



Tech Day for Service Providers: Event-Driven Ansible

Smart IT delivered at the speed of automation

#OpsAsCode

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You have big challenges

A resilient, efficient operation is essential – with free time to innovate

"I need my team focused on key priorities."



Innovation

"We need to automate to deliver new solutions faster."

"My business apps must remain available and performant."



Speed and consistency

"We must continually work to shorten MTTR."

"We need to quickly respond to security threats."

"I need consistent response to a given issue."

"We need to do more with the same for better ROI."



Team efficiency

We're doing the same tasks thousands of times per month."

You have big challenges

Event-Driven Ansible: more operational resilience and teams that work smarter

Focus teams on
priorities



Innovation

Operate a foundation
for digital business

Proactively
respond to change

Rapid security
response



Speed and consistency

Avoid process time,
toil and handoffs

Respond the same way
every time

Optimize
staff and skills

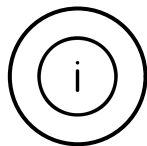


Team efficiency

Work smarter

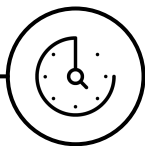
Simple goals deliver big benefits

What if you could...



Reduce

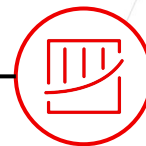
Number of service tickets



Reduce

Mean time to resolution

...As a result

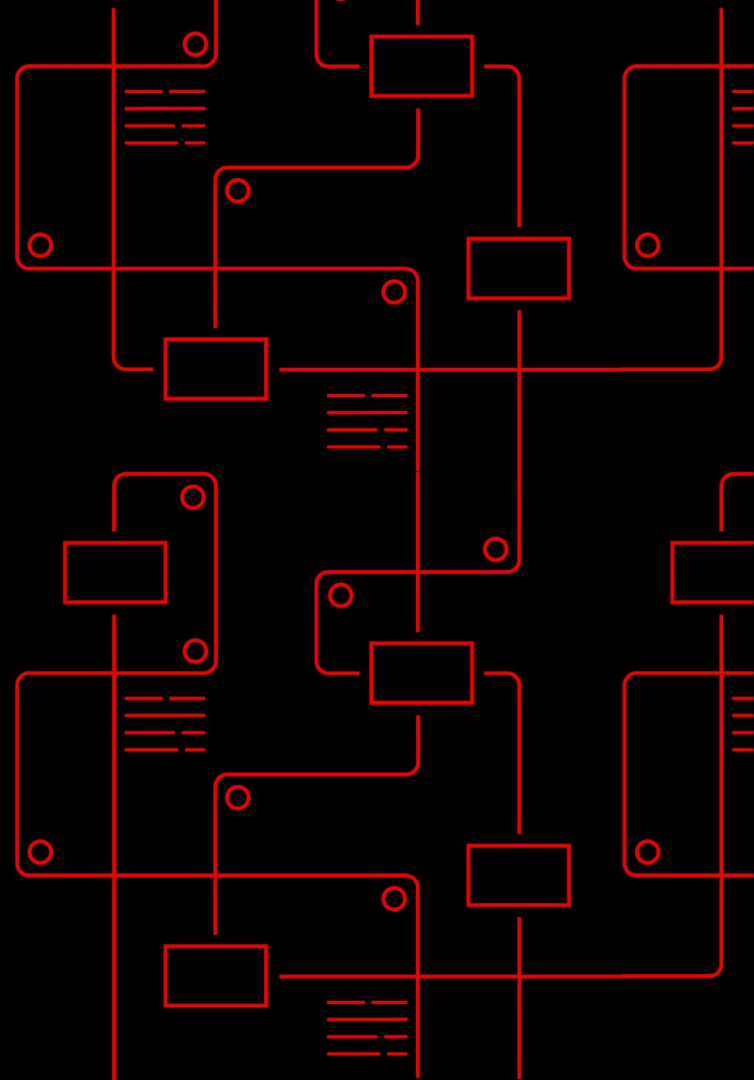


Increase

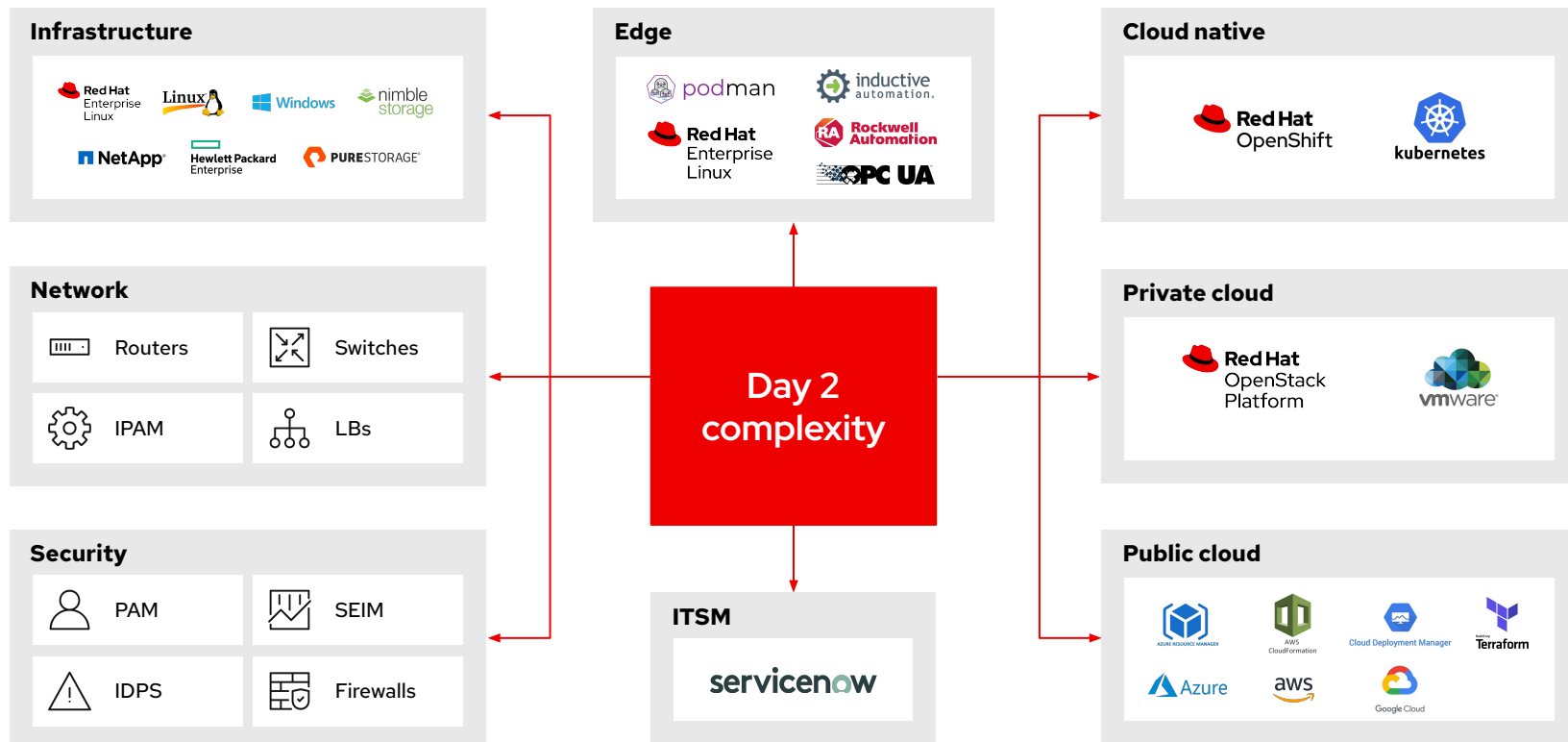
- ▶ Efficiency and resilience
- ▶ Consistency and accuracy
- ▶ Team satisfaction

Event-Driven Ansible

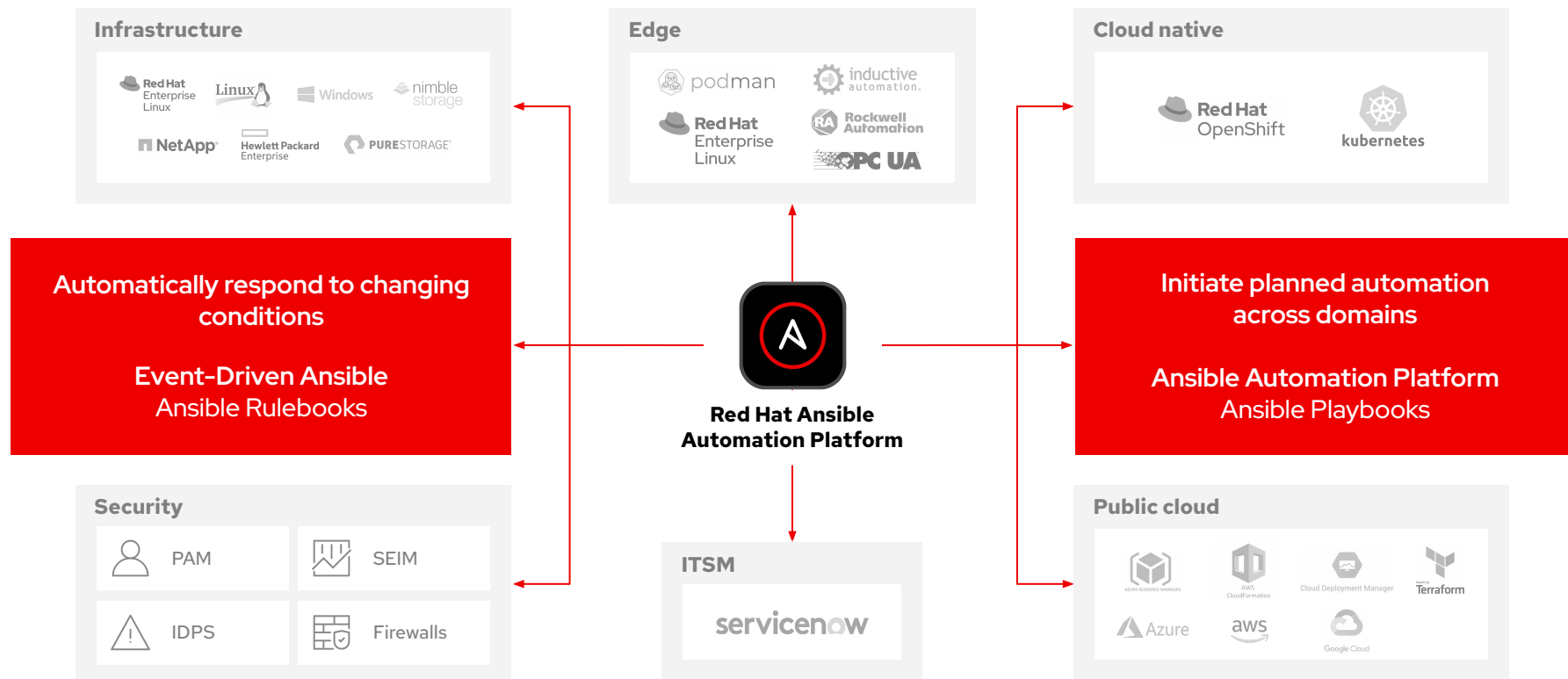
Part of Red Hat Ansible Automation Platform



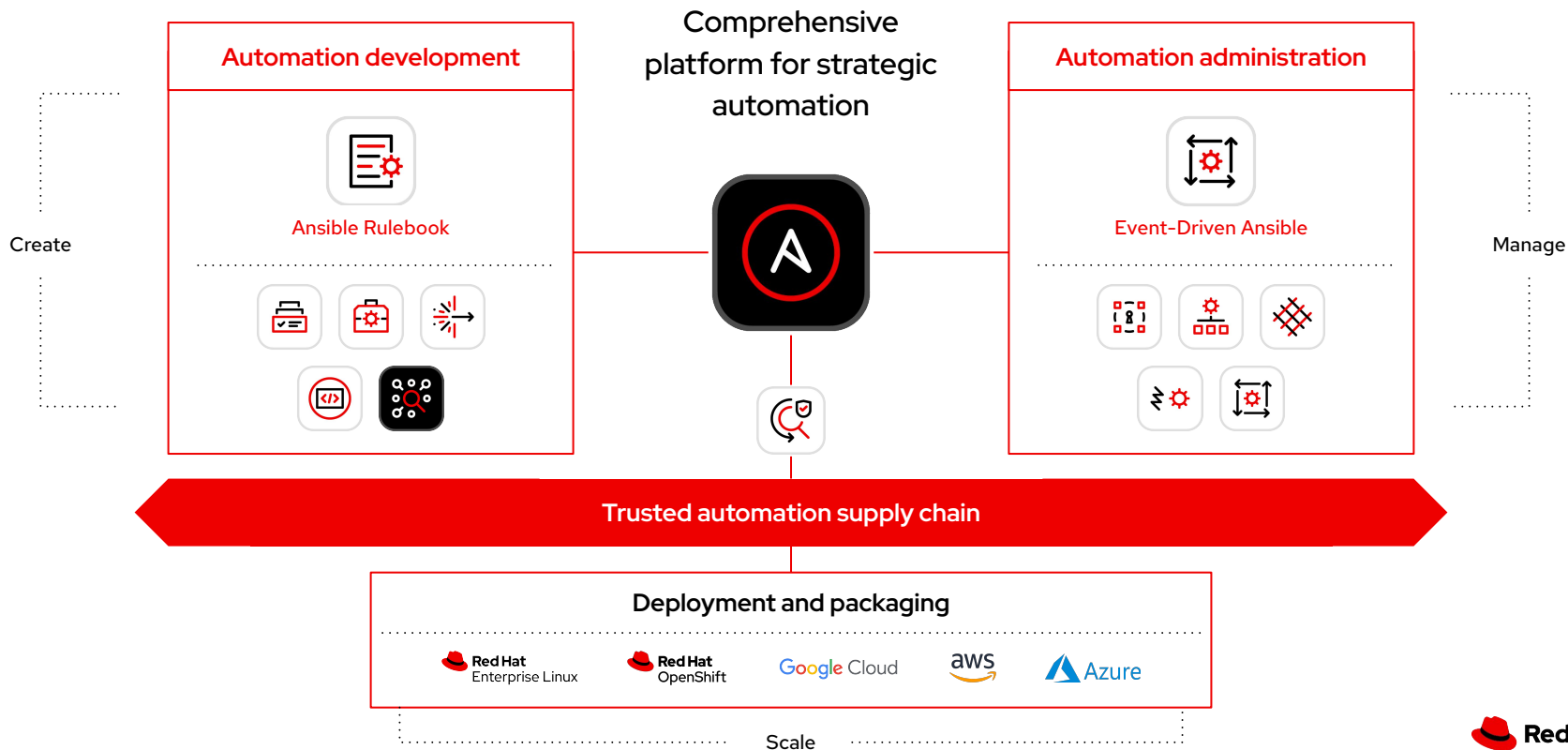
The reality of hybrid infrastructure



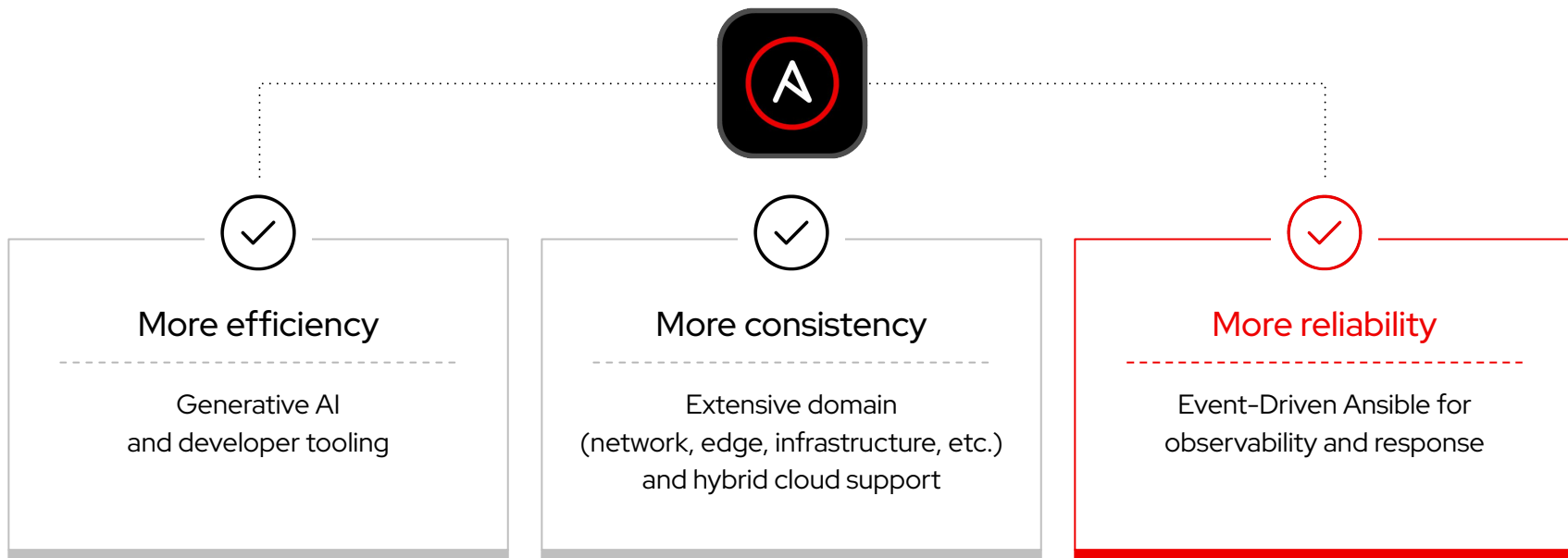
Single enterprise platform now with **more automation options**



Part of Red Hat Ansible Automation Platform

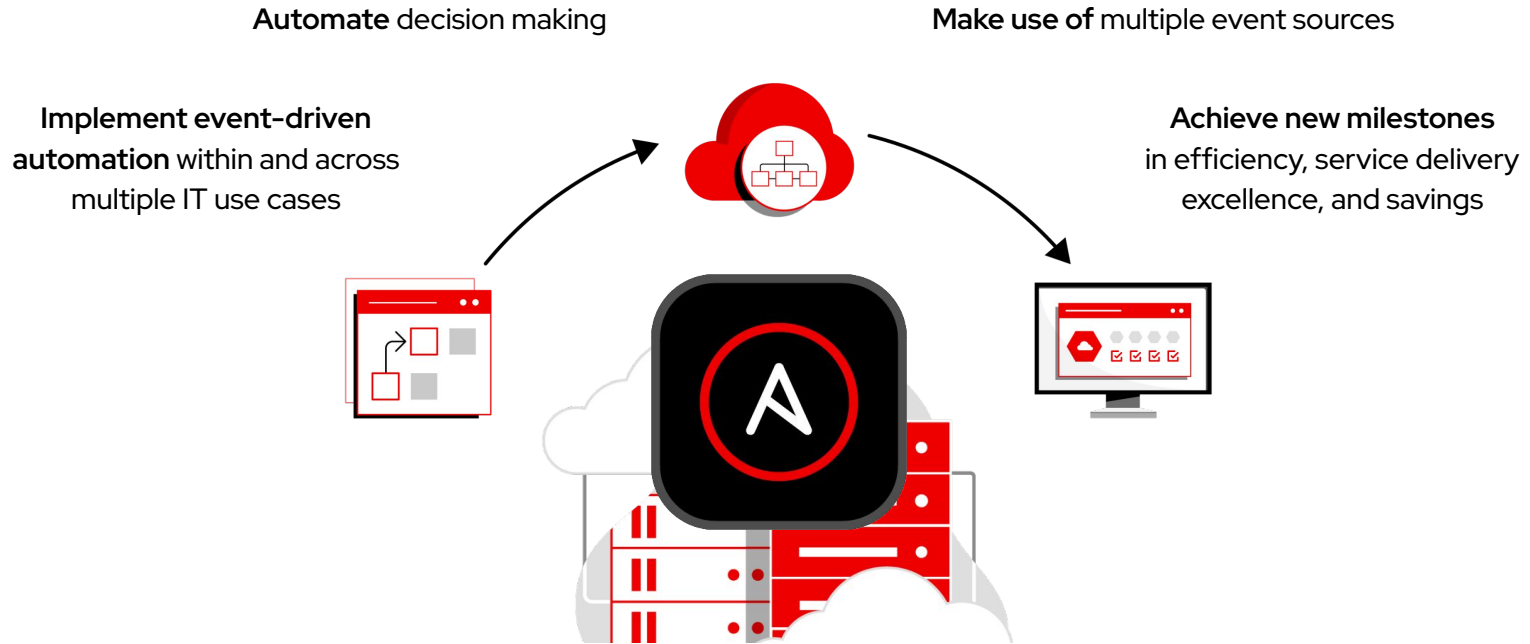


The platform for mission critical automation



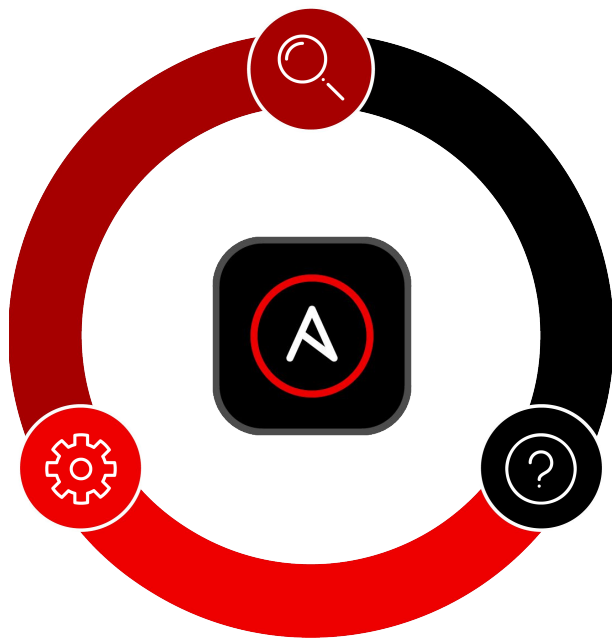
Event-Driven Ansible

Achieve new milestones in IT service efficiency



Automate actions and responses for mission-critical workloads

Event-Driven Ansible receives alerts and responds automatically when conditions are met



Event

Observe

- ▶ Watch data / streaming data
- ▶ Identify event
- ▶ With or without notification and ticketing integration

Decision

Evaluate

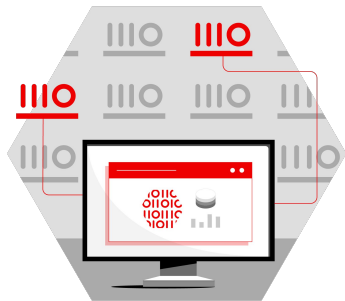
- ▶ Routed for remediation
- ▶ Identify known problem
- ▶ Trigger required workflow

Automation

Respond

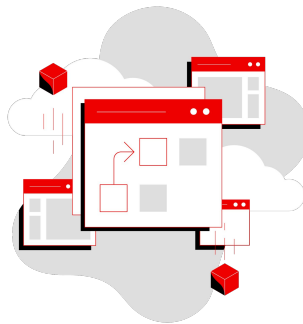
- ▶ No action required
- ▶ Automated resolution triggered
- ▶ Remediation action completed
- ▶ Shorter MTTR

Key building blocks in Event-Driven Ansible



Sources

All the sources of event data you want to use



Rules

What you will create using Event-Driven Ansible®



Actions

When a condition or event is met, the Ansible Rulebook executes

Ansible Rulebooks contain the source of the event, as well as the instructions on what steps to perform when a certain condition is met—and it is all very flexible.

Use case-friendly

Apply Event-Driven Ansible to any IT domain for full response to key alerts



Network and Edge

- ▶ **Basic** network troubleshooting tasks
- ▶ **Remediate** configuration issues all the way to the edge
- ▶ **Trigger** edge app redeployments



Virtualization

- ▶ Remediate virtual machine and related infrastructure issues
- ▶ Automate application scaling
- ▶ Employ self service provisioning



Cloud

- ▶ **Trigger** cloud estate check from instance creation events
- ▶ **Automate** remediation tasks from service bus events
- ▶ **Reclaim** resources from inactive instances



Operating systems

- ▶ **Escalate** infrastructure or OS issues for improved observability
- ▶ **Ensure** compliance post change events
- ▶ **Automate** response to service tickets including user administration



Applications

- ▶ **Allow** applications to trigger remediation of issues from patterns
- ▶ **Enrich** healing capabilities of applications and their dependencies



Security

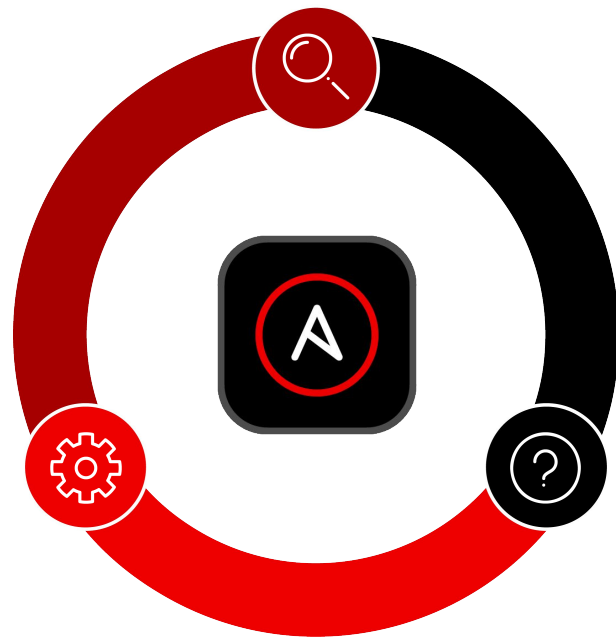
- ▶ **Automate** log enrichment from a security event
- ▶ **Automate** security responses from incidents
- ▶ **Escalate** events for human intervention

Event-Driven Ansible is partner friendly

Use case and tool friendly event-driven automation

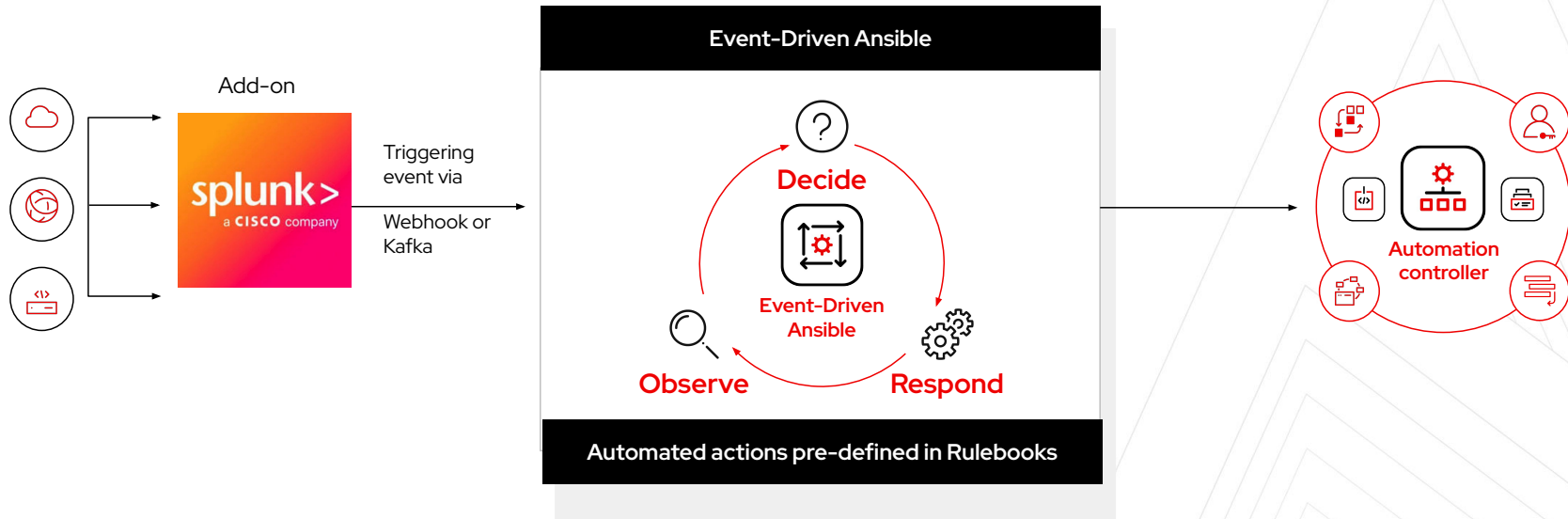


ansible.eda



Event-Driven Ansible. Observe, decide, respond.

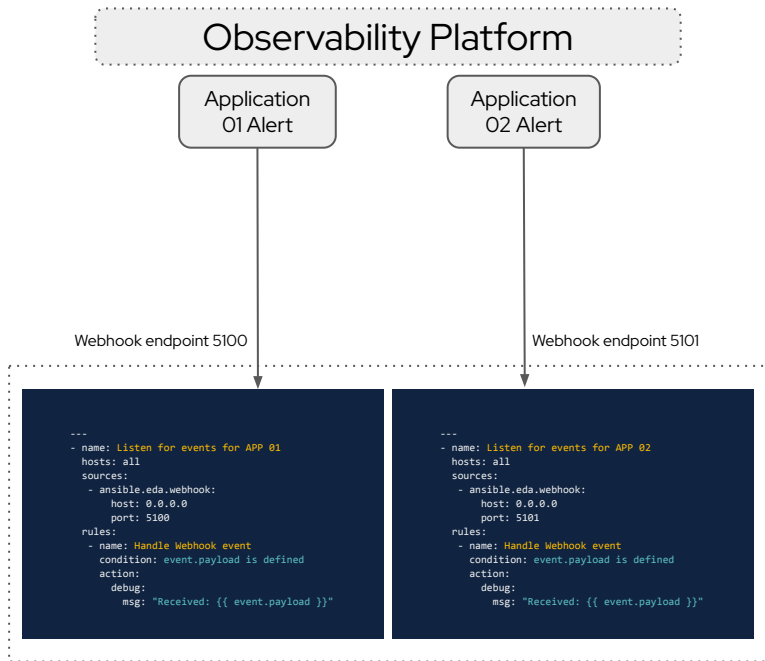
Achieve new milestones in efficiency and resilience with faster MTTR



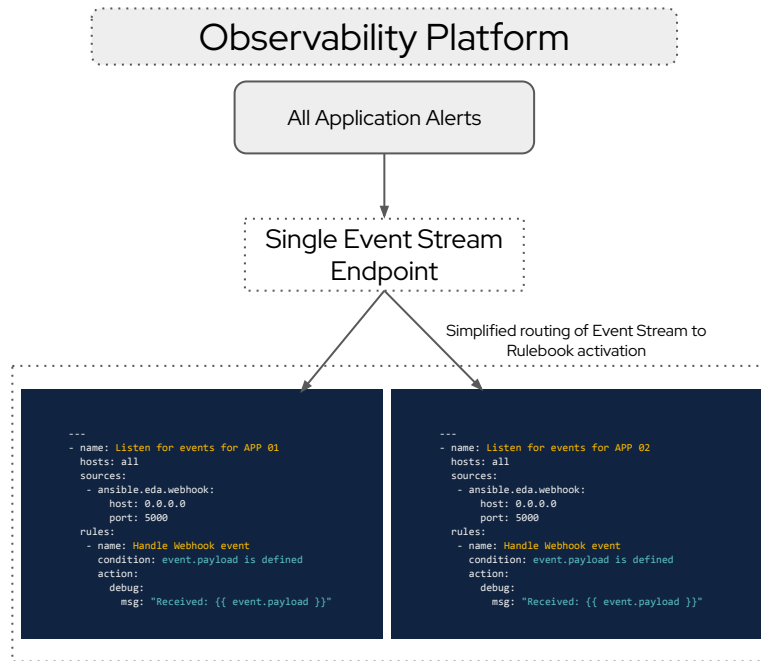
New: Simplified Event routing with Event Streams

Single endpoint for all webhook events

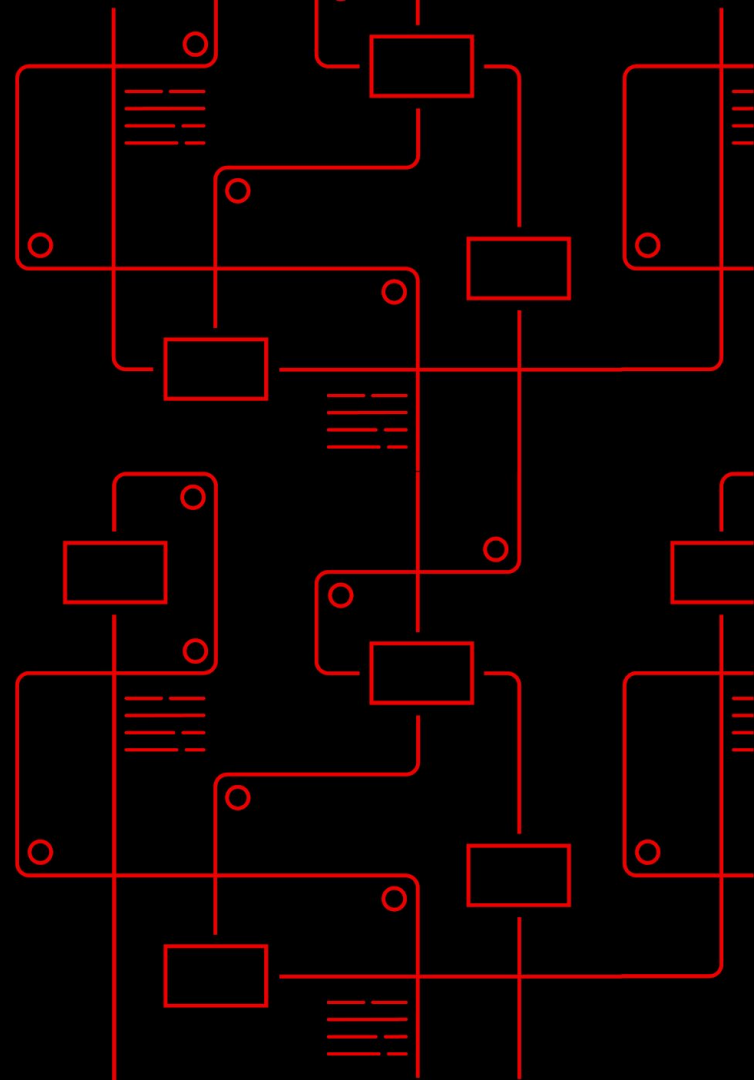
Before Ansible Automation Platform 2.5



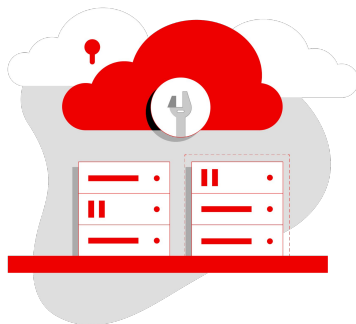
With Ansible Automation Platform 2.5



Use cases



Suggested use cases for getting started



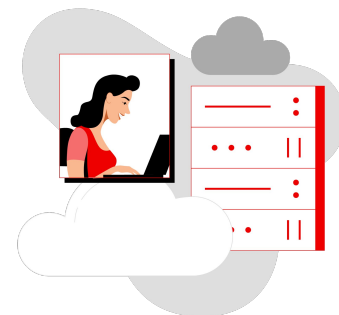
Service ticket management

- Automate fact gathering
- Automated notifications
- Certificate management



Remediation

- Drift
- Slow performance
- Outages



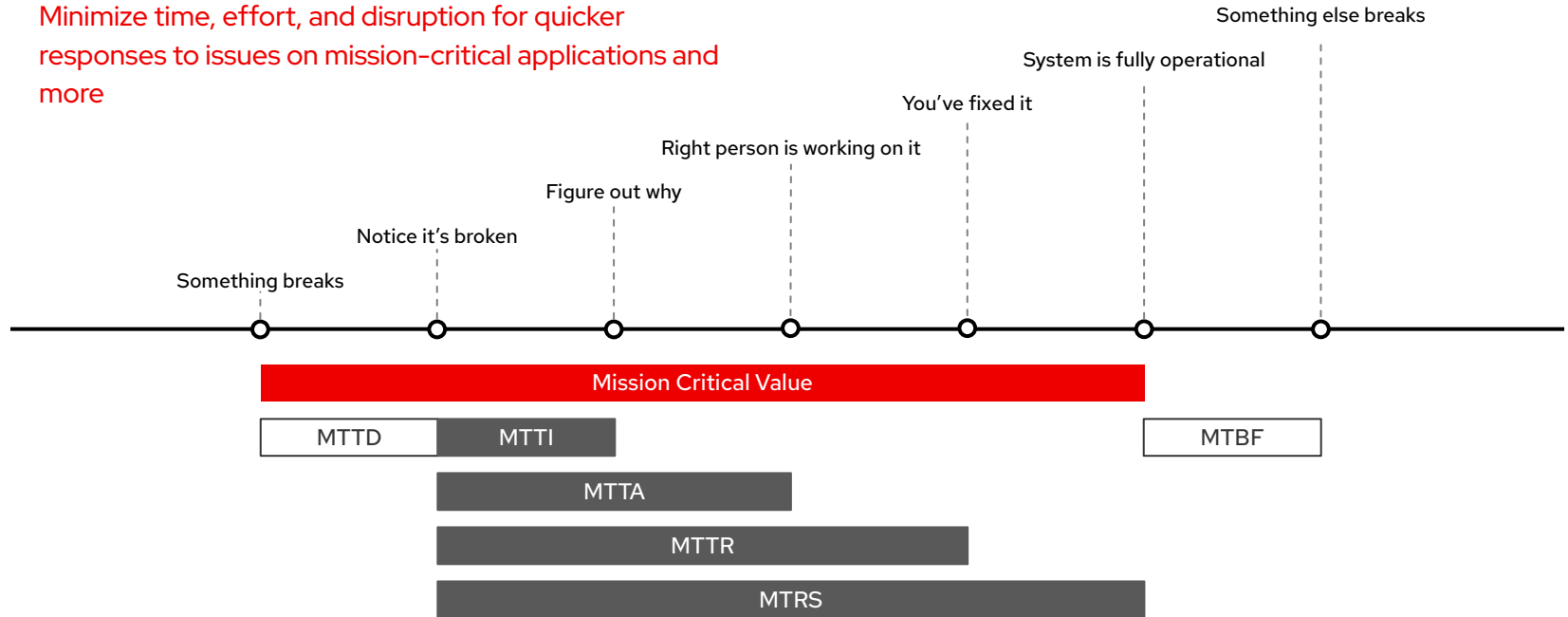
User management

- User authentication and access
- Login issues
- Group and role access

ITSM Scenarios

Is this too much time, toil and churn?

Minimize time, effort, and disruption for quicker responses to issues on mission-critical applications and more



ITSM scenario response re-imagined

Choose the alert and response that is right for the situation for faster MTTR



Automate Notifications

Page, Slack notify and/or create when a specific condition or alert happens



Gather facts

Automatically gather configuration or other data to expedite service professional's response



Take specific actions

Choose the event-driven automated response desired, for example renew an expired certificate



Implement self-service

Set up self-service scenarios, for example user administration needs or basic provisioning

Certificate renewal and rotation

Ensure better resilience, address risk and “sleep more”



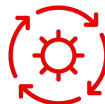
Unsecure access

Check to see if certificates are valid across all servers



Automate certificate lifecycle

If a certificate is invalid or expired, contact the certificate authority to renew it



Install certificates automatically

If a new server is provisioned without a certificate, check and install a new, valid certificate



Update tasks within ITSM

The ticket is updated in ITSM. Event Driven Ansible continues to listen for new server scaling issues

Web service response

Rapidly close tickets related to web applications and services



**Web service is
not responding**

A log from one of our many intelligence sources indicates that a web service is down



**Ticket in ITSM
is opened**

Rulebook initiates the action to open a ticket in your ITSM system



**Web service
restarted**

Web service is restarted, and verified to come back up to a functioning state



**Ticket in ITSM is
updated and closed**

ITSM ticket is updated with status, and automatically closed

Auto-scaling for hybrid cloud

Better resilience on cloud services to drive more revenue and productivity



App needs to scale during peak usage times

During peak usage times, applications need to be able to scale on demand



Automatically create notification

Event Driven Ansible notifies ITSM of a resource constraint.



Scale resources via rulebook

Event Driven Ansible can increase resource contention on the server. If that's not enough, create a rulebook to create a new VM



Avert problems and latency

By automating response to current conditions, applications can be kept running smoothly

Reclaim costly resources

Control cloud and internal technology costs, manage complexity



Identify resources not being used

Work from an alerts that identify resources that have not been used in a given period of time (i.e., last 30 days)



Automatically move to lower cost storage

Use Ansible rulebooks to move these resources to lower cost storage especially for cloud and virtualization resources.



Monitor in low cost storage

Watch for alerts on low cost storage where the assets are still not being used in a given period of time



Delete or notify users and stakeholders

Respond automatically as desired (stakeholder notification, service ticket, backup to cold storage, etc.).

More use cases for getting started

Start small

- ▶ **Certificate auto renewals** with notification
- ▶ **Automated configuration information** added to service tickets
- ▶ **Automated notification** on specific alerts as soon as they occur
- ▶ **Simple ITSM self-service:** user administration, simple provisioning
- ▶ **Restart server services** such as web services, ldap, app services

Think big

- ▶ **Security management:** shut down a service if there is an alert or threat while you investigate
- ▶ **IT service / technology resets** (reset a router) or automated response triggers
- ▶ **Drift control and management**
- ▶ **Reclaim resources: low cost storage and backup** (i.e. move cloud services that are unused to low cost storage to control costs)
- ▶ **Automated provisioning** (automatically create implementations within certain parameters)

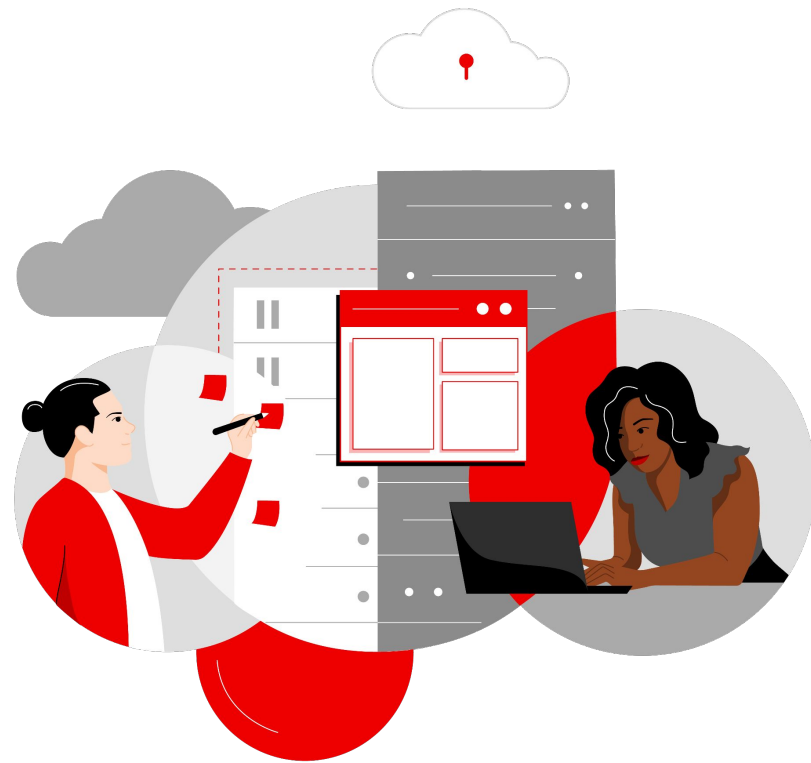
Demo: Web Service Response (Self Healing Infrastructure)

Automation Journey

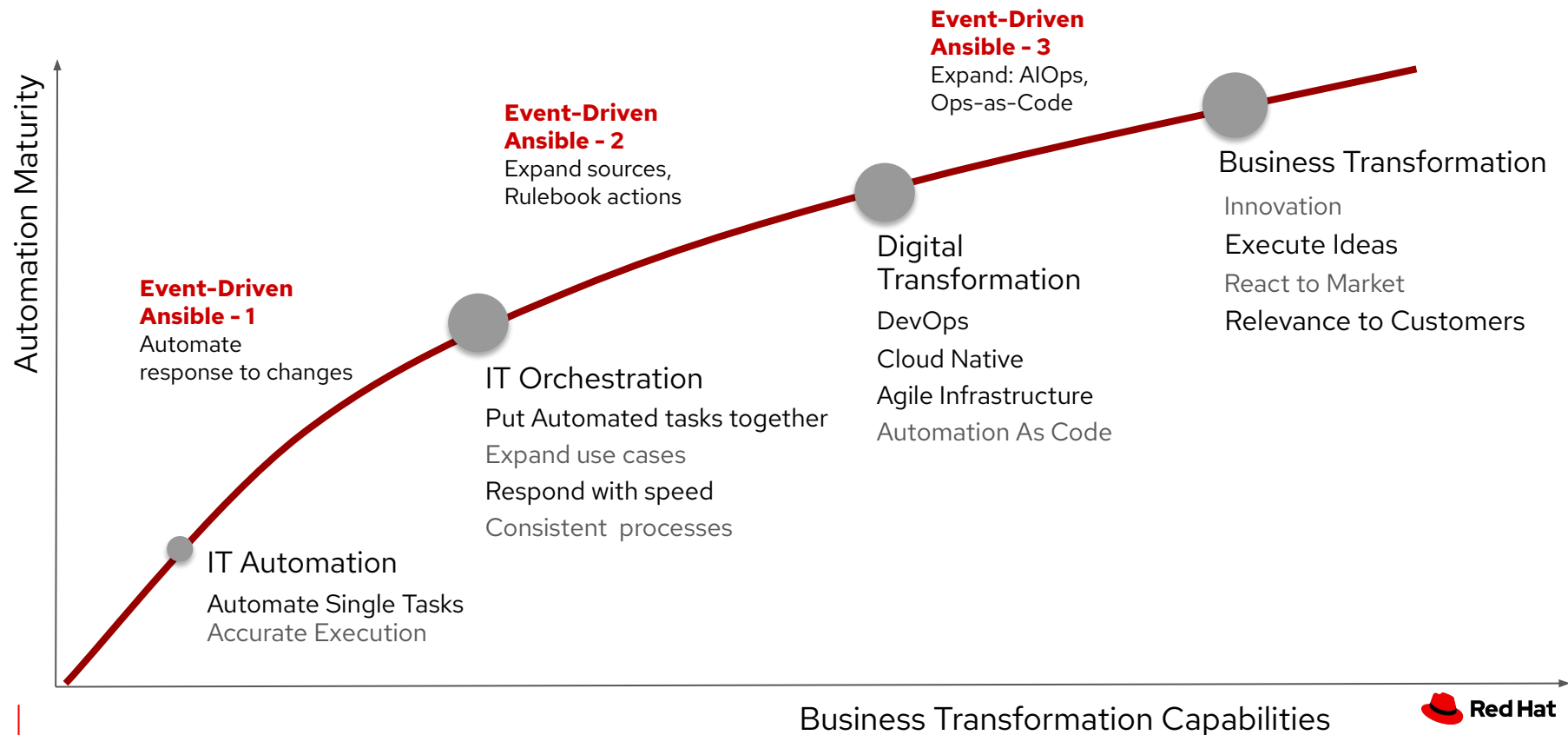
Start small, Think big

Value of incremental progress

- ▶ Begin with targeted, manageable tasks.
- ▶ Via observability you can find some high cost issues which are frequent and troublesome
 - Start with these
 - As your observability grows, you will be able to address more and more cost within your environment
- ▶ Learn and refine automation processes gradually as your automation and observability continue to mature



The journey to mission-critical automation



AI Ops: Intelligence into action

Red Hat Ansible unlocks AIOps



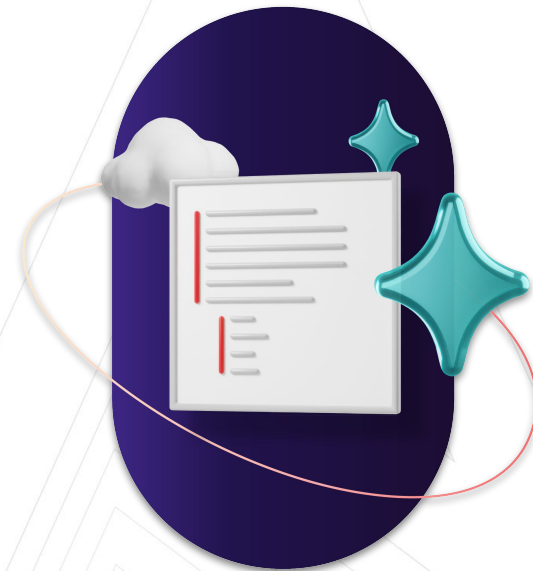
- ✓ **Event-Driven Ansible.** Engineered to turn data (of any kind) into action.
- ✓ **Industry-leading technology ecosystem.** Ansible will work seamlessly with whatever observability tools you have.
- ✓ **Comprehensive automation capabilities.** If your tools can see it, Ansible can automate it.



Turn AI insights into trusted action

Five AIOps use cases you can take on *today* with Red Hat Ansible

- **Self-healing infrastructure.** Deploy automation that responds to common alerts from your monitoring systems.
- **Ticket enrichment for support teams.** Synchronize events and AI recommendations with ticketing and tracking.
- **Cost + resource optimization.** Automatically discover and implement optimizations for nodes, clusters and projects attached to AI personas.
- **System-level drift and policy enforcement.** Translate system-level insights into governed corrective action.
- **Proactive infrastructure scaling and optimization.** Automated response to load increase.



AIOps is within your grasp

Core actions that you can take on **today** - across domains - with Red Hat Ansible

Network and Edge

Basic network troubleshooting tasks

Remediate configuration issues
all the way to the edge

Trigger edge app redeployments

Operating systems

Escalate infrastructure or OS issues for improved
observability

Ensure compliance post change events

Automate response to service tickets including user
administration

Virtualization

Remediate virtual machine and related
infrastructure issues

Automate application scaling

Employ self service provisioning



Cloud

Trigger cloud estate check from instance creation events

Automate remediation tasks from service bus events

Reclaim resources from inactive instances

Security

Automate log enrichment and responses from a
security event

Automate drift control and management

Escalate events for human intervention

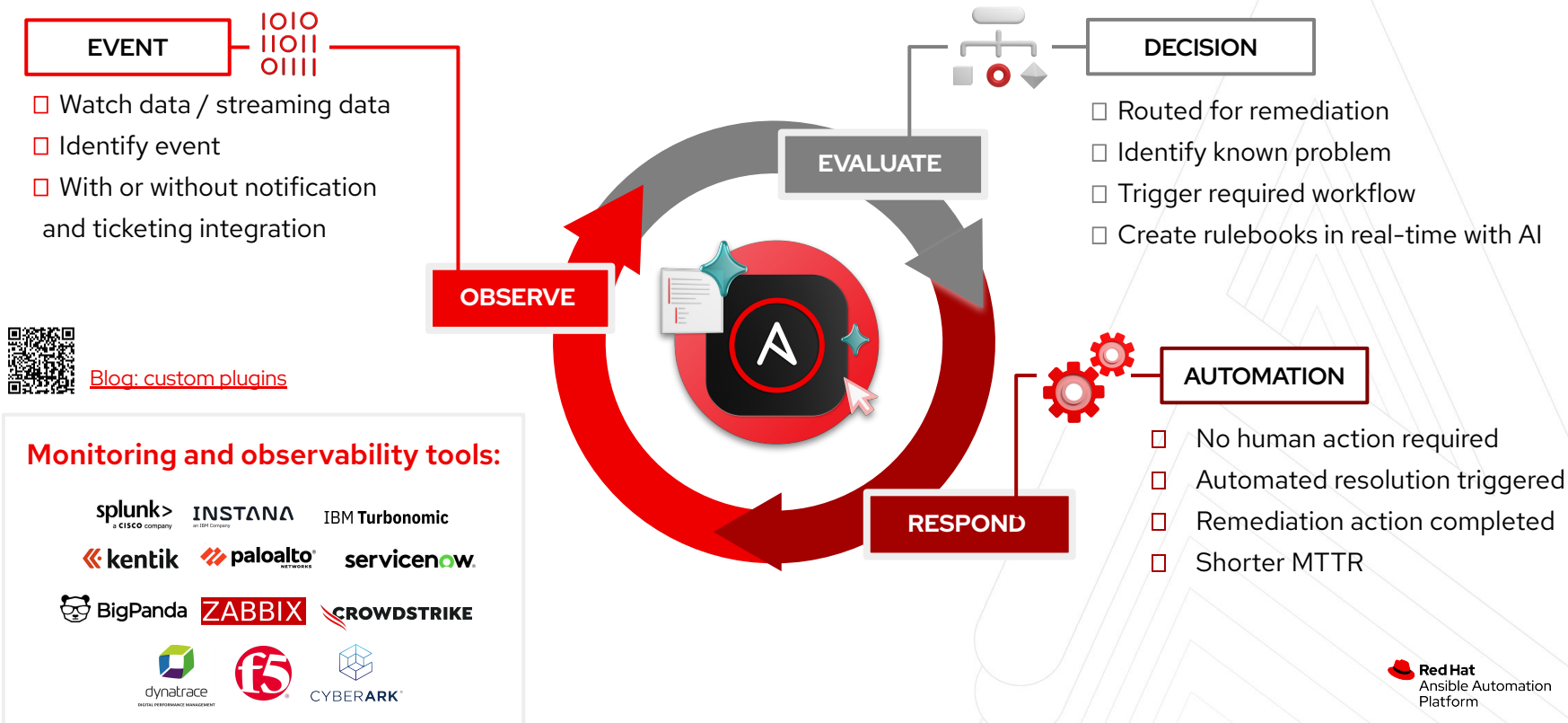
Applications

Allow applications to trigger remediation of issues
from patterns

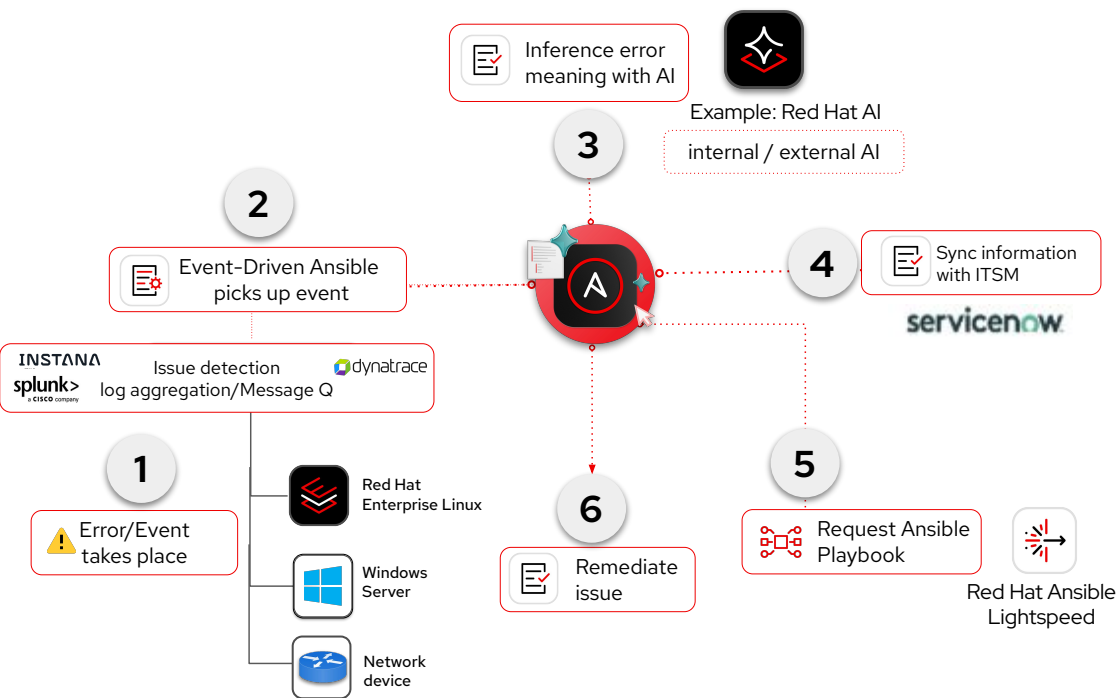
Enrich healing capabilities of applications and their
dependencies

Certificate auto renewals with notification

AIOps: Turning intelligence into action



AIOps use case example: self-healing infrastructure

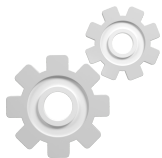


- ✓ **Maximize observability and AIOps investments** with seamless integration.
- ✓ **Reduce operational costs, downtime and MTTR** by detecting and reacting to emerging issues.
- ✓ **Improve risk posture:** Minimize manual intervention and human error.
- ✓ **Manage skills gaps** with automated playbook generation and intuitive virtual assistant embedded directly into UI.



Seamless integration with other mission-critical tools

Build and operate essential workflows across the open hybrid cloud ecosystem



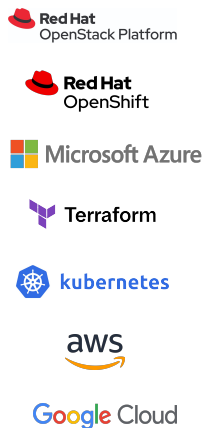
Network



Operating systems



Cloud



Virtualization



Security



AIOps



Customer story: AIOps in action



"We've also integrated intelligent observability from Dynatrace, which uses AI to proactively identify any unusual patterns in our environment before triggering Event-Driven Ansible to resolve the incident and enable application recovery"

Mutua Madrileña adopts automation as standard with Red Hat



Software and services

Red Hat® Ansible®
Automation Platform

Mutua Madrileña, Spain's leading insurer, has more than 60 platforms managed by its middleware department. This environment is complex—especially following multiple mergers and acquisitions—but crucial to support the company's digital needs. In line with its Digital Transformation plan, the middleware team implemented Dynatrace for intelligent observability and Red Hat Ansible Automation Platform. This allowed the team to automate platform provisioning and accelerate incident resolution using event-driven automation. This standard, automated process can be replicated in any environment to accelerate time to market, reduce operating costs, and free up skilled workers to focus on innovation.



Insurance

11,900+ employees

Benefits

► Standardized automation procedures and repeatable

"Choosing Red Hat Ansible Automation Platform was one of the **best decisions we've ever made**...Combining observability with self-healing has improved resolution times and reduced service downtime. **We saw a 50% reduction in service tickets.**"

- Marta Ceciliano

Head of Middleware, Automation, and Observability



Generative AI: Accelerated and more efficient automation

Enhancing Red Hat Ansible with generative AI



Generative AI

Automate more efficiently

- > Faster code creation
- > Onboarding + accessibility
- > Streamlined platform ops

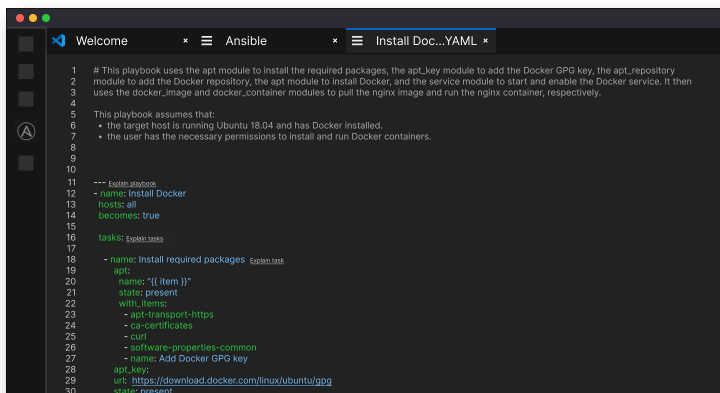


Enhancing Red Hat Ansible with generative AI

Integrated tools engineered to deepen and improve the automation experience

Coding assistant

for automation content creation

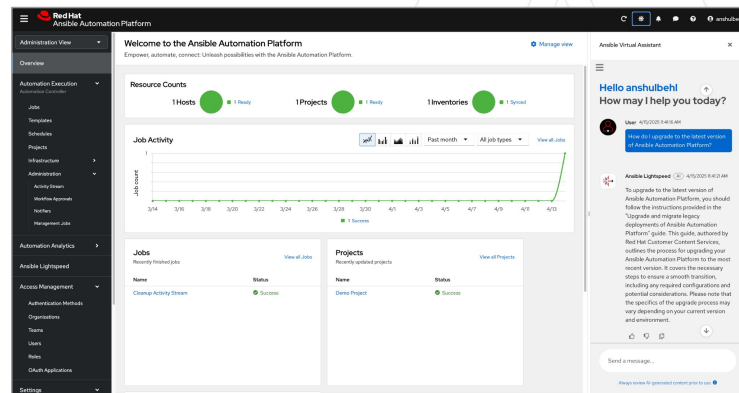


```
1 # This playbook uses the apt module to install the required packages, the apt_key module to add the Docker GPG key, the apt_repository
2 module to add the Docker repository, the apt module to install Docker, and the service module to start and enable the Docker service. It then
3 uses the docker_image and docker_container modules to pull the nginx image and run the nginx container, respectively.
4
5 This playbook assumes that:
6   - the target host is running Ubuntu 18.04 and has Docker installed.
7   - the user has the necessary permissions to install and run Docker containers.
8
9
10
11 *** Explain task ***
12 - name: Install Docker
13   hosts: all
14   become: true
15
16   tasks:
17     - name: Explain task
18
19   - name: Install required packages
20     apt:
21       name: "{{ item }}"
22       state: present
23       with_items:
24         - apt-transport-https
25         - ca-certificates
26         - software-properties-common
27       - name: Add Docker GPG key
28       apt_key:
29         url: https://download.docker.com/linux/ubuntu/gpg
30       state: present
```

Installed & used in VSCode

Intelligent assistant

For automation platform administration and management



Embedded directly into AAP UI



Powered by Red Hat Ansible Lightspeed

Evolving to ensure customers have the options they need

More flexibility from an expanding list of supported Red Hat AI platforms and BYOM providers

	 <i>Red Hat AI</i>	 <i>OpenAI</i>	 <i>Azure OpenAI</i>	 <i>IBM Watsonx</i>	 <i>Gemini Vertex</i>
 Intelligent assistant <i>Automation controller</i>	AAP 2.6 (GA)	AAP 2.6 (GA)	AAP 2.6 (GA)	AAP 2.6 (GA Q126)	AAP 2.6 (GA Q126)
Coding assistant <i>VS Code extension</i>	AAP 2.6 (GA Q126)	AAP 2.6 (GA Q126)	AAP 2.6 (GA Q126)	AAP 2.5 (watsonx Code Assistant)	AAP 2.6 (GA)



Demo: AI Coding

Customers

Benefits | Hear from customers



Combining observability with self-healing has improved resolution times and reduced downtime.

50% reduction in service tickets

[Read more](#)



Enabled valuable interactions with cloud-based service management, observability, and security systems

With Event-Driven Ansible controlling where, when, and how automation executes, almost anything is possible

[Read more](#)

Energy company

LDAP server went down on a weekend. Instead of problem notification, it repaired the problem then verified things were healthy.

...this is an amazing leap ... "



“We’ve also integrated intelligent observability from Dynatrace, which uses AI to proactively identify any unusual patterns in our environment before triggering Event-Driven Ansible to resolve the incident and enable application recovery.

Combining observability with self-healing has improved resolution times and reduced service downtime. **We saw a 50% reduction in service tickets.**”

Marta Ceciliano, Head of Middleware, Automation, and Observability, Mutua Madrileña



“If we can get structured webhook data out of the system and land it in a service bus, then there are **endless possibilities** for what we can do with Event-Driven Ansible and the automation controller ... We can audit all parts of that timeline ...”

Zac Durham
Platform engineering director
Glen Raven



“With Red Hat Ansible Automation Platform, my colleagues can focus on strategic initiatives instead of firefighting all the time. They love having more time for exciting tasks.”

Michael Johnson
Principal Automation
Engineer, Xylem



"My Dev OpenLDAP server went down on Sunday, and Dynatrace+Ansible fixed it.

Instead of just sending me an email letting me know there was a problem, it repaired the problem then verified things were healthy.

I think this is an amazing leap... "



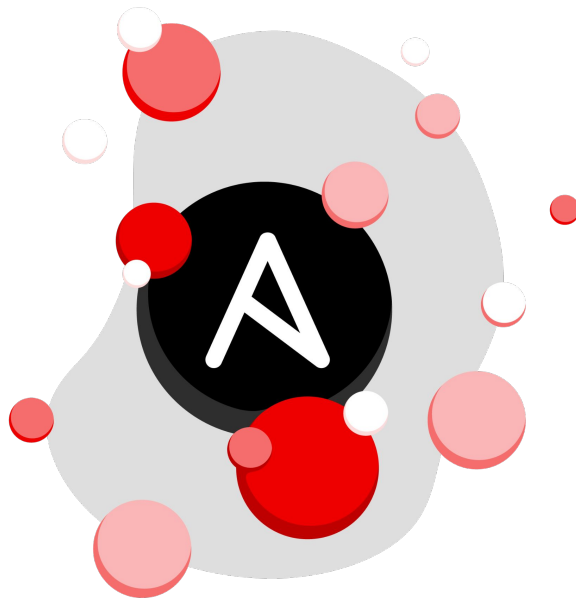
Infrastructure Administrator, Energy Company

Demo: Zero Touch Provisioning with Ansible and Red Hat Satellite

Resources and next steps

You need answers for today's operational demands

- ▶ Improve operations > **increase resilience** and reduce MTTR
- ▶ Increase **consistency, accuracy and efficiency**
- ▶ Reduce manual processing of **high volume tasks**
- ▶ Tame **complexity** and reduce technical debt
- ▶ Meet **SLOs and reduce downtime**
- ▶ **Transform operations** at scale with an automation-first mindset



“Event-Driven Ansible is a possible game changer
for digital enterprises needing to provide a highly resilient
and consistent customer experience.

In addition, IT executives who need to move to a
more proactive response to incidents
will find Event-Driven Ansible a complement to
existing observability solutions. ”

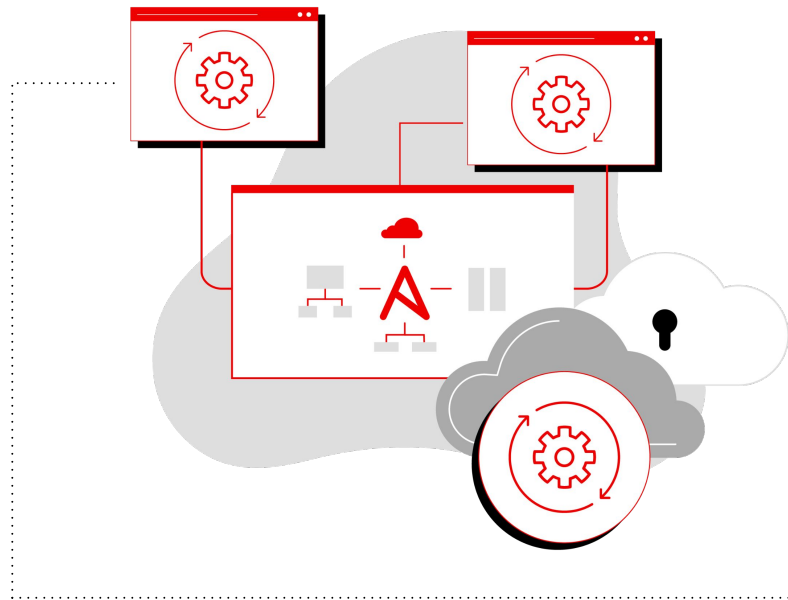
Jevin Jensen
Research Vice President, Infrastructure and Operations
IDC

Red Hat Consulting can help

Red Hat Consulting can help organizations integrate Event-Driven Ansible into Red Hat Ansible Automation Platform through a phased approach. Teams will work side by side with our consultants to:

- ▶ **Analyze** event sources and categorize event types
- ▶ **Design** EDA integration and rulebooks
- ▶ **Integrate** EDA on Ansible Automation Platform and implement designed content

Learning and collaborating with our experts, teams will achieve new milestones in efficiency, service delivery excellence, and cost savings.



Request a discovery session

Resources

Managers

- ▶ [Event-Driven Ansible web page](#)
- ▶ [eBook: Event-driven automation for IT Ops](#)
- ▶ [eBook: Observability and Event-Driven Ansible](#)
- ▶ [Mutua Madrileña adopts automation as a standard with Red Hat](#)

Technical roles

- ▶ [Event-Driven Ansible web page](#)
- ▶ [Event-driven automation for IT Ops ebook](#)
- ▶ [Online self-paced labs](#)
- ▶ [Ansible Rulebook documentation](#)
- ▶ [Event-Driven Ansible blog series](#)

Partners

- ▶ [Event-Driven Ansible web page](#)
- ▶ [Online self-paced labs](#)
- ▶ [Contact the partner team: `ansible-partners@redhat.com`](#)



Start your event-driven
automation journey

**redhat.com/
event-driven-ansible**

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

Alternate slides

Meet lofty goals with advanced automation techniques.



Innovation

Innovate to more advanced levels of automation and free productivity for innovation and higher level projects

Transform IT



Speed and Consistency

Minimize risks with automated workflows, avoid human errors and use auditable and verifiable processes

Ensure resilience

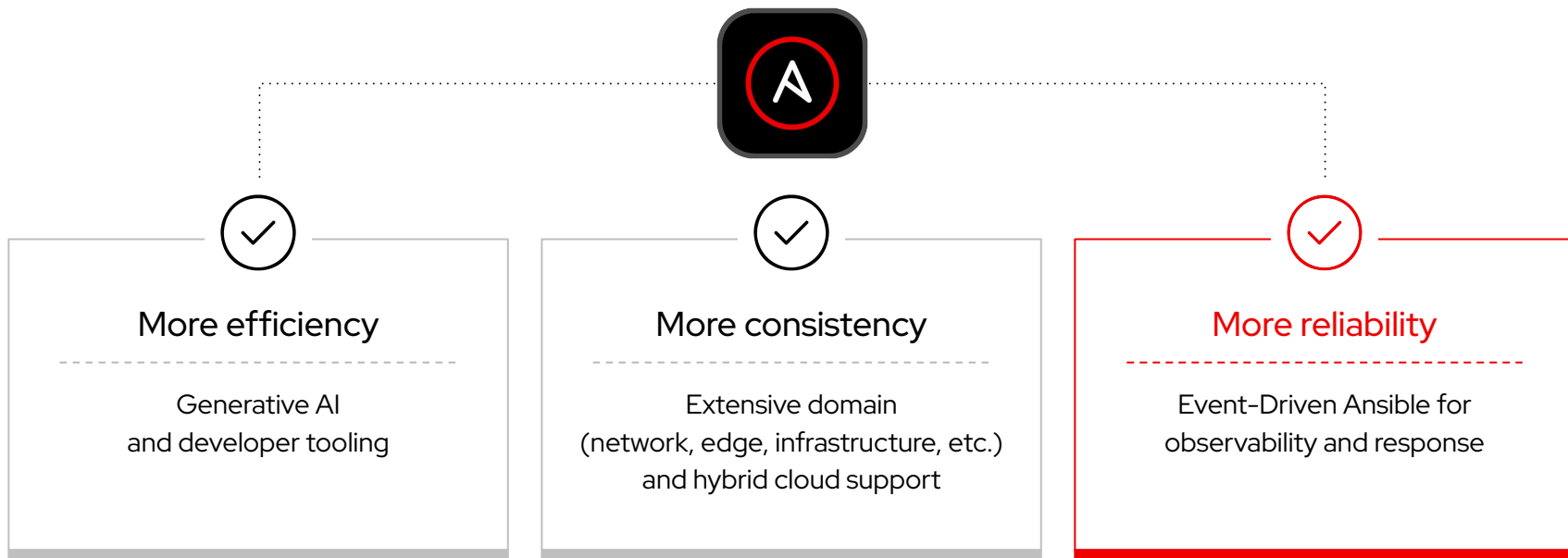


Team efficiency

Avoid low-level tasks, focus in the right areas, make the most of your talent and address skills gaps

Become more agile

The platform for mission critical automation

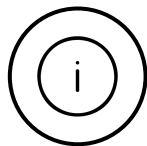


What is event-driven automation?

The ability to
connect intelligence, analytics and service requests
to automated actions so that activities
can take place in **a single motion**.

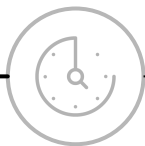
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What if you could...



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Number of service tickets



Reduce

Mean time to resolution

...As a result

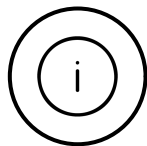


Increase

- Efficiency and resilience
- Consistency and accuracy
- Team satisfaction

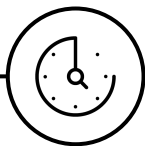
Simple goals deliver big benefits

What if you could...



Reduce

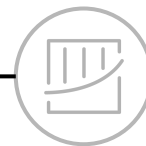
Number of service tickets



Reduce

Mean time to resolution

...As a result

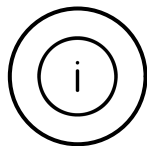


Increase

- Efficiency and resilience
- Consistency and accuracy
- Team satisfaction

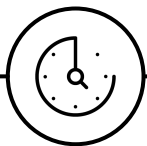
Simple goals deliver big benefits

What if you could...



Reduce

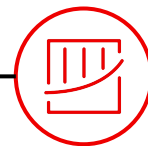
Number of service tickets



Reduce

Mean time to resolution

...As a result

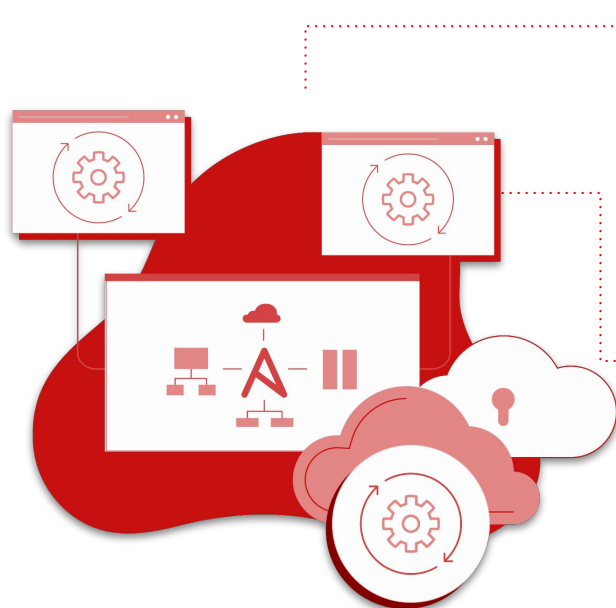


Increase

- ▶ Efficiency and resilience
- ▶ Consistency and accuracy
- ▶ Team satisfaction

Event-Driven Ansible

Simple goals, mission-critical impact



Automate actions and orchestrate current investments across operations, optimizing impact alongside key partners like *ServiceNow, Splunk, Palo Alto Networks & Dynatrace*

Maximize return on existing investments

Increase efficiency, by extending automation use cases into Day 2 operations

Shorten Mean Time To Resolution (MTTR)

Deliver cost savings, by reducing downtime and improving application security.

Reduce number of service tickets

Event-Driven Ansible stands out



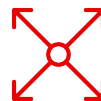
Flexible event-driven automation

Flexible from source to rule to action with multiple event sources. Create and change automation easily.



IT environment friendly

Automate any IT use case quickly and simply. Jumpstart with Red Hat and partner content collections.



Robust automation handling

Scalable decisioning and implementation with flexible actions



Single automation platform

Choose your automation style, leverage existing automation content and extend skills