



Connect

Red Hat Ansible Automation Platform 2

And Execution environments...

Intro:



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Senior Solutions Architect - Hybrid Cloud



Let's Connect on LinkedIn!

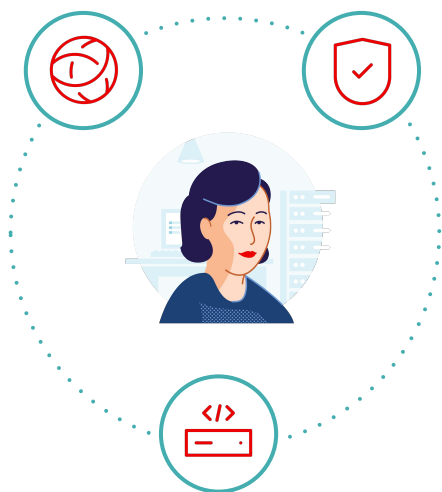


Anyone can automate...
but an enterprise needs
to coordinate and scale

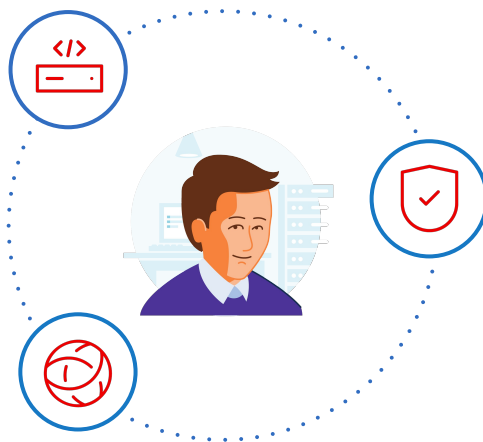


Many organizations share the same challenge

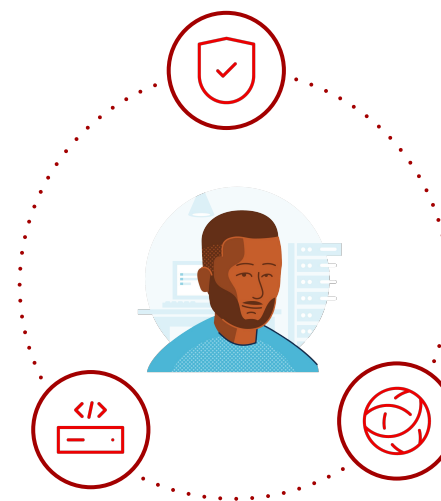
Too many unintegrated, domain-specific tools



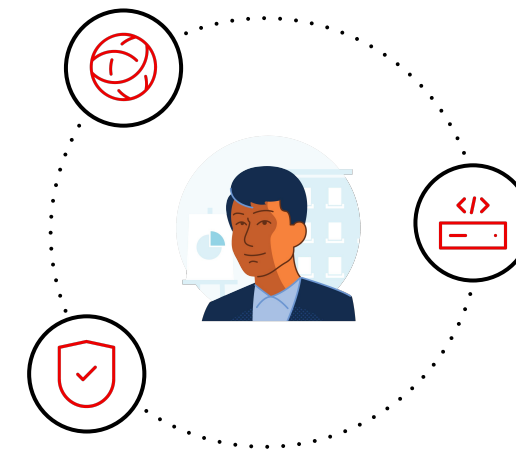
Network ops



Database



Devs/DevOps

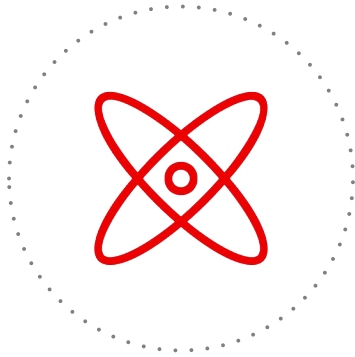


IT ops



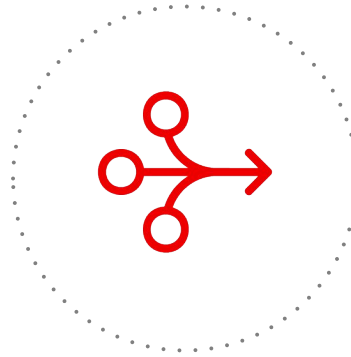
Why the Red Hat[®] Ansible[®] Automation Platform?

Why the Ansible Automation Platform?



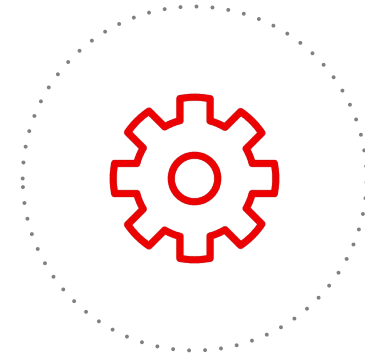
Powerful

Orchestrate complex processes at enterprise scale.



Simple

Simplify automation creation and management across multiple domains.



Agentless

Easily integrate with hybrid environments.

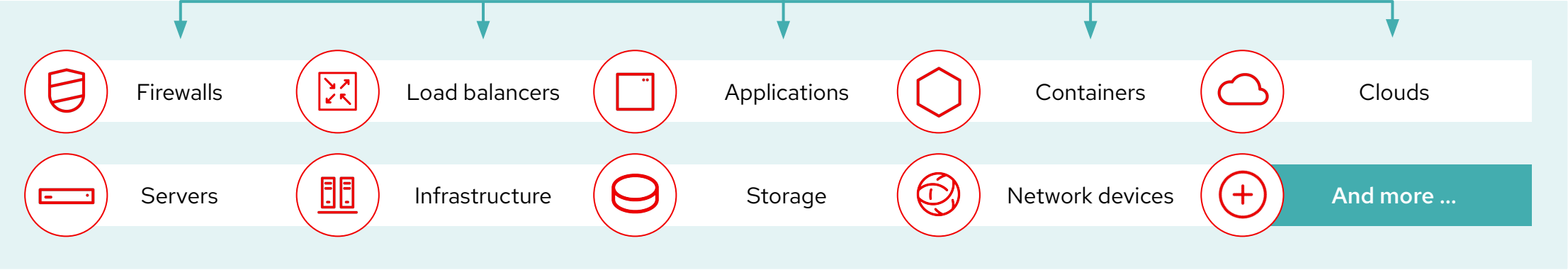
Automate everything you need

Many use cases across multiple domains

Do this...

Orchestrate	Manage configurations	Deploy applications	Provision	Deliver continuously	Secure and comply
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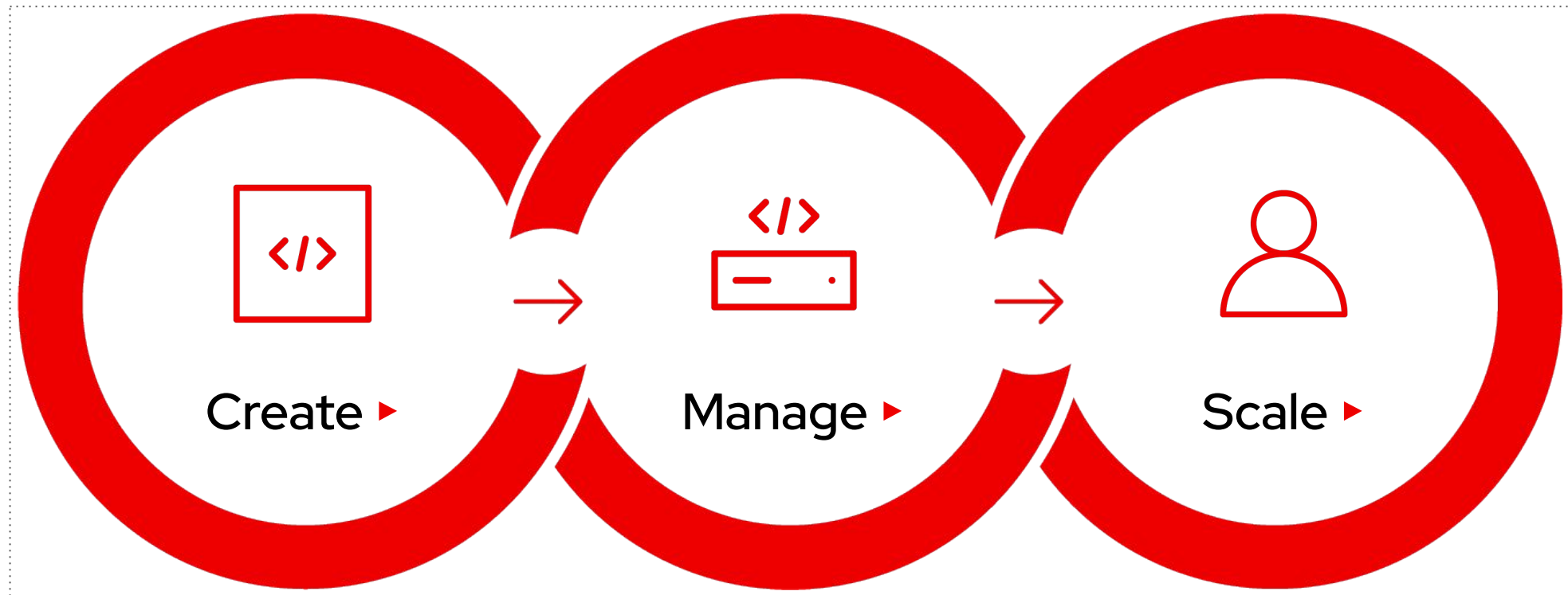
On these...



130+
Certified platforms



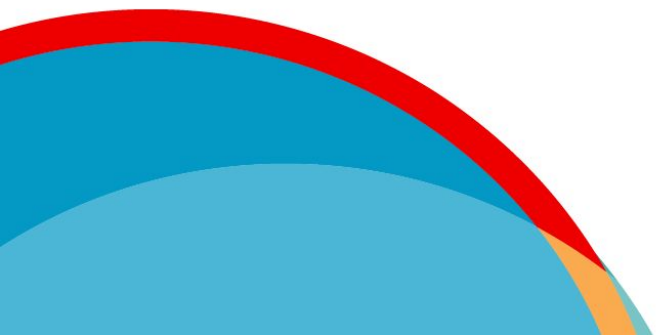
Enabling your automation team to consistently...





Create

Playbooks

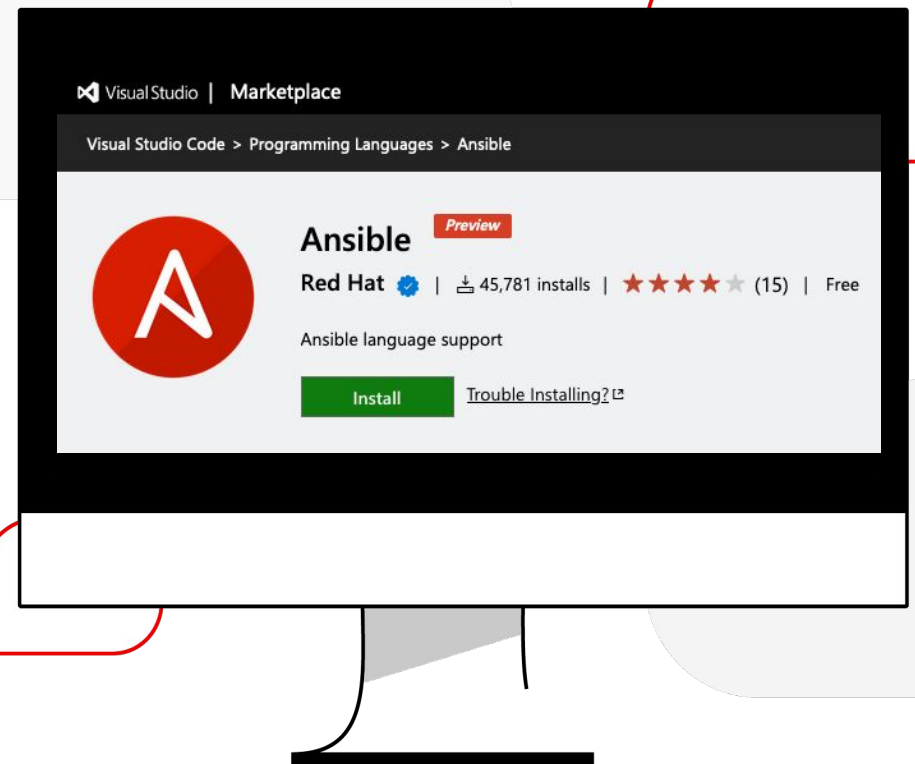


Microsoft VS Code extension. **Simplifying content creation**

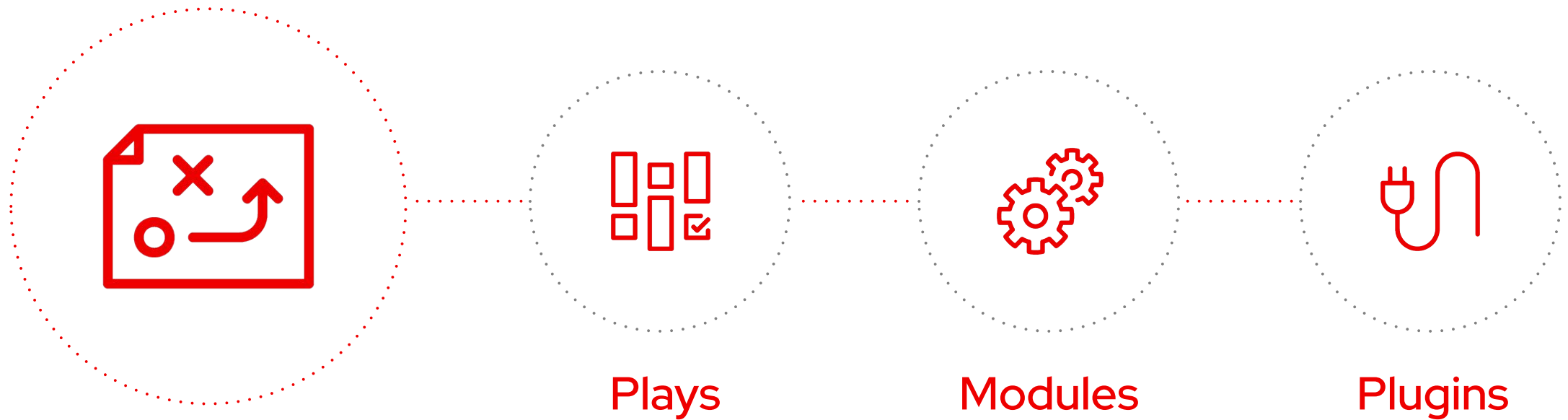


What is it?

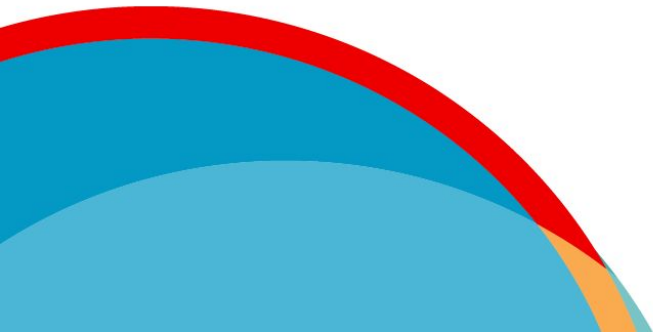
- ▶ Syntax highlighting of keywords such as module names.
- ▶ Live validation of your code while you type
- ▶ Integration with ansible-lint*
- ▶ Autocompletion on play, block or task contents etc.
- ▶ Documentation references as you code



What makes up an Ansible playbook?



Examples





Example: Windows (IIS)

```
---
- name: start IIS/stop firewall
  hosts: windows-web
  become: yes
  tasks:

  - name: IIS is running
    win_service:
      name: W3Svc
      state: running

  - name: firewall service is stopped/disabled
    win_service:
      name: MpsSvc
      state: stopped
      start_mode: disabled
```

```
---
- name: ensure common OS updates are current
  win_updates:
    category_names: "{{ categories }}"
    blacklist: "{{ blacklist_packages }}"
    whitelist: "{{ whitelist_packages }}"
    register: update_result

- name: if needed, reboot and wait for host
  win_reboot:
    when: update_result.reboot_required
```



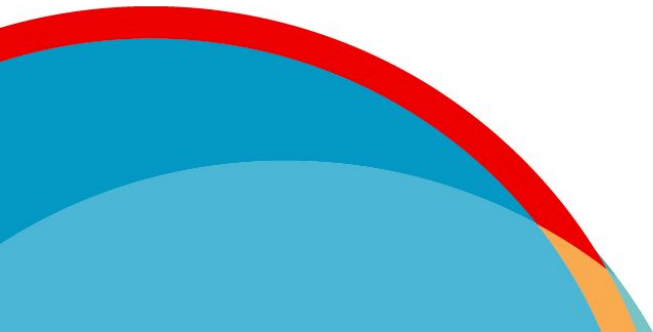
Example: Cisco

```
---
- name: configure ios interface
  hosts: ios01
  tasks:
    - name: collect device running-config
      ios_command:
        commands: show running-config interface GigabitEthernet0/2
        provider: "{{ cli }}"
      register: config

    - name: administratively enable interface
      ios_config:
        lines: no shutdown
        parents: interface GigabitEthernet0/2
        provider: "{{ cli }}"
      when: "'shutdown' in config.stdout[0]"
```

```
- name: verify operational status
  ios_command:
    commands:
      - show interfaces GigabitEthernet0/2
      - show cdp neighbors GigabitEthernet0/2 detail
  waitfor:
    - result[0] contains 'line protocol is up'
    - result[1] contains 'iosxr03'
    - result[1] contains '10.0.0.42'
  provider: "{{ cli }}"
```


Ansible Content



Collections

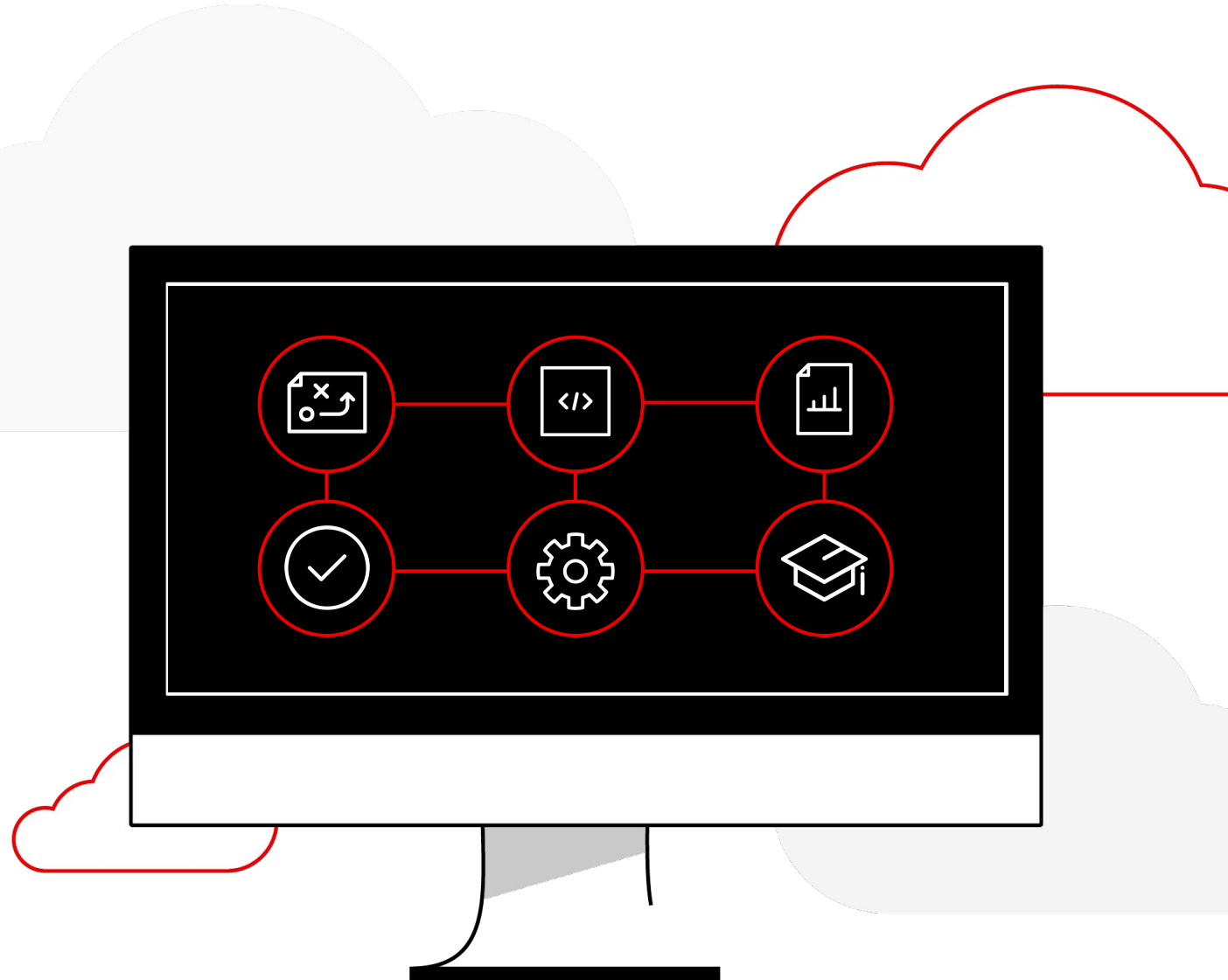
Simplified and consistent content delivery



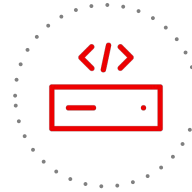
What are they?

Collections are a data structure containing automation content:

- ▶ Modules
- ▶ Playbooks
- ▶ Roles
- ▶ Plugins
- ▶ Docs
- ▶ Tests



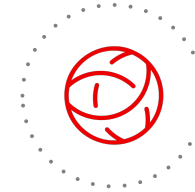
130+
certified platforms



Infrastructure



Cloud



Network



Security



ARISTA



Check Point®
SOFTWARE TECHNOLOGIES LTD

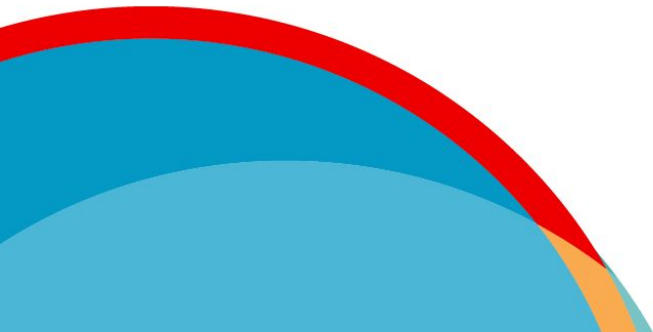


CYBERARK®



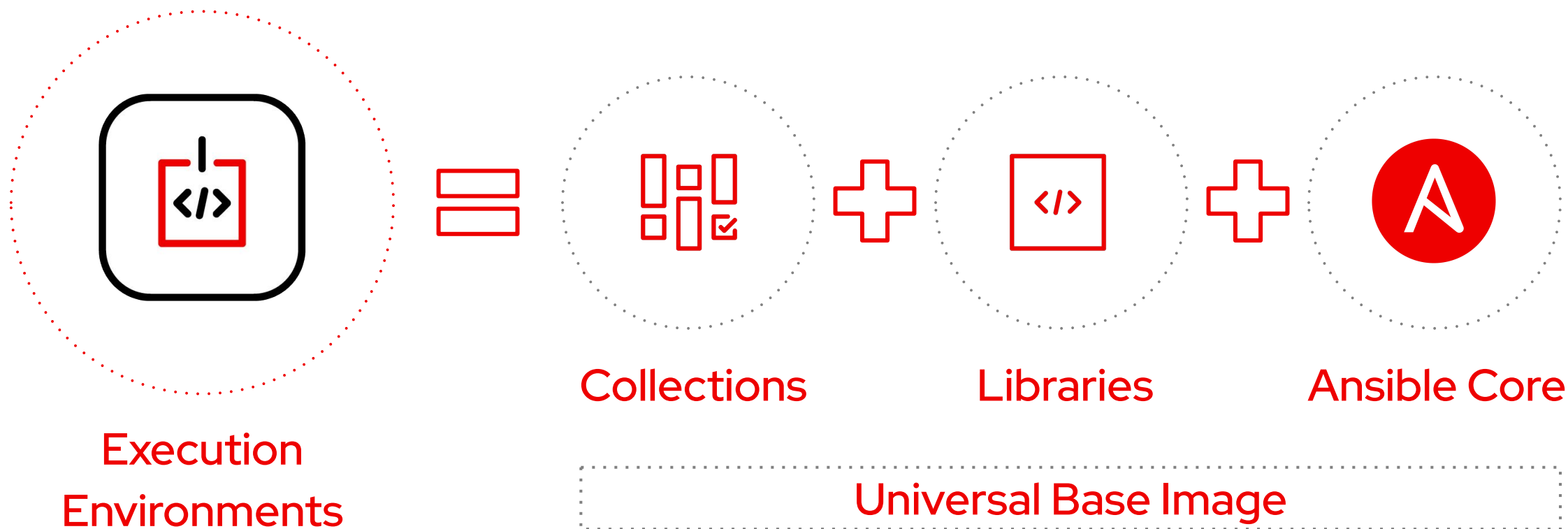
FORTINET®

Ansible Execution Environments



Automation Execution Environments

Components needed for automation, packaged in a cloud-native way



Demo:

Building Ansible Execution Environments Using
Ansible-Builder

Ansible-Builder Demo Next Steps...

- Display Execution Environment Location in AAP
- Install Ansible-Builder Prerequisites
- Create Ansible Builder Working Environment (Directory and Files)
- Build Execution Environment
- Import Execution Environment into AAP

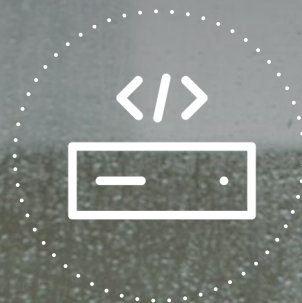
Execution Environments in AAP

The screenshot displays the Red Hat Ansible Automation Platform (AAP) web interface. On the left is a dark sidebar with a menu containing: Templates, Credentials, Projects, Inventories, Hosts, Access (with a dropdown arrow), Organizations, Users, Teams, Administration (with a dropdown arrow), Credential Types, Notifications, Management Jobs, Instance Groups, Applications, and Execution Environments (which is highlighted with a blue bar). The main content area is titled "Execution Environments". At the top of this area is a search bar with a "Name" dropdown, a search icon, and two buttons: "Add" (blue) and "Delete" (grey). Below the search bar is a table with two columns: "Name" (with an upward arrow icon) and "Image". The table contains four rows, each with a checkbox, a name, and an image URL. The names are "Ansible Engine 2.9 execution environment", "Control Plane Execution Environment", "Default execution environment", and "Minimal execution environment". The image URLs are all from the registry.redhat.io. At the bottom right of the table, it says "1 - 4 of 4 items" with a dropdown arrow.

	Name ↑	Image
<input type="checkbox"/>	Ansible Engine 2.9 execution environment	registry.redhat.io/ansible-automation-platform-21/ee-29-rhel8:latest
<input type="checkbox"/>	Control Plane Execution Environment	registry.redhat.io/ansible-automation-platform-21/ee-supported-rhel8:latest
<input type="checkbox"/>	Default execution environment	registry.redhat.io/ansible-automation-platform-21/ee-supported-rhel8:latest
<input type="checkbox"/>	Minimal execution environment	registry.redhat.io/ansible-automation-platform-21/ee-minimal-rhel8:latest

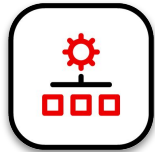
Demo Resources

- GitHub: https://github.com/HaaikeV/demo_ansible_create_ee
- Youtube: <https://youtu.be/A9J5km9rlAM>



Manage

Automation controller. Define, operate and delegate

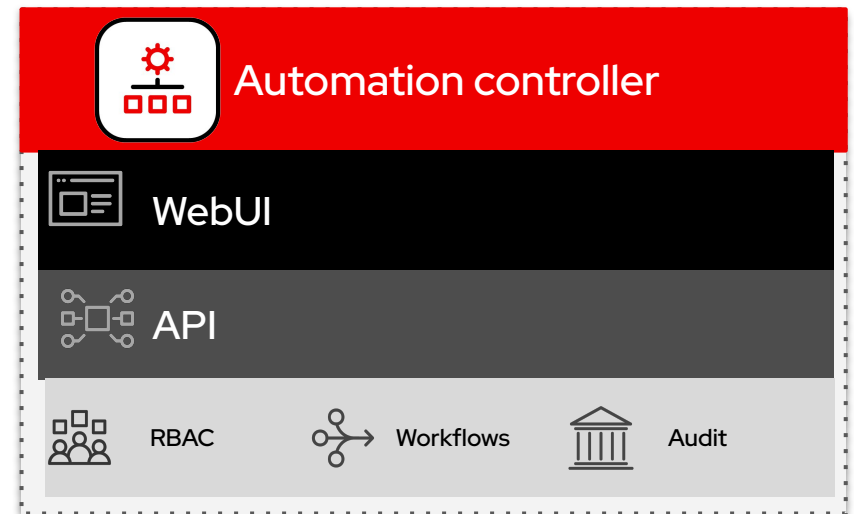


What is it?

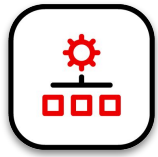
Automation controller is the Ansible Automation Platform control plane which enables users to define, operate and delegate automation across their enterprise.

Automation controller provides:

- ▶ WebUI and API
- ▶ Role-based access control
- ▶ Powerful workflows
- ▶ Centralized logging
- ▶ Credential management
- ▶ Push-button automation



Automation controller surveys. **Delegate**



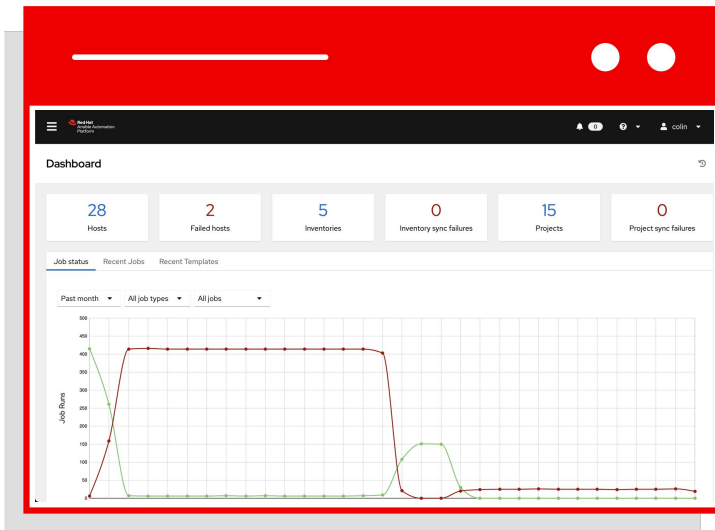
What is it?

- ▶ 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

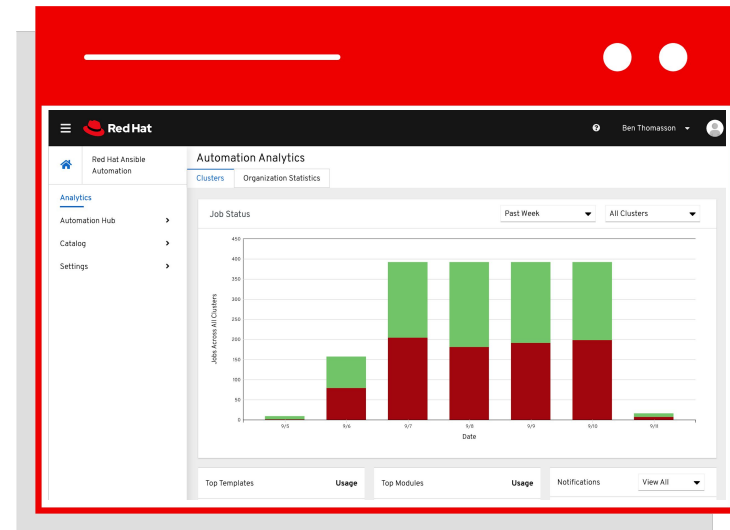
A screenshot of a web application window with a red header bar. The window title is "LAUNCH JOB | HELLO WORLD". Below the title bar, there are two tabs: "OTHER PROMPTS" and "SURVEY". The "SURVEY" tab is active. The main content area contains a red asterisk followed by the text "*WHICH GROUP(S) SHOULD INCLUDE THIS USER?". Below this is a prompt "Enter groups, one per line." and a text input field. At the bottom of the window, there are two sections: "INVENTORY" with "Demo Inventory" and "CREDENTIAL" with "Demo Credential". To the right of these are two buttons: "CANCEL" and "LAUNCH".

Insights

Understand what is going on



Overview of the actual cluster, the jobs happening, the nodes connected, what works and fails right at this moment.



Overview across clusters, better insight into use cases of automation; insight into adoption of automation per organization.

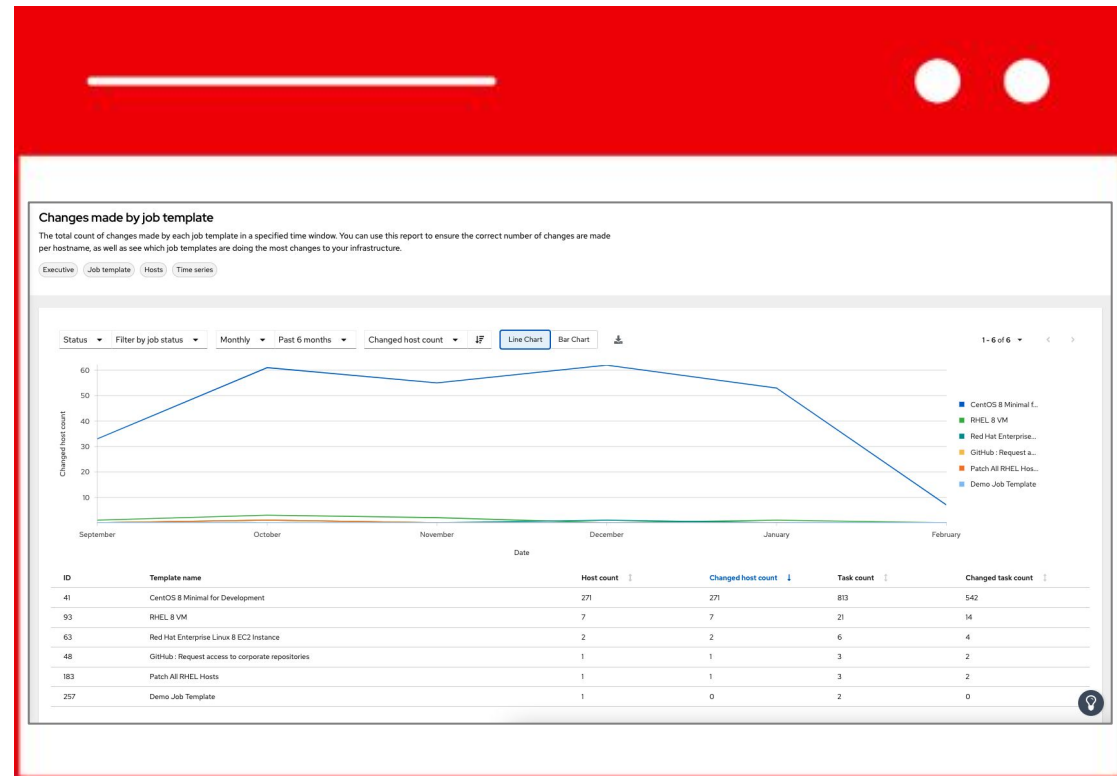
Reports. Holistic view of your automation performance



What is it?

Unified, visual dashboards of Ansible Automation Platform key metrics across clusters.

- ▶ Reveal most used Ansible Playbooks, modules, and deployment pass/fail rates
- ▶ Filter information based on automation controller clusters in real-time
- ▶ Use historical data to predict and improve the automation practice
- ▶ Measure the value of your Ansible Automation Platform subscription
- ▶ Export reports and share with your organization



Zero to automation in minutes



**Runs in
your Azure cloud**



**Fully installed
and integrated**



**Fully supported
by Red Hat**



**Integrated to
Microsoft Azure billing**



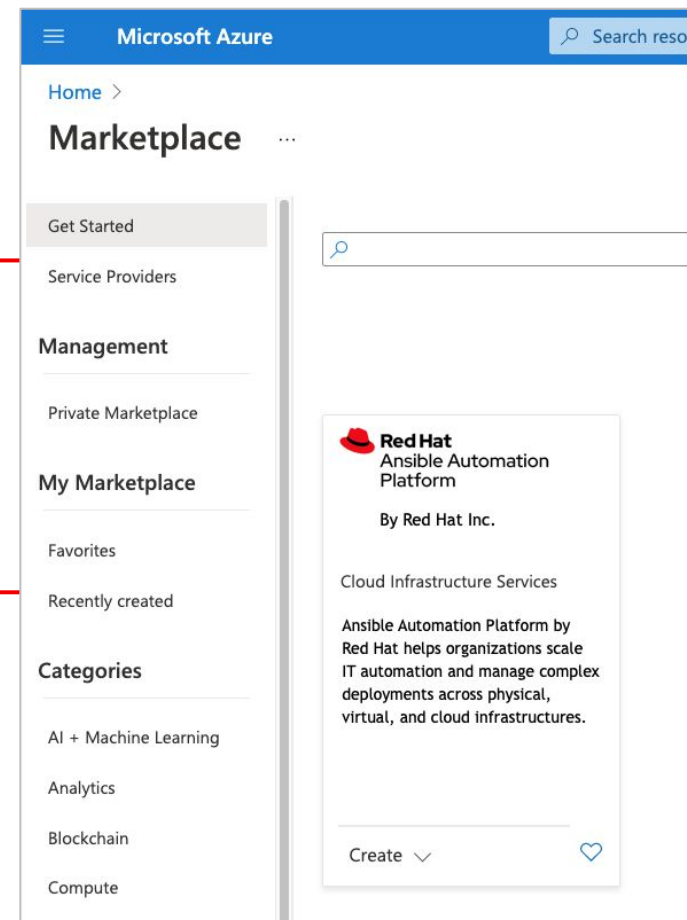
**Counts toward
spend agreements**



Deploy straight from the Azure
Marketplace portal



Start managing your Azure
resources quickly



Azure Scenarios / Consumption Models

Deploy Ansible Automation Platform Anywhere

Scenario #1

Azure Only

- Deploy in your Azure Cloud, supported by Red Hat
- Manage automation across all Azure resources

Scenario #2

Hybrid Automation

- Deploy in your Azure Cloud, supported by Red Hat
- Manage automation across all Azure resources,
AND
- Extend to on-premises, other public clouds, and into Edge use cases

On Microsoft Azure

Dedicated Red Hat support

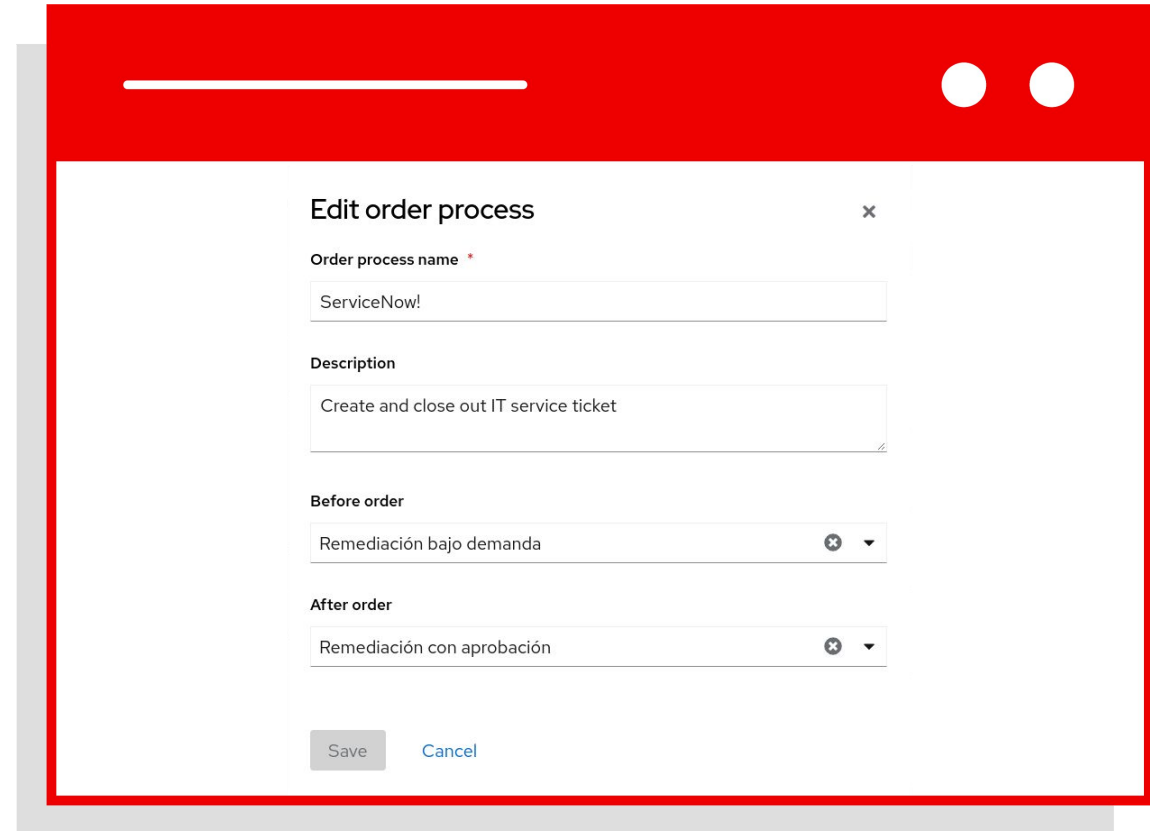


Scale

IT service management integration (ITSM)

Incorporate automation into your ITSM

- ▶ Integrate high level workflows in existing ITSM toolsets with the automation platform.
- ▶ Have the automation platform reach out to the ITSM system whenever things are changing, including data transmission between the tools.



The screenshot shows a 'Edit order process' dialog box with a red header bar. The dialog 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 with 'Remediación bajo demanda' selected.
- After order**: A dropdown menu with 'Remediación con aprobación' selected.

At the bottom of the dialog are two buttons: 'Save' and 'Cancel'.



Automation happens when one person meets a
problem they never want to solve again

Red Hat
Summit

Connect



Thank you



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facebook.com/redhatinc



youtube.com/user/RedHatVideos



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