Unlock IT agility: Automate Cisco infrastructure with Red Hat

Take advantage of industry leadership

As industry leaders and experts, Red Hat and Cisco bring innovative, tested, and integrated joint solutions to market, saving your organization time and money.

We work together to incorporate the latest technologies, certify and validate integrations, update solutions and reference architectures, and train support engineers to guide your teams as they adopt evolving technologies and approaches.

Accelerate business outcomes while managing complex IT environments

Organizations today are responding to rapid change by modernizing their IT environments and processes. As they look for smarter ways to operate, businesses are adopting new innovations such as cloud-native technologies, AI, and containerized workloads. As a result, this often means that IT operations teams are managing increasingly complex IT environments built on multiple platforms and complex technology stacks. At the same time, IT teams also need to control—and often reduce—costs while improving the resilience of essential network and IT services.

Automation can help your organization gain control over IT complexity, especially as you adopt and integrate AI, containers, virtualization, and other technologies. Red Hat® Ansible® Automation Platform offers a foundation for building and operating automation at scale and allows you to create and orchestrate complete IT workflows that support your business goals. It can orchestrate all aspects of your IT environment, including servers, virtualization, networks, applications, security, developer operations (DevOps), and AI operations (AIOps), and can automate Day 0, Day 1, and Day 2 operations to help accelerate your IT modernization efforts. Ansible Automation Platform also offers certified, supported automation content to ease adoption, extend platform capabilities, and expand automation across domains.

Through a longstanding collaborative partnership with Cisco, Red Hat is able to offer Red Hat Ansible Certified Content Collections for a wide range of Cisco devices, platforms, and technologies, such as Cisco Intersight, Cisco Meraki, Cisco Catalyst Center, Cisco Nexus Dashboard, Cisco Application Centric Infrastructure (ACI), Cisco Identity Services Engine, and more. This lets you automate Cisco networks, infrastructure, and workflows—including deployment of AI, and migration and modernization of virtual machines (VMs)—efficiently, effectively, and with confidence. Additionally, there is a Splunk Observability platform add-on that supports event-driven automated response.

Streamline network management with Red Hat and Cisco

Applying IT automation to your network and across your enterprise with the comprehensive, scalable capabilities of Ansible Automation Platform can help you improve the efficiency, consistency, and accuracy of your network operations (NetOps), including provisioning, configuring, hardening, troubleshooting, and integrating your network infrastructure and application services.

The value of Ansible Automation Platform

Ranked as the leading infrastructure automation platform in The Forrester Wave™: Infrastructure Automation Platforms, Q4 2024,[1] Ansible Automation Platform delivers proven benefits.

According to IDC,[2] these benefits include:

- 668% 3-year return on investment (ROI).

- 8 months to payback.

- 61% less unplanned downtime.

- 38% increase in network management team efficiencies.

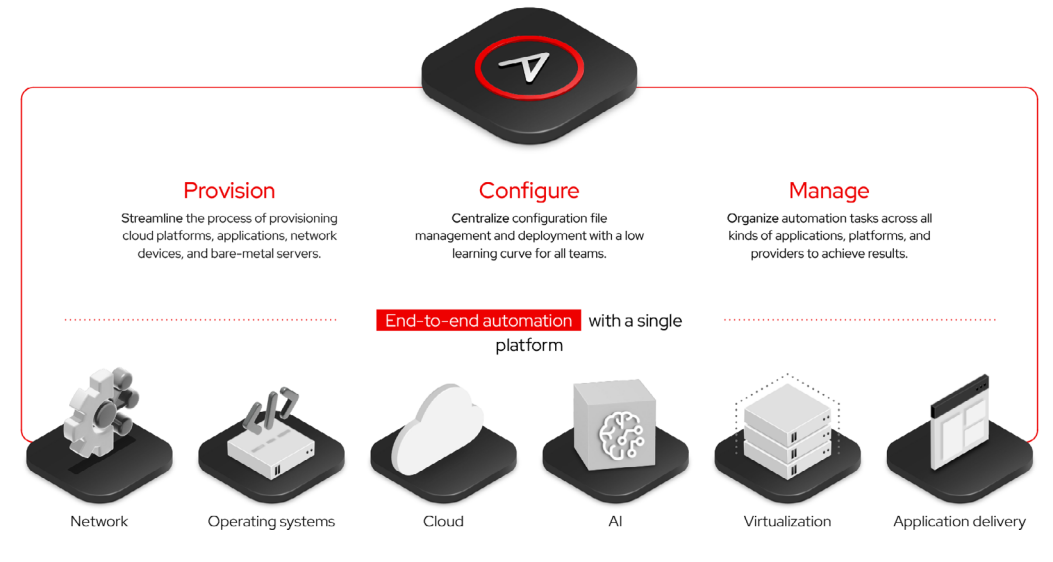- 68% faster to deploy new compute resources.

Figure 1. Ansible Automation Platform automates the entire enterprise across domains.

Ansible Automation Platform lets you connect all parts of your IT environment to create complete, cross-domain workflows. It helps you manage your Cisco network infrastructure throughout the entire production lifecycle by allowing you to:

- Automate configuration of your Cisco network stack.

- Document, track, and manage Cisco network operational states and check compliance.

- Automate incident response using integration with Splunk, a key observability plug-in for Event-Driven Ansible, to lower time to repair and recovery.

Ansible Automation Platform makes tasks repeatable and scalable so you can run your entire Cisco network more efficiently. The platform's flexible framework embraces incremental change, allowing you to start small and expand over time. For example, you can:

- Use Cisco Validated Designs (CVDs) to ease implementation, reduce deployment time, and improve total cost of ownership (TCO).

- Reduce the number of manual tasks to provide error-free, repeatable configurations.

- Validate changes on a continuous basis to ensure compliance.

Red Hat and Cisco also offer integration between Ansible Automation Platform and Cisco Software-Defined Network (SDN) controllers such as Cisco ACI and Cisco Meraki, which supports network automation at large scale or at the far edge of your network. A number of other key integrations are also available to help you automate your complete IT environment.

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1   Forrester Consulting. "The Forrester Wave™: Infrastructure Automation Platforms, Q4 2024." 25 Nov. 2024.

2   IDC White Paper, sponsored by Red Hat. "The Business Value of Red Hat Ansible Automation Platform." Document #US51839824, March 2024.

Product area	Certified integrations
Cisco Enterprise Networking	cisco.meraki cisco.ios cisco.dnac
Cisco Datacenter Networking	cisco.aci cisco.dcnm cisco.nd cisco.nxos
Cisco Compute	cisco.intersight
Observability	Splunk

Ansible Certified Content Collections for Cisco
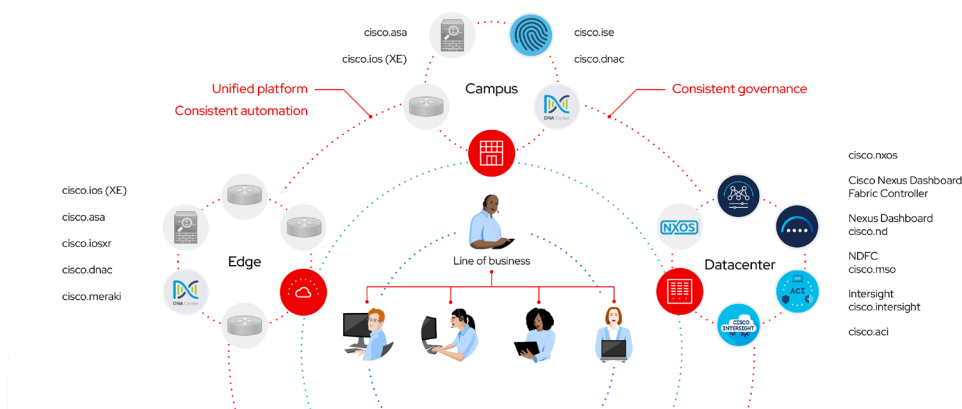### Included in your Ansible Automation Platform subscription

Figure 2. Ansible Automation Platform allows you to orchestrate a variety of Cisco devices and platforms.

Streamline and scale AI adoption and innovation

Ansible Automation Platform provides a solid foundation for AI implementation—including streamlined deployment and scaling of AI on Cisco Unified Computing System (UCS) servers, Cisco AI PODs, and other Cisco infrastructure—and allows you to:

▸ **Standardize AI infrastructure operations.** Reduce the complexity of AI infrastructure deployment, management, and scaling, provide consistent and repeatable lifecycle management, and accelerate time to value for developers using your AI platform.

▸ **Adopt an AIOps approach.** Proactively identify and address potential issues, resolve common, repetitive tasks with actionable advice from gen AI-powered tools, and use automated remediation to reduce mean time to repair (MTTR).

▸ **Enforce policy compliance.** Apply safeguards—such as policy enforcement, drift remediation, and compliance checks—around your AI solutions to help create improved control and better business outcomes and confirm that your AI solutions are aligned to key internal and external compliance policies.

Red Hat and Cisco have further extended the capabilities of Ansible Automation Platform for deploying AI onto Cisco infrastructure with full Cisco AI tooling and Splunk integration. In addition, a CVD for virtualization is underway, designed to help you mitigate risk by building on validated and tested architecture.

Explore the full list of Ansible collections here.

Accelerate VM migration and modernization at scale

If your organization is considering migrating its VM workloads to a modern virtualization platform, such as Red Hat OpenShift® Virtualization running on Cisco UCS servers or other Cisco infrastructure, Ansible Automation Platform offers a streamlined and scalable approach.

Ansible Automation Platform provides automation capabilities—and integration with Cisco's datacenter networking platforms Cisco Nexus Dashboard and Cisco ACI—that help you streamline and scale your migration journey and Day 2 operations for VMs, such as optimizing VMs, installing applications on VMs, and orchestrating VMs with network, storage, and other related resources.

Red Hat and Cisco also offer a validated foundation for OpenShift Virtualization, with CVDs that provide architecture to help you consolidate VM and container operations on a platform that supports high-performance VMs on bare metal.
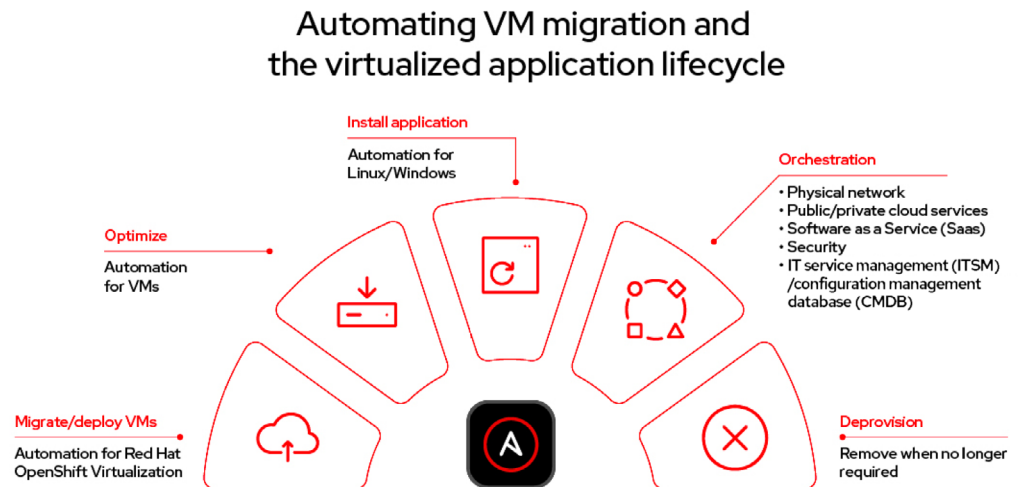
Automating VM migration and the virtualized application lifecycle

Install application
Automation for Linux/Windows

Orchestration
• Physical network
• Public/private cloud services
• Software as a Service (Saas)
• Security
• IT service management (ITSM) /configuration management database (CMDB)

Optimize
Automation for VMs

Migrate/deploy VMs
Automation for Red Hat OpenShift Virtualization

Deprovision
Remove when no longer required

Figure 3. Ansible Automation Platform automates the complete VM migration lifecycle.

Do more with event-driven automation

Included as part of Ansible Automation Platform, Event-Driven Ansible lets you efficiently create advanced automation scenarios for a wide variety of operational needs across your IT infrastructure. It connects sources of operational intelligence (including Event-Driven Ansible plug-ins such as Splunk and ServiceNow) and service requests to its decision-making capabilities to create event-driven automation workflows that automatically respond to changing IT conditions such as observability or monitoring tool alerts. This supports faster MTTR, and overall improved efficiency, consistency, and accuracy of actions.

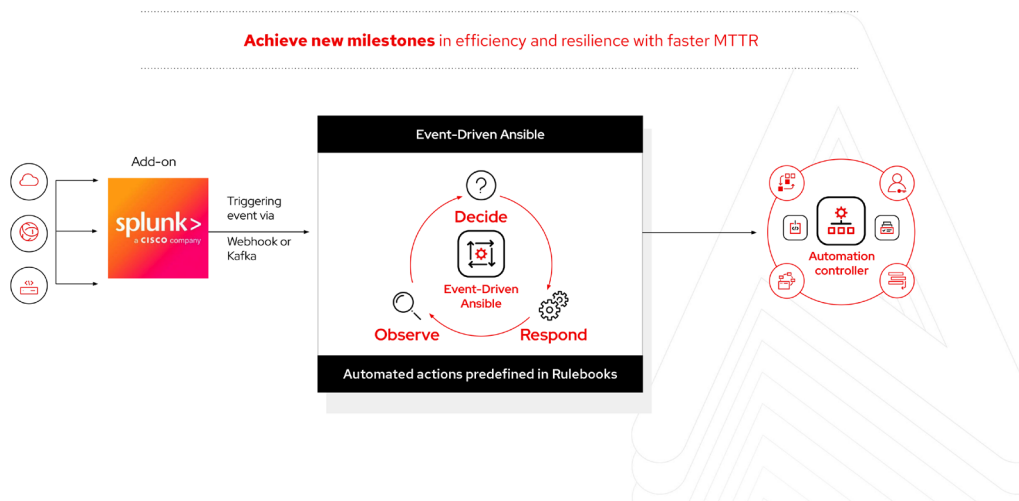Event-Driven Ansible. Observe, decide, respond.

Figure 4. Event-Driven Ansible is integrated with Splunk to create workflows that automatically respond to observability alerts.

Automate intelligently with gen AI-powered guidance

Ansible Automation Platform also offers access to [Red Hat Ansible Lightspeed](#), a gen-AI powered service that can improve your team's automation expertise to help you make better automation decisions and resolve operational issues more quickly. By providing Ansible-specific guidance, the Ansible Lightspeed intelligent assistant can help guide administrators through onboarding and troubleshooting, helping to accelerate learning.

Ansible Lightspeed with IBM watsonx Code Assistant can generate single tasks in less time or entire Ansible Playbooks and Roles based on simple, natural-language prompts.

Look to the future of network automation

IT automation strategies continue to evolve to meet ever-changing business requirements. Ansible Automation Platform gives you the flexibility to automate nearly every aspect of your IT environment, so you can adapt rapidly to change. Red Hat continues to add new capabilities to the platform, including gen-AI powered automation guidance, event-driven automation, private automation content repositories, and new certified content.

Learn how to automate your complete enterprise

[Read this e-book](#) to learn more about creating an organization-wide automation strategy.

Learn more

Enterprise automation is essential for adopting new AI and cloud-native technologies and modernizing your IT. Red Hat and Cisco help you use the automation capabilities and certified content of Ansible Automation Platform to automate your existing Cisco infrastructure, allowing you to adapt as your environment and needs evolve.

Read about network automation use cases or get started with interactive labs for Ansible Automation Platform to learn more about how automation can help your organization.

Explore the details of Red Hat and Cisco solutions for AI, virtualization, and edge in the Red Hat Ecosystem Catalog.

Find out what makes our partnership unique on the Cisco Red Hat partner site.

About Red Hat

Red Hat is the open hybrid cloud technology leader, delivering a trusted, consistent and comprehensive foundation for transformative IT innovation and AI applications. Its portfolio of cloud, developer, AI, Linux, automation and application platform technologies enables any application, anywhere—from the datacenter to the edge. As the world's leading provider of enterprise open source software solutions, Red Hat invests in open ecosystems and communities to solve tomorrow's IT challenges. Collaborating with partners and customers, Red Hat helps them build, connect, automate, secure and manage their IT environments, supported by consulting services and award-winning training and certification offerings.

About Cisco

Cisco (NASDAQ: CSCO) is revolutionizing how infrastructure and data connect and protect organizations in the AI era. We help organizations transform data centers to power AI, create future-proofed workplaces, and ensure digital resilience. Only Cisco combines the power of the network with security, observability, and collaboration to help organizations thrive.

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