Red Hat Summit

Connect

Supercharge your automation with Event-Driven Ansible

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Ansible

Red Hat

Does any of this feel familiar?

"How do we go faster?"

"We need to automate across on premises and cloud."

"How do we scale our talent?"

"We can't hire."

"We already have too many tools to maintain"

Operational challenges

Skills gaps

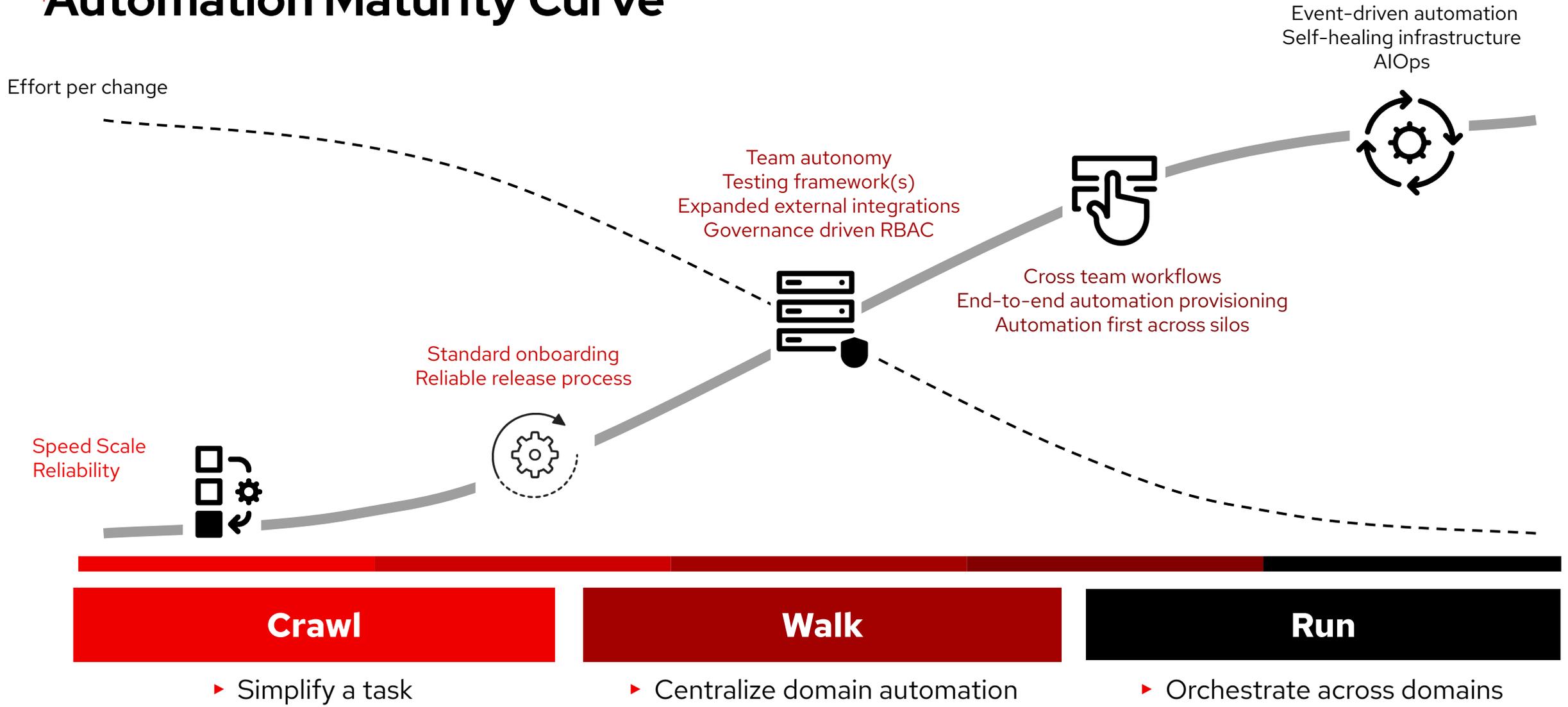***Budgetary pressures***

"Is automation secure?"

"How do we scale?"

"Our team is overworked."

"People are leaving for other opportunities."

"Budgets are shrinking."

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Automation Maturity Curve

Event-driven automation
Self-healing infrastructure
AIOps

Effort per change

Team autonomy
Testing framework(s)
Expanded external integrations
Governance driven RBAC

Cross team workflows
End-to-end automation provisioning
Automation first across silos

Standard onboarding
Reliable release process

Speed Scale
Reliability

Crawl	Walk	Run
▸ Simplify a task	▸ Centralize domain automation	▸ Orchestrate across domains

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# Being ready for 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.

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Where we see the market going...

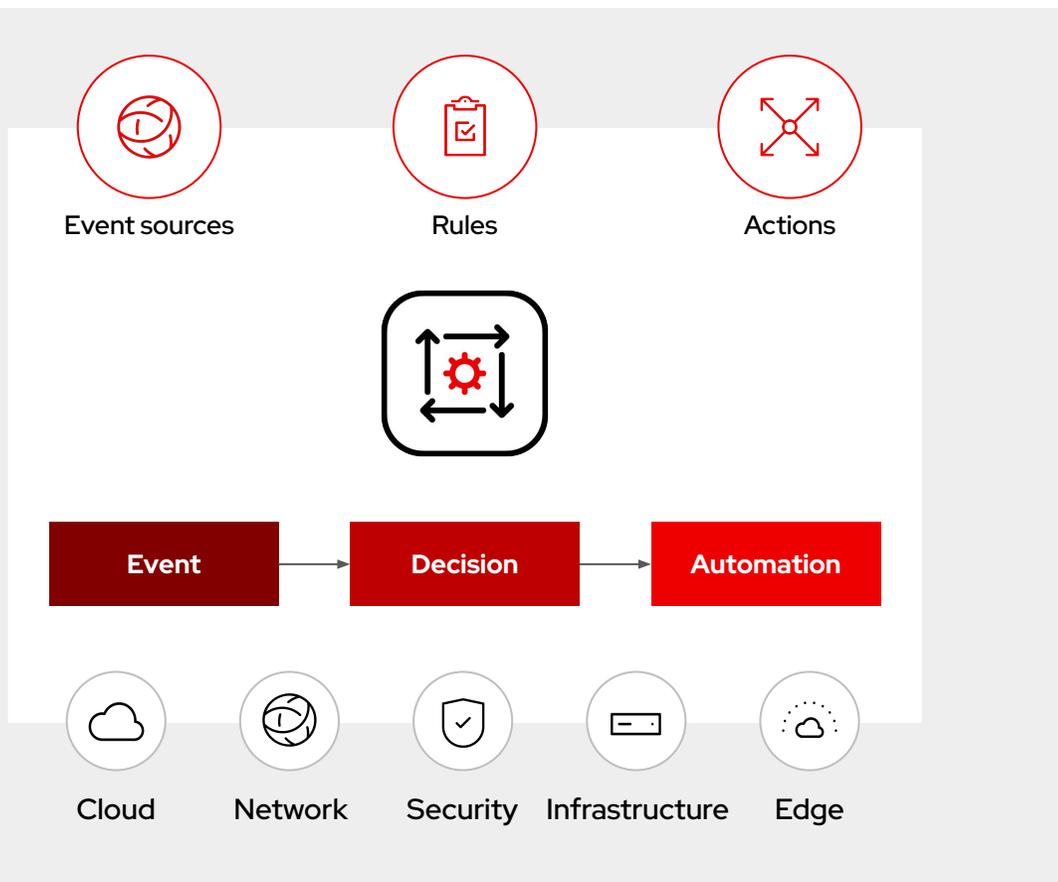**Day 0** **+** **Day 1**   **Day 2**
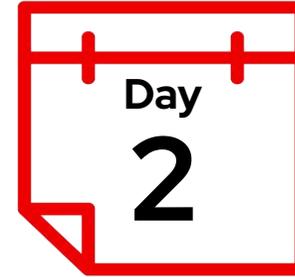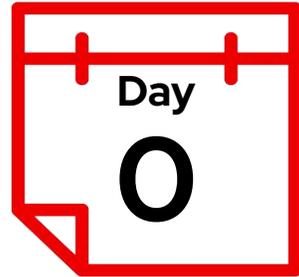
Infrastructure as Code

▸ "*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**

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Event-Driven Ansible. Observe Evaluate Automate

Event sources

Rules

Actions

Event → Decision → Automation

Cloud   Network   Security   Infrastructure   Edge

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.

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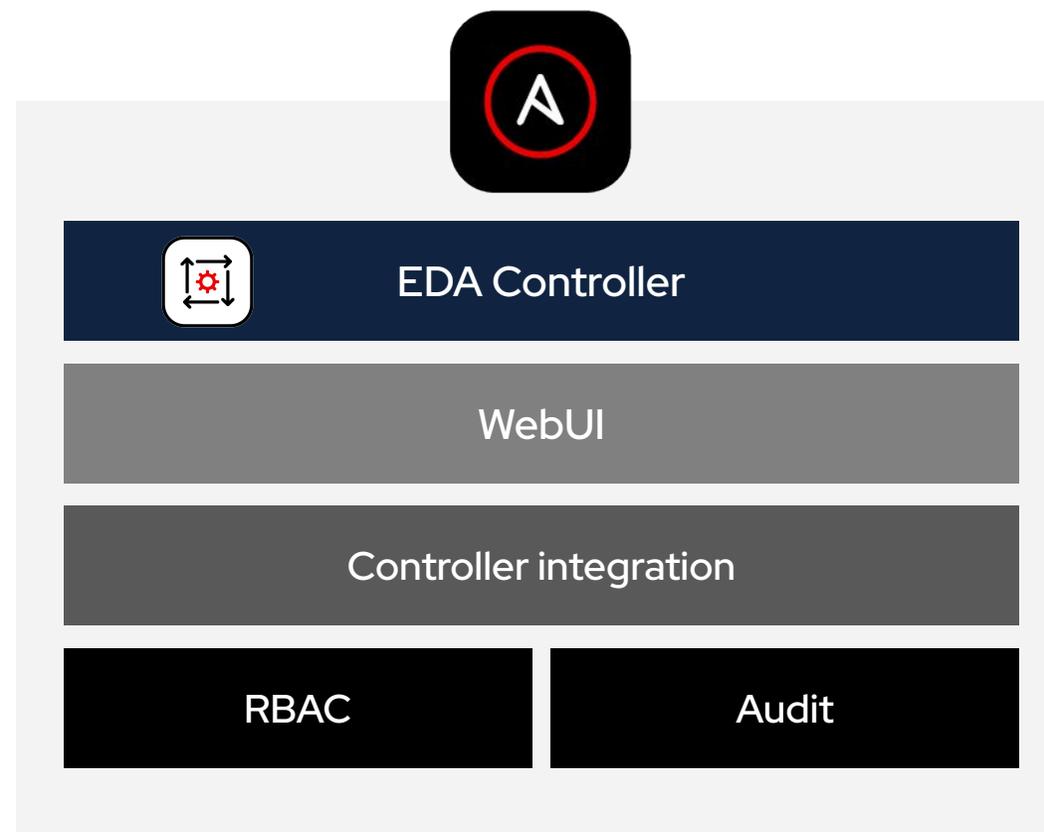# Event-Driven Ansible controller. Define and manage.
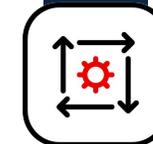
What is it?

▸ EDA Controller enables users to centrally manage Event-Driven Ansible across the enterprise.
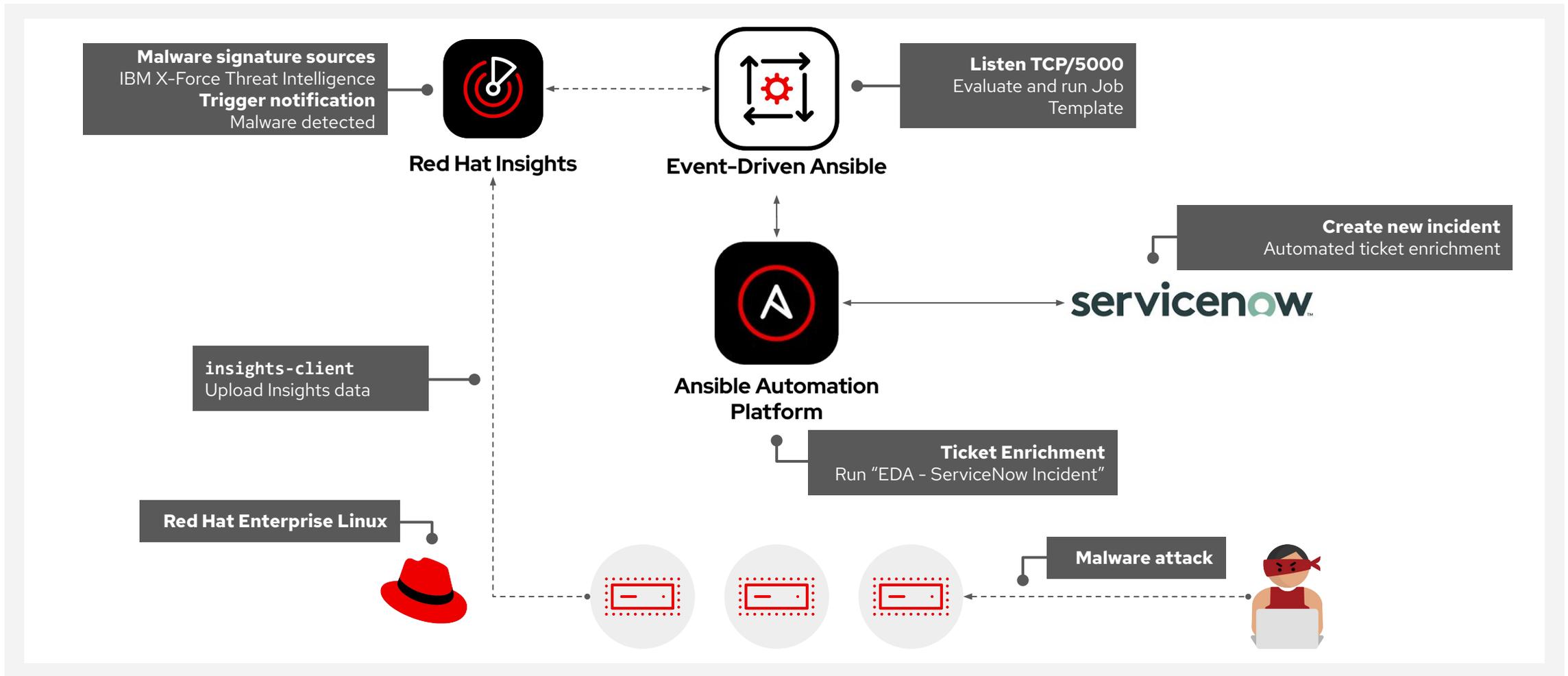
EDA controller provides:

▸ WebUI.

▸ Rulebook activation.

▸ Role-based access control.

▸ Auditing trail.

▸ Secure automation controller integration.

EDA Controller

WebUI

Controller integration

RBAC

Audit

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Demo Overview

Event-Driven Ansible Malware escalation
Create ServiceNow incident - Red Hat Insights malware detection

Malware signature sources
IBM X-Force Threat Intelligence
Trigger notification
Malware detected

Red Hat Insights

Listen TCP/5000
Evaluate and run Job
Template

Event-Driven Ansible

Create new incident
Automated ticket enrichment

servicen⊙w.

insights-client
Upload Insights data

**Ansible Automation
Platform**

Ticket Enrichment
Run "EDA – ServiceNow Incident"

Red Hat Enterprise Linux

Malware attack

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What is Red Hat Insights?

Helping you better manage your hybrid and cloud environments
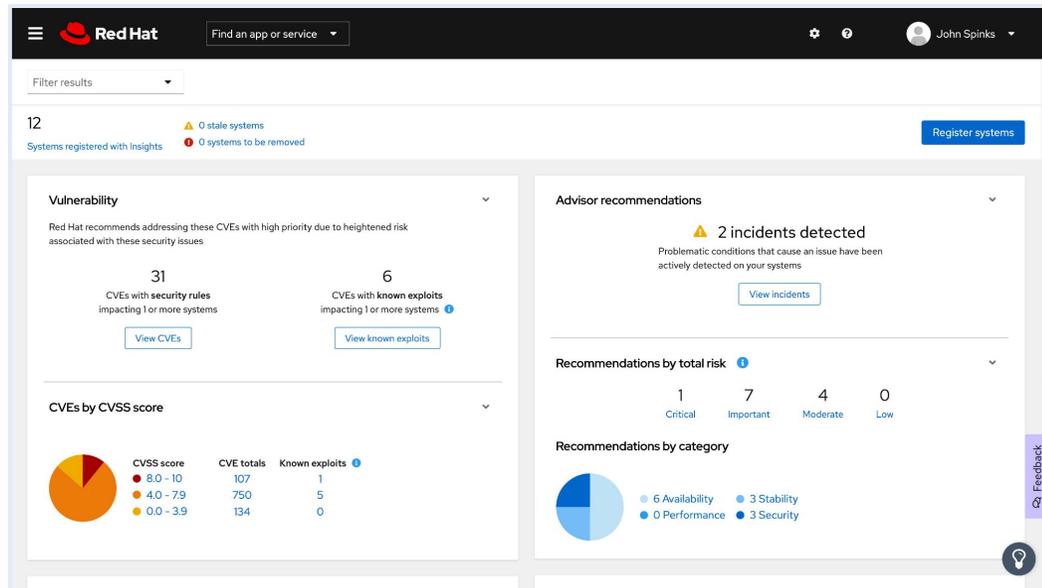
Predicting risks

Recommending actions

Analyzing costs

Demo Time!

Event-Driven Ansible integrations.

Current Partner certified and validated Content Collections	Current *ansible.eda* certified Content Collection included in subscription
- CrowdStrike* - Dynatrace* - F5 (validated content coming soon) - Instana* - LogicMonitor* - Palo Alto Networks* - Red Hat Insights* - Turbonomic* - Zabbix (existing validated content with event source plug-in in process) * Currently includes event source plug-in.	- AWS SQS - AWS CloudTrail - Azure Service Bus - Kafka (AMQ Streams) - Prometheus/Alertmanager - Webhooks - watchdog (file system watcher) - url_check (url status check) - range (event generation plugin) - file (loading facts from yaml) - journald - tick

+

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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

Collaborative automation across <u>your</u> ecosystem

150+
Certified Content Collections
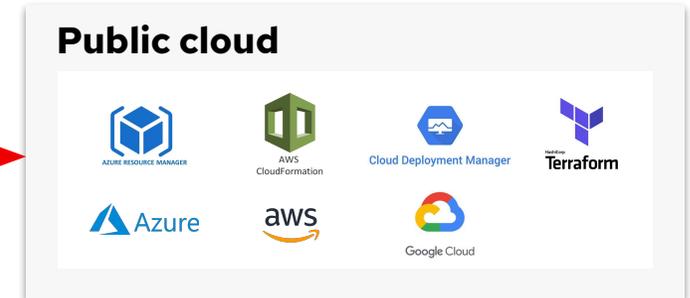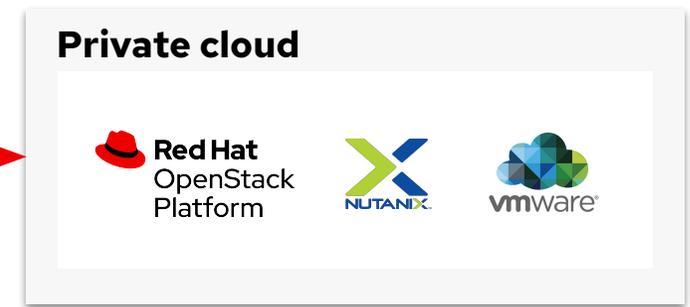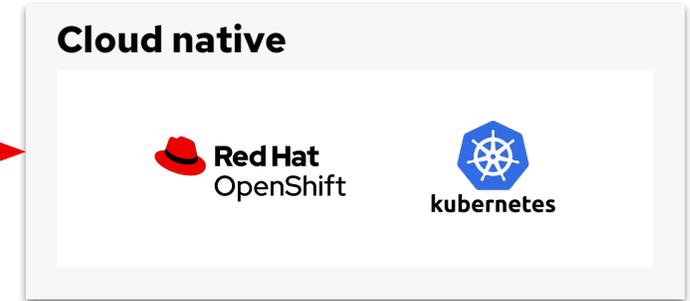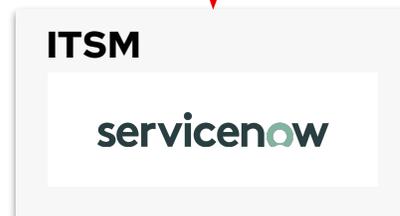
55+
Certified Technology partners

100+
Systems integrators + Resellers

55,000
GitHub stars

1000+
Active open source contributors

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Infrastructure

- Red Hat Enterprise Linux
- Linux
- Windows
- nimble storage
- NetApp
- Hewlett Packard Enterprise
- PURESTORAGE

Network

| Routers | Switches |
| IPAM | LBs |

Security

| PAM | SEIM |
| IDPS | Firewalls |

Edge

- podman
- inductive automation
- Red Hat Enterprise Linux
- RA Rockwell Automation
- OPC UA

**Red Hat
Ansible Automation Platform**

ITSM

servicenow

Cloud native

- Red Hat OpenShift
- kubernetes

Private cloud

- Red Hat OpenStack Platform
- NUTANIX
- vmware

Public cloud

- AZURE RESOURCE MANAGER
- AWS CloudFormation
- Cloud Deployment Manager
- Terraform
- Azure
- aws
- Google Cloud

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Red Hat is a *leader* in the 2023 Forrester Wave™
Infrastructure automation

THE FORRESTER WAVE™
Infrastructure Automation
Q1 2023

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.

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Resources

Demo repo:

https://github.com/mkbredem/eda-insights-2

MANAGERS

Event-Driven Ansible web page

451 Research: The Impact of Event-Driven Automation
on IT Operations

IDC QuickTake AnsibleFest 2922, including Event-Driven Ansible

Blog: Highly Efficient, Resilient IT operations

Blog: Introducing Event-Driven Ansible

TECHNICAL ROLES

Event-Driven Ansible web page

Free self-paced labs

Ansible Rulebook documentation

Event-Driven Ansible blog series

Blog: Getting started with Event-Driven Ansible

Blog: Creating custom plugins

PARTNERS

Event-Driven Ansible web page

Free self-paced labs

Blog: Creating custom plugins blog

Contact the partner team:
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ansible.com/event-driven

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