

# Using Ansible Automation Platform to Automate Everything

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# Agenda

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- ▶ Ansible Automation Platform
  - Overview
  - What's new with Engine/Tower
  - Ansible Cloud Services
  - Demo: Ansible Tower & Ansible Cloud Services Walkthrough
  - Ansible Value
- ▶ Customer Use Cases
- ▶ Additional Resources
- ▶ Demo: Hands-On Labs Walkthrough
- ▶ Next Steps

But, Before We Get Started,  
*A Few Announcements...*

A **new virtual** technical enablement series that provides the latest in the Red Hat product strategy and enablement on the newest features to our technical field associates



**Red Hat** • • • —

# Tech Ready

— • • • October & November 2020

- Integrated into the Red Hat OPEN training system
- More communications to come...



Hear the latest from Red Hat Business Unit and Engineering leaders on our product strategies and roadmaps



Gain hands-on experience with new product features through deep dive demos and labs



Session content dropped weekly on Monday's from October 19 through November 9



SmartPage on Red Hat Partner Content Hub for more information (Coming Soon)

# Red Hat Tech Ready: Partner Experience

*Red Hat Tech Ready is a new virtual, global technical series that provides the latest in the Red Hat product strategy and enablement, exclusively for our Red Hat internal teams and Red Hat Partners.*

## What are the Goals of RHTR?

Drive more awareness of what's coming, provide the field applicable knowledge and practices, and connect it all to the Red Hat Open Hybrid Cloud Strategy

## Who are the Target Attendees?

Red Hat's technical field (SA, Services, CXnO) and  
Partners in a technical role

## How will partners access content?

Partners will get access to the same on-demand content at the same time as Red Hatters. This content will be made available through Red Hat OPEN training system

## What is Happening Each Week?

Each week focuses on a part of Red Hat's Open Hybrid Cloud Strategy. On-demand content will be launched each Monday and live experiences will be scheduled throughout the week.

Week of	Theme of the Week
Oct 19	Hybrid Cloud Infrastructure Week
Oct 26	Cloud Native Development
Nov 2	Management & Automation
Nov 9	Digital Transformation

# NA Partner Tech Virtual Office Hours

**For North America Red Hat Business Partners technical team members**

**Office Hour format:** "Ask me anything/Open Mic" with remaining time to cover the Product/Technology topics

- See Office Hour schedule here -- <https://www.redhatpartnertech.com>

## **Virtual Partner Tech Office Hours**

- *Meet with Red Hat Solution Architects & SME's to help answer your questions on product and technology topics*
- *Dedicated weekly time slot for you to pop in, ask a question, then get back to your schedule*
- *Collaborate/Brainstorm with peers on customer questions, projects, etc.*
- *Build and formulate new relationships*



# AnsibleFest

## Virtual Experience

October 13-14, 2020



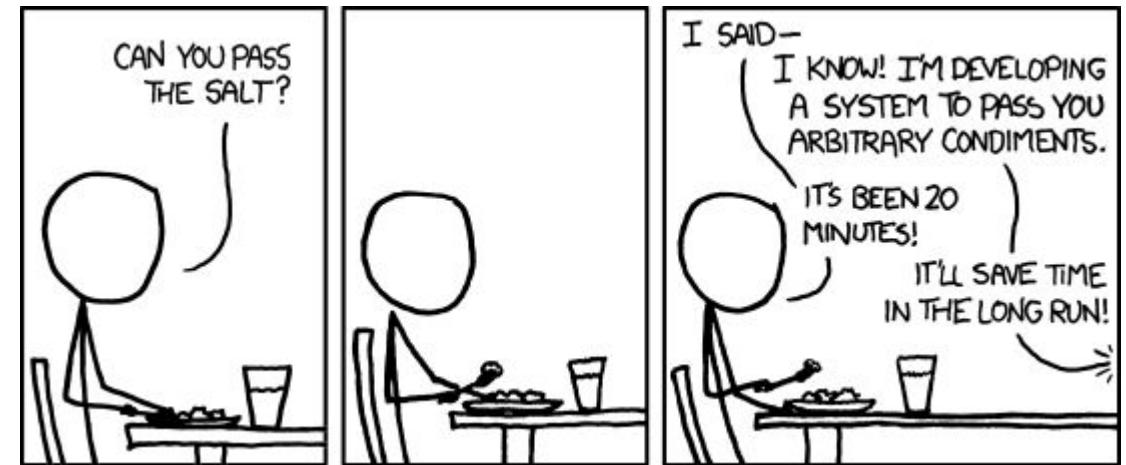
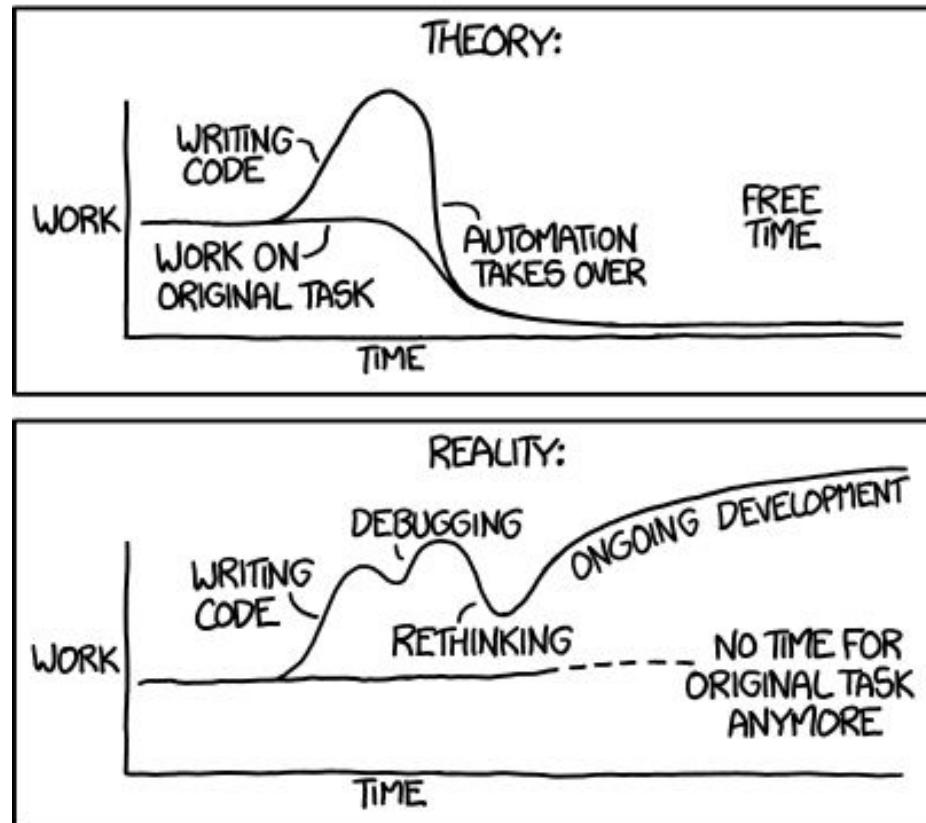
**Red Hat**

Register @ <https://www.ansible.com/ansiblefest>

# Ansible Automation Platform: Overview

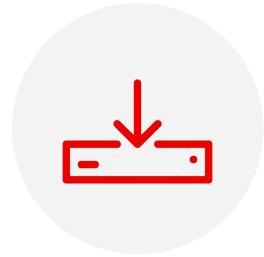
# Rethinking Automation...

"I SPEND A LOT OF TIME ON THIS TASK.  
I SHOULD WRITE A PROGRAM AUTOMATING IT!"



Using Ansible, this would take a few seconds (and scale to napkins, potatoes, etc. very easily)

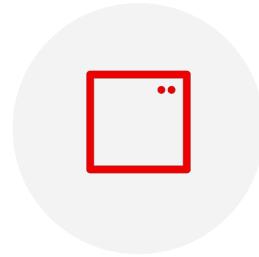
# Ansible: Growth by the numbers



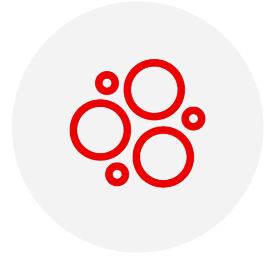
**2M**  
downloads per month



**2K**  
customers



**4K**  
modules/integrations



**Top 10**  
GitHub project by contributors



**4M+**  
systems managed by Red Hat

# Community & Momentum

01	microsoft/vscode	19.1k
02	MicrosoftDocs/azure-docs	14k
03	flutter/flutter	13k
04	firstcontributions/first-contributions	11.6k
05	tensorflow/tensorflow	9.9k
06	facebook/react-native	9.1k
07	kubernetes/kubernetes	6.9k
08	DefinitelyTyped/DefinitelyTyped	6.9k
09	ansible/ansible	6.8k
10	home-assistant/home-assistant	

~100M  
PROJECTS

Fastest rising tech skills, 2014-2019				
% of tech jobs, Sept 2014-to-Sept 2019, at least 0.1% in each period				
Rank	Skill	2014 share	2019 share	% change
1	docker	0.1%	5.1%	4162%
2	iot	0.1%	2.1%	1994%
3	ansible	0.2%	2.8%	1292%
4	kafka	0.2%	2.4%	1216%
5	azure	0.6%	6.9%	1107%
6	spark	0.3%	3.5%	1068%
7	artificial intelligence	0.3%	2.0%	701%
8	redshift	0.2%	1.2%	564%
9	swift	0.2%	1.1%	481%
10	machine learning	1.3%	7.0%	439%
11	angular	0.9%	4.9%	427%
12	aws	2.7%	14.2%	418%
13	elasticsearch	0.3%	1.4%	333%
14	servicenow	0.2%	1.0%	333%
15	tableau	0.8%	2.9%	275%
16	gradle	0.2%	0.7%	254%
17	jenkins	1.4%	5.0%	251%
18	splunk	0.5%	1.7%	238%
19	scala	0.6%	2.1%	235%
20	jira	1.5%	4.9%	232%

Source: Indeed



# What can you do with Ansible?

Do this...

Orchestrate

Manage configurations

Deploy applications

Provision

Deliver continuously

Secure and comply

On these...



Firewalls



Load balancers



Applications



Containers



Clouds



Servers



Infrastructure



Storage



Network devices



And more ...

# Ansible automates technologies you use everyday

Time to automate is measured in minutes, 50+ **certified** platforms

Cloud	Virt & Container	Windows	Network	Security	Monitoring
AWS	Docker	ACLs	Arista	Checkpoint	Dynatrace
Azure	Kubernetes	Files	Aruba	Cisco	Datadog
Digital Ocean	OpenStack	Packages	Bigswitch	CyberArk	LogicMonitor
Google	OpenShift	IIS	Cisco	F5	New Relic
OpenStack	VMware	Registry	Ericsson	Fortinet	Sensu
Rackspace	+more	Shares	F5	Juniper	+more
+more		Services	FRR	IBM	
		Configs	Juniper	Palo Alto	<b>Devops</b>
<b>Red Hat Products</b>	<b>Storage</b>	Users	Meraki	Snort	Jira
	Infinidat	Domains	OpenvSwitch	+more	GitHub
RHEL	Netapp	Updates	Ruckus		Vagrant
<b>Satellite Insights</b>	Pure Storage	+more	VyOS		Jenkins
+more			+more		Slack
					+more

<https://www.ansible.com/certified-partners>



# Red Hat

## Ansible Automation Platform

# One subscription. One platform.



### Ansible Content Collections

A new method of building and consuming Ansible content



### Automation services catalog

A venue for developers and business users to manage, provision, and retire automation resources



### Automation Hub

Private content repository for sharing automation



### Content packages

Opinionated, focused content, targeting key automation use cases, from Red Hat and certified partners



### Scalable execution

Extending Red Hat Ansible Tower to support automation whenever and wherever you need it



### Automation Analytics

Analytical insights into the automation runtime



# Red Hat

## Ansible Automation Platform

Network

Lines of business

Security

Operations

Infrastructure

Developers

**Accelerate**

Ansible Content  
Collections

**Collaborate**

Automation  
Hub

**Governance**

Automation  
services catalog

**Trust**

Certified  
content

**Inform**

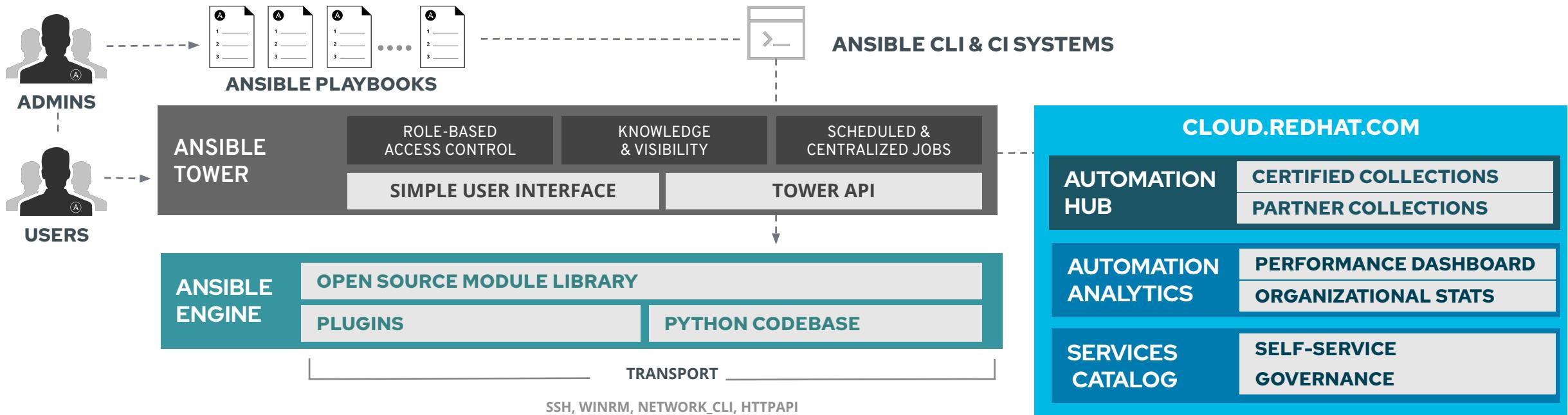
Automation  
Analytics

Red Hat Ansible Tower: Operate and control at scale.

Red Hat Ansible Engine: Universal language of automation

Fueled by an open source community

# Details



Red Hat Ansible Automation Platform 1.1, includes:

- [Ansible Tower](#) 3.7
- [Ansible Engine](#) 2.9
- Ansible Cloud Services
  - [Automation Hub](#) 1.0 (in [Ansible Content Collections](#))
  - [Automation Analytics](#) 1.0, and
  - [Automation Services Catalog](#) 1.0

# Ansible Tower & Ansible Cloud Services

# Ansible Tower

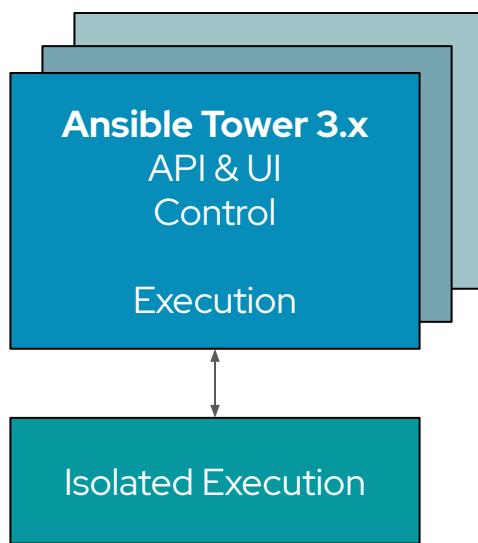
Ansible Tower is a UI and RESTful API allowing you to scale IT automation, manage complex deployments and speed productivity.

- Role-based access control
- Deploy entire applications with push-button deployment access
- All automations are centrally logged
- Powerful workflows match your IT processes

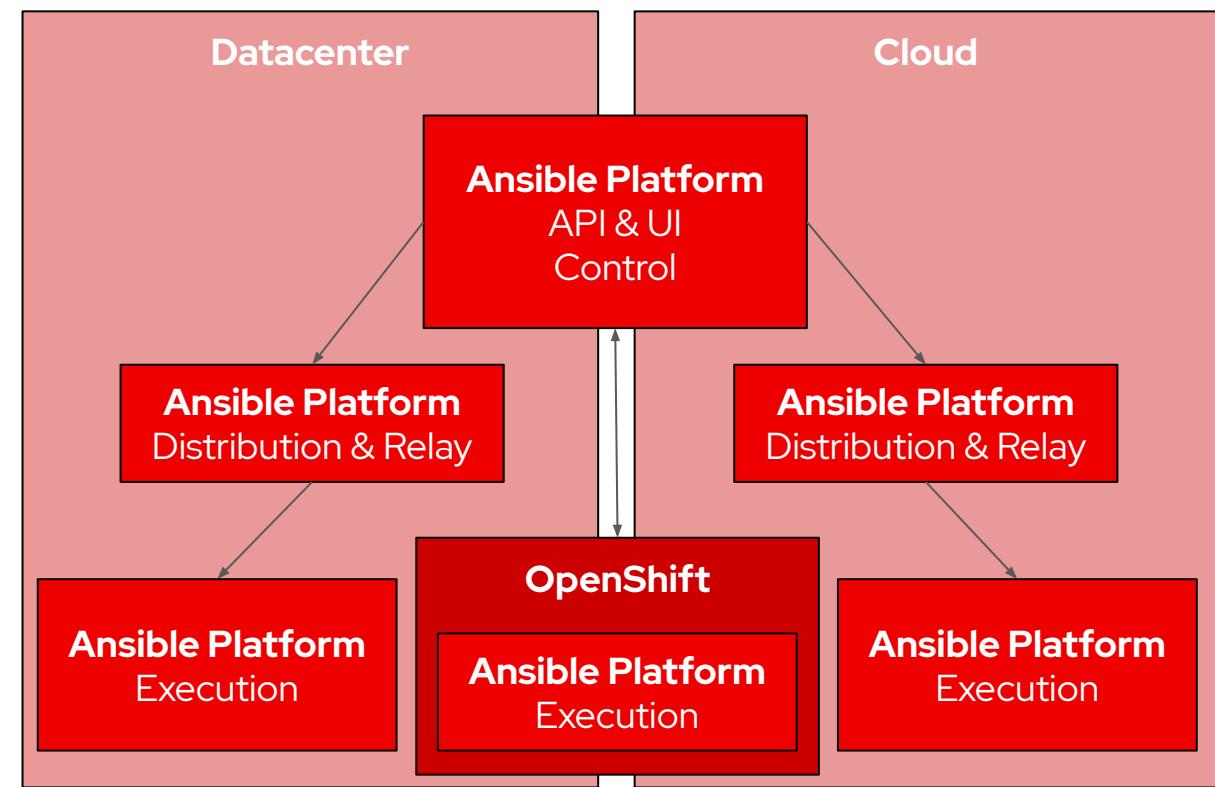


# Ansible Tower

Evolving the heart of the Platform



We've evolved Tower into a scalable service that separates the control plane from the execution plane, allowing execution to be scaled whenever and wherever it's needed.



# Red Hat Ansible Tower

by the numbers:

**94%**

Reduction in recovery time following  
a security incident

**84%**

Savings by deploying workloads  
to generic systems appliances  
using Ansible Tower

**67%**

Reduction in man hours required  
for customer deliveries

Financial summary:

**146%**

**ROI on Ansible Tower**

**<3 MONTHS**

**Payback on Ansible Tower**

SOURCE: "The Total Economic Impact™ Of Red Hat Ansible Tower, a June 2018 commissioned study conducted by Forrester Consulting on behalf of Red Hat."  
[redhat.com/en/engage/total-economic-impact-ansible-tower-20180710](http://redhat.com/en/engage/total-economic-impact-ansible-tower-20180710)



# Ansible Cloud Services

Automation Analytics

Automation Hub

Automation Services Catalog

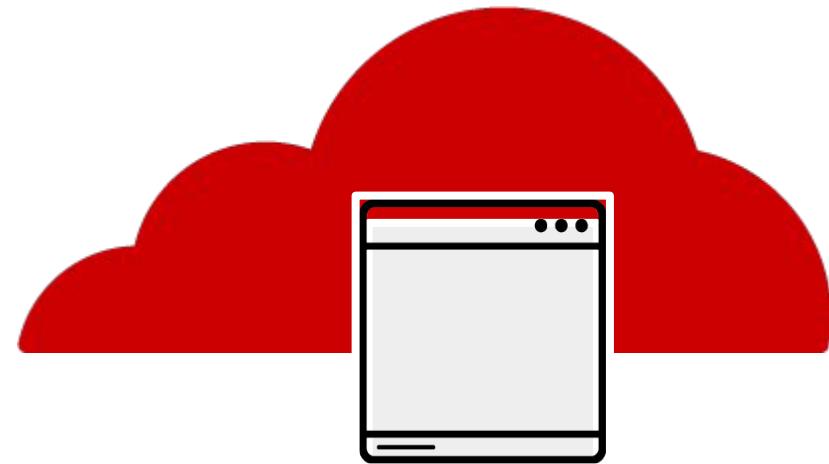
# Automation Analytics: What is it?

SaaS (Software as a Service) on [cloud.redhat.com](https://cloud.redhat.com)

Analytics for all Ansible Tower clusters for an organization

Includes:

- visual dashboard
- health notifications
- organization statistics



# Health notifications

- Ansible Tower Cluster is down
- Node (within a cluster) is down
- Last time data was updated
- Near license count

Notifications View All ▾

⚠ Cluster Error: No data from durham.tower.example.com in 1 days

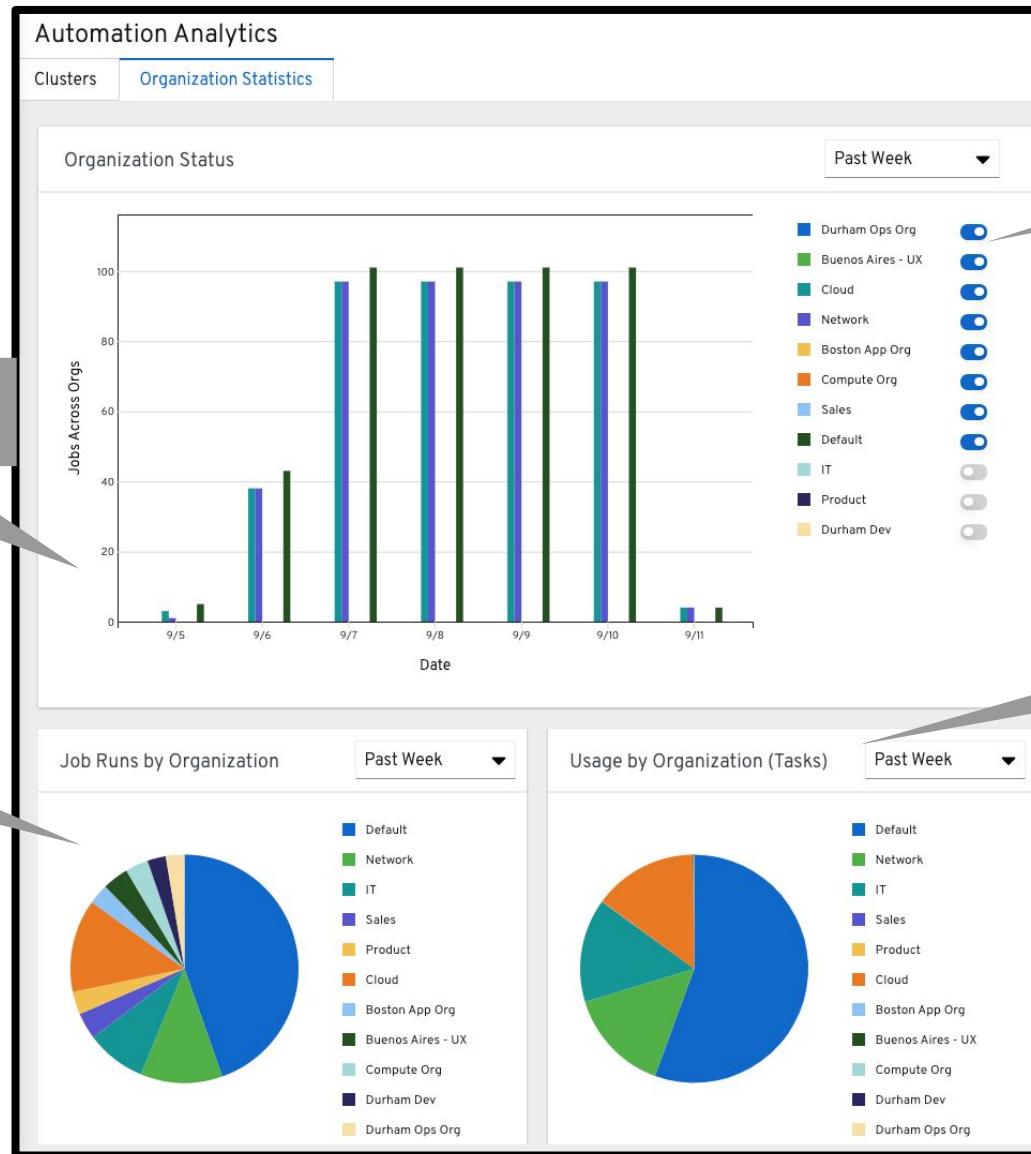
⚠ Cluster Error: No data from madrid.tower.example.com in 1 days

Notifications last updated 2019-09-11 07:42:12 UTC

# Organizational statistics

Job Status by Organization

Job Runs by Organization



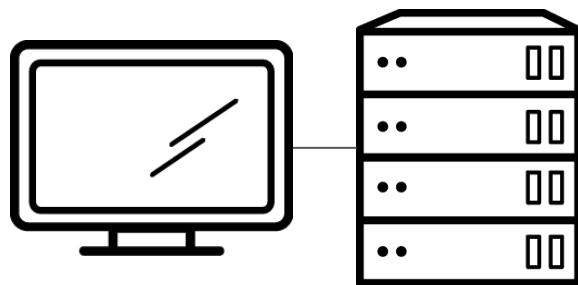
Filter by Organization

Usage by Organization

# Dashboard comparison

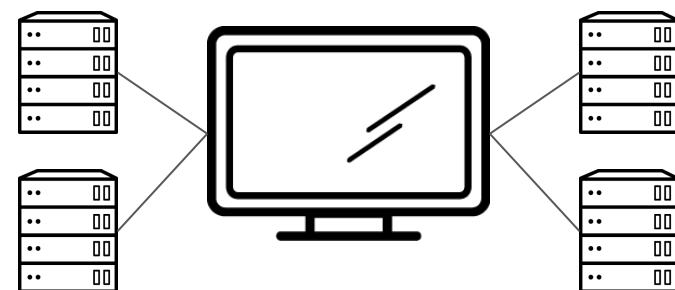
## Ansible Tower

- Recent job templates
- No module data
- One cluster



## Automation Analytics

- Top job templates
- Top modules
- All clusters
- Filter by cluster



# Ansible Content Collections

Simplified and consistent content delivery

Provides quick benefit by lowering barriers to automation

Streamlines tech partners providing direct-to-user automation

Simplifies internal collaboration, distribution, versioning

Ability to distribute, share and consume content at your own pace



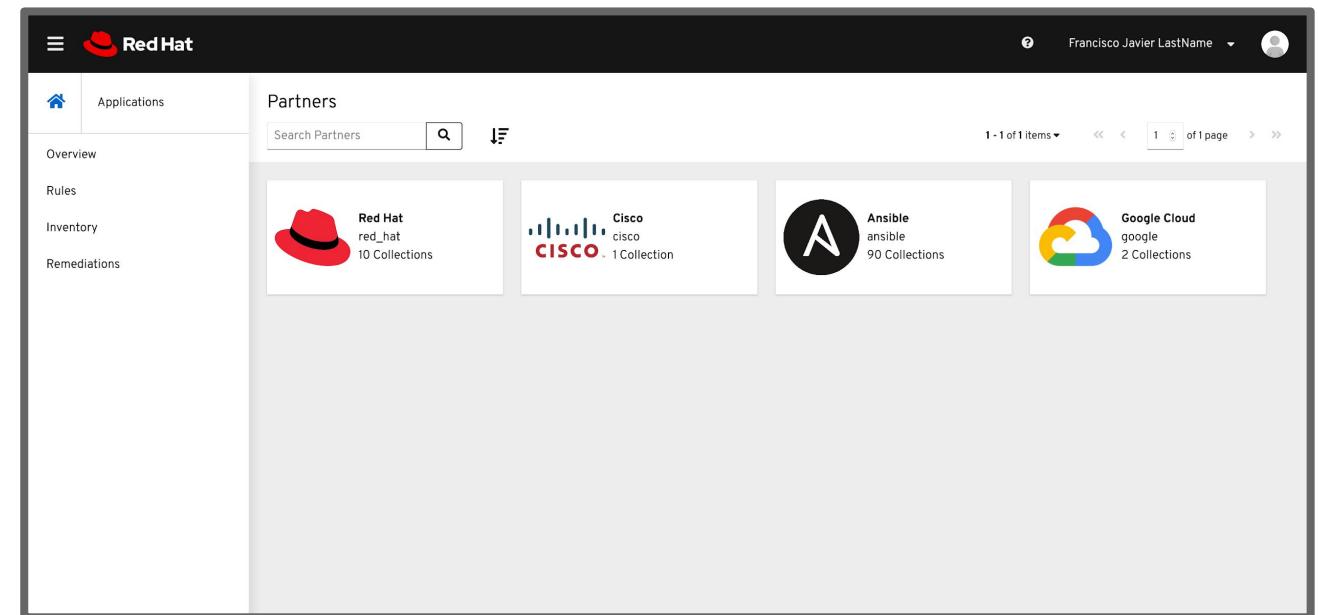
# Automation Hub

## Discover, publish, and manage Collections

Quickly discover available Red Hat and certified content through Collections.

Manage and test your organization's view of available content.\*

Publish your locally available automation via on-premise.\*



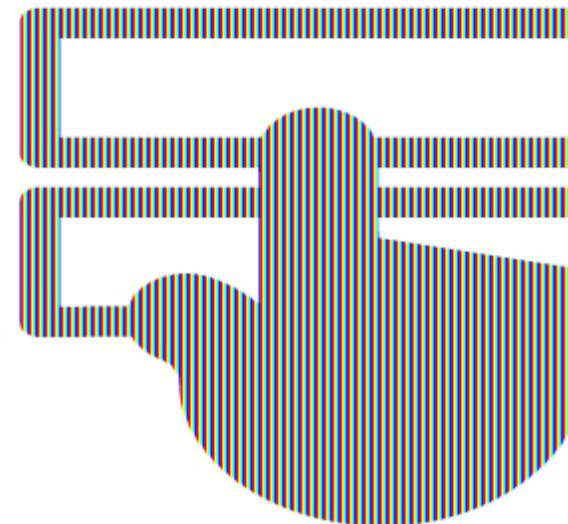
# Automation Services Catalog

Manage, provision, and retire automation resources

Deliver customers' pre built automation to the developer and the business user.

Deliver governance of automation services for the enterprise user.

Supply the necessary controls required by the business to track how this automation is being used.



# Ways to interact with the services catalog



## Platforms

Ansible Tower is a Platform to the Catalog, it presents Job Templates and Workflows and executes them as jobs. Business governance can be applied to Platforms.



## Products

Users order Products are high level abstracts of the service offerings. An Administrator can override the detail of a Product as well as govern the individual product with Business Governance.



## Portfolios

Allows for an Administrator to group service offerings as products into logical collections. Portfolios can be shared to groups of users as well as support Business Governance.



## Organizations

An Organization is a collection of Platforms, Portfolios, Products, Users, Groups and Approval policies. An entire organization can be governed for Business Logic.

# DEMO:

# Ansible Tower &

# Ansible Cloud Services

# Summary: Ansible Value-add

## Simplified and consistent content delivery

Provides quick benefit by lowering barriers to automation

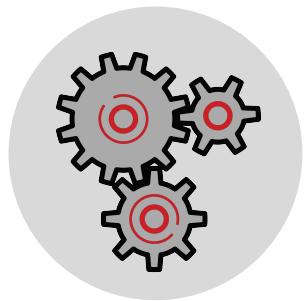
Streamlines tech partners providing direct-to-user automation

Simplifies internal collaboration, distribution, versioning

Ability to distribute, share and consume content at your own pace



# What we bring to your business



## Technology

Security, stability, reliability



## Assurance

Enterprise-grade certainty



## Expertise

Experience you can trust

# Ansible Automation Platform: Use-Cases

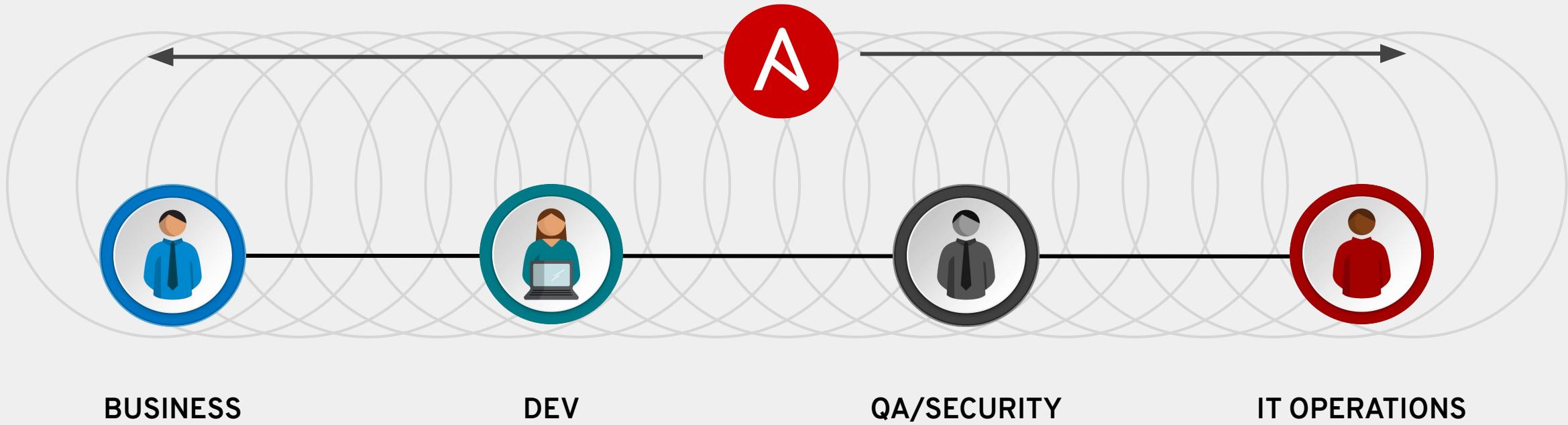
# ANSIBLE PLAYBOOK: Simple

```
---
```

- **name: check services on rhel hosts**  
**hosts:** rhel  
**become:** yes
  
**tasks:**

  - **name: ensure nginx is started**  
**service:**  
**name:** nginx  
**state:** started

# ANSIBLE IS THE UNIVERSAL LANGUAGE



Ansible is the first **automation language** that can be read and written across IT.

# LINUX AUTOMATION

**150+**  
Linux Modules

**AUTOMATE EVERYTHING  
LINUX**

**Red Hat Enterprise Linux, BSD,  
Debian, Ubuntu and many more!**

**ONLY REQUIREMENTS:**  
**Python 2 (2.6 or later)**  
**or Python 3 (3.5 or later)**

[ansible.com/get-started](http://ansible.com/get-started)

# ANSIBLE NETWORK AUTOMATION

**65+**

Network  
Platforms

**1000+**

Network  
Modules

[ansible.com/for/networks](http://ansible.com/for/networks)

<https://www.ansible.com/bart-dworak-keynote-microsoft>

# WHY AUTOMATE YOUR NETWORK?

## PLAN AND PROTOTYPE VIRTUALLY

Use tasks as reusable building blocks

## USE YOUR CURRENT DEVELOPMENT PRACTICES

Agile, DevOps, Waterfall

## GO BEYOND THE “PING” TEST

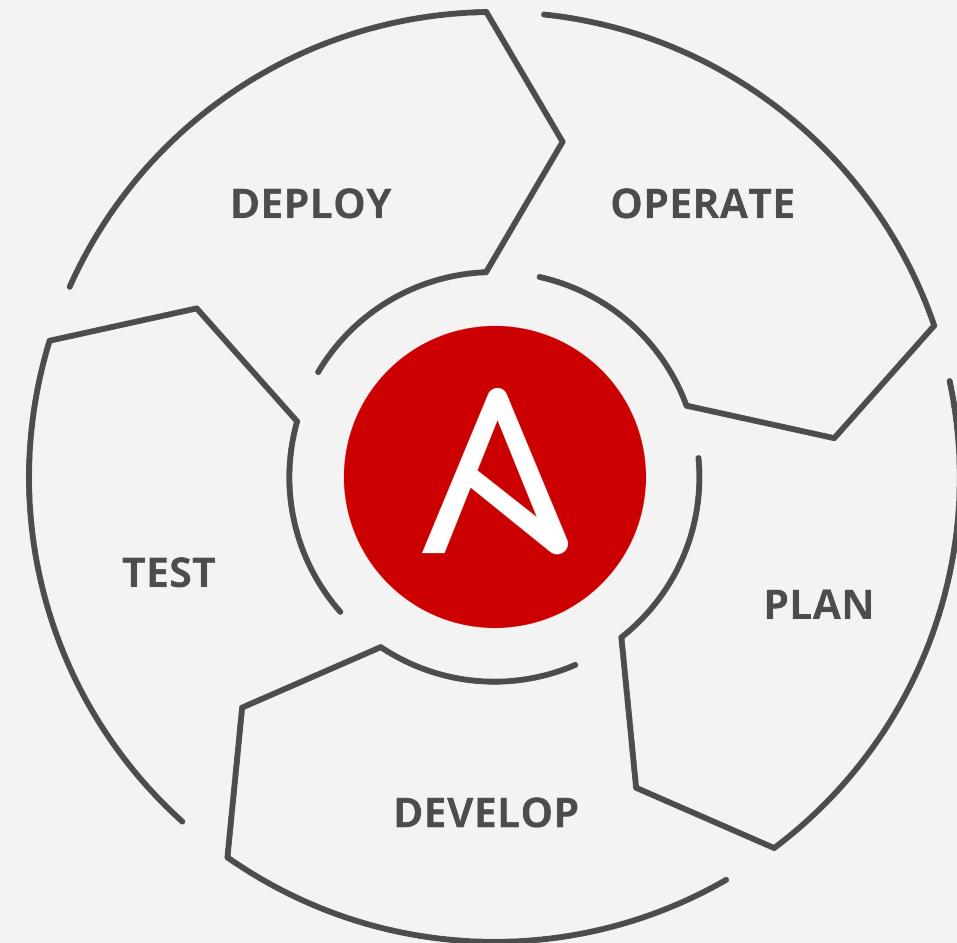
Integrate with formal testing platforms

## BE CONFIDENT DURING DEPLOYMENT

Validate changes were successful

## ENSURE AN ON-GOING STEADY-STATE

Configure management at scale



# WINDOWS AUTOMATION

**90+**

Windows  
Modules

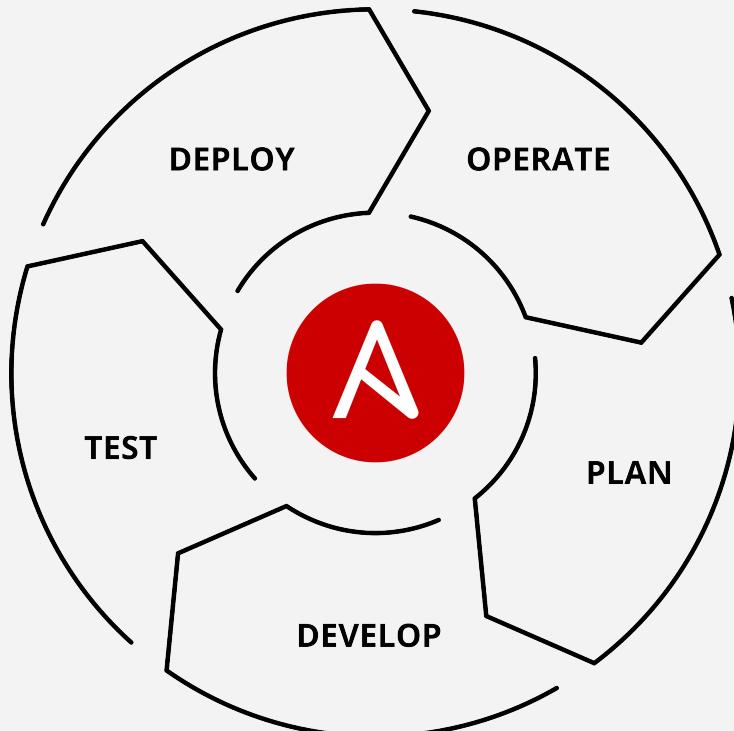
**1,300+**

Powershell DSC  
resources

[ansible.com/windows](http://ansible.com/windows)

# WHAT CAN I DO USING ANSIBLE FOR WINDOWS

Native Windows support uses PowerShell remoting to manage Windows in the same Ansible agentless way



- Install and uninstall MSIs
- Gather facts on Windows hosts
- Enable and disable Windows features
- Start, stop, and manage Windows Services
- Create and Manage local users and groups
- Manage Windows packages via [Chocolatey package manager](#)
- Manage and install Windows updates
- Fetch files from remote sites
- Push and execute any Powershell scripts

# CLOUD AUTOMATION

**800+**

Cloud  
Modules

**30+**

Cloud Platforms

[ansible.com/cloud](http://ansible.com/cloud)



Reduced I.T.  
deployment time  
from  
**2-3 weeks** to  
**4 hours**  
and virtual machine  
(VM) provisioning  
from **3 days** to **20 minutes**

## CHALLENGE

Modernize, optimize, and automate IT infrastructure

## SOLUTION

Intermountain migrated from proprietary IT to enterprise-wide automation and on-demand services, decreasing complexity and costs.

## WHY RED HAT

Intermountain trusted Red Hat to bring comprehensive business automation with a flexible infrastructure.

## RESULTS

- Cut IT costs by migrating from costly proprietary solutions to open source software and industry-standard hardware
- Improved cross-team DevOps collaboration with flexible IT environments and enhanced access control
- Gained access to expert on-site guidance and 24x7 technical support

## PRODUCTS & SERVICES

Red Hat CloudForms

Red Hat Virtualization

**Red Hat Ansible Automation**

Red Hat OpenShift Container Platform

Red Hat Satellite

Red Hat AMQ

Red Hat Consulting

# ANSIBLE SECURITY AUTOMATION

**11+**

Security  
Platforms

**800+**

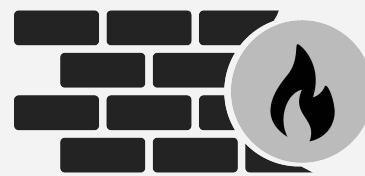
Security  
Modules

[ansible.com/use-cases/security-automation](https://ansible.com/use-cases/security-automation)

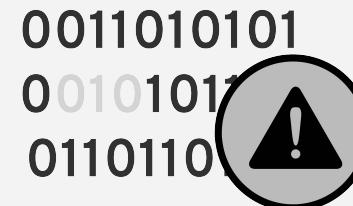
# Partners - Security ISVs



Security Information &  
Events Management



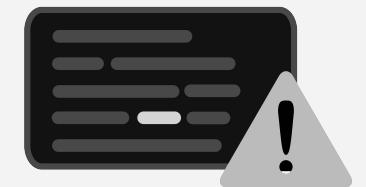
Enterprise  
Firewalls



Intrusion Detection &  
Prevention Systems



Check Point<sup>®</sup>  
SOFTWARE TECHNOLOGIES LTD



Privileged Access  
Management



# Additional Resources

# Top Resources

- [Red Hat Partner Content Hub](#)
- [Ansible Workshops at GitHub](#)
- [What Releases of Red Hat Ansible Engine are Compatible with Red Hat Ansible Tower?](#)
- [Ansible Certified Content FAQ](#)
- [Top Support Policies for Red Hat Ansible Automation](#)

# DEMO:

# Hands-On Lab Walkthrough

# Lab

- [Lab RHPDS](#)
  - Workshop → Ansible F5 Automation Workshop
  - Playbook Customization
  - Lab Guide: Load Balancer, Workflow/Orchestration
- [AWS Provisioner](#) Walkthrough

# Next Steps: Survey

**THANK YOU for attending!**



- Please complete the survey to be entered into a raffle to receive a limited amount of \$25 eGift Cards
- Survey Link [here](#)
- [Partner Tech Days GitHub](#) (preso, labs, etc.)

# Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

[linkedin.com/company/red-hat](https://www.linkedin.com/company/red-hat)

[youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)

[facebook.com/redhatinc](https://www.facebook.com/redhatinc)

[twitter.com/RedHat](https://twitter.com/RedHat)

