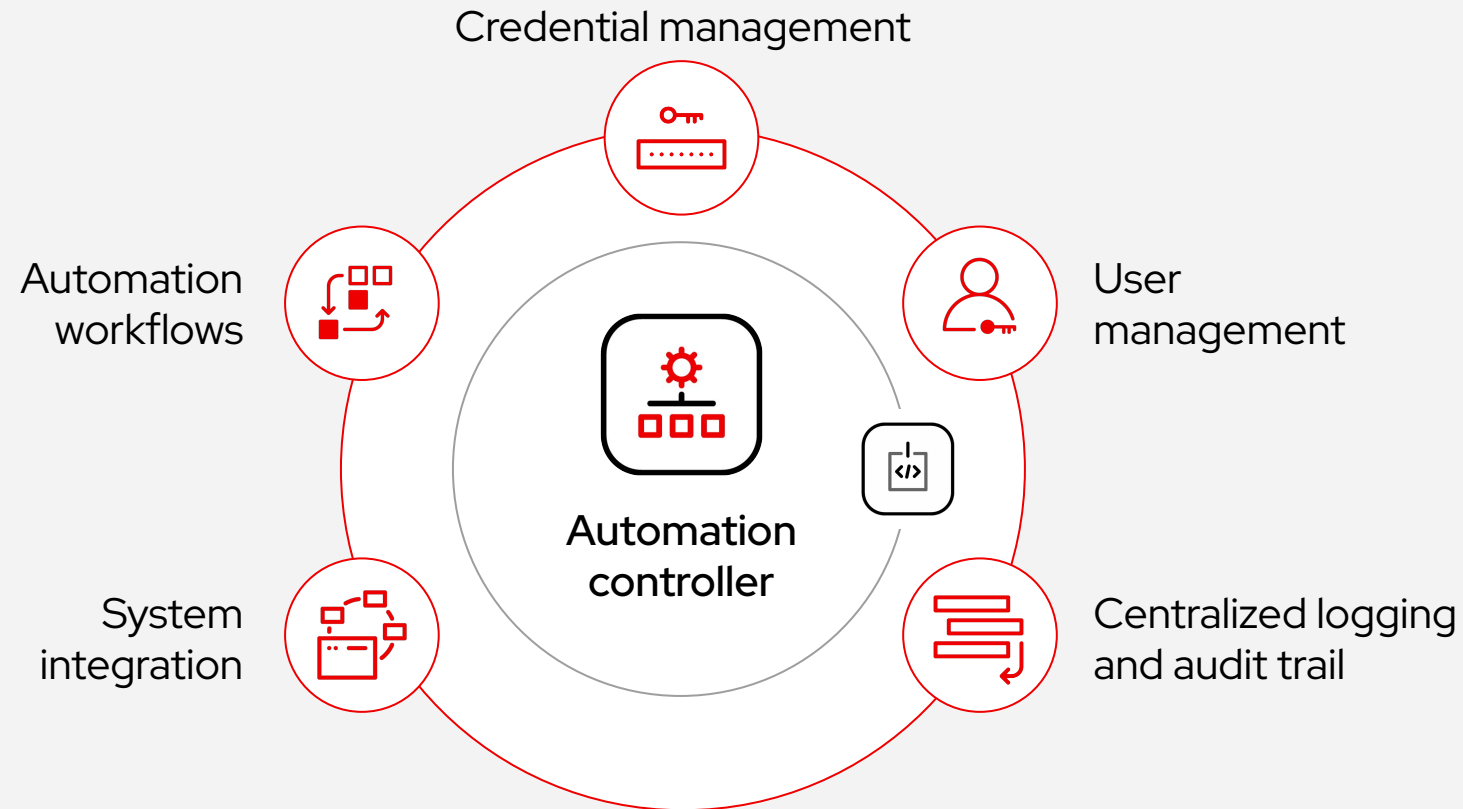
Data security

- + Prompt/Suggestion data is encrypted in transit and at rest and is ephemeral
- + Customer metadata and customized models are stored in customer-owned IBM cloud object storage and are not shared with IBM, Red Hat, or any other customers

Manage



Enterprises **need more for their automation.**



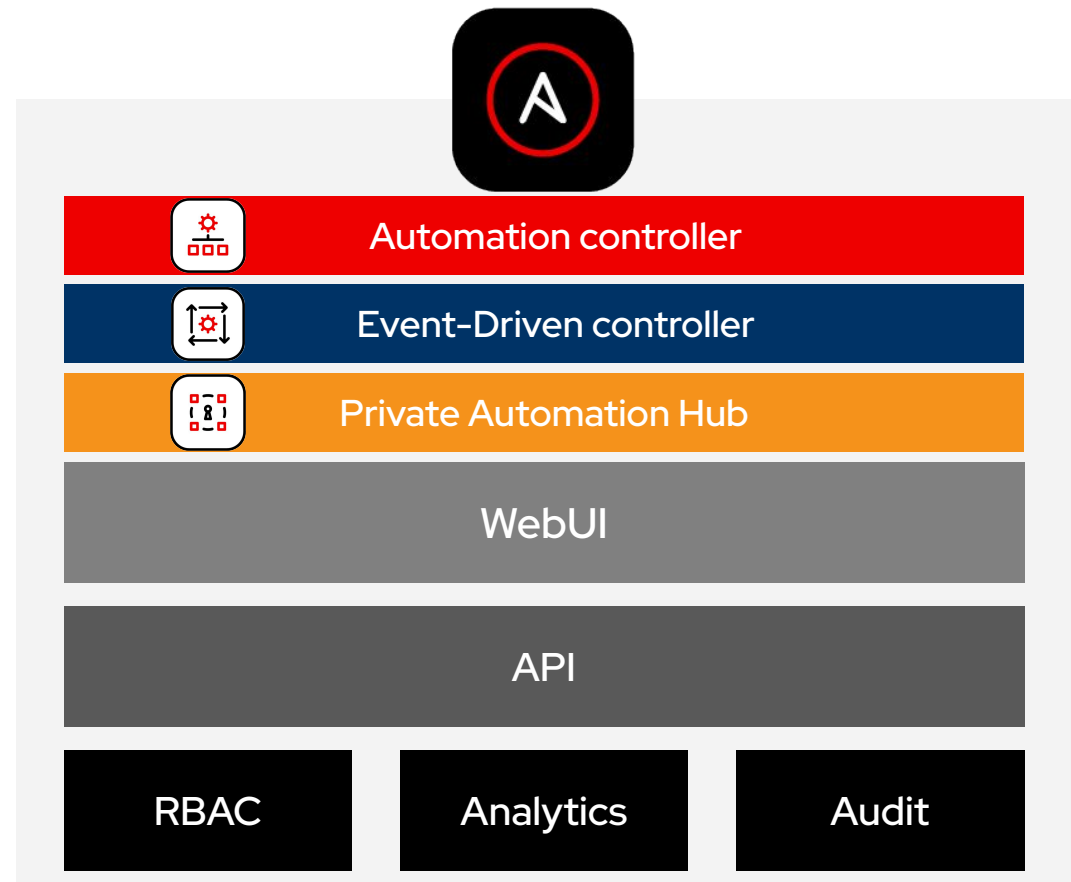
Automation controller. Define, operate, and delegate.

What is it?

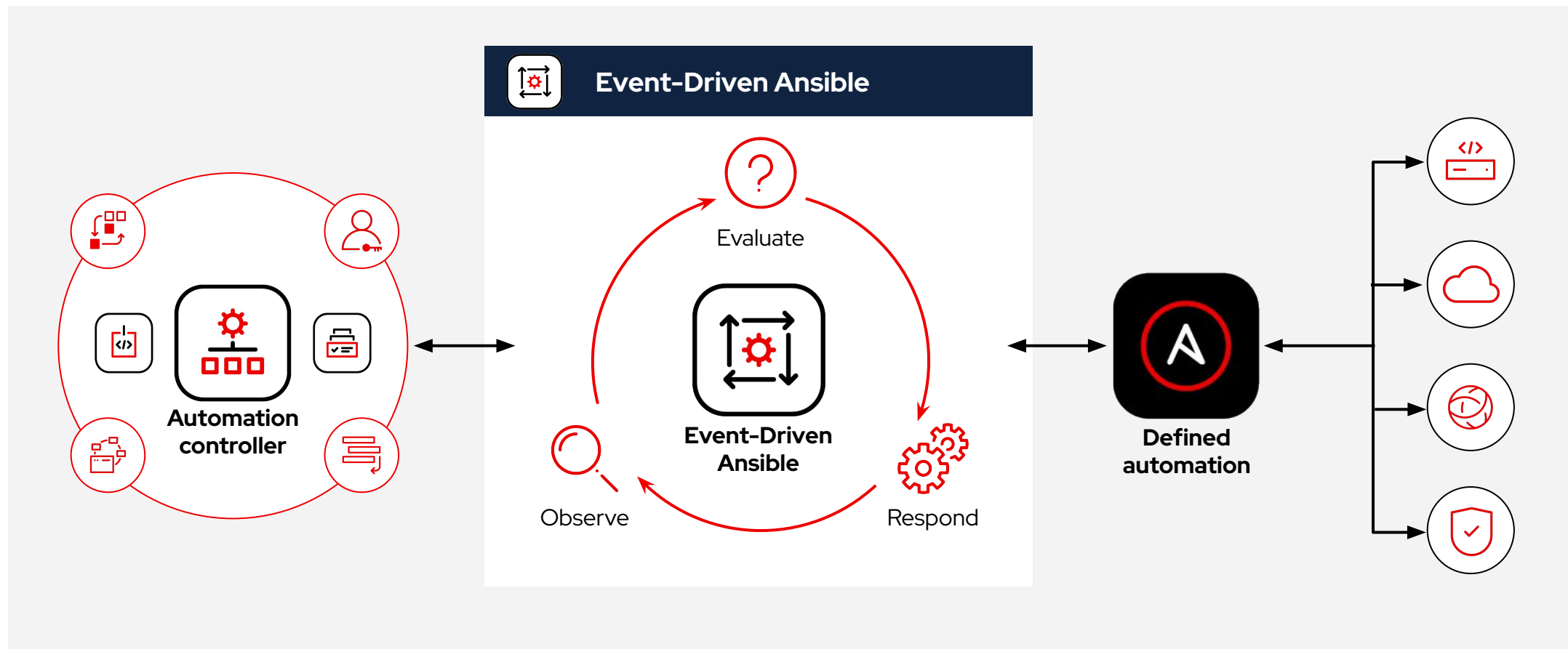
Automation controller is the Ansible Automation Platform control plane which enables users to define, operate, and delegate automation across their enterprise

Unified UI provides:

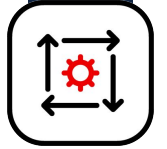
- ▶ Centralized control
- ▶ WebUI and API
- ▶ Role-based access control
- ▶ Centralized logging
- ▶ Credential management
- ▶ Ansible analytics integration



Event-Driven Ansible. **Observe, evaluate, respond.**



Event-Driven Ansible controller. Define and manage.

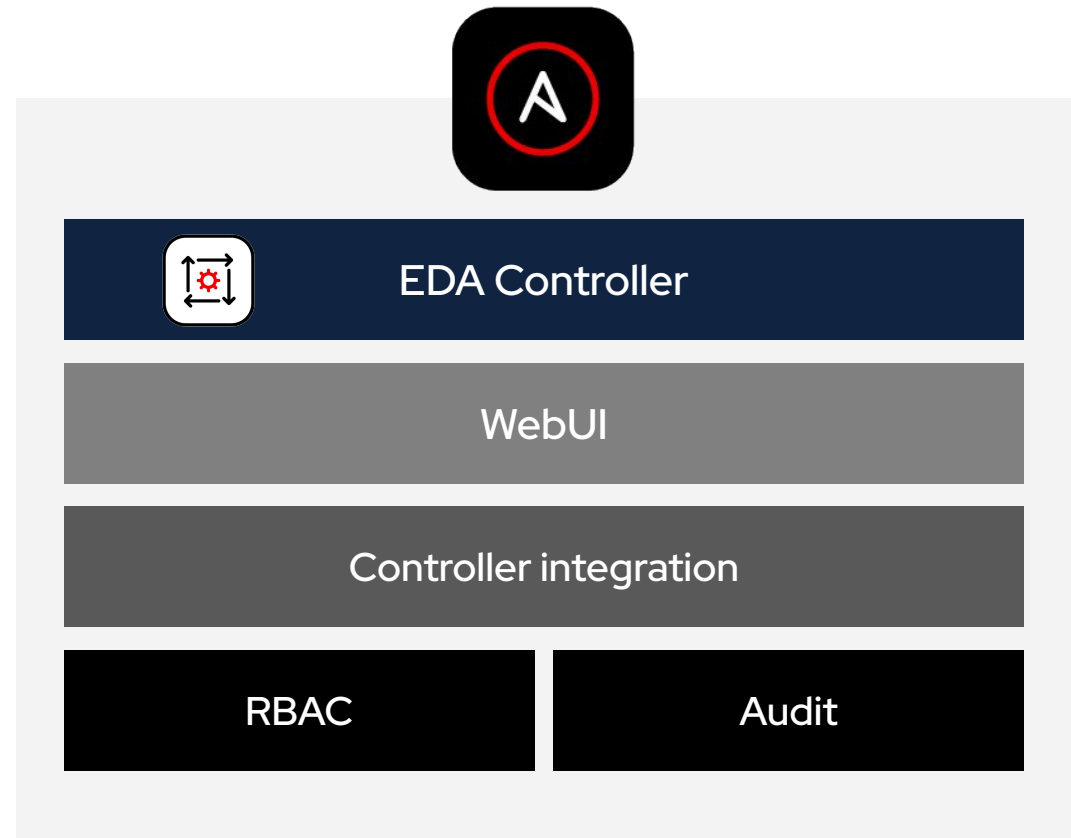


What is it?

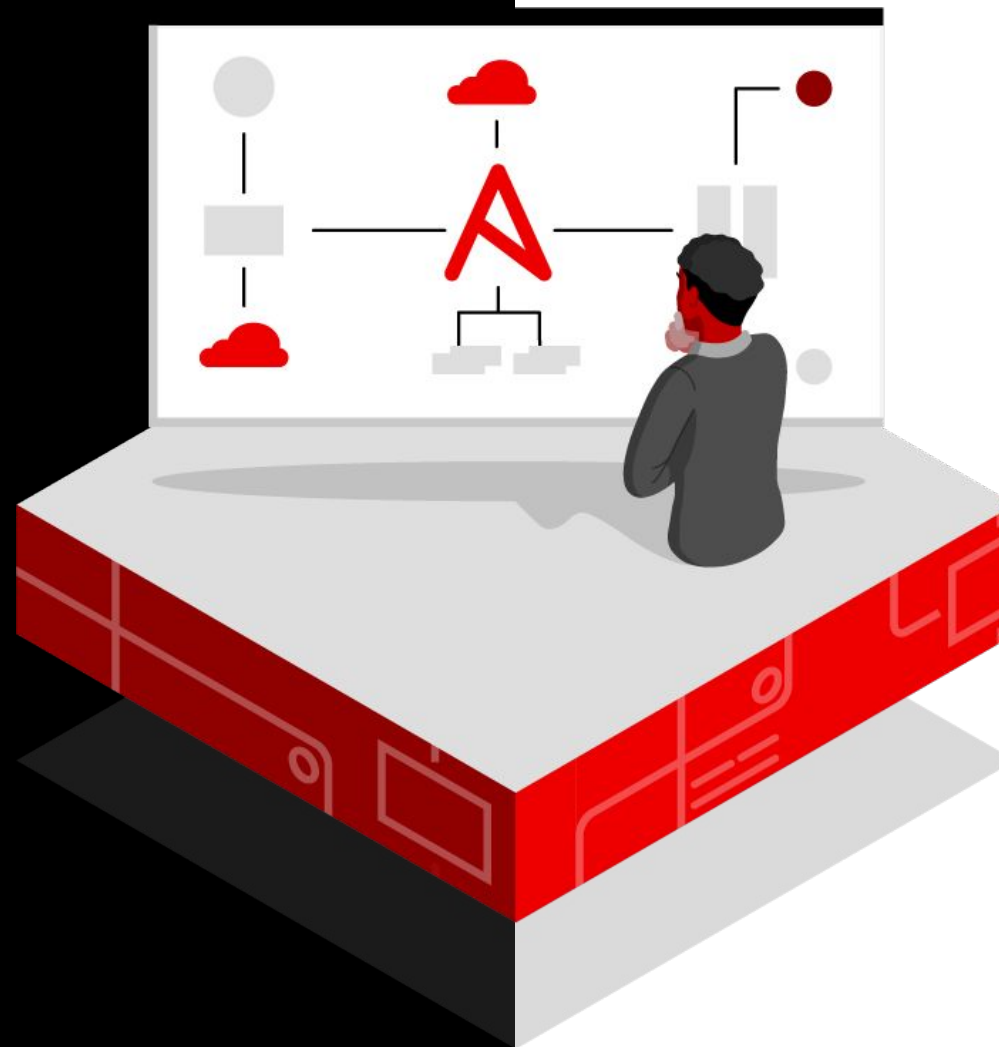
- ▶ EDA Controller enables users to centrally manage Event-Driven Ansible across the enterprise.

EDA controller provides:

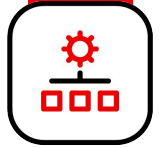
- ▶ WebUI.
- ▶ Rulebook activation.
- ▶ Event streams
- ▶ Role-based access control(part of Unified UI).
- ▶ Auditing trail.



Scale

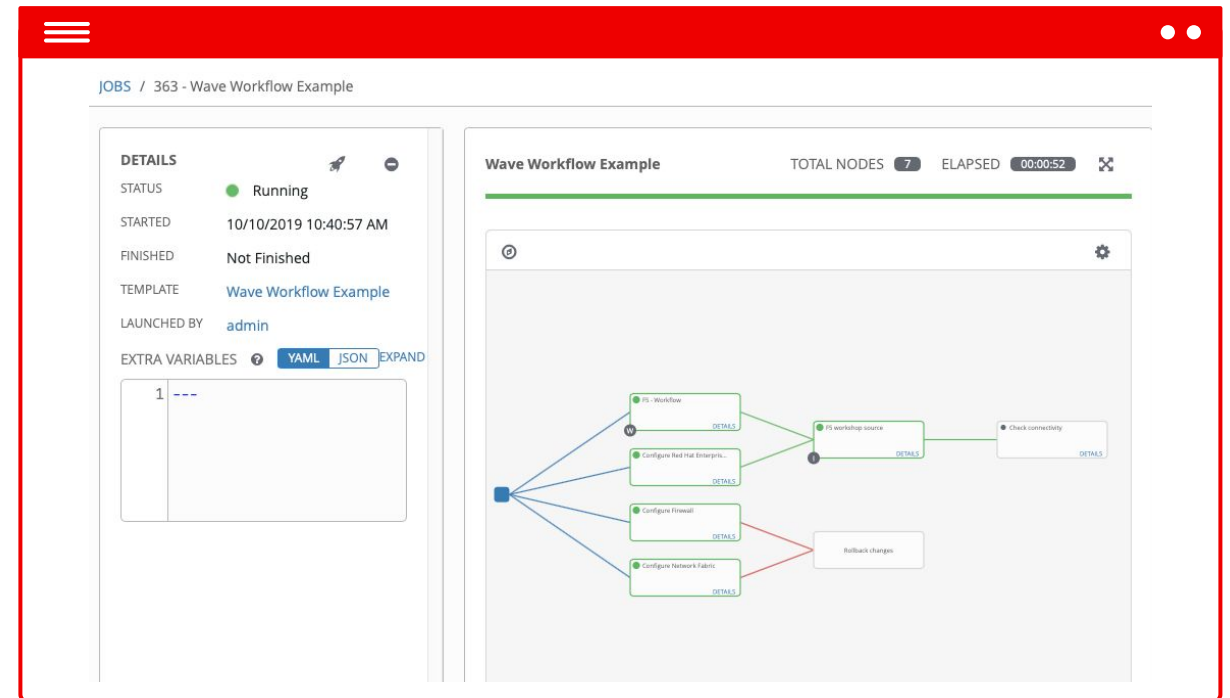


Workflows. Solve complex problems.

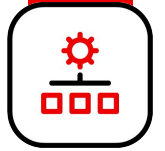


What is it?

- ▶ Workflows enable the creation of powerful holistic automation, chaining together multiple pieces of automation and events
- ▶ Simple logic inside these workflows can trigger automation depending on the success or failure of previous steps
- ▶ Add approvals to your workflows to enhance governance
- ▶ Integrate other systems, such as ITSM to fit with your existing controls and processes



Automation controller surveys. **Adopt and grow.**

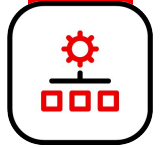


What is it?

- ▶ User-friendly, self-service interface in automation controller
- ▶ Abstracts complexity using question and answer format
- ▶ Best suited for teams directly accessing automation and close to the automation practice
- ▶ Access and execution governed using controller features

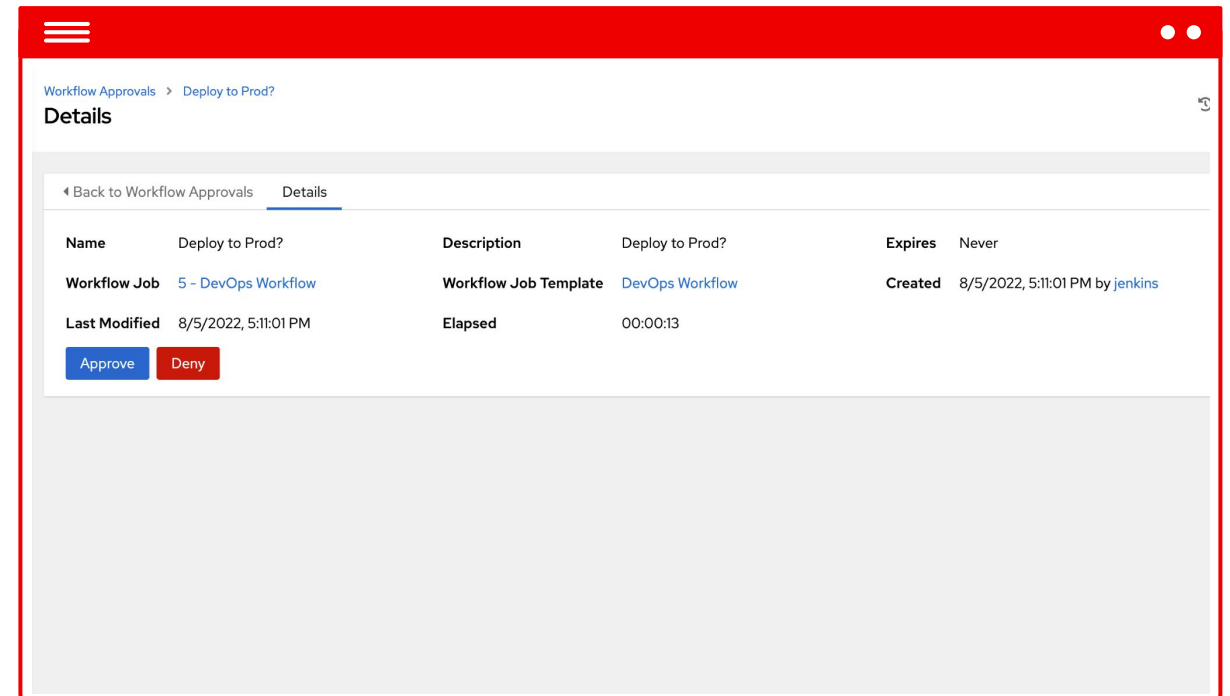
A screenshot of a web application window titled "Launch | Instance - Deploy new Instance". The window has a red header bar with a hamburger menu icon on the left and window control buttons on the right. Below the header is a dark grey bar with the title and a close button. The main content area is white and divided into two sections. On the left is a vertical sidebar with five items: "1 Inventory", "2 Credentials", "3 Other prompts", "4 Survey" (which is highlighted with a blue circle), and "5 Preview". On the right is a form with three fields: "Instance Name" with a text input, "Instance Flavor" with a dropdown menu showing "Standard_DS2_v2", and "Provider Type" with a dropdown menu showing "ec2". Each field has a red asterisk indicating it is required.

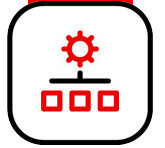
Automation controller approvals. **Integrate and govern.**



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

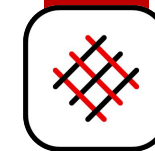
- ▶ Integrate high level workflows in existing ITSM toolsets with the automation platform.
- ▶ Apply organization governance and integrate your automation to larger business processes
- ▶ Have the automation platform reach out to the ITSM system whenever things are changing, including data transmission between the tools

A screenshot of a web application window titled 'Edit order process'. The window has a red header bar with a hamburger menu icon on the left and two white dots on the right. The main content area is white and contains the following fields:

- Order process name ***: A text input field containing 'ServiceNow!'.
- Description**: A text area containing 'Create and close out IT service ticket'.
- Before order**: A dropdown menu showing 'Remediación bajo demanda' with a plus icon and a downward arrow.
- After order**: A dropdown menu showing 'Remediación con aprobación' with a plus icon and a downward arrow.

At the bottom of the form are two buttons: a grey 'Save' button and a blue 'Cancel' button.

Automation mesh. **Design and expand.**

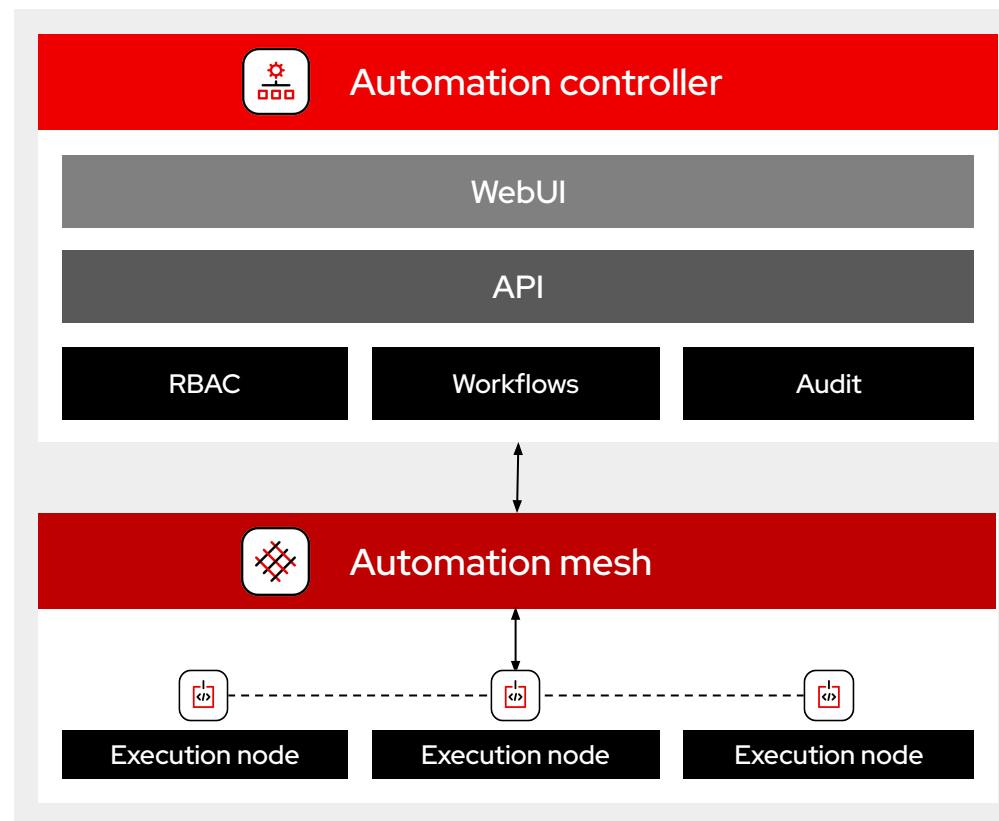


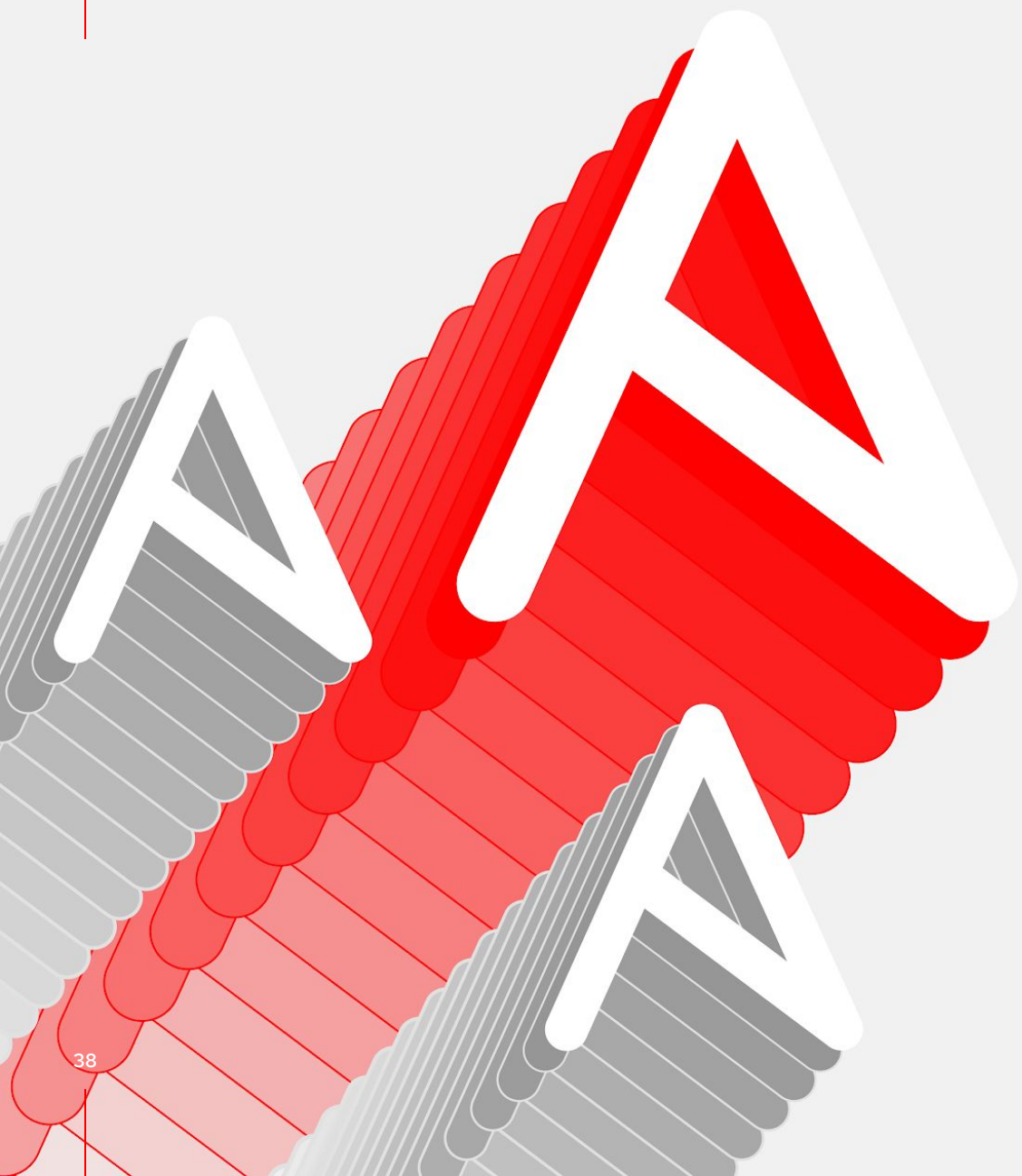
What is it?

- ▶ 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





Demo Time!

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.



linkedin.com/company/red-hat



youtube.com/user/RedHatVideos



facebook.com/redhatinc



twitter.com/RedHat