EXPLORING THE POSSIBILITIES WITH EVENT-DRIVEN ANSIBLE

Getting more value from your Automation Platform

Agenda

▸ Logistics

▸ Why is Ansibe Automation

▸ What is new AAP 2.2

▸ Event-Driven Ansible

▸ How we can help with enablement

AUTOMATION	# Rethink Repetitive Tasks **Automation Enables Strategic Thinking at the Speed of Business** Low-Level repetitive Business and IT tasks are cost organizations large amounts of shareholder value!
HYBRID CLOUD	# Rethink Where IT is Running **Hybrid Cloud Enables IT to Run at the Speed of Business** A lack of a modern hybrid cloud strategy limits organization's ability to think innovatively, which enables disruptors to take market share.
MODERN APP DEVELOPMENT	# Rethink Development Processes **Modern SDLC Enables IT to Develop at the Speed of Business** Legacy SDLC processes cost organizations known and unknown revenue opportunities. When IT is not able to deliver at the speed of Business
MANAGED SERVICES	# Rethink Operations **24/7/365 Operational Efficiency and Capability** Enterprise systems never stop. Adoption of newer platform and modern applications architectures can prove impossible to embrace

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BUSINESS VALUE BY THE NUMBERS

Red Hat Ansible Automation Platform

|	
667%	5-year return on investment with 5 months to payback
$1.9M	additional new revenue gained per year
30%	more productive IT infrastructure management teams
39%	more applications developed per year
30%	more efficient IT security teams
76%	reduction in unplanned downtime

Source:
IDC White Paper, sponsored by Red Hat. "Red Hat Ansible Automation Improves IT Agility and Time to Market," October 2021.

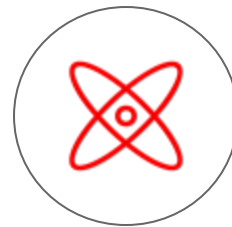**CROSSVALE** INTEGRATE•AUTOMATE•DELIVER | **Red Hat**

ANSIBLE IS THE DE FACTO AUTOMATION LANGUAGE.
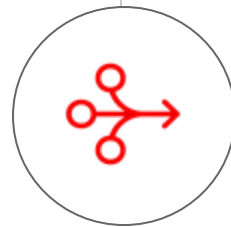
Simple
Human-readable language with quick adoption

Powerful
Universal language spanning multiple IT domains

Agentless
Easily integrate with hybrid environments

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ENABLING YOUR AUTOMATION TEAM TO CONSISTENTLY...

Create

Manage

Scale

Red Hat
Ansible Automation
Platform

Ansible Automation Platform

AN INTEGRATED SOLUTION FOR THE ENTERPRISE

Content creation tools

Ansible content tools

Execution environment builder

Automation content navigator

Ansible content collections

Execution environments

Operational tools

Private automation hub

Automation controller

Automation mesh

Platform operators

Business Tools and Analytics

Red Hat Insights for Ansible

Automation services catalog
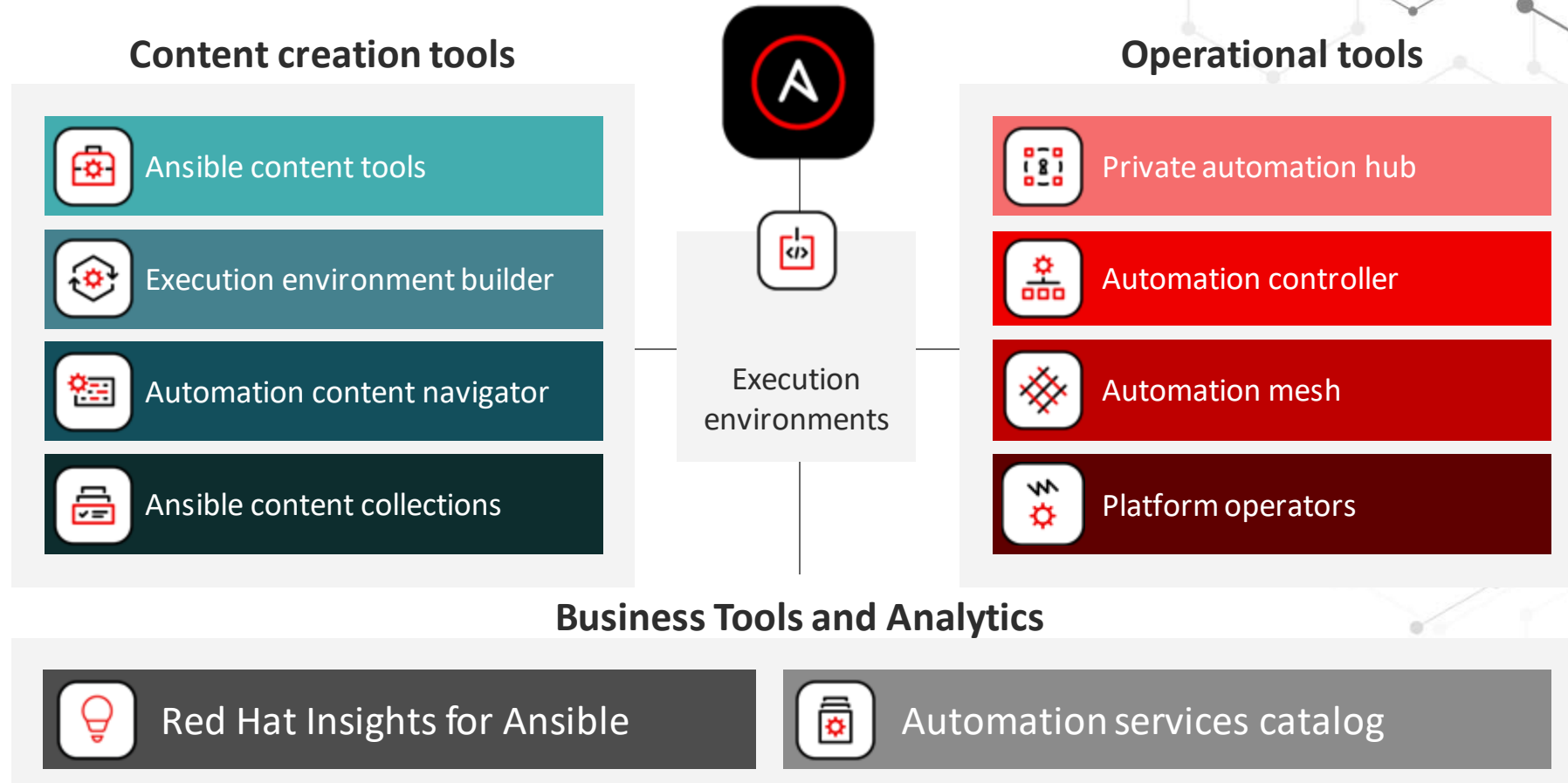
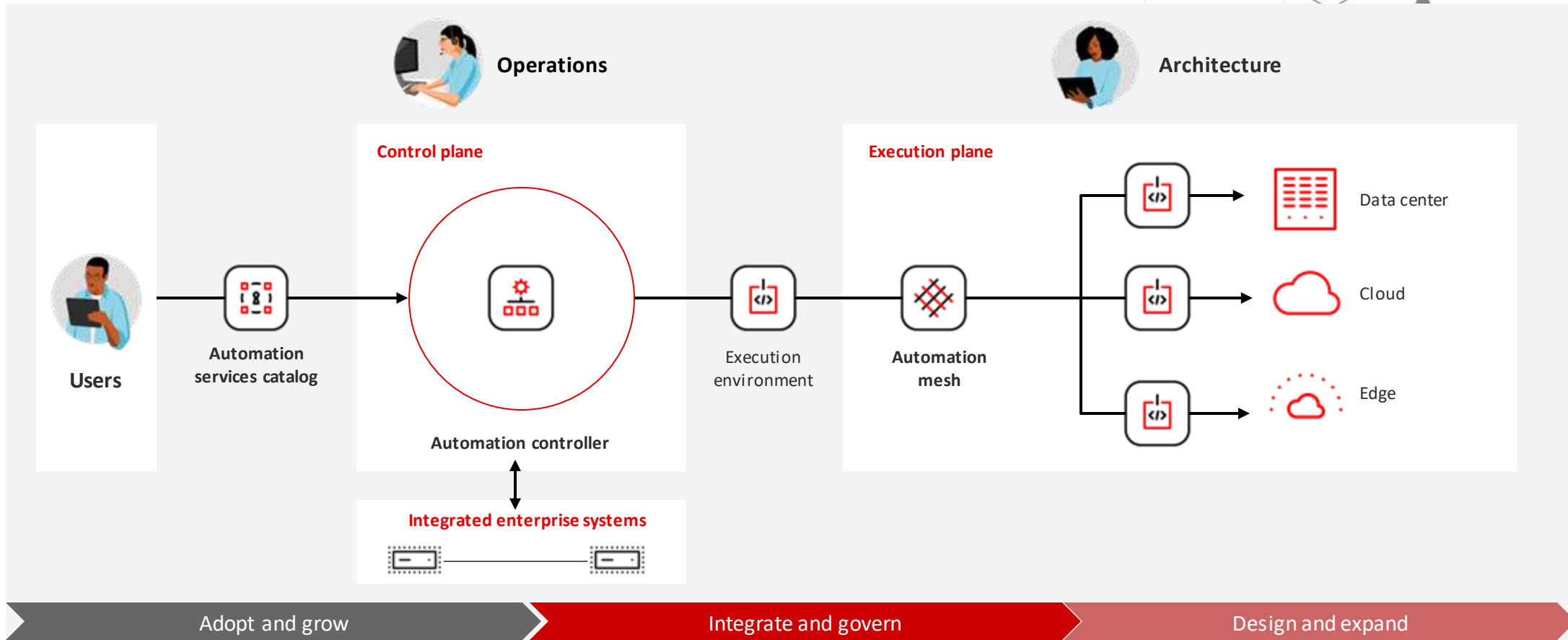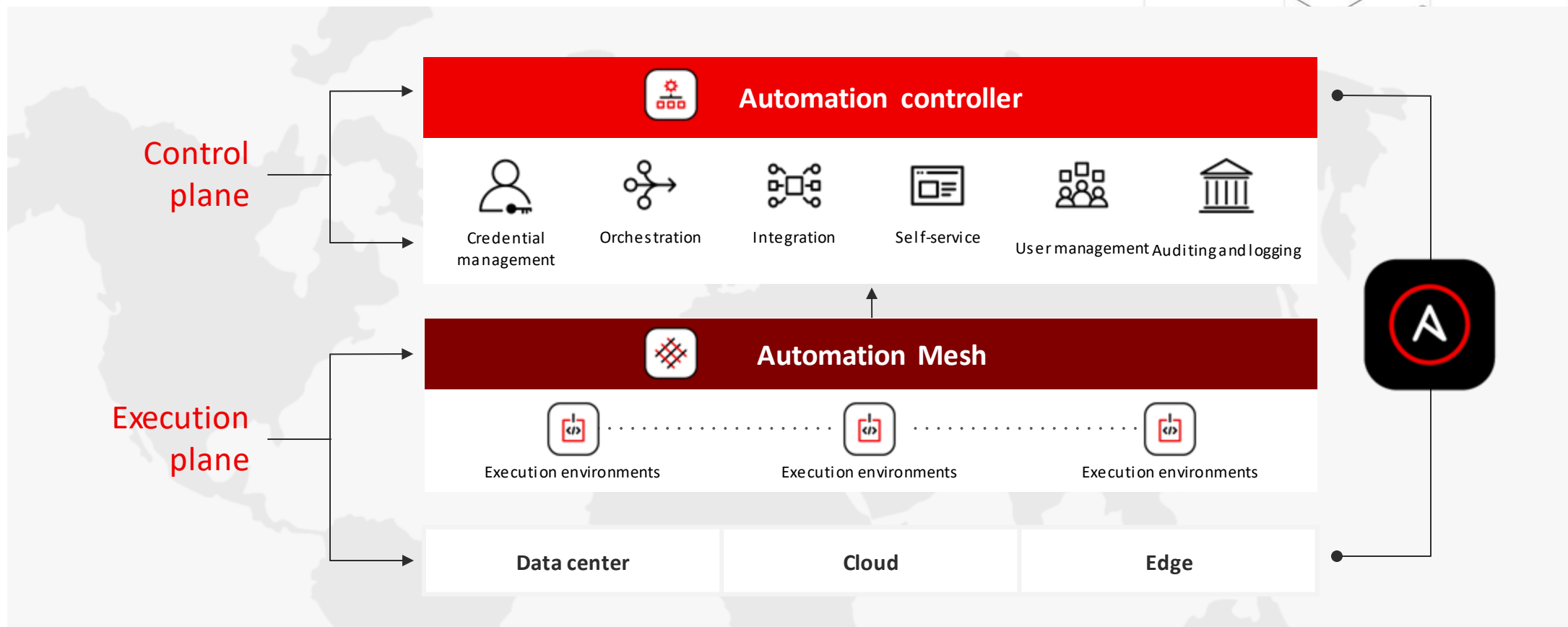# WHAT IS NEW WITH AAP 2.2

▸ The automation and management capabilities of Ansible Automation Platform 2.2 are now supported on Red Hat Enterprise Linux® 9:

▸ **Components now available for Red Hat Enterprise Linux 9.** Ansible Automation Platform components, including automation controller, private automation hub, private services catalog, and many developer and creator tools, are now available as Red Hat Enterprise Linux 8 or 9 Red Hat Package Manager (RPM) packages in the Red Hat Customer Portal.

▸ **Support for PostgresDB 13.** Red Hat Enterprise Linux 9 now includes PostgresDB version 13, which can be used by the automation controller, private automation hub, and the automation services catalog for improved compatibility and performance.

▸ **An updated certified Red Hat Enterprise Linux system roles collection to automate Red Hat Enterprise Linux 9 instances.** The redhat.rhel_system_roles certified col- lection on Ansible automation hub has been updated to support the ability to automate Red Hat Enterprise Linux 9.

THE AUTOMATION CONTENT LIFE CYCLE. SCALE.

Operations

Architecture

Control plane

Execution plane

Data center

Cloud

Edge

Users

Automation
services catalog

Automation controller

Execution
environment

Automation
mesh

Integrated enterprise systems

Adopt and grow

Integrate and govern

Design and expand

A DISTRIBUTED ARCHITECTURE BUILT FOR SCALE

Control plane

Automation controller

Credential management

Orchestration

Integration

Self-service

User management

Auditing and logging

Execution plane

Automation Mesh

Execution environments

Execution environments

Execution environments

| Data center	Cloud	Edge

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
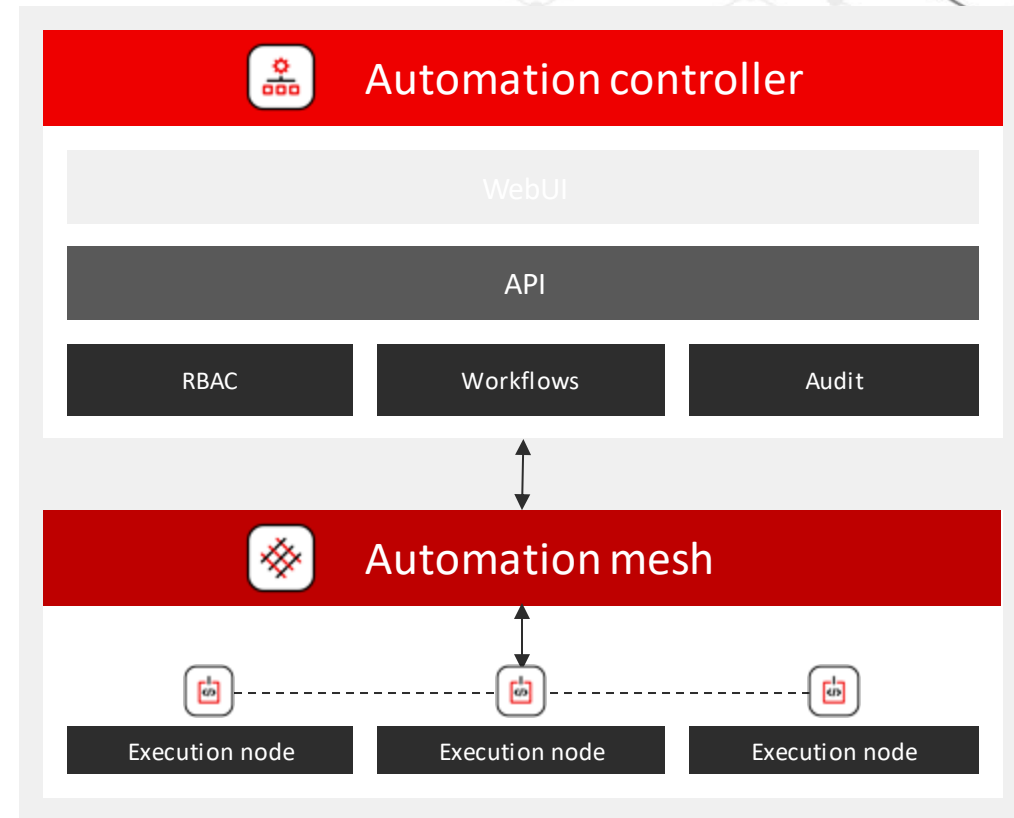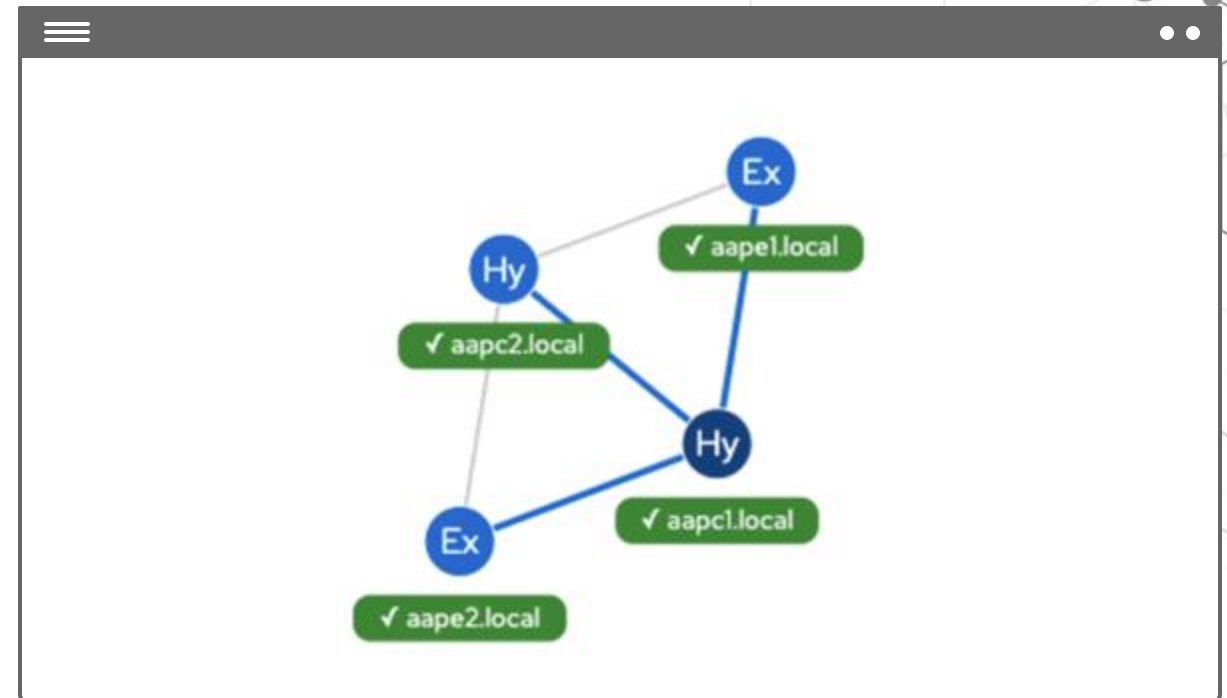
AUTOMATION MESH. MANAGEMENT AND VISIBILITY.

Instance groups

‣ Logically group and assign mesh execution capacity

‣ Predefined controlplane and default instance groups

‣ Configure instance groups via API, WebUI or installer

Topology Viewer

‣ View existing mesh topologies across environments

Event Driven

WHAT IS THE EVENT-DRIVEN ANSIBLE DEVELOPER PREVIEW?

Highly scalable, flexible

Event Driven Automation

built within your existing platform to deliver automation

that can process events for

discrete, actionable intelligence,

execute automated actions

to respond to events and provide

observation and auditability

across your automation landscape.

ACHIEVE GOALS AND FOCUS TEAMS WITH ADVANCED AUTOMATION TECHNIQUES

Speed
Reduce the number of manual steps, enable orchestration of multiple tools and accelerate cross-tool interaction
to
become more agile

Consistency
Minimize risks with automated workflows, avoid human errors and use auditable and verifiable processes
to
ensure resilience

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

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GET STARTED WITH EVENT-DRIVEN ANSIBLE

Quick wins: solve these use cases fast, simply and cost-effectively

SERVICE TICKET AUGMENTATION

- Automate fact gathering
- Network administration, e.g. Update infrastructure awareness on network events
- Edge device management, e.g. Compliance & drift are managed post event

REMEDIATION

- Address drift issues
- Slow performance issues, e.g. Automate common port troubleshooting and shut/no shut the port
- Outage issue

USER MANAGEMENT

- User authentication + access, e.g., providing and troubleshooting access
- Login issues, e.g., reset password
- Group/role access, e.g., configuring access to network resources

ANSIBLE INTEGRATION WITH SERVICENOW

- **Installing the Certified Content Collection for ServiceNow**
- **Managing Incidents, the Ansible Way**
- **Updating the CMDB**
- **Dynamic Inventory**
- **Automation Resolution of Standard Change Request**

Red Hat Ansible Automation Platform
Red Hat

now

BUSINESS VALUE HIGHLIGHTS

667%
five-year return on investment (ROI)

29%
more efficient network infrastructure management

30%
more efficient IT security teams

10 months
months to payback

75%
faster deployment of new storage resources

76%
reduction in unplanned downtime

30%
more efficient IT infrastructure management

39%
more applications developed per year

$1.9 million
total new revenue gained per year

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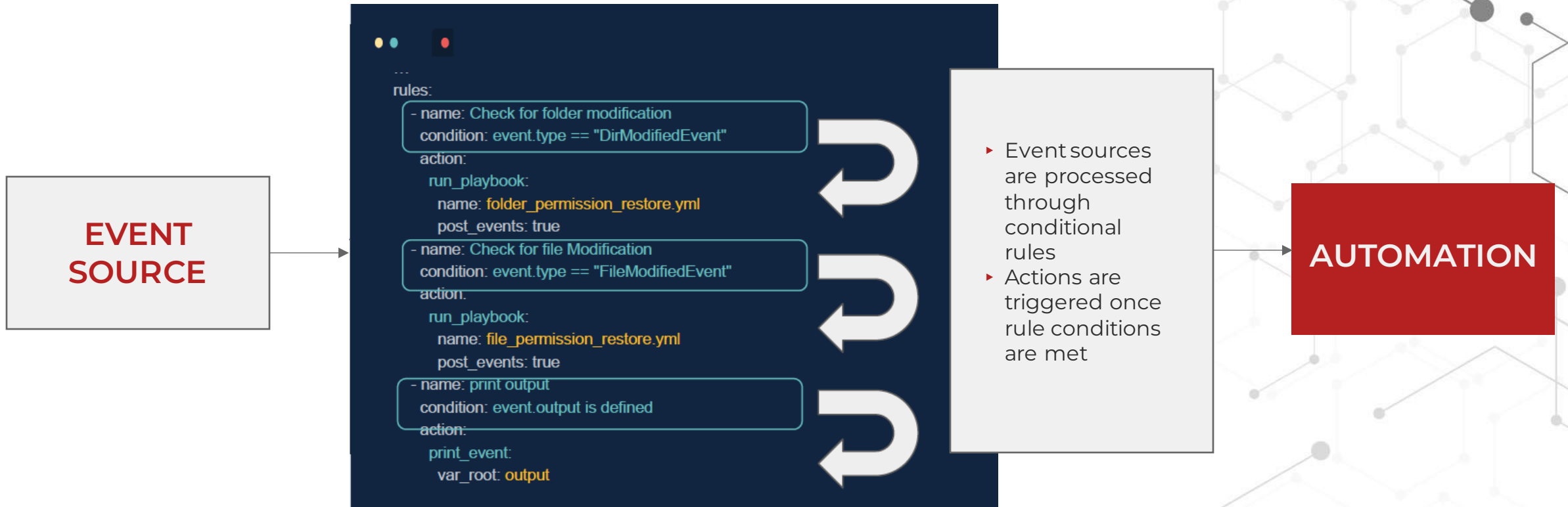
TIERS OF EVENT DRIVEN ANSIBLE
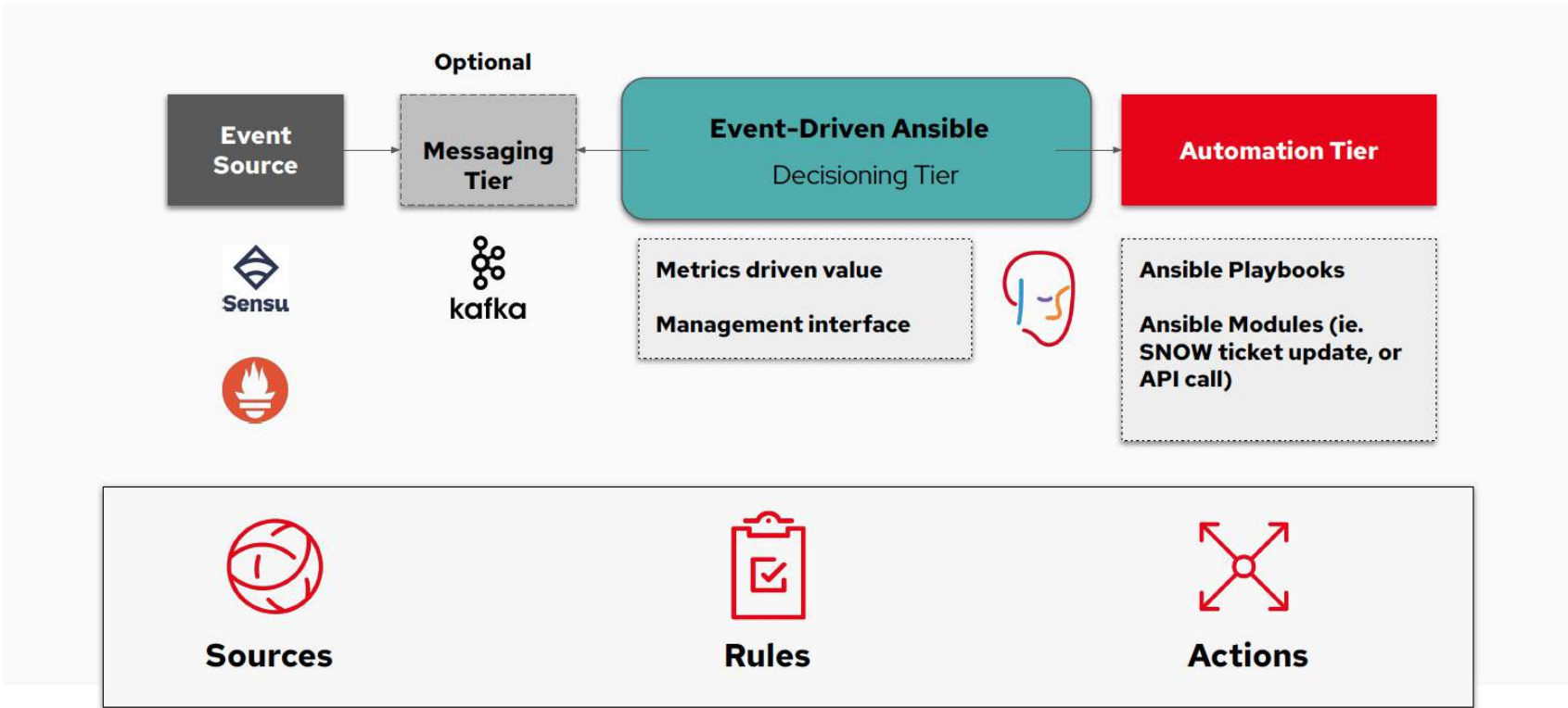
HOW DOES ANSIBLE HANDLE RULES PROCESSING?

Smart automation from conditional rules

EVENT SOURCE

```
...
rules:
  - name: Check for folder modification
    condition: event.type == "DirModifiedEvent"
    action:
      run_playbook:
        name: folder_permission_restore.yml
        post_events: true
  - name: Check for file Modification
    condition: event.type == "FileModifiedEvent"
    action:
      run_playbook:
        name: file_permission_restore.yml
        post_events: true
  - name: print output
    condition: event.output is defined
    action:
      print_event:
        var_root: output
```
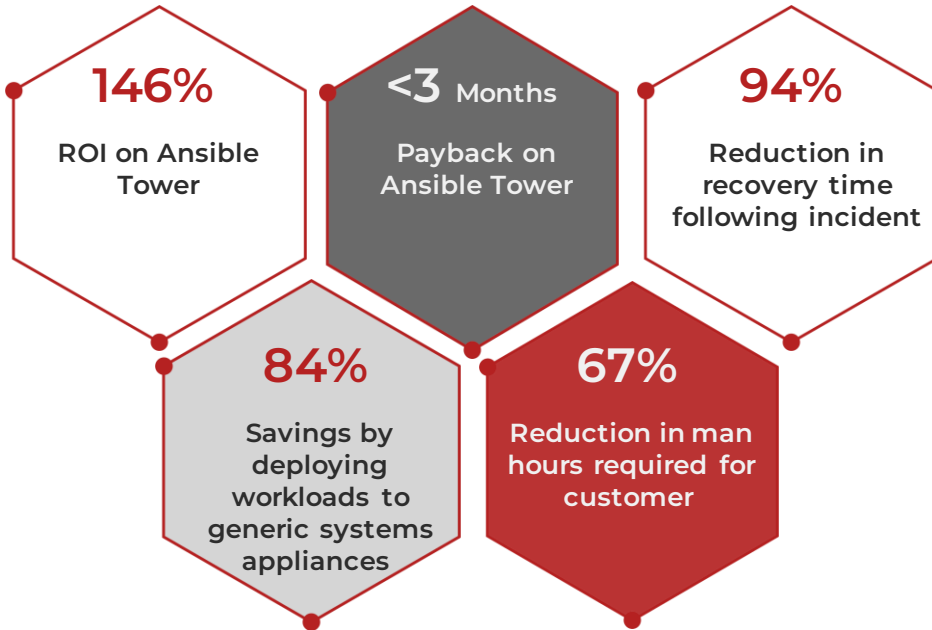
- ‣ Event sources are processed through conditional rules
- ‣ Actions are triggered once rule conditions are met

AUTOMATION

Enablement

IT AUTOMATION LAUNCHPAD

Quantifiable Results

146%
ROI on Ansible Tower

<3 Months
Payback on Ansible Tower

94%
Reduction in recovery time following incident

84%
Savings by deploying workloads to generic systems appliances

67%
Reduction in man hours required for customer

Red Hat
Ansible Automation Platform

Simple, Clear Journey to Management

	STANDARD	ADVANCED	ENTERPRISE
OVERVIEW	Ideal, low-cost starting point to build a long-term strategy around: ▸ Ticketing ▸ Orchestration ▸ Provisioning ▸ Reconciliation	Highly available (HA)instance integrated and customized into your environment. Team fully trained to harness the platform	Create a centre of excellence Drive leadership and direction for your entire business operations Develop a business culture around automation
DELIVERABLES	▸ AAP* HA install ▸ AAP LDAP integration ▸ AAP Git integration ▸ AAP flat file inventory ▸ Example playbook run ▸ Integration with existing Satellite ▸ Gather facts report	**All STANDARD plus..** ▸ AAP integrated inventory ▸ Satellite Installation ▸ Use cases featuring Surveys	**All ADVANCED plus..** ▸ Ticketing system integration ▸ System patching workflousing external approvals ▸ AAP inventory integration with CMDB ▸ Playbooks automation Windows systems ▸ Automate network devices
DURATION	2 weeks	6 weeks	13 weeks

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NETWORKING AUTOMATION LAUNCHPAD

Automation

Network Integrations

Simple, Clear Journey to Management

	STANDARD	ADVANCED	ENTERPRISE
OVERVIEW	Ideal, low-cost starting point to build a long-term strategy around: ▸ Ticketing ▸ Orchestration ▸ Provisioning ▸ Reconciliation	Highly available (HA)instance integrated and customized into your environment. Team fully trained to harness the platform	Create a centre of excellence Drive leadership and direction for your entire business operations Develop a business culture around automation
DELIVERABLES	▸ AAP* HA install ▸ AAP LDAP integration ▸ AAP Git integration ▸ AAP flat file inventory ▸ Example playbook run against network devices ▸ Config backup playbook run against network devices ▸ Gather facts report run against network devices	**All STANDARD plus..** ▸ AAP integrated inventory ▸ Firmware upgrade base functionality in test environment ▸ Use cases featuring Surveys	**All ADVANCED plus..** ▸ Ticketing system integration ▸ Firmware upgrade workflow using external approvals ▸ AAP inventory integration with CMDB
DURATION	2 weeks	6 weeks	13 weeks

* Ansible Automation Platform

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Q&A Wrap Up

LET'S PARTNER TOGETHER ...

CONTACT INFORMATION

Link to more info on Ansible:
: https://www.redhat.com/en/technologies/management/ansible

Assessment
Scope of Work
Funded POCs
Workshops