

From Zero to Hero: Automating VMware Infra with Ansible



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What is Ansible Automation Platform for VMware?

A unified platform for hybrid cloud infrastructure



Ansible Automation Platform for VMware

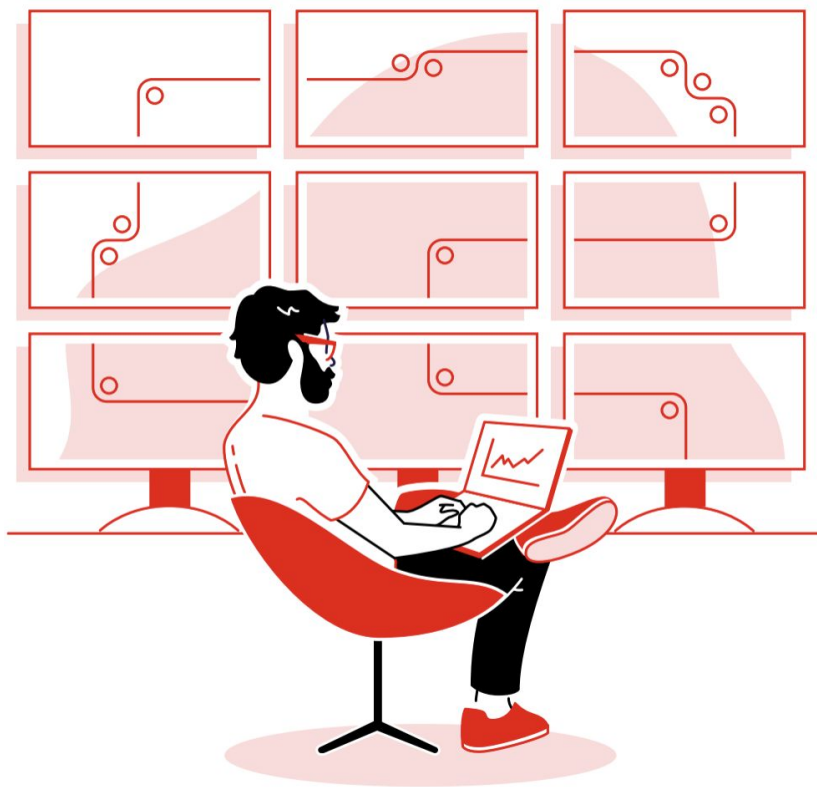


An integration with VMware's self-hosted, on-premise virtualization tools, such as VMware ESXi and vSphere



Supported set of Ansible® Automation Platform content designed to operationalize hybrid cloud management

What is the value of Ansible Automation Platform?



Speed

Reduce the number of manual steps and GUI-clicking, enable the orchestration of multiple tools and accelerate their interaction with each other



Reduce human error

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

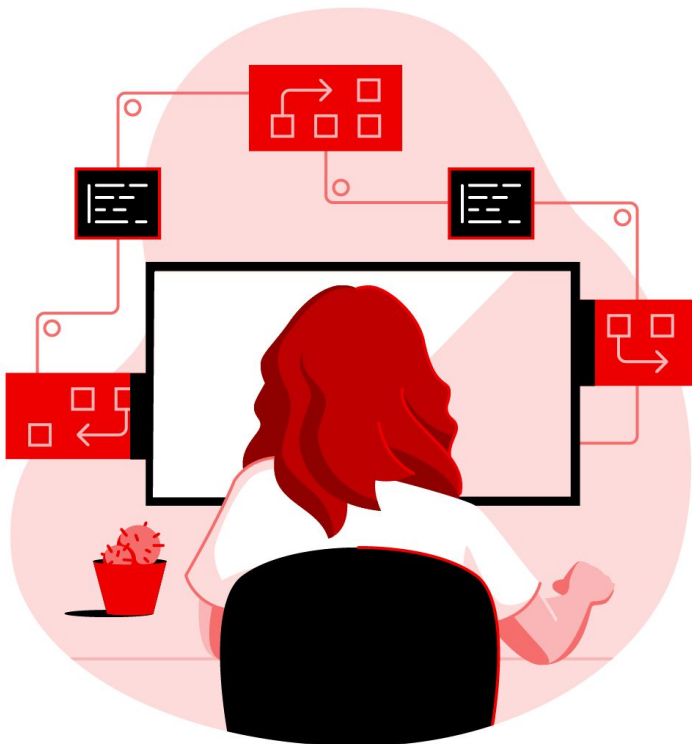


Consistency

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

Ansible Automation Platform content

Where do I download the Ansible Automation Platform collections?



Trusted starting point to bootstrap your automation

Validated Content

cloud.vmware_ops

red.ht/ansible_vmware ▶



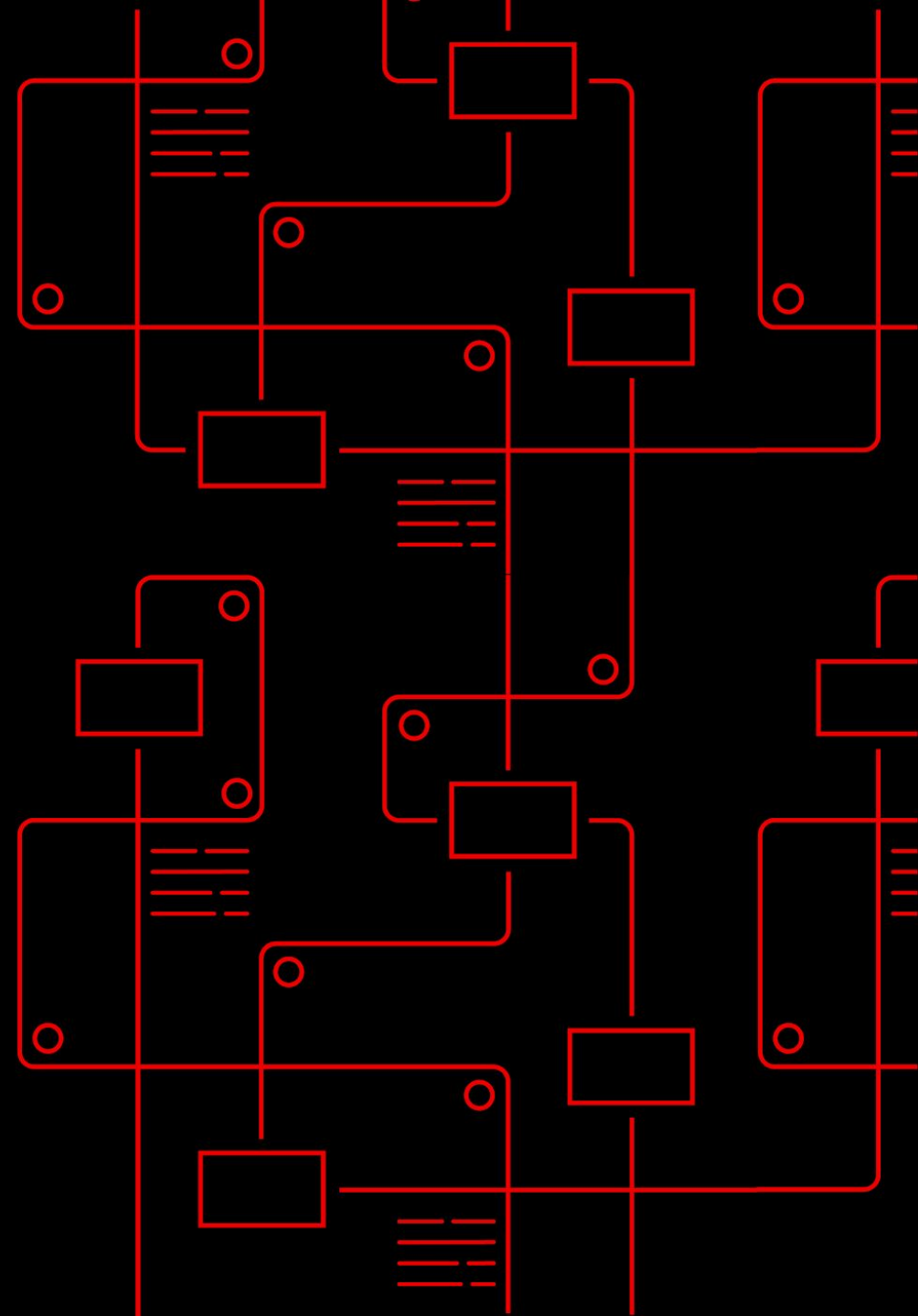
Fully supported Ansible content collection

Certified Content

vmware.vmware

red.ht/ansible_vmware_certified

Hello world example



Hello world example

Shutting down a guest virtual machine

```
---
- name: shutdown vm guest
  hosts: localhost
  gather_facts: false
  tasks:
    - name: turn off specified vm guest
      vmware.vmware_rest.vcenter_vm_guest_power:
        state: shutdown
        vm: 1021343
        vcenter_hostname: vcenter.demoredhat.com
        vcenter_username: admin
        vcenter_password: tedlasso
```

Hello world example

FQCN = fully qualified collection name

```
---
- name: shutdown vm guest
  hosts: localhost
  gather_facts: false
  tasks:
    - name: shutdown vm guest
      namespace: vmware
      collection: vmware_rest
      module: vcenter_vm_guest_power
      vmware_vmware_rest_vcenter_vm_guest_power:
        state: shutdown
        vm: 1021343
        vcenter_hostname: vcenter.demoredhat.com
        vcenter_username: admin
        vcenter_password: tedlasso
```

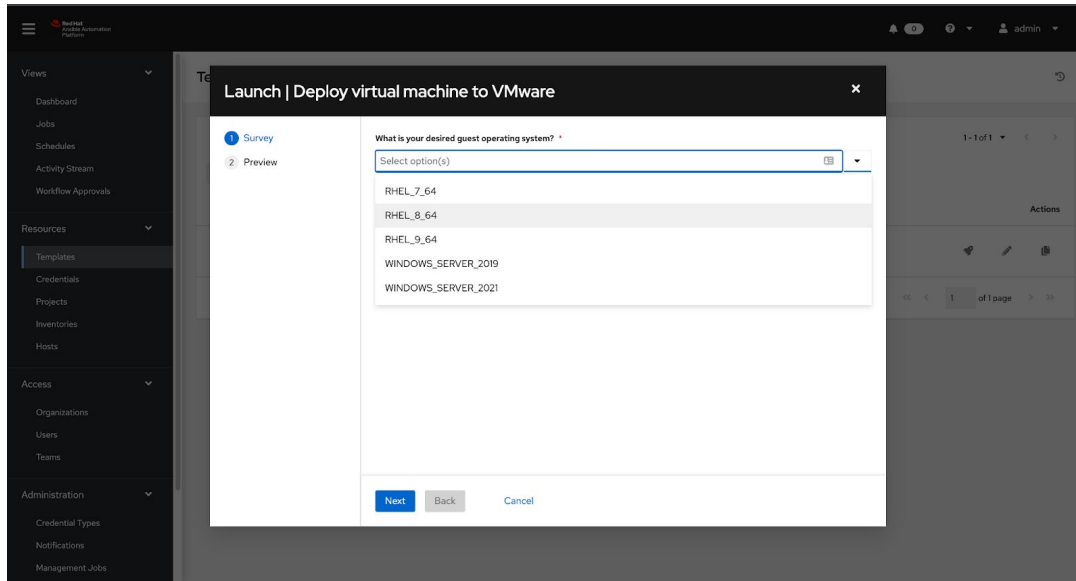
Hello world example 2

Provisioning a Virtual Machine from a template

```
---
- name: Ansible Playbook example
  hosts: localhost
  gather_facts: false
  tasks:
    - name: Provision a VM from template
      ansible.builtin.import_role:
        name: cloud.vmware_ops.provision_vm
      vars:
        provision_vm_name: "rhel9-sean"
        provision_vm_template: "rhel9-template"
        provision_vm_hostname: "pool1-vcenter2.practice.redhat.com"
        provision_vm_folder: "/Datacenter/vm/"
        provision_vm_datacenter: "Datacenter"
        provision_vm_cluster: "New Cluster"
```

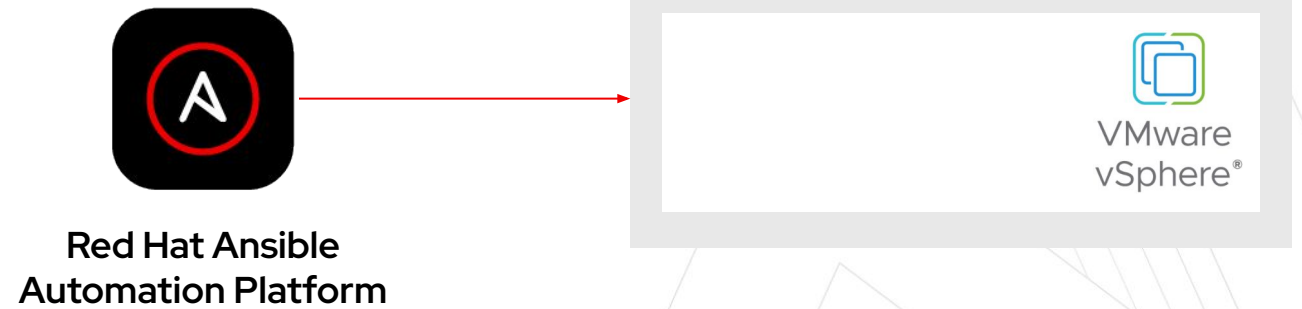
Provision virtual machine

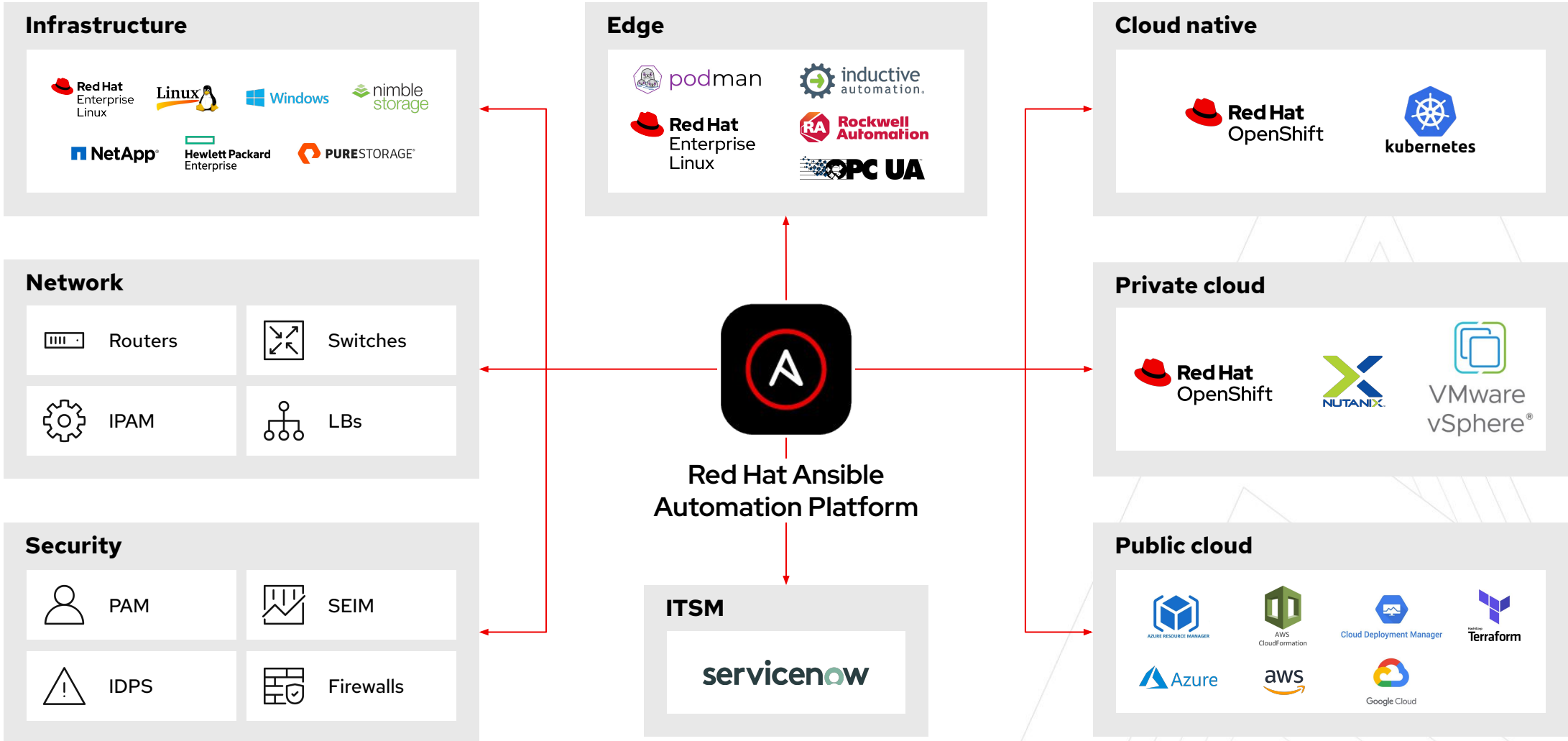
Elevate tasks with survey feature



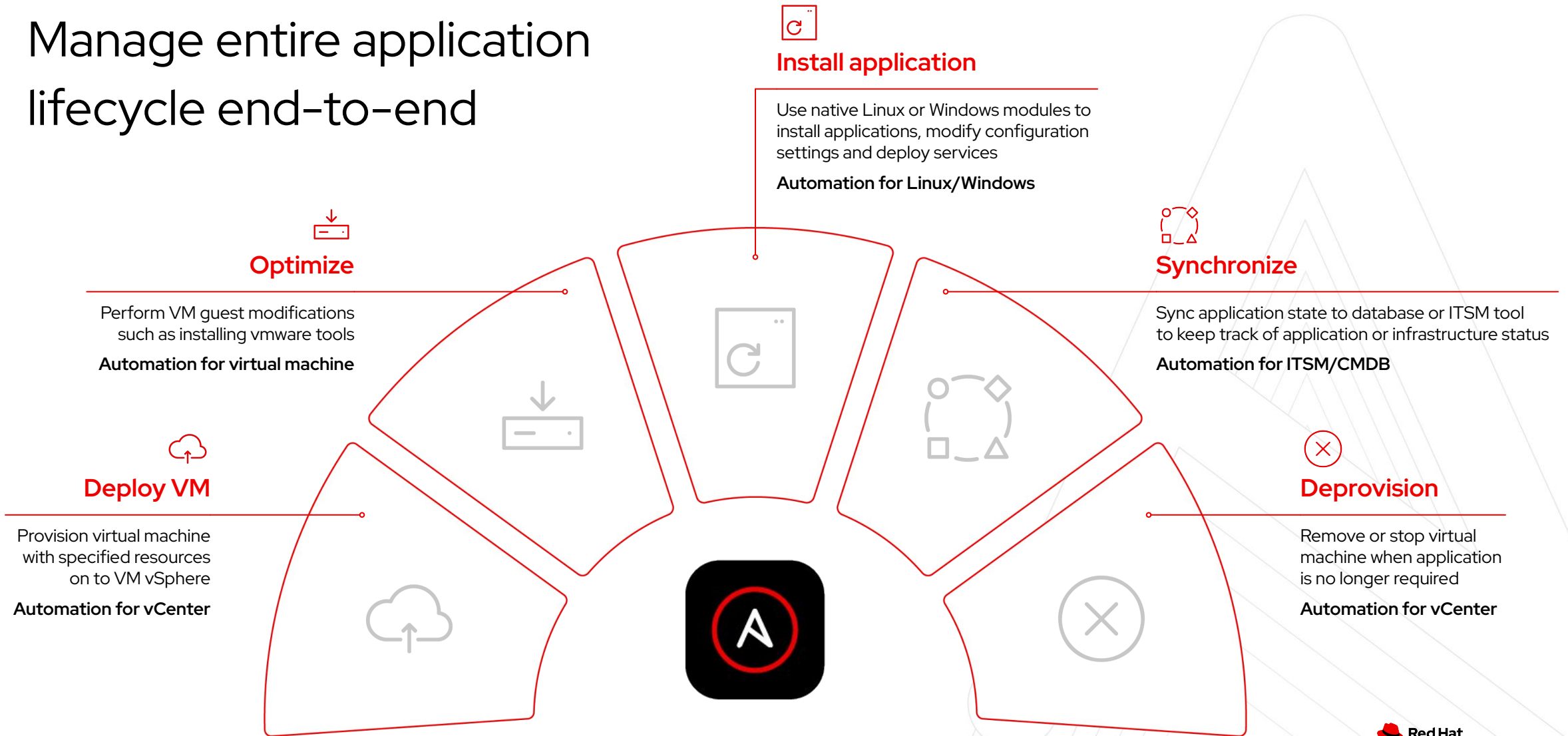
- ▶ No VMware specific knowledge required to execute complex tasks
- ▶ Empower novices to take on more activities with guardrails
- ▶ Automate routine and boring tasks away

vSphere needs to be orchestrated with other infrastructure





Manage entire application lifecycle end-to-end



1 Provision Red Hat Enterprise Linux®

```
---
- name: create virtual machine
  ansible.builtin.import_role:
    name: cloud.vmware_ops.provision_vm
  vars:
    provision_vm_hostname: "RHEL9"
    provision_vm_guest_id: "rhel9_64Guest"
```

vmware®

2 Deploy application

```
---
- name: deploy application
  ansible.builtin.dnf:
    name: nginx

- include_role:
    name: customize nginx application
```

 Red Hat
Enterprise
Linux

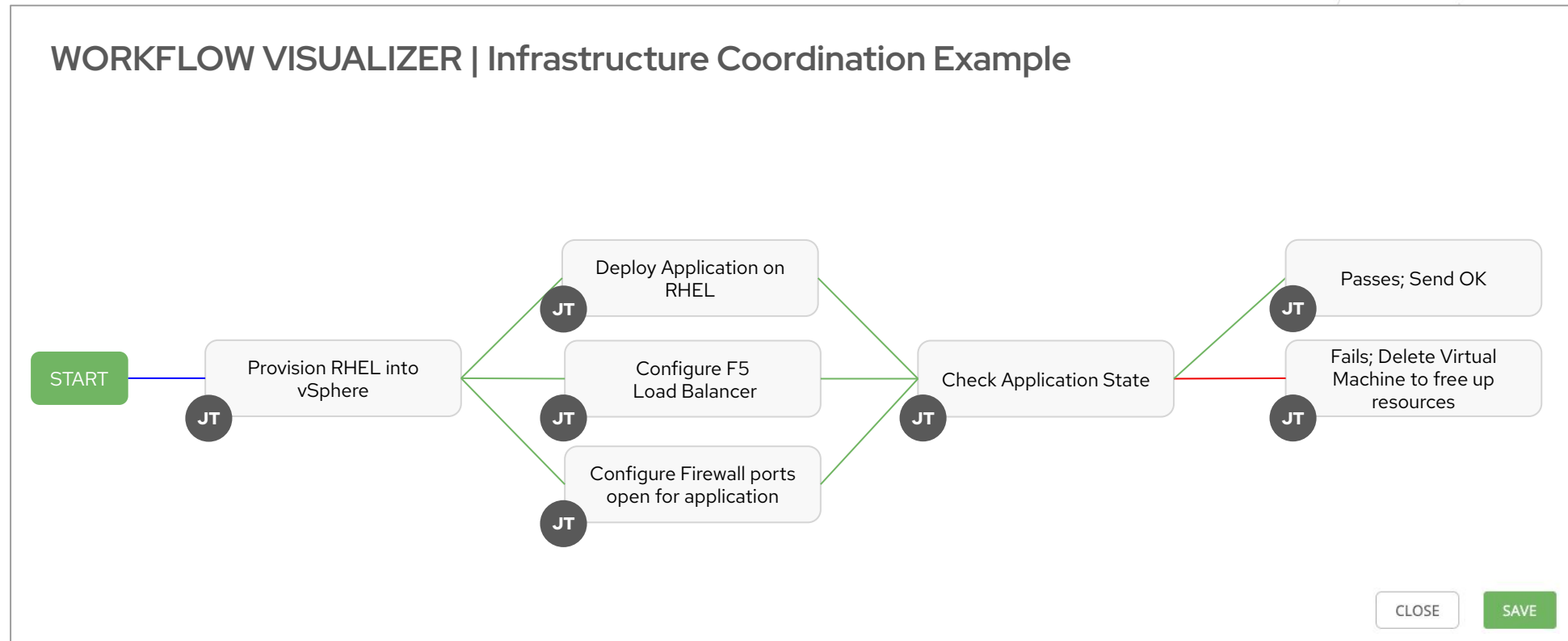
3 Configure F5 load balancer

```
---
- name: add pool members
  f5networks.f5_modules.bigip_pool_member:
    pool: my_pool
    name: my_application
    host: "192.168.1.49"
```



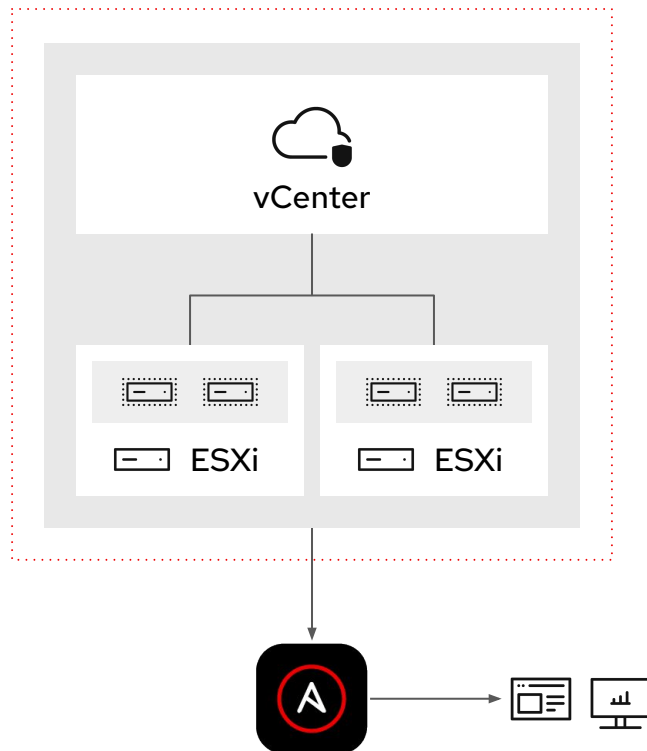
Ansible Automation Platform

Using workflows to enhance your automation



Use case: operational awareness

Retrieve Ansible Automation Platform facts around a VMware vSphere resource



```
---  
- name: turn off virtual machine  
  hosts: localhost  
  gather_facts: false  
  tasks:  
    - name: Get the system mem status  
      vmware.vmware_rest.appliance_health_mem_info:  
        register: mem_status  
  
    - name: Check if the system is up to date  
      vmware.vmware_rest.appliance_update_info:  
        register: system_update
```

Learning resources

Continue your automation journey with Red Hat Ansible Automation Platform



Start your free trial at
red.ht/ansible_trial

- ▶ Ansible Automation Labs
red.ht/ansible_labs
- ▶ E-book:
An IT executive's guide to automation
red.ht/automate_guide
- ▶ Ansible Basics:
Automation Technical Overview
red.ht/automation_basics

Thank you

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linkedin.com/company/red-hat



youtube.com/c/AnsibleAutomation



facebook.com/redhatinc



twitter.com/ansible

Collection	Description	Automation Hub	GitHub	Docs
cloud.vmware_ops	Validated content collection. Focused on use-cases via Roles & Playbooks that are easily consumable by customers.	Link	Link	Only in Automation hub and Github
vmware.vmware	Certified content collection. Will add capabilities that are not in vmware_rest, and includes modules from community.vmware collection	Link	Link	Link

Dependencies

Collection	Description	Automation Hub	GitHub	Docs
vmware.vmware_rest	Certified content collection based upon VMware vSphere REST API interface. This never reached full feature parity with community.vmware which is the reason for vmware.vmware	Link	Link	Link
community.vmware	Original content collection relying on any third party libraries such as Pyvmomi and vSphere Automation SDK for Python.	Link	Link	Link