Simplify IT infrastructure with automation

A Red Hat customer success series

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Intro-duction

IT infrastructure automation

The power of open source is in its community of contributors. With an open approach everyone learns from each other to inform their own decisions and accelerate innovation.

In the spirit of open, this e-book is a compilation of success stories from Red Hat customers who use infrastructure automation to create repeatable instructions and processes that replace or reduce human interaction with IT systems. The result can save time and money and reduce errors. However, the challenge for many organizations starting to automate their IT infrastructure is they're doing so piecemeal.
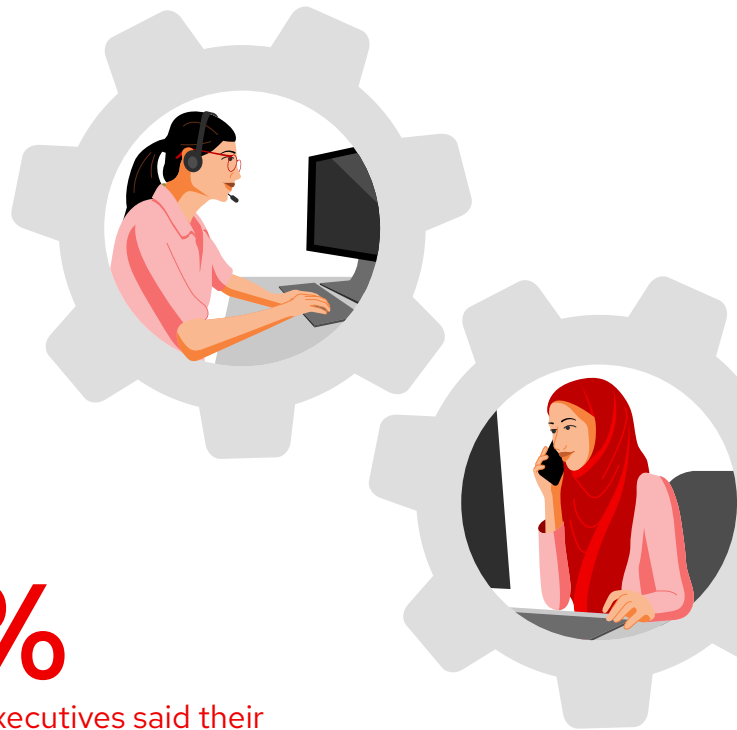
73%

of surveyed executives said their organization has an automation initiative underway, but they're approaching it with point solutions rather than a holistic view.[1]

1   Horton, Richard, Justin Watson, et al. "Automation with intelligence: Pursuing organization-wide reimagination," Deloitte Insights, 25 Nov. 2020.

Each team chooses automation tools and processes for their individual task or use case, but stays disconnected from other automation efforts across the organization, limiting the potential benefits automation can provide. This approach leads to increased costs and duplicate efforts, may require expertise on multiple platforms, and can build barriers between functions and departments.

A unified approach to infrastructure automation

Finding the right automation approach has quickly become a key priority for many organizations. In fact, a recent survey by Harvard Business Review found 80% of survey respondents say adopting IT automation is "extremely important" to the future success of their organization.[2]

To get the full benefit from automation, a holistic approach is essential and can help you:

Speed operations and development.

Improve agility and responsiveness.

Boost productivity and efficiency.

Increase reliability and availability.

Improve security and compliance.

The right IT automation solution can unify teams and processes across your organization, ultimately transforming the way IT is delivered. Choosing the right automation platform can help create an automation-first approach for your organization.

Red Hat® Ansible® Automation Platform supports extensive possibilities and is designed with hybrid cloud infrastructure in mind. It's a flexible, scalable, and multifaceted automation solution that works across your enterprise, wherever your organization might be in its automation journey. Ansible Automation Platform can also be used across IT teams, from systems and network administrators to developers and managers.

Red Hat Consulting helps organizations get started with a mentor-based, open practices approach, which empowers teams to collaborate and innovate on complex use cases. Whether your organization is interested in automating manual tasks or applying standardization and governance to automation deployments, Red Hat's consultants will provide a framework to deliver greater business impact.

The following success stories demonstrate possibilities of a holistic approach to infrastructure automation and how a unified automation platform such as Ansible Automation Platform provides the necessary foundation on which to build.

1

Sapphire Health maximizes the benefits of automation in healthcare

When a healthcare organization is in the midst of a complex transition, Sapphire Healthcare helps to solve the challenges of migrating, implementing, and managing services.

Taking a new approach to Epic deployments, Sapphire began by establishing an infrastructure for six area hospitals, and based on their extensive experience, has now formed a boutique consultancy for Epic customers.

Focusing on infrastructure delivery and modernization, Sapphire has completed more than 25 migrations to Red Hat Enterprise Linux®, for customers across North America. Sapphire has also implemented Red Hat Ansible Automation Platform across their Epic environments, initially focusing on the acceleration of server builds and related maintenance. As a result, they've helped customers significantly improve operations and lower costs.

> **We only do a few things, but we do them very well. That's the benefit of maximizing automation in what we do.**
>
> Austin Park, CEO, Sapphire Health

The benefits of bringing automation to Epic customers are many and have helped healthcare organizations to:

▸ Reduce server build times ten-fold, allowing teams to focus on innovation.

▸ Eliminate manual errors and potential security concerns.

▸ Provide complete and accurate documentation without manual intervention.

▸ Increase capacity of server administration by a factor of 10+.

## Automation beyond the server with Ansible Playbooks

The Sapphire team also crafted an Ansible Playbook process to watch for changes and could reconfigure the print server as needed—saving on resources and reducing the turnaround time to several hours. "Playbooks allow us to script build steps so we can repeat identical build and provisioning processes," said Park.
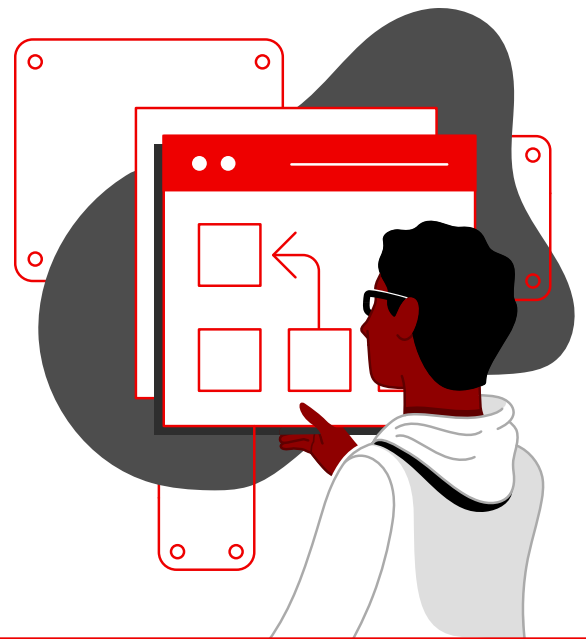
The future of automation in healthcare

Sapphire is expanding its automation footprint to include network automation, compliance management, audit management, and more. "We're currently looking at using Ansible Automation Platform to rapidly deploy our disaster recovery environments in Azure. This would mean we wouldn't have to maintain the resources for our disaster recovery environment on-premise," said Park.

Sapphire is continuing to explore the many opportunities Red Hat offers, for example, how to use Ansible Automation Platform to interact with REST application programming interface (API) to integrate with third-party products, eliminating the need to write additional code. "Ansible Automation Platform is allowing us to support new technologies and work with any hardware," said Park.
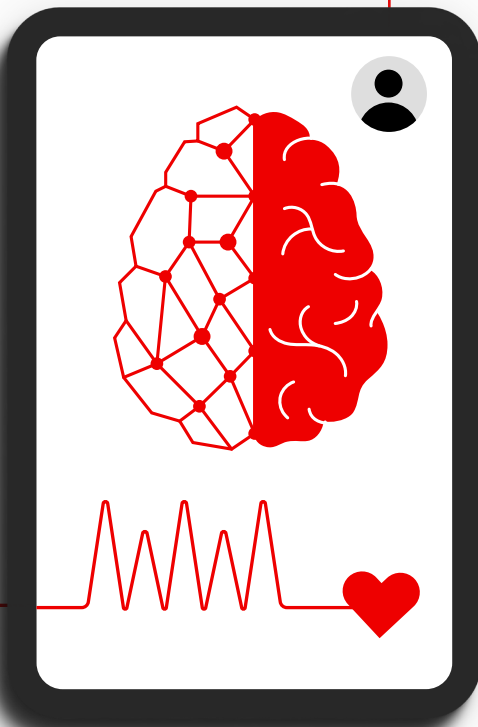
Download
Sapphire Health's success story

AIA Group automates IT provisioning with Ansible Automation Platform

As the largest independent, publicly listed pan-Asian life insurance group it's not surprising that AIA Group's on-premise IT infrastructure provisioning for new service environments required up to six months of lead time and ample manual work. To remain competitive, AIA knew this delay needed to be shortened or removed.

To speed development and delivery, AIA decided to initiate a cloud-first IT strategy, with a goal of migrating 90% of workloads to the cloud within three years–that's no small feat.

After reducing provisioning time to 40 days with its new cloud-first approach, AIA next started evaluating how to modernize the manual steps involved with automation.

> *We saw cloud as not just nice to have, but essential to scale our business in the face of new demands, such as the COVID-19 pandemic,*
>
> Marcel Malan, head of Group IT Operations, AIA.

90%
of workloads migrated to the cloud within three years

Making automation accessible to all with Red Hat Ansible Automation Platform

AIA worked closely with Red Hat Consulting over seven months to implement the automation platform, including setting up integration with its ServiceNow request tool and building several self-service catalogs. With 5,100 managed nodes, AIA's deployment is now the largest Ansible Automation Platform site in Hong Kong.

Innovating faster with self-service provisioning

Using Ansible Automation Platform to automate the manual, spreadsheet-based provisioning process, AIA's international business group can create new environments in its Microsoft Azure cloud to develop, test, and deliver services to market faster. The entire provisioning process now takes just one hour, compared to more than three months with the previous approach. As a result, AIA's teams can focus on higher-value, more strategic tasks.

> **"**
>
> *We now have an on-demand model with Red Hat and ServiceNow, where people no longer need to worry about the underlying infrastructure and can instead begin work on new, innovative projects without delay.*

Vikas Bhandari, Director, Group Engineering and Delivery, Cloud & Infrastructure, AIA
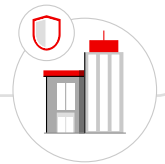
Improved development security and compliance

Instead of allowing various teams to use shadow IT solutions without appropriate visibility, standardizing on a single, easy-to-manage automation technology has helped AIA improve the security and compliance of its development infrastructure and environments. Ansible Automation Platform helps AIA align with corporate governance and compliance measures to reduce risk from human error and other threats.

Download
AIA Group's success story

A major migration of IT infrastructure to the cloud

AIA is already making significant progress toward its goal to ultimately migrate all of its legacy on-premise infrastructure to its new cloud environment. In just 18 months, the company has expanded its cloud footprint from fewer than 800 workloads to more than 4,000 workloads, deployed across three public clouds.

Blue Cross and Blue Shield NC builds platform for self-healing processes

Blue Cross and Blue Shield of North Carolina (Blue Cross NC) is working to make healthcare better, simpler, and more affordable.

In 2020, Blue Cross and Blue Shield NC embarked on a process of integration, with a goal of taking advantage of data in its ServiceNow configuration management database (CMDB) and augmenting it with data of its own. Their team decided to transfer its primary platform, so ServiceNow administrative tools were retained, but automation and integration tasks were handled by Ansible Automation Platform and supported by Red Hat Technical Account Management. This decision helped their organization to:

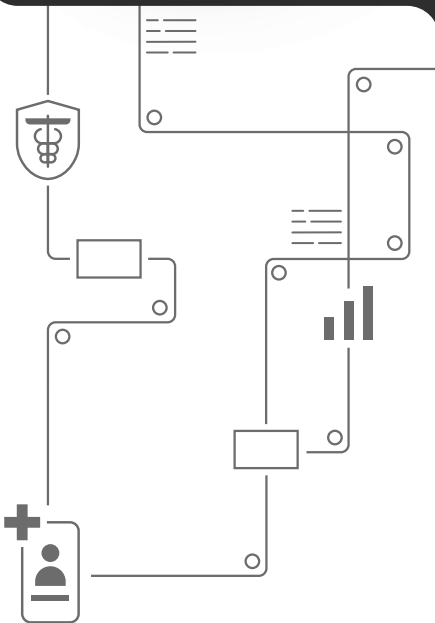**Reduce dependency on niche external support.**

**Support the development of a self-healing process.**

Allow IT teams to focus on higher priority tasks.

More effective IT operations with automation

As Blue Cross and Blue Shield NC's environment grew, its team realized it would need a full-time ServiceNow developer experienced in Python, Javascript, and API calls. Lack of consistency and compatibility also caused issues, as did frequent software updates.

Blue Cross and Blue Shield NC based its solution on Red Hat Ansible Certified Content Collection for ServiceNow IT Service Management (ITSM), supported by Red Hat Technical Account Management, to speed up the development of automation workflows. The process involved using Tower to take advantage of existing ServiceNow APIs that would allow Blue Cross and Blue Shield NC to use ServiceNow as an administrative tool, allow the use of existing workflows and approvals, while keeping automation and integration work on Ansible Automation Platform.
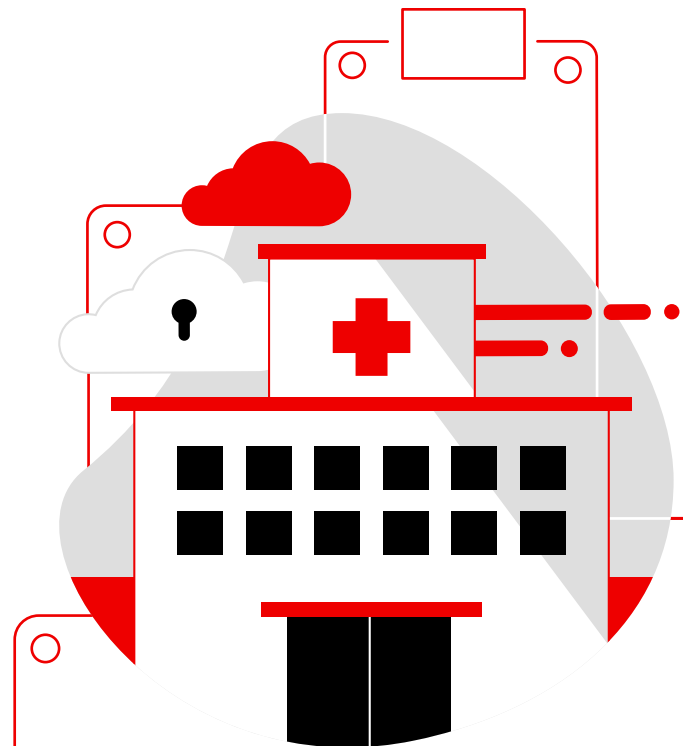
We took our expertise and kept that in Ansible Automation Platform, so we only needed to call ServiceNow to meet specific requirements of our change process.

Adam Tate, Senior Infrastructure Design Engineer, Blue Cross NC

Extending automation to the future

Ansible Automation Platform has given Blue Cross and Blue Shield NC scope to extend its benefits into new areas, which includes moving into Amazon Web Services and significantly expanding into AIX. "Our task now is to find out how we can move forward with whatever green pasture we can get to with those deployments," said Tate.

Download the Blue Cross and Blue Shield NC success story
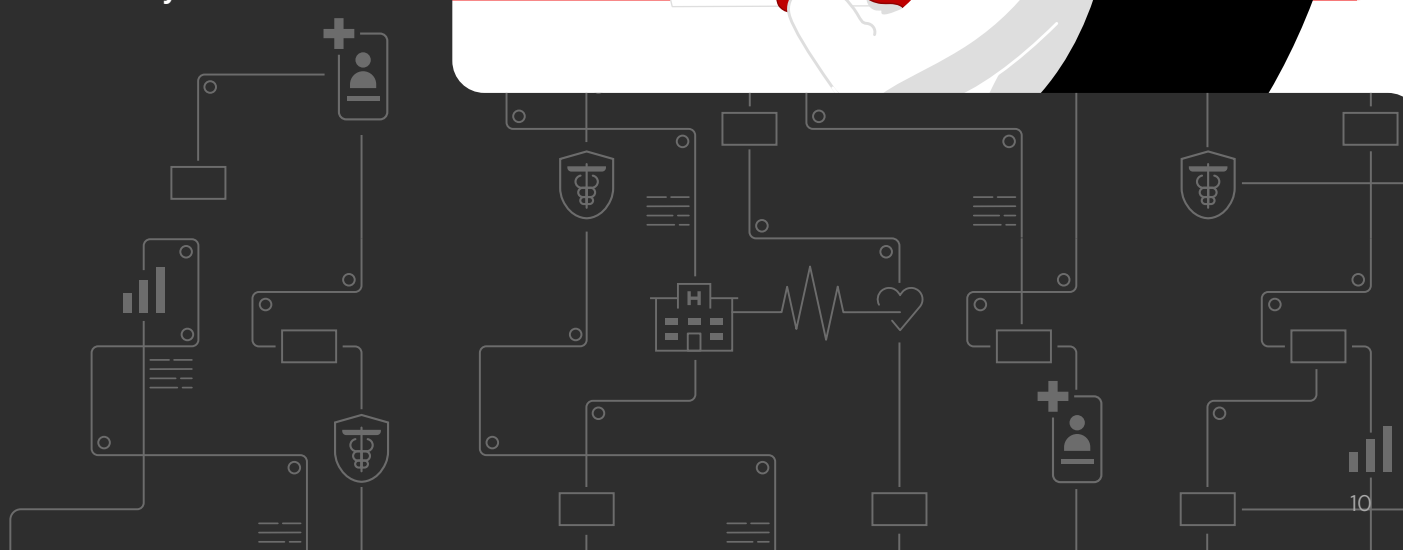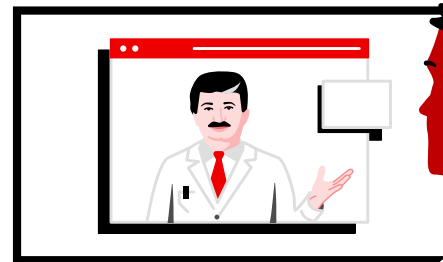
Asian Development Bank uses Red Hat Ansible Automation Platform to boost infrastructure management

Based in the Philippines, Asian Development Bank (ADB) sought to modernize and automate its IT infrastructure to continue to support their customers with timely services even in the face of natural disasters, climate change, and pandemics.

Effective disaster recovery is key to ADB's operations, as volcanic eruptions, earthquakes, floods, and political unrest are common in the Philippines. To maintain reliable social and economic development support, ADB sought to shift from paper-based, manual tasks to digital, automated processes, backed by cloud-native resiliency.
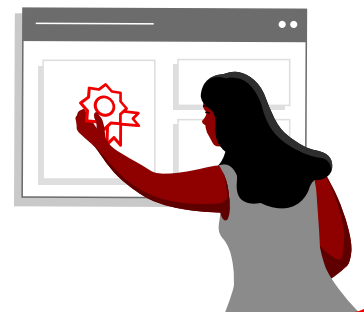
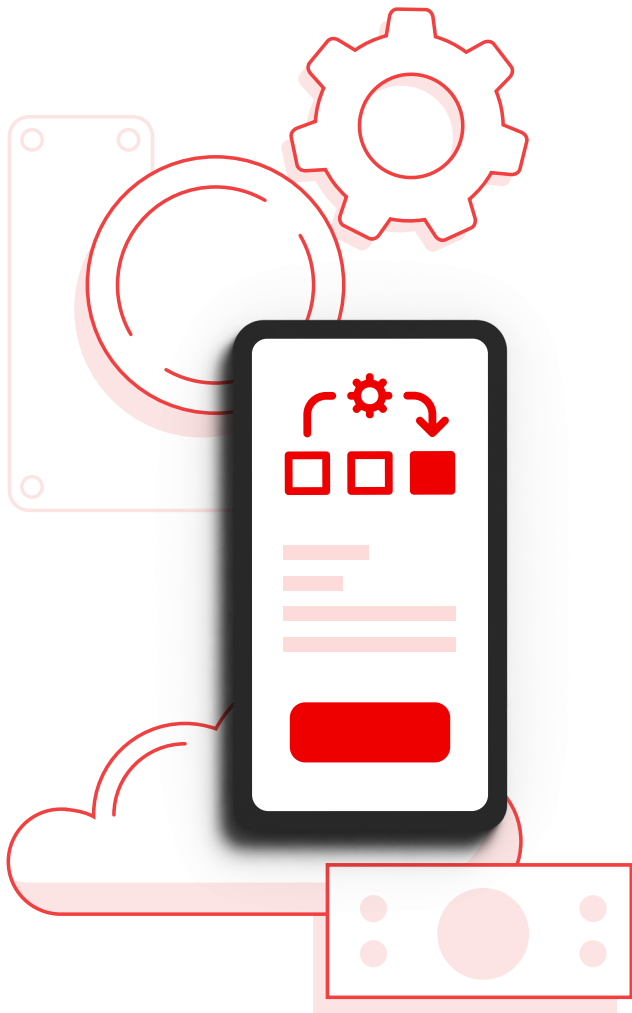## Modernizing with Ansible Automation Platform

ADB chose Ansible Automation Platform, running in a managed cloud environment, as the new infrastructure supporting its IT and business operations. Reusable, human-readable Ansible Playbooks, templated jobs, and workflows helped ADB automate routine manual tasks into efficient, centralized execution environments.
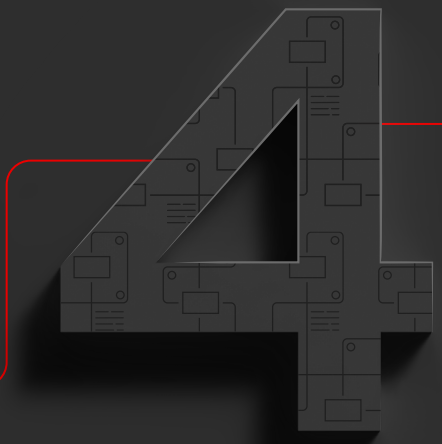
> *We chose Ansible Automation Platform because Red Hat is the top vendor in the enterprise automation platform market. As a bank, unsupported community technology is too high of a risk to deploy in our business environment. Red Hat offers comprehensive expert support.*
>
> Pierre Passin, Deputy Director-General, Asian Development Bank

Reducing IT infrastructure complexity using automation

ADB has significantly reduced the time needed to complete provisioning, patching, and other infrastructure management tasks with Ansible Automation Platform. Previously, database cloning required three teams to coordinate for 6-8 hours each Saturday—the database team, the UNIX team, and the storage team. Now, that same process takes just three hours and can be completed automatically, without requiring manual weekend work, saving the organization 100 work days each year.

The organization also saves around 20 work days per month with automated patching processes and around two hours per incident with automated data recovery.

> *We've freed up their time to focus on more valuable, innovative projects, like building new services, and helped them work more independently.*
>
> Pierre Passin

A key part of these improvements is not only eliminating manual processes but also taking advantage of integration with existing tools through Ansible Content Collections. These certified or supported packages include modules, plug-ins, roles, and other components to connect technology from across ADB's IT infrastructure with Ansible.

## Infrastructure-as-code approach to security and reliability

The bank has taken advantage of the flexible integration capabilities of its Red Hat technologies to adopt an Infrastructure-as-Code (IaC) approach based on Terraform as part of its shift to automated, central processes. As a result, ADB has not only improved infrastructure management but also security. Comprehensive visibility and monitoring, combined with automated patching and remediation, help the organization rapidly address Common Vulnerabilities and Exposures (CVEs).

These capabilities also support greater system stability, with the ability to complete recovery and failover in the event of natural disasters or other emergencies two hours faster than before. Operations can be shifted to a backup datacenter in a single, remote step.

Automation strategy meets expert guidance

ADB worked closely with Red Hat Consulting during several Services Discovery Sessions to identify and prioritize use cases for its new automation technology, then plan an optimal architecture and complete provisioning.

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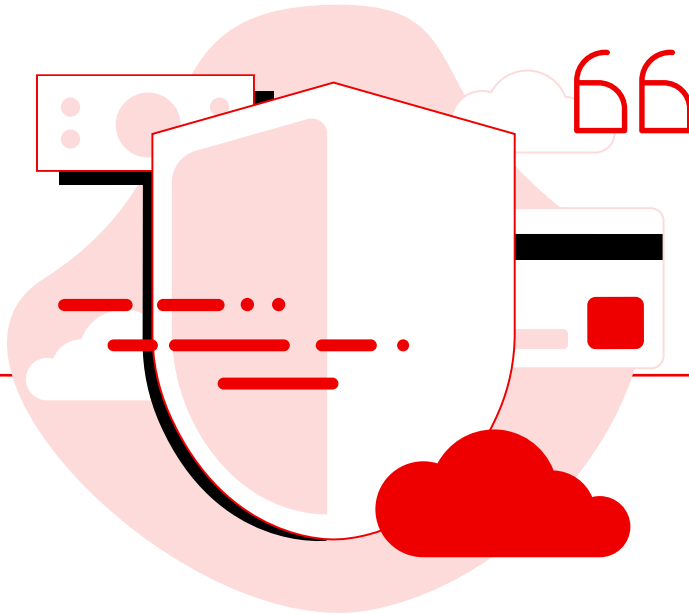
Red Hat's expert consultants helped us ensure our Ansible Automation Platform deployments meet industry security standards as well as our performance and availability requirements.

Krista Lozada, Senior IT Specialist for Innovation and Engineering, Asian Development Bank

"

Applying automation to new teams and business needs

After ADB's initial success with Red Hat technology, more teams across the organization are planning to adopt a central, automated approach to key processes. "Ansible Automation Platform helps us complete work faster, safer, and with more resiliency," said Passin. "Red Hat is helping to make the Asian Development Bank more modern and adaptable."

Download
Asian Development Bank's success story

Vodafone Idea automates to improve IT infrastructure

As India's leading telecommunications operator providing connectivity to nearly 270 million mobile customers, Vodafone Idea sought to optimize its IT infrastructure. With such a vast customer base, their teams' manual daily operations resulted in low operational efficiency and was prone to error. Disconnects between automation tools caused security and compliance risks, inefficient use of resources, and financial penalties caused by frequent breaches in service-level agreements (SLAs).

> *Adopting Ansible Automation Platform has helped in reducing cost and improving operational efficiency with increased user productivity and faster go to market.*

Jagbir Singh, Chief Technology Officer, Vodafone Idea Limited

Download
Vodafone Idea's success story

Standardizing management using automation

With standardization and automation, Vodafone Idea improved the service management platform that offers business units IT visibility and control regardless of location or operating system. Their organizations chose Ansible Automation Platform because of its open source qualities and applicability. As a result, Vodafone Idea consolidated and integrated its automation tools into a unified platform, dashboard, auditing, and reporting system. This solution is now being replicated with accounts across the globe.

Accelerating workloads saves time and lowers costs

After implementing a standardized management solution, Vodafone Idea's teams can now solve automation use cases in minutes instead of hours. Approximately 75% of alerts are now automatically self-healed and resolved, and the automated provisioning of Infrastructure-as-a-Service and Platform-as-a-Service is 99% faster.

Standardization saved 30% of costs year over year, and automation reduced security and compliance risks, shortened the SLA commitment, and saved more than 1,000 working hours for employees.

Tomago Aluminium improves SAP performance with Red Hat and IBM

Operating continuously since 1983, Tomago Aluminium is Australia's largest aluminum smelter. To maintain 24x7 operations, Tomago Aluminium's IT systems must be reliable and highly available. Its IT team works to refine processes and improve data access to help the company respond faster to issues affecting production. Tomago Aluminium uses SAP HANA to support its enterprise resource planning (ERP) and business warehouse systems, including a variety of processes from project management and peer-to-peer (P2P) networking to health and safety and human resources.

Previously, the company ran its SAP HANA workloads in a managed public cloud environment, but this solution lacked visibility into performance or effective notification when systems approached capacity. Tomago Aluminium decided to find a new partner for its hybrid cloud infrastructure to improve agility and complexity while maintaining availability.

Reducing complexity with a hybrid cloud solution from Red Hat and IBM

Based at a single site with no expansion plans, Tomago Aluminium decided to migrate its SAP HANA architecture from public cloud to a private, on-premise solution based on Red Hat software running on IBM server and storage hardware.

The company consolidated multiple operating systems onto Red Hat Enterprise Linux for SAP Solutions, a single, consistent foundation for SAP workloads that includes.

Tomago Aluminium adopted Ansible Automation Platform to automate provisioning and operational processes, such as virtual machine (VM) creation for testing. "Building on Red Hat's technology would help us grow our existing in-house skills to fix issues and better support innovation," said Moncrieff.

The benefits of integrated, efficient infrastructure

Transitioning to Red Hat helped Tomago Aluminium maintain critical production availability at greater scale. By standardizing its SAP HANA environment on Red Hat Enterprise Linux for SAP Solutions, running on IBM Power servers, Tomago Aluminium is able to keep its critical business and production processes running 24x7—even at a larger scale.

Red Hat Insights provides greater transparency into performance and efficiency through a single, user-friendly dashboard, helping the company improve operational efficiency while maintaining availability.

Improved development efficiency with automation

By integrating Ansible Automation Platform with IBM PowerVM server virtualization, Tomago Aluminium can use standardized playbooks to speed provisioning and other manual, repeatable processes.
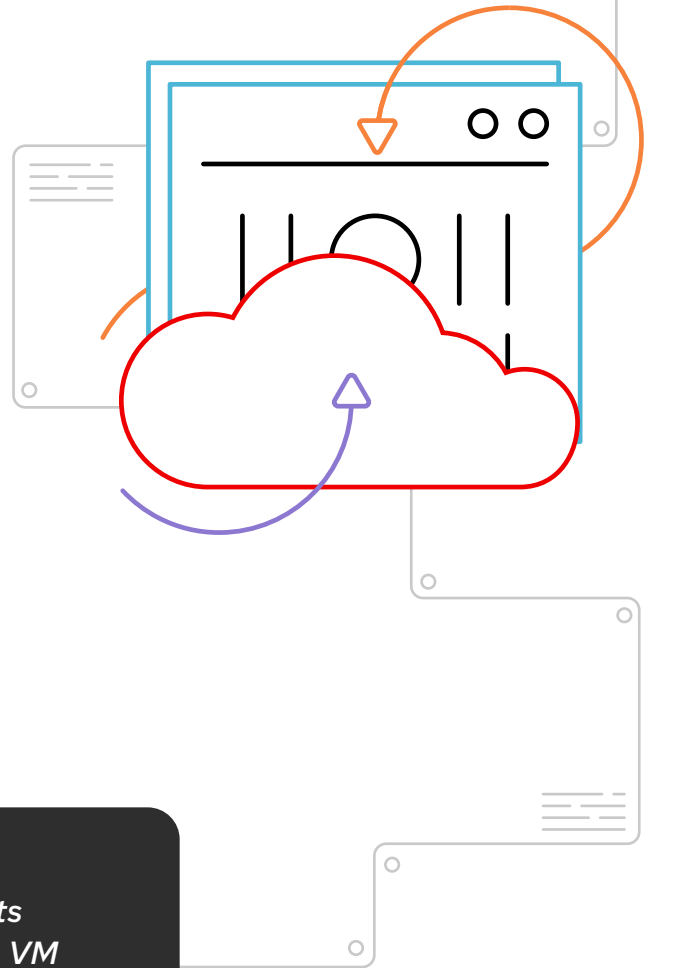
> *Automating processes such as SAP HANA deployments using Ansible Automation Platform helps us automate VM provisioning for testing environments and accelerates development of new, innovative features.*
>
> Dennis Moncrieff, IT Superintendent, Tomago Aluminium

Reduced infrastructure costs

Compared to its previous managed cloud solution, running Red Hat software on IBM POWER hardware has helped Tomago Aluminium improve server density. As a result, the company has consolidated its server footprint from 32 CPUs to just eight, reducing related operational and power costs. "Our goal is to improve effectiveness and efficiency while keeping infrastructure costs down. With Red Hat, we get a better return on our investment," said Moncrieff.

Download
Tomago Aluminium's success story
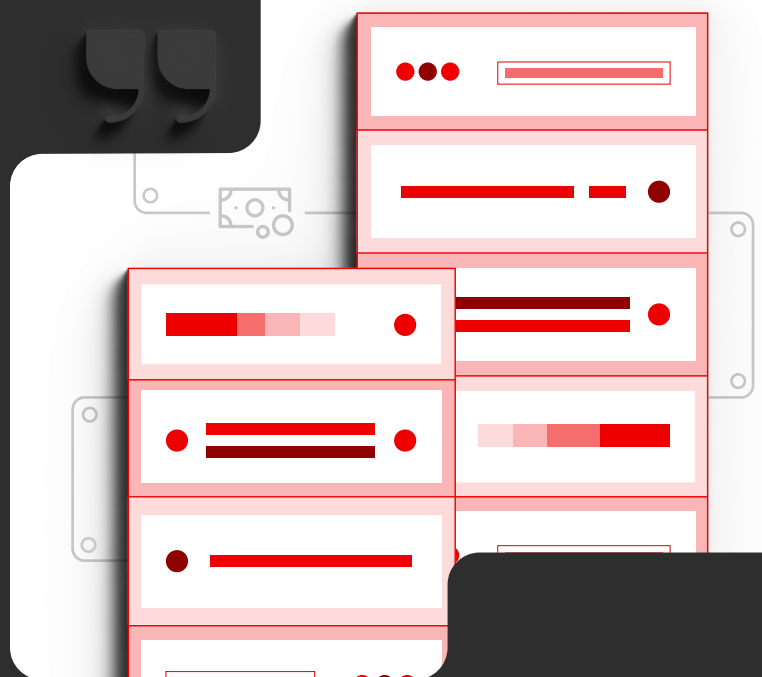
Con-clusion

Automate your IT infrastructure with Red Hat Ansible Automation Platform

This collection of customer success stories aims to illustrate how a unified automation platform can help you achieve better business value. If there is a customer story in this collection that applies to your use case, or is of particular interest, be sure to download the complete case study for more details.

These stories highlight how IT automation can save time, improve employee satisfaction, and reduce

costs. In each success story, customers used Ansible Automation Platform to connect their IT infrastructure, processes, and teams to help deliver more business value.

Ansible Automation Platform is also agentless, which helps to automate components without installing automation software so organizations can create, scale, and deploy automation across the entire IT organization.

Bring automation to your infrastructure with Ansible Automation Platform.

Get started at redhat.com/ansible