Insights Along the Journey of IT Automation and Modernization

County Government Webinar

Insights Along the Journey of IT Automation and Application Modernization

Insights on the cost savings of automating and modernizing

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What we'll be discussing today

1. Business benefits of of automation and modernization

2. How it can address the larger issues facing your organization

3. Red Hat in Action: examples working with local counties

Red Hat

Outcomes from...

Automation

Increased employee resources and efficiencies, allowing them to do more faster

Application Modernization

Move to cloud-native applications to meet new business requirements in days or weeks, instead of months or years.

Lead To...

Improved experience for end users and constituents

Red Hat

Automation

Insights on the cost savings of automation

Why automate?

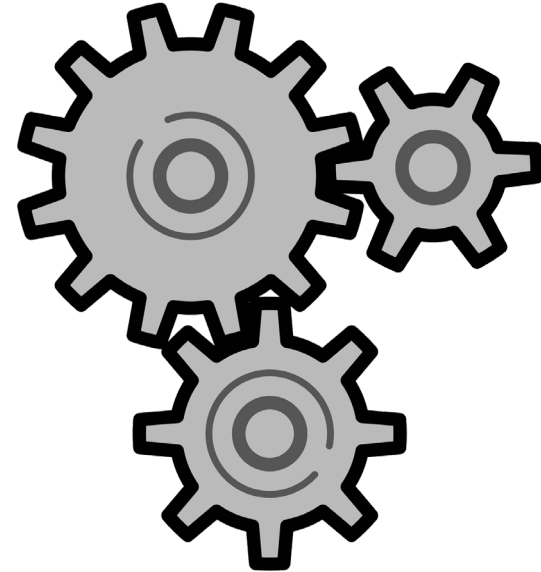**Coordinated** automation reduces inefficiencies

Lower end-to-end cost for production systems
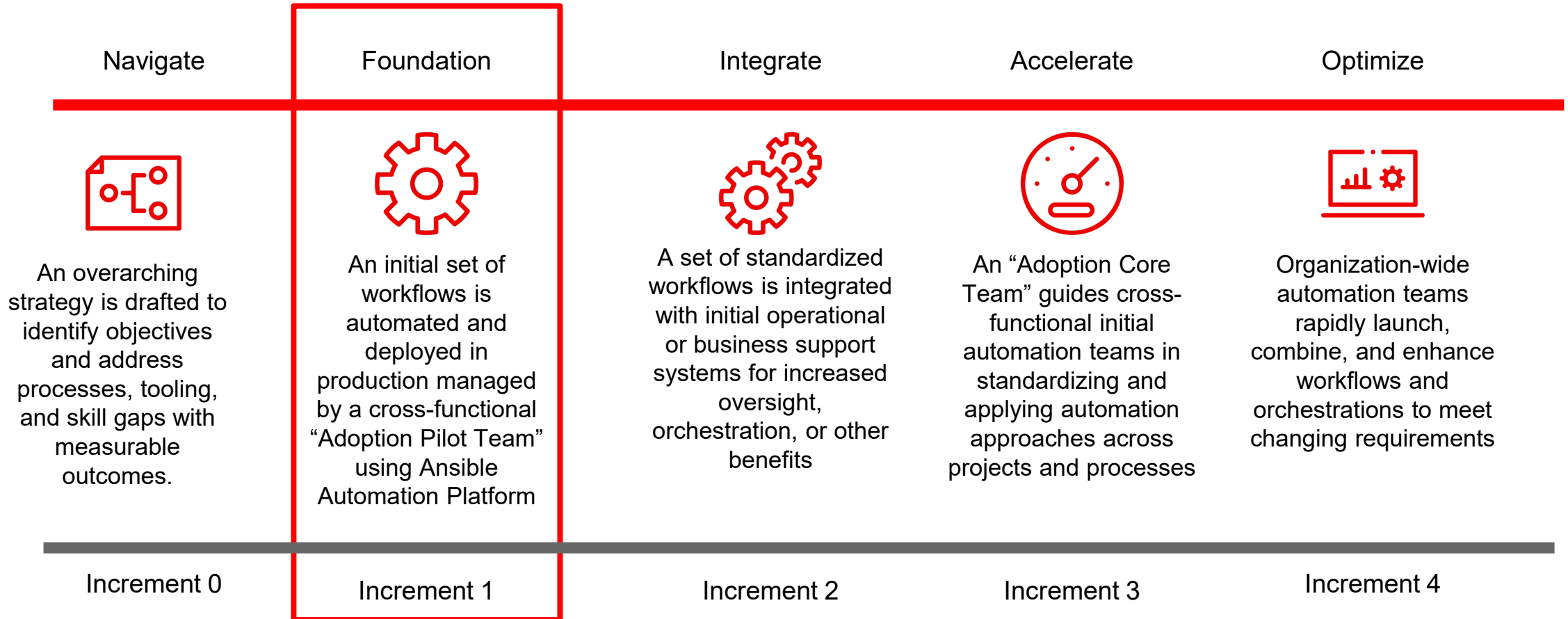
Minimize human errors & downtime

Reduce complexity in IT environment

Eliminate security vulnerabilities

Decrease mean time to repair (MTTR)

What does the journey look like?

Navigate	Foundation	Integrate	Accelerate	Optimize
An overarching strategy is drafted to identify objectives and address processes, tooling, and skill gaps with measurable outcomes.	An initial set of workflows is automated and deployed in production managed by a cross-functional "Adoption Pilot Team" using Ansible Automation Platform	A set of standardized workflows is integrated with initial operational or business support systems for increased oversight, orchestration, or other benefits	An "Adoption Core Team" guides cross-functional initial automation teams in standardizing and applying automation approaches across projects and processes	Organization-wide automation teams rapidly launch, combine, and enhance workflows and orchestrations to meet changing requirements
Increment 0	Increment 1	Increment 2	Increment 3	Increment 4

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Ansible Automation Platform

Improve efficiency

Maximize current resources across your entire IT organization.

Increase productivity

Accelerate business outcomes and consolidate tools across entire on-premises & hybrid-cloud infrastructure.
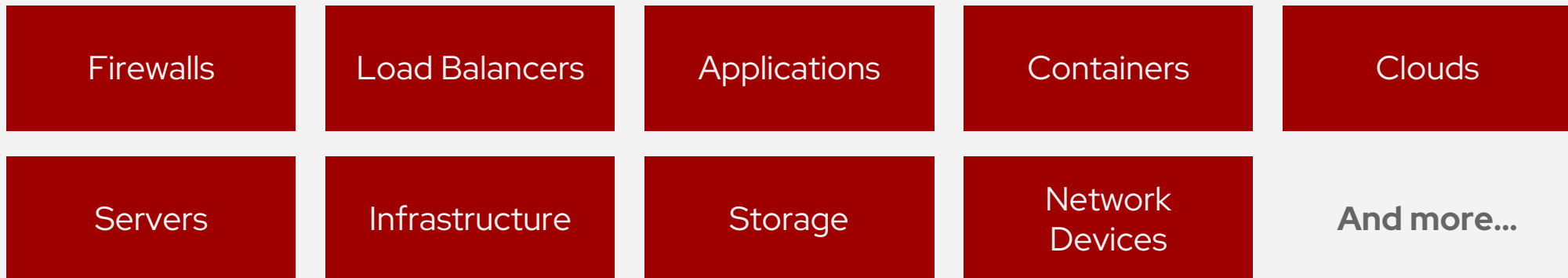
Control risk and expenses

Increase compliance while minimizing errors and reducing the cost of production.

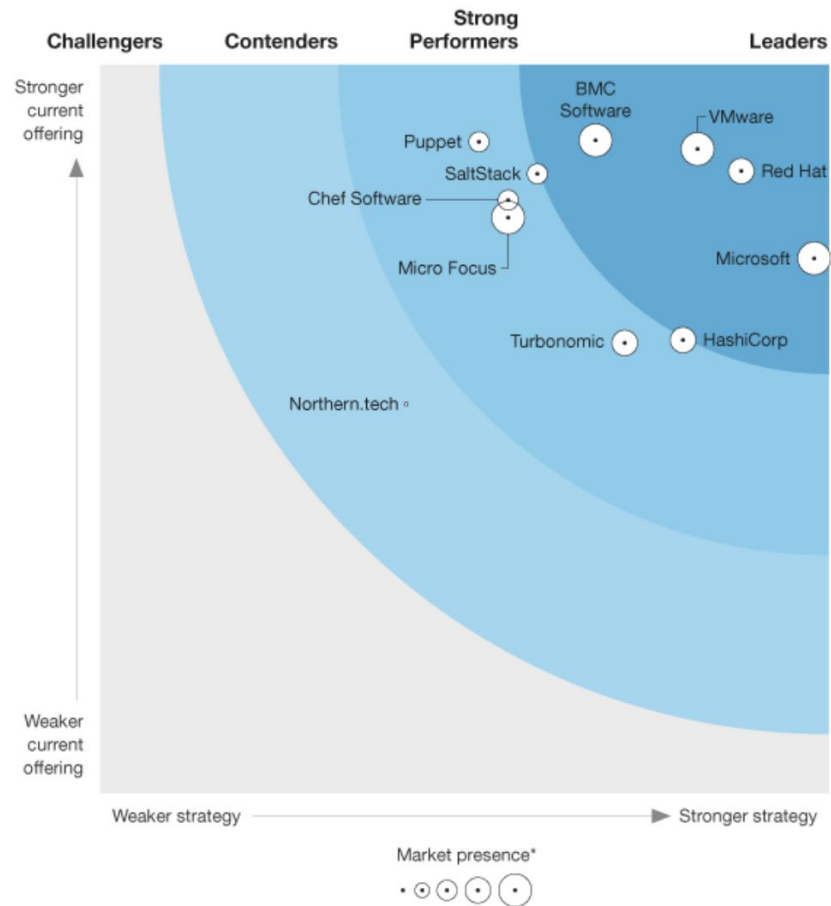# Deployment and management of automation for your entire IT footprint

Do this...

Orchestration	Configuration Management	Application Deployment	Provisioning	Continuous Delivery	Security and Compliance

On these...

Firewalls	Load Balancers	Applications	Containers	Clouds
Servers	Infrastructure	Storage	Network Devices	**And more...**

THE FORRESTER WAVE™
Infrastructure Automation Platforms
Q3 2019

Red Hat named a Leader in The Forrester Wave (™)

- "Reference customers said they were replacing other tools mentioned in this Forrester Wave with Ansible and praised the solution's ability to bridge operations and development."
- Received highest possible score in the criteria of planned enhancements, vision, consulting, training and support, community support, and market approach.
- "Red Hat's solution is best for customers that want a holistic infrastructure automation solution and could stand to rationalize a few unneeded tools out of their portfolios."

Red Hat in Action #1

Outcomes for public sector customers

Red Hat

Automation for Collaboration & Emergency Operations

Challenge

Like many governments worldwide, the City and County of Denver, Colorado, had to act quickly to respond to the COVID-19 pandemic.

To support more than 15,000 employees working from home, the government sought to adapt its new collaboration tool, Microsoft Teams.

Solution

Using automation, the City and County of Denver enabled a remote workforce literally over the weekend. The city decided to use Red Hat Ansible Automation Platform to automate provisioning, application deployment, and configuration management for its Microsoft Teams deployment. Denver previously adopted Ansible Automation Platform and was creating playbooks, but the pandemic presented an opportunity to use it to solve a critical production need.

Benefits

- Scaled to accommodate 514% increase in Microsoft Teams use and remote work
- Created COVID-19 virtual emergency operations center in days
- Established foundation for lean work approach

Previously, it took Denver 20 minutes to manually create an individual Team, but with Ansible Automation Platform the same task takes less than one minute. With more than 1,300 Teams created, Denver has saved 372 work hours just by automating one of many tasks.

Red Hat

Application Modernization

Insights on the business outcomes of application modernization
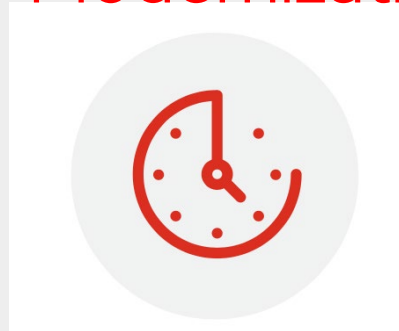
Red Hat

Outcomes from...

Automation

Increased employee resources and efficiencies, allowing them to do more faster

Application Modernization

Move to cloud-native applications to meet new business requirements in days or weeks, instead of months or years.

Lead To...

Improved experience for citizens and employees

Red Hat

Application Modernization – What Problem Does It Solve?

As Public Sector organizations are shifting towards cloud computing, CIO's are asking themselves 2 key questions:

1. How can my organization develop, deploy and scale applications in a cloud environment while delivering the right end-user experience
2. How can we effectively manage these applications across the multiple environments that make up my IT landscape – public cloud, private cloud & on-premises
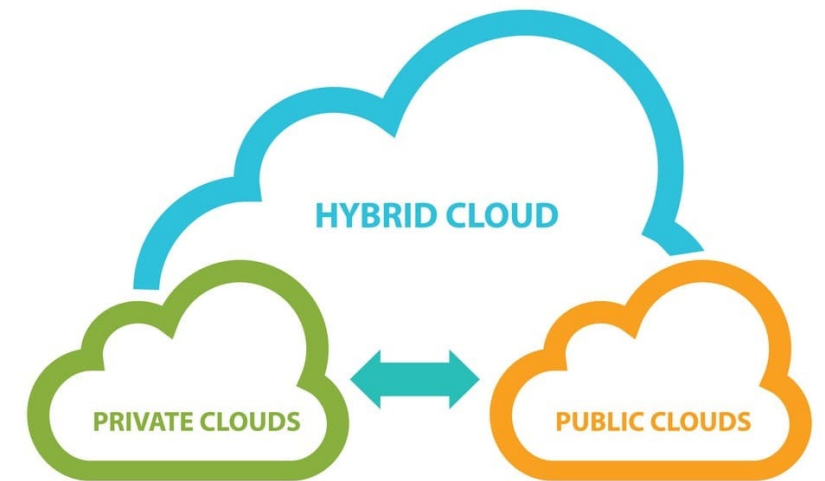
Hybrid Cloud – What is that all about and what does it solve?

Hybrid cloud allows agencies and organizations the flexibility to balance the need to keep some workloads on premises or in a private cloud while taking advantage of the speed and flexibility of the public cloud.

HYBRID CLOUD

PRIVATE CLOUDS

PUBLIC CLOUDS

Lead To...

Improved experience for end users and constituents

Red Hat
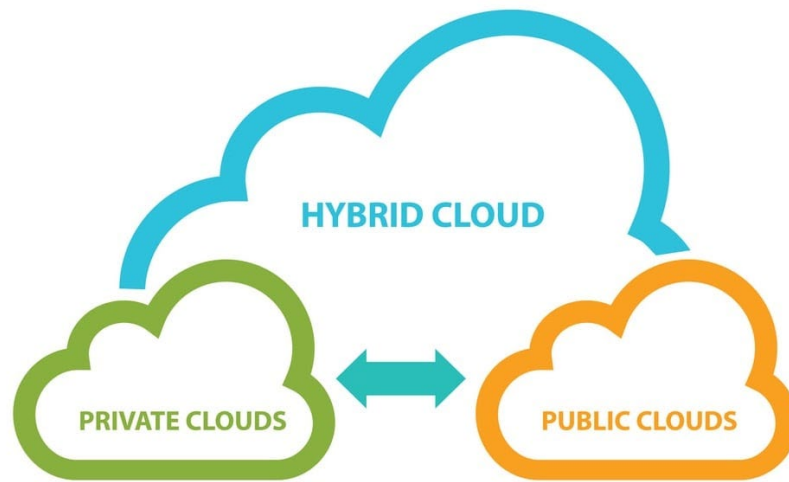
OpenShift – The Integrated App Modernization Platform

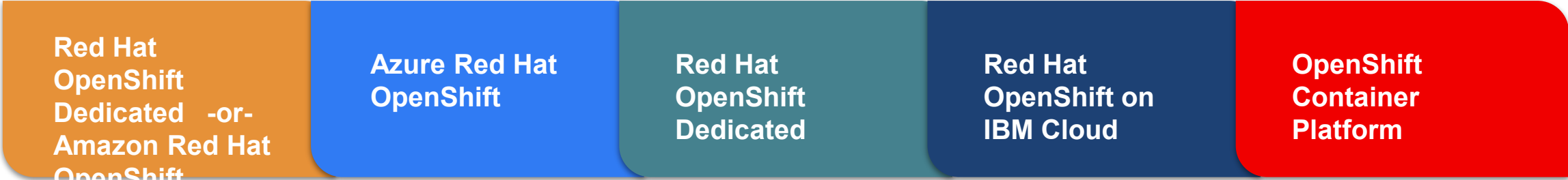|		
Service Mesh	App-Services	DB-Services
CI/CD	DNS	Authentication
Monitoring	**Kubernetes**	Automation
Logging	Registry	Security
Compute	Storage	Network

OpenShift allows your technology teams to focus on building business value, not focusing on building technology platforms

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OpenShift offers the broadest set of hybrid cloud services

Developer Experience	Productivity	Enterprise Readiness

Red Hat OpenShift

AWS	Azure	Google Cloud	IBM Cloud	On-premises
Red Hat OpenShift Dedicated -or- Amazon Red Hat OpenShift	**Azure Red Hat OpenShift**	**Red Hat OpenShift Dedicated**	**Red Hat OpenShift on IBM Cloud**	**OpenShift Container Platform**
Managed By Red Hat Jointly supported by AWS and Red Hat

or

OCP Customer Managed | Jointly Engineered, Managed & supported by Microsoft and Red Hat

or

OCP Customer Managed | Managed By Red Hat

or

OCP Customer Managed | Managed by IBM

Supported by IBM and Red Hat | OCP Customer Managed |

Develop at the Speed of Light

Get code running faster, more efficiently, and more securely

Developer Onboarding in Minutes, Not Weeks
User browser based **Code Ready Workspaces** to make developers faster and ensure code is secure.

See Your Changes Faster
OpenShift Pipelines leverage Kubernetes primitives resulting in faster builds and less overhead when pushing code.

Run on demand with Serverless
Scale from zero to meet demand based on common events with **OpenShift Serverless**.

Debug Microservices Quickly
Manage traffic, trace, and visualize communication between microservices components with **OpenShift Service Mesh.**

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The Forrester Wave™: Multicloud Container Development Platforms

Source: Forrester, The Forrester Wave™ Multicloud Container Development Platforms, Q32020: The Eight Providers That Matter Most and How They Stack Up. Sep 2020.
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Red Hat in Action #2

Outcomes for public sector customers

Local government services department

Challenge

A large fire on the U.S. west coast caused anxious residents to bombard the local government service department's website resulting in the following:

- 250% increase in website volume (12 hours after the fire started)
- 450% increase in website volume (13 hours after the fire started) after the local county sheriff advised residents to visit the county's website for updates

Solution

Deployed Red Hat® OpenShift®, and their team monitored the central processing unit (CPU) and memory load

Why Red Hat

Automatically scale site capacity to handle surge loads

Results

- The team was able to proactively increase CPU and memory resources
- Delivered a seamless user experience.

Products and services

Red Hat OpenShift   Red Hat Enterprise Linux

Red Hat

Red Hat in Action #3

Outcomes for public sector customers

Large Police Department: Automation Adoption

Challenge

Lack of reliable and secure systems. This was making it difficult to deploy additional sites.

Solution

After implementing Ansible Automation Adoption Journey with Training for their team their team was able to reduced to **3 hours** from **6 weeks**

Benefits

- Reduced training
- Increased reliability and security
- Enabled repeatable system deployments

Red Hat

"We can rapidly develop prototype applications and get digital services to citizens faster."

Jack Harris
Chief Technology Officer,
Michigan Department of
Technology, Management, and
Budget (DTMB)

Challenge
Sought to improve development, delivery, and reliability for agencies' digital services by migrating to a container-based infrastructure.

Solution
Deployed Red Hat® OpenShift®, supported by Red Hat storage and automation solutions, to assist its digital transformation efforts.

Why Red Hat
"Red Hat gives us the freedom of open source with the enterprise support and security we need." Jack Harris, CTO, Michigan DTMB

Results
- Reduced time to market for new, digital data services
- Improved infrastructure security with consistent container images
- Created cloud-ready infrastructure foundation
- Adopted collaborative work approach to improve efficiency

Products and services
Red Hat OpenShift   Red Hat Ansible® Automation Platform
Red Hat Quay   Red Hat Consulting

Closing: The Power of Open Source

Red Hat

Why Red Hat? The Power of Open Source

Leveraging the power of community, freedom from vendor lock-in, and a focus on interoperability

CONTROL

You control how *and* when you grow.

Red Hat® subscriptions give customers great freedom. Choose from multiple supported versions, and update on your schedule.

CHOICE

Open source standards make our products portable and interoperable.

We work with everyone—partners and competitors alike—to make sure our technology works when and where you need it.

SECURITY

When development is distributed, the risk of failure goes down.

Red Hat takes responsibility for open source technology by testing, hardening, securing, and supporting it, every customer shares the same level of assurance.

COLLABORATION

Open source communities are the source of our strength. But we can't just take—we must participate and pay it back in code, commitment, and connections.

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carah.io/redhatsled

For additional Red Hat solutions:
carah.io/RedHatPortfolio

To purchase, check out the contract vehicles available for procurement:
carah.io/RedHatContracts

For upcoming events:
carah.io/RedHatEvents

For additional Open Source solutions:
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To set up a meeting:
redhat@carahsoft.com or 877-RHAT-GOV