THE AUTOMATED ENTERPRISE

TRANSFORMING I.T. OPERATIONS TO SUPPORT MODERN BUSINESS

redhat.

AUTOMATE YOUR ORGANIZATION

Build an automation foundation for digital business operations

DIGITAL BUSINESS = AUTOMATED I.T. OPERATIONS

The importance of automation for digital operations

Change is upon us.

The pace and scale of digital business innovation is increasing. Industries are experiencing widespread disruption. Digitally connected customers demand more, faster. New competition comes from outside of traditional market segments.

IT modernization, digital transformation, and DevOps practices can help your organization optimize resources, speed development, innovate quickly and continuously, operate proactively, and adapt faster to market changes.

However, this places an extra burden on IT operations teams, who are now asked to move faster, manage increasingly complex IT environments, accommodate new development approaches and technologies, and work more closely with business organizations. Shifting from a system administrator role to a service delivery role will help you deliver IT-as-a-Service (ITaaS) and meet the evolving needs of digital business operations.

Automation can help.

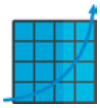
No matter where you are on your IT modernization journey, an enterprise-wide IT operations automation strategy can help you improve existing processes and prepare for digital transformation. With automation, you can:

Accelerate operations

Increase consistency

Enable self-service capabilities

Increase availability



Support your business better

Improve security and compliance

IT operations automation streamlines:

- Orchestration
- Configuration
- Provisioning
- Patching
- Life-cycle operations

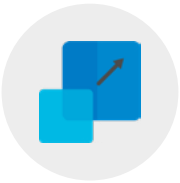
Ultimately, IT operations automation helps your business better serve your customers, so you can be successful in the digital economy.

TODAY'S REALITY FOR I.T. OPERATIONS

Tackling growing infrastructure complexity

Today's IT operations teams manage ever-changing, complex IT architectures built on multiple platforms and complicated technology stacks.

Unconnected management tools



Complicated scaling procedures

Inconsistent policy and process requirements

As organizations adopt digital business practices, IT operations is challenged to deliver scalable, on-demand infrastructure to support developers, lines of business, and C-level initiatives—all while still ensuring security, compliance, and reliability. Faced with this, IT operations teams recognize that they will need to adopt a new ITaaS approach and modern, unified management and automation tools to remain relevant and effectively support business outcomes.

REASSESSING YOUR OPERATIONAL APPROACH

INFRASTRUCTURE CONFIGURATION

Improve overall infrastructure performance and compliance.

- Maintain consistent configurations.
- Detect and maintain appropriate patch levels.
- Scan for security, change control, and compliance requirements.

OPERATIONS AND PROCESS

Increase efficiency and consistency.

- Automate manual tasks like configuration, deployment, integration, and migration.
- Deliver self-service capabilities.
- Minimize human errors.

PERFORMANCE AND AVAILABILITY

Gain understanding into the operations of your workloads.

- Understand dependencies.
- Anticipate capacity requirements.
- Autoscale seamlessly.
- Track and chargeback IT resource use.

OBSTACLES TO TRANSFORMATION

Identifying the reasons you aren't automating effectively

Your IT environment is too complex to manage, but you can't seem to simplify it. Why not?

People issues

Skills gaps and organization charts lead to siloed automation and undefined business and governance rules and policies.

Point tools

Vendor-specific tools and point solutions further contribute to operational silos and complexity.

Pace of innovation

Continuously changing technologies require frequent constant updates and upgrades to stay current.

Siloed scripting limits automation benefits

Many organizations already automate some number of IT operations in limited, disparate areas using inflexible, ad hoc scripts or proprietary, device-specific legacy tools. While these approaches may speed specific functions, they do not scale across diverse resources and can make it difficult to share automation expertise across the organization. Additionally, it is often difficult to update and extend these types of automation as technologies evolve and new requirements emerge.

You need an enterprise-wide approach to realize the full value of automation. An intelligent foundation for automation can connect siloes to automate your entire organization. Unified automation tooling fosters collaboration and transparency to help you work across business units to address accelerating demands and increasing self-service expectations while improving control over security and compliance.

An enterprise-wide approach

Work with business units to define the following for ITaaS:

- Policies
- Services
- Service catalog offerings
- Security and access control
- Service level expectations
- Cost models
- Integration

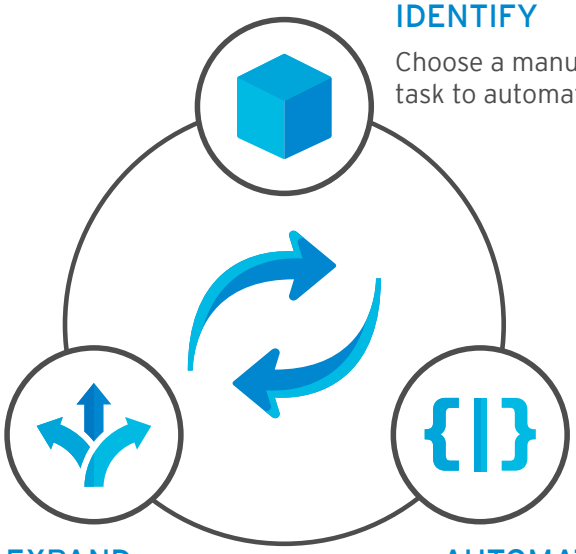
AUTOMATE, RINSE, AND REPEAT

Develop enterprise-wide automation capabilities over time

No matter where you are on your path to digital transformation, you can make an impact with automation.

The key is to build an enterprise-wide approach for business-driven automation to which everyone can contribute. Though this may seem like an insurmountable task, automation is not an all-or-nothing proposition. You can get started at any time and tackle automation incrementally in small, achievable quantities using systematic methods. Each step builds on the previous one to create a widespread automation practice and transform IT operations over time.

Start by automating one task or service—compute, network, storage, or something else. Then share that automation with others and build upon it systematically. Over time, integrated, full-scale automation will not only become a reality, but will give your organization a competitive advantage through higher efficiency, faster DevOps, and rapid innovation.



IDENTIFY

Choose a manual task to automate.

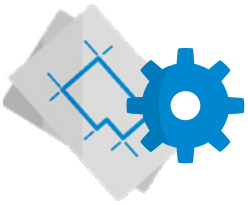
AUTOMATE

Use an automation tool to automate the task.

EXPAND

Systematically share and build upon your automation.

It's easy to get started with automation. Simply choose one thing to automate and build upon it systematically.



Adopt an enterprise-wide, programmatic automation approach to IT operations. Lay your foundation with:

- Automation sandboxes for learning the automation language and process.
- Collaborative dialog across organizations for defining service requirements.
- Self-service catalogs that empower users and speed delivery.
- Metering, monitoring, and chargeback policies and processes.

AUTOMATING WITH RED HAT

Our vision for comprehensive automation

Red Hat believes automation is a strategic and foundational component of IT modernization and digital transformation.

As such, we provide a full set of management solutions that use a common, simple automation language, helping to transform IT operations and create a comprehensive automation approach to support digital business. Based on open source projects and standards, these products deliver more control and choice for your IT infrastructure. Plus, through intensive testing and commercial hardening, you can access the latest innovation with less risk and more confidence.

Red Hat management solutions, powered by Red Hat Ansible Automation, help organizations easily automate their IT infrastructure and accelerate service delivery while providing IT operations teams with control and visibility across a dynamic IT environment. Define and automate both discrete IT tasks as well as overarching policies, business rules, and governance practices. Unify resources and operational siloes into a single, more easily managed, multitenant environment. Gain visibility and control costs with policy-based operations, including load balancing, scaling, chargeback, and self-service.

RED HAT MANAGEMENT AND AUTOMATION SOLUTIONS

RED HAT® ANSIBLE® Automation

Centralize automation governance with a user interface, role-based access controls, job scheduling, and graphical inventory management.

RED HAT® CLOUDFORMS

Deliver services and enforce policies across your hybrid cloud through unified, comprehensive, consistent management.

RED HAT® INSIGHTS

Prevent critical issues before they occur with real-time, in-depth analysis of your Red Hat-based hybrid infrastructure.

RED HAT® SATELLITE

Build a trusted and secure environment through complete, unified life-cycle management of your Red Hat infrastructure.

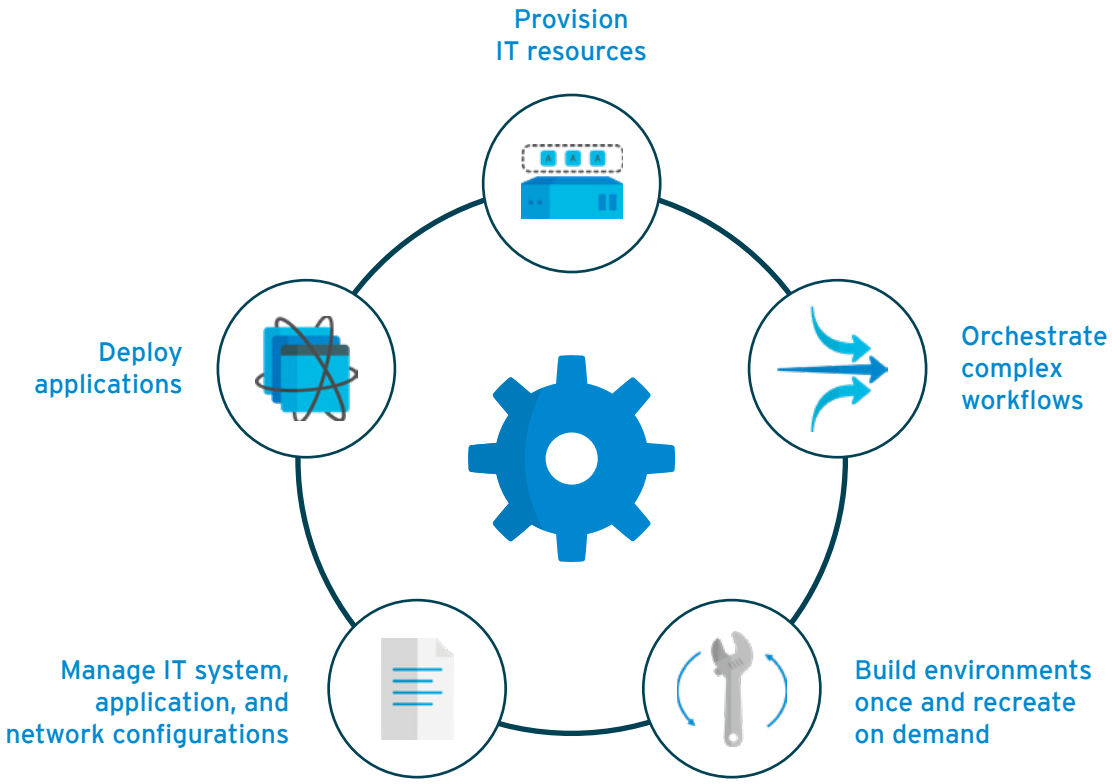
AUTOMATION USE CASES AND CUSTOMER CASE STUDIES

redhat.

AUTOMATE I.T. PROCESSES

Become more efficient and accomplish tasks faster

Automation is the only way to successfully manage a modern IT environment in the long term. Creating an enterprise-wide approach to automation lets you automate not only IT processes, but also entire technologies, teams, and organizations.



VIEW MORE RESOURCES

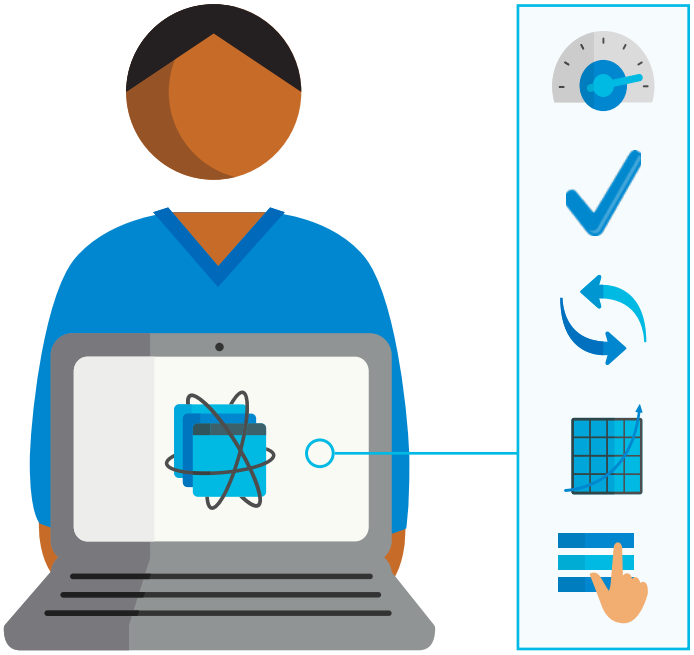
amelco™ TRADING THE FUTURE

nds cloud

ACCELERATE I.T. SERVICES DELIVERY

Deliver controlled self-service capabilities to dev and test teams

Systematically accelerate IT services delivery with an automation foundation that supports rapid iteration and ensures predictability and consistency throughout your IT environment. Provide self-service catalogs that allow development and test teams to provision resources without compromising IT control.



- » **Speed service delivery** to developers and lines of business.
- » Support **faster time to market** for end-user products.
- » **Retain control** over self-provisioned resources.
- » **Enforce configuration** and provisioning policies automatically.
- » Manage operations over the **complete life cycle** of services.
- » **Proactively identify and remediate** issues in your Red Hat-based environment.

VIEW MORE RESOURCES

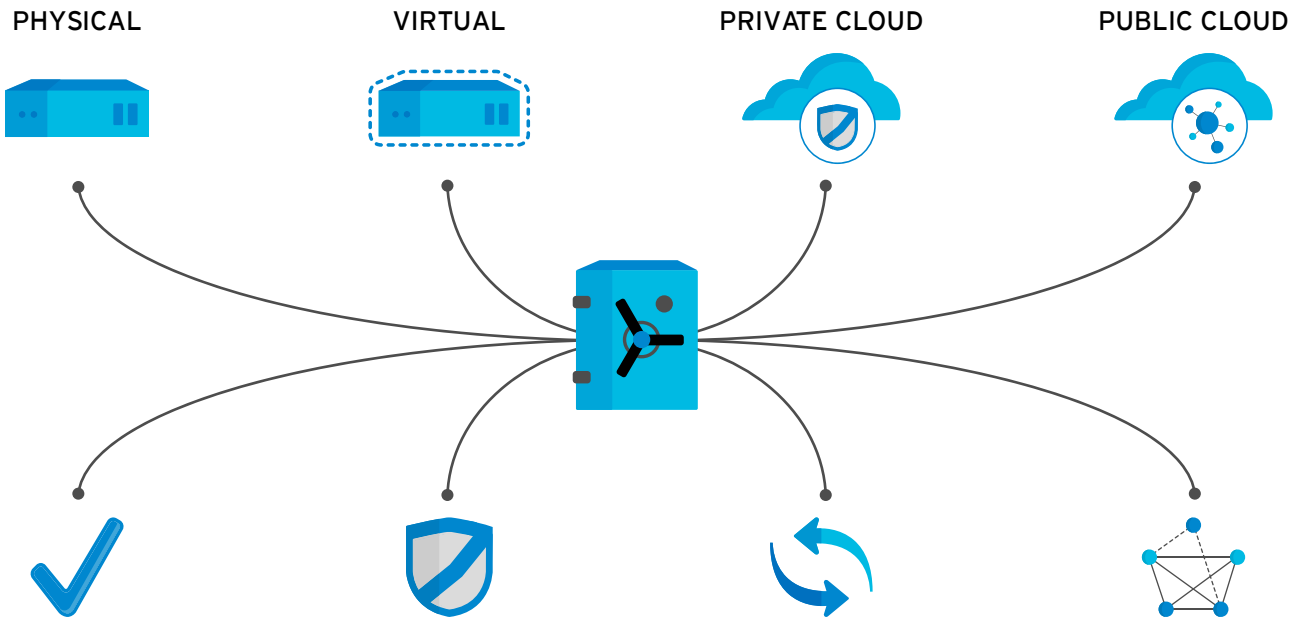
COX AUTOMOTIVE™

HERZOG TECHNOLOGIES, INC.

AUTOMATE COMPLIANCE AND POLICY ENFORCEMENT

Regain IT control and insight into your infrastructure

Increase security, governance, and compliance across environments by automating policy application and enforcement. Gain in-depth insight into operations, workloads, and configurations for improved performance and capacity planning and management.



IMPROVE COMPLIANCE

Automatically enforce policies and compliance over the entire resource life cycle.

PROACTIVELY PROTECT

Identify and manage security vulnerabilities before a breach occurs.

REACT FASTER

Respond to security incidents faster and more effectively.

BOOST CONSISTENCY

Improve IT accuracy and reliability through consistent resource administration.

WATCH THE WEBINAR

ITandTEL

wellcome trust sanger institute

AMELCO

Simplify application delivery

CHALLENGE

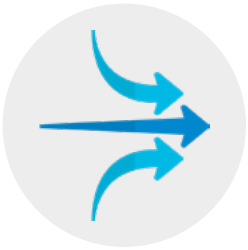
Amelco is a producer of cutting-edge technology solutions for the betting industry and wider financial markets. Based on a multitiered architecture running on VMware, customers can mix and match the financial betting or trading modules that best suit their business model.

With more than 400 VMware nodes operating on Linux®-based Ubuntu, each customized for its extensive customer base, deploying applications quickly and efficiently across these different environments proved a challenge. Having very defined customer service level agreements (SLAs), Amelco specifically sought a solution that would also minimize downtime.

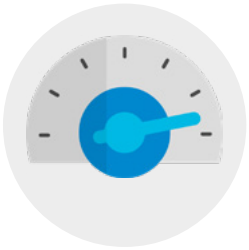
SOLUTION

Amelco used Ansible's agentless automation framework to automate application deployment and simplify the process of deploying, operating and upgrading applications—across disparate environments, in one simple language.

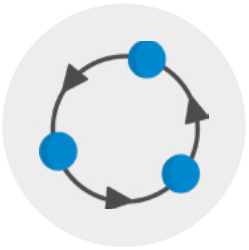
> "When you hear about DevOps, it's all 'fire up the nodes, grab an image and then deploy your code from Jenkins and you're set', but the reality is that we have a legacy environment that is highly customized for different customers."
>
> YVES SOETE
> ASSISTANT I.T. ADMINISTRATOR, AMELCO



REDUCED DEPLOYMENT COMPLEXITY



SPED CLIENT SOLUTION DELIVERY



ENSURED CONTINUOUS APPLICATION DELIVERY

WATCH THE VIDEO

CAPITAL ONE

Accelerate mobile application development

CHALLENGE

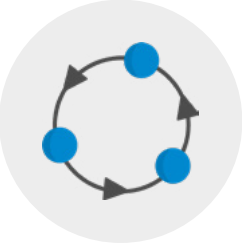
Adoption of mobile banking applications is growing and customers expect to be able to manage their accounts from anywhere at anytime. To meet demand for new applications and features, Capital One needed to optimize their mobile application development cycle.

SOLUTION

Capital One now manages all of their code deployment and infrastructure with Red Hat Ansible Automation. The company used Ansible Playbooks to create machine images of stable components and Red Hat Ansible Tower to deploy the applications under development.

> **"With Ansible, we've developed the ability to create the entire stack at once, so now we can create an entire stack in a few minutes."**
>
> CHRIS WEAVER
> MASTER SOFTWARE ENGINEER, CAPITAL ONE

ENABLED EASIER CODE CHANGES



MAXIMIZED CODE REUSE

ACCELERATED SERVICE STACK BUILD TIMES

WATCH THE VIDEO

COX AUTOMOTIVE

Speed delivery of IT resources with self-service

CHALLENGE

The auto industry's online marketplace is dynamic—and demanding. Sellers and buyers expect a constant stream of innovative products and services. Cox Automotive operates more than 25 companies, including Autotrader and Kelley Blue Book. To keep up with the high expectations of car buyers and sellers, Cox needed a system that would help it continuously develop new products and deliver them faster.

SOLUTION

To meet customer needs, Cox adopted Red Hat CloudForms to manage its cloud infrastructure and provide a self-service, easy-access portal for employees. Additionally, Cox combined data sources to better understand their customers. This big data initiative helps Cox see what its customers are searching for online and then provide the information that's most relevant.

> **"We analyzed the numbers to see what resources we deployed and how much time it took, and we realized we saved almost 10 years of time spent waiting for resources to be delivered and almost $5 million in soft savings."**
>
> JASON CORNELL
> MANAGER OF CLOUD AND INFRASTRUCTURE AUTOMATION, COX AUTOMOTIVE

INCREASED DEVELOPER PRODUCTIVITY

SPED I.T. RESOURCE PROVISIONING

REDUCED COSTS BY NEARLY US$5 MILLION

READ THE SUCCESS STORY

HERZOG TECHNOLOGIES

Build a scalable, automated cloud solution

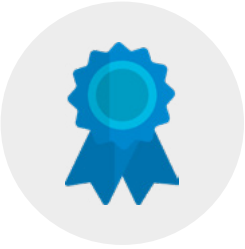
CHALLENGE

To make the rail industry safer, Congress has mandated a nationwide implementation of positive train control (PTC) technology. This highly advanced system automatically stops trains before certain types of accidents occur. Implementing this technology, however, is beyond the financial means and expertise of many railroads.

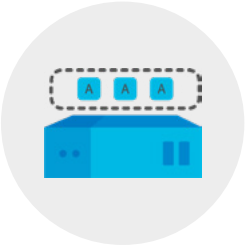
SOLUTION

Herzog Technologies, a leader in the rail signal and communications industry, used Red Hat technology and services to develop a cloud solution that helps railroads quickly and cost-effectively implement PTC technology. As a result, Herzog has reduced infrastructure costs and gained a competitive advantage in the railroad and PTC markets.

> **"We chose Red Hat CloudForms ... to transform our existing virtualization infrastructure into a true private cloud because it provides on-demand functionality to scale the infrastructure effectively and make iterative improvements."**
>
> TRAVIS ROLLINGS
> DIRECTOR OF OFFICE SYSTEMS,
> HERZOG TECHNOLOGIES



GAINED COMPETITIVE ADVANTAGE



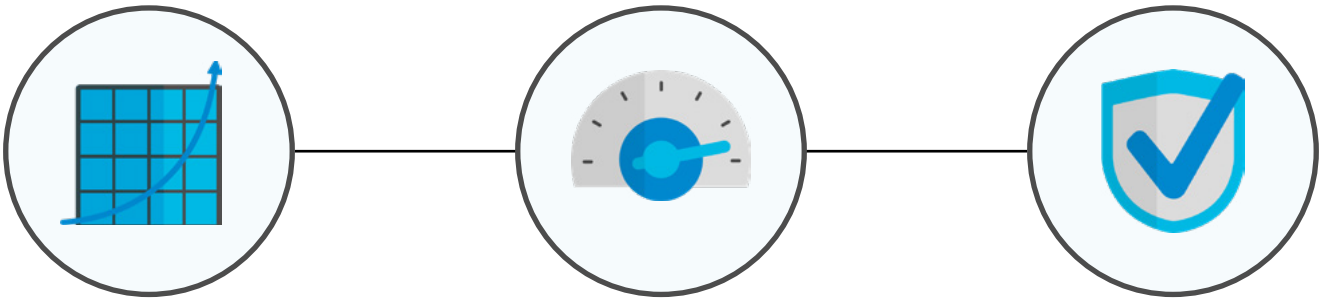
IMPROVED DEPLOYMENT EFFICIENCY

CUT COSTS AND REALIZED NEW REVENUE

READ THE SUCCESS STORY

BUILD A FOUNDATION FOR DIGITAL GROWTH

Learn how automation can help your organization succeed



Automate IT processes for increased efficiency.

Support business and development teams with faster IT service delivery.

Gain control with policy-driven compliance.

DISCOVER HOW AUTOMATION CAN HELP YOU SUPPORT DIGITAL BUSINESS AT RED.HT/AUTOMATE-IT.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