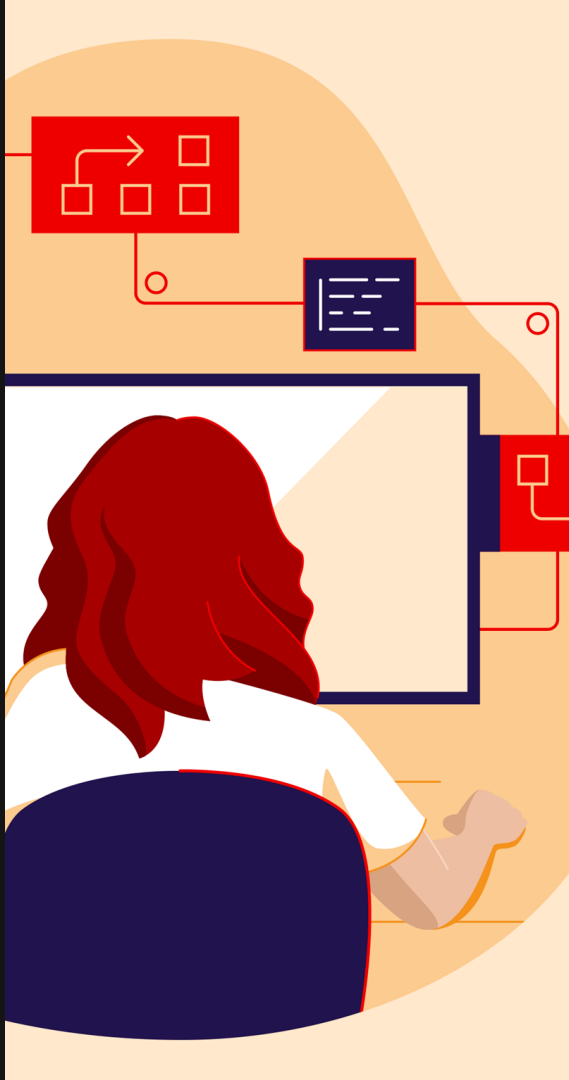
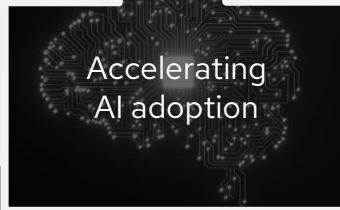




Network Automation

Technology leaders face a range of challenges

...and they are turning to automation to help tackle them



VentureBeat

Report: 85% of SREs say that automation is 'imperative' for innovation

Gartner

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Automation Is Key to I&O Delivering Greater Value, Efficiency and Agility

By 2026, 30% of I&Os will increase from un

IDC

MENU

"Infrastructure a analytics and aug improve operatio increasingly large



IDC: 80% of CIOs to Embrace AI and Automation for Agility and Insights-Driven Businesses by 2028

CIO Predictions in Asia/Pacific* for 2024 and Beyond Revealed by IDC

SINGAPORE, 29 February 2024 – In a recent FutureScape report, [IDC FutureScape: Worldwide CIO Agenda 2024 Predictions — Asia/Pacific \(Excluding Japan\) Implications](#), By 2028, 80% of CIOs will leverage organizational changes to harness AI, automation, and analytics, driving agile, insight-driven digital businesses. This prediction highlights the role of CIOs as key players in shaping the future of their companies, guiding them through new tech trends while putting data at the heart of their business strategies.

In IDC's 2023 Asia/Pacific CEO Sentiments Survey, the top 3 concerns among C-suite executives were in digital skills, the lack of I&O trust in IT, and the lack of digital business know-how of C-suite executives. Given this backdrop, the main



Address your challenges with automated networks

Automate more for better ROI, smooth operations and more innovation

Reduce operational costs

Prevent network downtime, failure and performance issues causing negative impact on operations and service delivery.

Tame complexity

Integrate disparate, multivendor and multidomain network devices & technologies across heterogeneous infrastructure.

Unlock AIOps

Leverage AI to optimize your network environment with intelligent troubleshooting, automatically responding to changing network conditions.

Improve risk posture

Deploy new network solutions aligned to sources of truth configurations while orchestrating broader deployment processes across multi vendor networks.

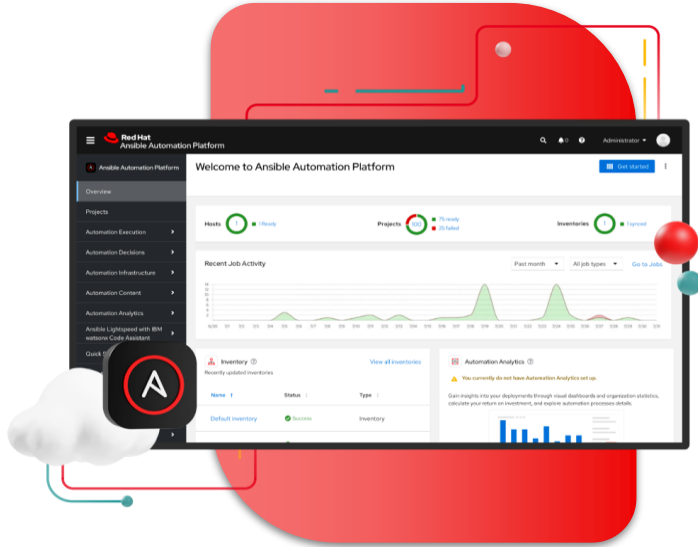
Manage skill gaps

Codify operational knowledge & domain expertise into automation projects so entire team (regardless of skill) can consistently manage day-to-day network operations.



Red Hat Ansible Automation Platform

A unified solution for mission-critical automation across your enterprise



Increase speed and scale

Operate more efficiently, scale operations, and unify tool orchestration across domains for accelerated workflows



Reduce human error

Minimize risks with automated workflows and avoid human operator errors in time-sensitive, stressful situations



Ensure consistency

Enable auditable and verifiable deployment processes by using a single tool and common language



Improve security and compliance

Securely apply automation across your organization and ensure end-to-end code integrity with signed content

All backed by *enterprise support* and *trusted, certified content* from technology partners



Business value

Network Automation

Faster time to Market

67%
Faster

delivery of new
network
resources

Increased Efficiency

38%
Higher

efficiency in
network
management

Faster Deployment

42%
Faster

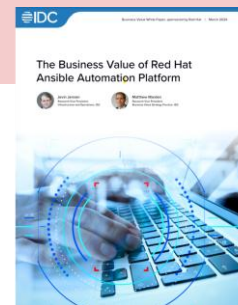
provisioning &
network
deployment

Risk Avoidance

19%
Stronger

network
performance &
optimization

668% 3 year ROI



Red Hat Ansible network ecosystem



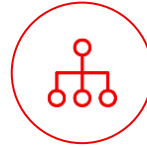
Switches



Routers



Firewalls



Load
balancers



Controllers



Network
management



IPAM



Network automation use cases for Automated NetOps

Streamline multi-vendor network operations, compliance and security management



Network visibility

Generate network inventories and reports. Audit your network to obtain compliance and drift reports.



Configuration management

Standardize and enforce configuration best-practices and hygiene in a platform-agnostic way. Centralize your configuration Source of Truth (SoT).



Network operations

Run network health checks. Deploy OS upgrades at scale. Apply event-driven automation to mitigate outages impact while minimally disrupting other work priorities.



Switch



Load
balancer



IPS



Proxy



Firewall



Router



IoT



Wireless



Probes



SDx



NMS



Benefits of Ansible Automation Platform

Network automation

Customer challenges	Use cases	Business impact of Red Hat Ansible
Tame complexity 	 Network visibility: Generate network inventories and reports.  Configuration management: Standardize and enforce configuration best practices in platform-agnostic way	• Manage all of your existing gear - switches, routers, load balancers, firewalls - with a single, unified platform • Leverage certified and validated content with network vendors - including enterprise support • Automate across datacenter, cloud, and edge with a single platform for SDN and standalone networks  Error rates Time to value
Reduce operational costs 	 Network operations: Run network health checks; Deploy OS upgrades at scale; apply event-driven automation to mitigate outages while minimally disrupting other work priorities	• Patch networks in minutes, not days or weeks • Event-Driven Ansible allows integration with multiple event sources • Unify, communicate & collaborate across network domains (campus, WAN, edge, etc.)  Delivery of new network resources Efficiency in network management Provisioning and deployment
Improve risk posture 	 Network visibility: Audit your network to obtain compliance and drift reports.  Configuration management: Centralize your Source of Truth (SoT); Backup and restore; configuration hygiene	• Rapid and repeatable responses to threats • Reduce human error with control "source of truth" • Retrieve and store device configurations and push trusted configurations • Rely on trusted content that is certified and validated content with strategic network vendors - with enterprise support  Security incidents Outage frequency Recovery time
Address skills gaps 	 Configuration management: Centralize your Source of Truth (SoT); configuration hygiene	• Resource modules simplify automation journey • Codify operational knowledge and domain expertise into automation projects so entire team - regardless of skill - can manage day-to-day network operations • Support & incident ticket enrichment consistency regardless of skill • Red Hat and partners services • Not "all or nothing"; can be adopted in incremental steps  Employee efficiency Time for other priorities Innovation focus time 

Automate across IT from a single solution

Automate and orchestrate connected workflows at scale



Coordinate all of this from a single solution

Updates +
patching

Automated
Reports

Compliance

Access
management

Troubleshooting

Provisioning

Backup and
restore



Trusted
automation
supply chain



Free up time for innovation



Create trusted, compliant automation playbooks once, then share them across teams



Codify subject matter expertise, then scale it across the organization



Utilize integrated generative AI features for more efficient code creation and maintenance



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



Red Hat Services accelerate network automation success



Red Hat Services works with you to achieve your business goals with tailored **Consulting** solutions, access to a dedicated single-point-of-contact **Technical Account Manager** and comprehensive curriculum to develop skills with targeted **Training and Certification** offerings.

Consulting



Jump start with an automation assessment to gauge network automation maturity and build a roadmap for long term success

Build a strong foundation for network engineers and operators to **implement standards-infused automation** across the organization

Trusted guidance for **refactoring or replacing legacy network automation** or for **building new automation**

Enable self-service capabilities for network automation staff by implementing an internal dev platform with templates and secure pipelines

Technical Account Management



Expert guidance and advisory services help reduce network team toil by acting as a single technical point-of-contact with specialized expertise to provide insights into new technologies and optional hands-on incident remediation.

Training & Certification



Build the skills and culture to modernize your engineering and operations processes with access to outcome-driven courses, hands-on labs, and performance based exams.

Engage Red Hat Services today to get your organization started with a **free Discovery Session**

The path to enterprise automation: Next steps

Where to go from here and how to learn more

Discover how AAP can deliver value in your IT environment

Want to learn more but not sure where to start?

Work with your account account team to schedule a more technical deep dive to identify your “ready-to-go” automation use cases.

Test-drive Ansible Automation Platform

See the tangible benefits of AAP.

Try AAP in a proof-of-concept environment to help you make an informed decision before moving forward with product implementation.

Self-paced learning resources

Check out these resources to learn more about how to use AAP & get hands on with your learning.

Interactive demos:
redhat.com/aap-interact

Labs & workshops:
labs.demoredhat.com/



Jumpstart automation
red.ht/top-automation ▶



Customer stories

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"Automation is mission critical at Southwest. Ansible Automation Platform is crucial as we continue our automation journey."

Carlos Tapia
Senior Systems Engineer,
Southwest Airlines



Challenge

Ensure a constantly functioning network that manages thousands of devices across hundreds of airports to keep their daily flights running smoothly

Solution

Adopted Red Hat® Ansible® Automation Platform to support IT networking and to mitigate outages by standardizing configurations.

Results

- > Saved at least 5 months in building and testing NAC configurations
- > Ensured scalability as well as speed of response
- > Managed heterogeneous environment across data centers and airports (edge locations)
- > Multi-vendor automation (Cisco routers, F5 load balancers, Palo Alto firewalls)
- > Safeguarded consistency to reduce errors and potential outages
- > Enabled a greater focus on innovation





“AAP is really our saving grace of being able to scale the bank from an enterprise reach perspective, across our US and Canadian environments and across the world.”

Drew Yates
Global Head, Network
Service Delivery,
TD Bank

TD Bank's automation journey

Challenge

Scaling of network device provisioning for deployment and the ability to *manage* the network afterward is complex. Upgrades must also be secure, efficient, and streamlined. Network tooling options must be flexible in order to adapt to business requirements.

Solution

Adopted Red Hat® Ansible® Automation Platform to simplify and scale automation of network devices from data center to branch locations.

Results

- Broke down barriers across Software Development, Network Engineering, and DevOps
- Changed culture through enablement and empowerment
- Complexity of managing code has drastically decreased
- Maintained access controls across firewall, load balancer, and switching teams for playbook execution, while still fostering cross team collaboration on workflows
- Automated the standardization of over 10,000 network devices against new-state standards – improving software deployment and compliance, as well as configuration management
- Automated upgrade of >8500 Cisco devices over the span of 8 months
- Biggest upgrade was 2300 devices updated in 24 hours





"Red Hat has helped us to develop an 'automation-first' mindset, and as a result, automate many processes that have traditionally been manual and time-consuming."

Neal Meachen
Senior Manager, Networks and
Voice,
ANZ New Zealand

Challenge

To increase productivity and time to market through the adoption of agile practices and automation

Solution

ANZ New Zealand used Red Hat® products and services to create an 'automation-first' mindset and automate many time-consuming manual processes.

Why Red Hat

ANZ worked with Red Hat to develop an 'automation-first' mindset, and as a result, automate many processes that have traditionally been manual and time-consuming. This included working with Red Hat services to learn and implement agile, CI/CD, DevOp methodologies and improve collaboration across many disparate teams.

Results

- Reduced the time required for end-to-end DNS provisioning from six days to five minutes, a **time savings of 99.4%**.
- Increased productivity and time-to-market
- Expanded the use of Red Hat Ansible Automation Platform and their new practices across the wider organization and business units

Products and services

Red Hat Ansible® Automation Platform
Red Hat Consulting



MAPFRE

“Our entire IT team - including developers, infrastructure and operations - sees automation as absolutely mission critical to get to the outcomes agreed upon by our business team.”

Mat Jovanovic
Corporate Cloud Strategy
Director
Mapfre

Challenge Global insurance company Mapfre developed three core business outcomes to achieve: reduce the time it takes to bring new features to market; reduce cost while improving sustainability; and improve resilience and security.

Solution

Adopted Red Hat® Ansible® Automation Platform for cloud automation and configuration of network devices and servers.

Results

- 55% reduction in lead times
- 85% cut in error rates
- 4,700 developer hours saved
- Improved developer experience, which increased productivity
- Success in network automation by connecting the developer with the network engineer

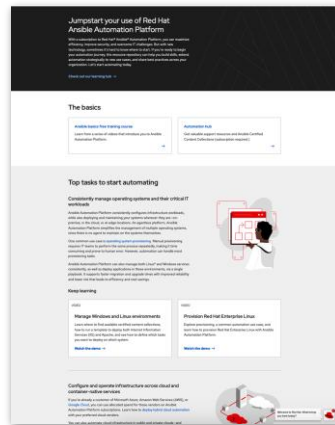
Resources

Are you considering Ansible Automation Platform?

- ▶ [Self-paced, on-demand labs](#) (including a series for network automation)
- ▶ [Try Ansible Automation Platform](#) for free, or subscribing customers can use access.redhat.com product download
- ▶ [Network Automation Guide](#): good resource of considerations for network automation (just updated in 2025!)

Further learning

- ▶ [Ansible Basics: Automation Technical Overview \(DO007\)](#) (No charge training)
- ▶ [What's new in Red Hat Ansible Automation Platform 2.6](#)
- ▶ Additional on demand webinars
 - [Network Automation 101 webinar](#) (on demand)
 - [Network Automation: 6 part webinar series](#)
- ▶ [Network automation blogs](#)
- ▶ [Video demos: Network automation for specific vendor solutions](#) (Browse throughout playlist)



Jumpstart automation
red.ht/top-automation ▶



Stay informed:
the latest developments

[Network automation](#)
[Ansible Automation Platform](#)
[Ansible.com/event-driven](#)





Thank you

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