

ANSIBLE

AUTOMATION FOR EVERYONE

Ansible technical introduction and overview

Phil Cornelius

Sr. Specialist Solution Architect (EMEA) of Ansible, Red Hat

CONFIDENTIAL



ANSIBLE

AUTOMATE ~~REPEAT IT~~

<#>
CONFIDENTIAL



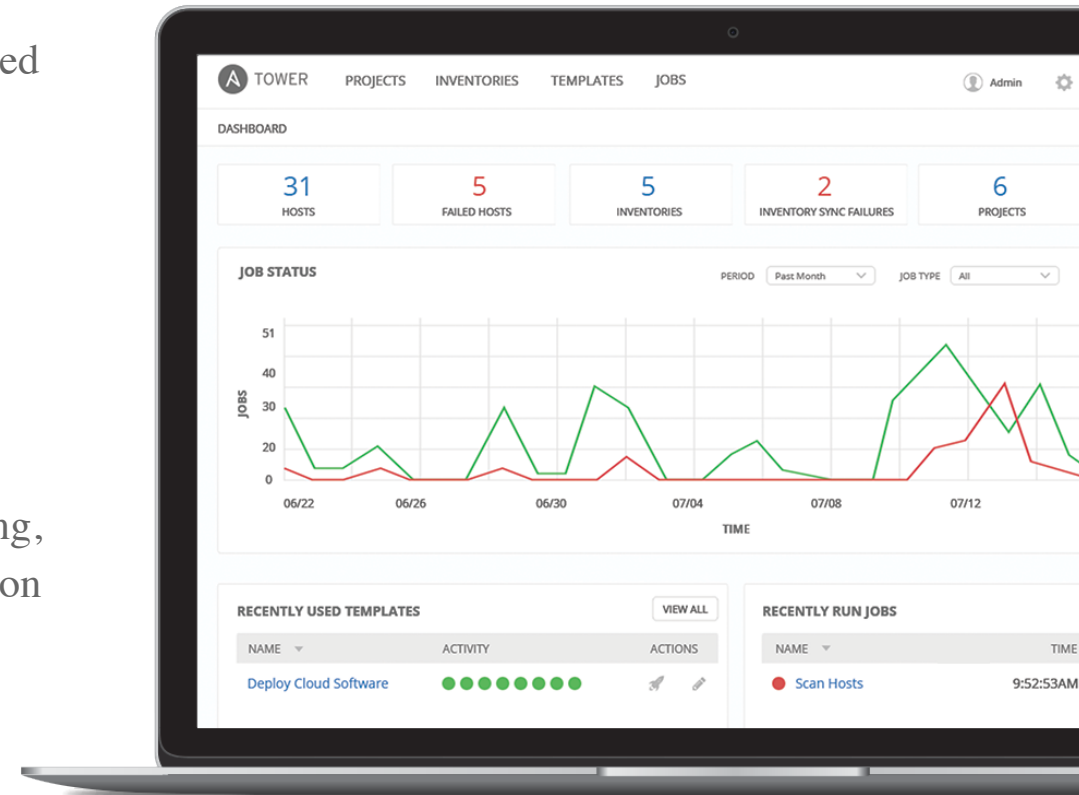
WHAT IS ANSIBLE AUTOMATION?

ANSIBLE

The Ansible project is an open source community sponsored by Red Hat. It's also a **simple automation language** that perfectly describes IT application environments in **Ansible Playbooks**.

Ansible Engine is a **supported product** built from the Ansible community project.

Ansible Tower is an **enterprise framework** for controlling, securing, managing and extending your Ansible automation (community or engine) with a **UI and RESTful API**.



v1 - Set config file to use on boot

1. Write multiple configuration files
 - For each environment/region
2. Inspect metadata on boot and use the matching config file

v1 - Set config file to use on boot

1. Write multiple configuration files
 - For each environment/region
2. Inspect metadata on boot and use the matching config file



29,000+

Stars on GitHub

1500+

Ansible modules

400,000+

Downloads a month

THE ANSIBLE WAY

CROSS PLATFORM

Agentless support for all major OS variants, physical, virtual, cloud and network devices.

HUMAN READABLE

Perfectly describe and document every aspect of your application environment.

PERFECT DESCRIPTION OF APPLICATION

Every change can be made by Playbooks, ensuring everyone is on the same page.

VERSION CONTROLLED

Playbooks are plain-text. Treat them like code in your existing version control.

DYNAMIC INVENTORIES

Capture all the servers 100% of the time, regardless of infrastructure, location, etc.

ORCHESTRATION PLAYS WELL WITH OTHERS

Every change can be made by Playbooks, ensuring everyone is on the same page.

WHY ANSIBLE?

ANSIBLE



SIMPLE

- Human readable automation
- No special coding skills needed
- Tasks executed in order
- Usable by every team
- Get productive quickly**



POWERFUL

- App deployment
- Configuration management
- Workflow orchestration
- Network automation
- Orchestrate the app lifecycle**



AGENTLESS

- Agentless architecture
- Uses OpenSSH & WinRM
- No agents to exploit or update
- Get started immediately
- More efficient & more secure**

WHAT CAN I DO WITH ANSIBLE?

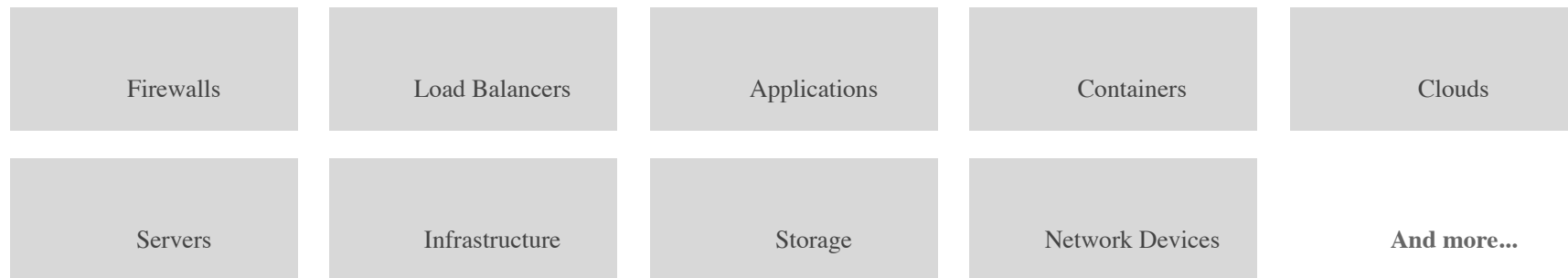
ANSIBLE

Automate the deployment and management of your entire IT footprint.

Do this...

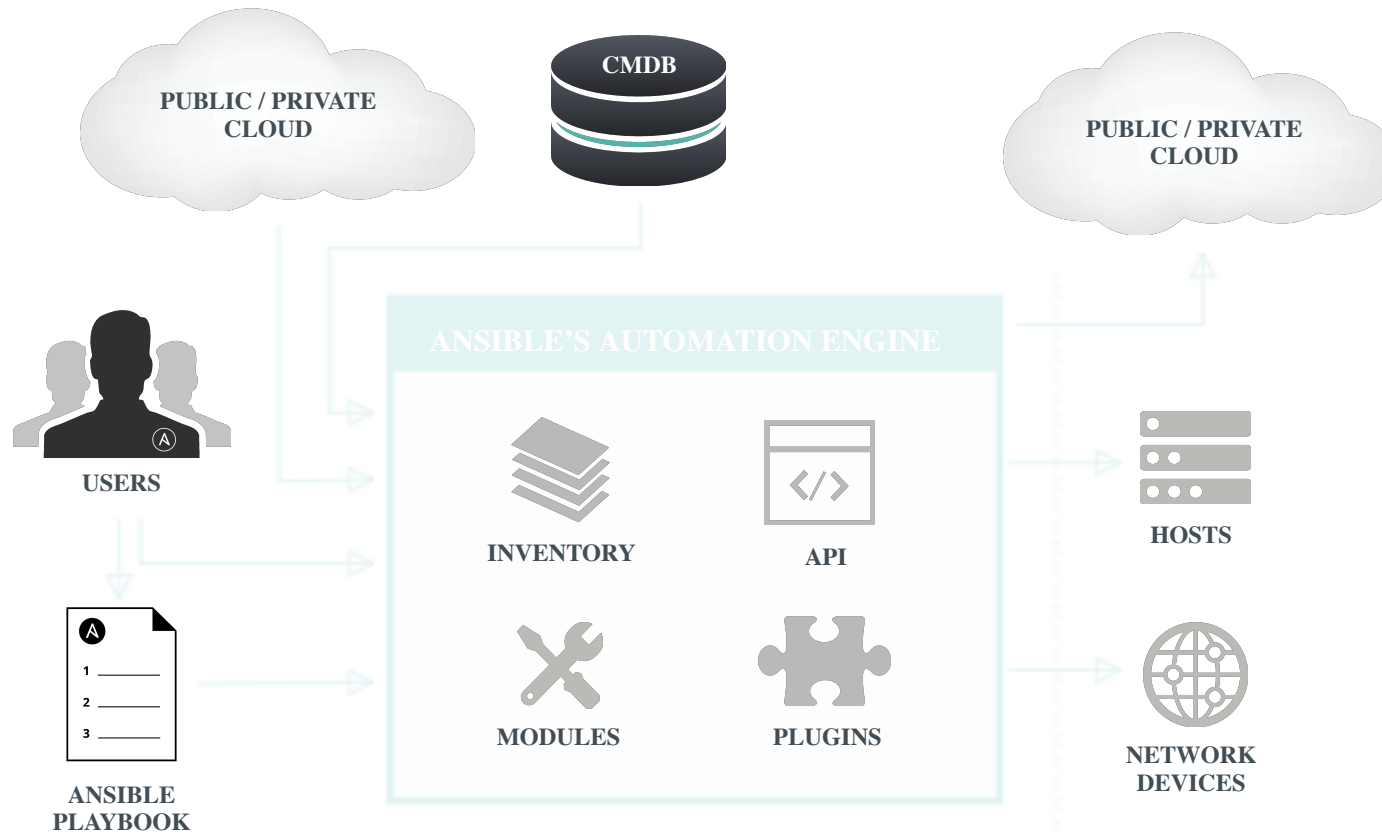


On these...



HOW ANSIBLE WORKS

ANSIBLE



CLOUD

OpenStack, VMware, EC2, Rackspace, GC
Azure,
Spacewalk, Hanlon, Cobbler

CUSTOM CMDB

ANSIBLE

ANSIBLE

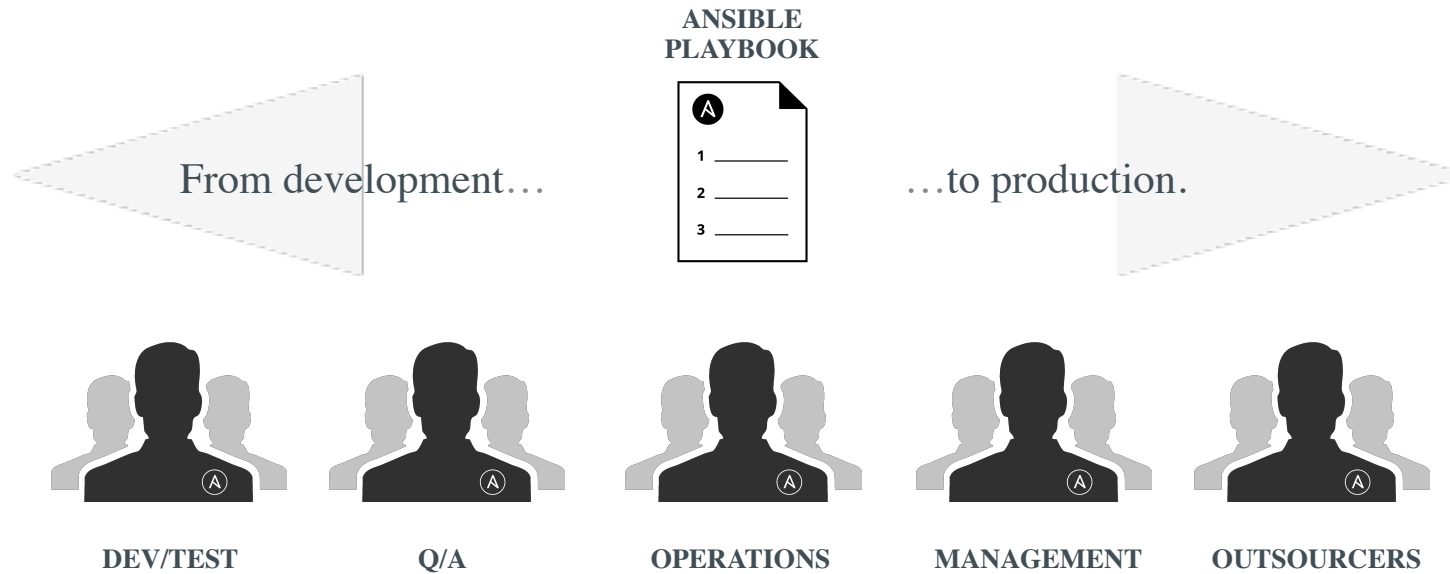
THE LANGUAGE OF DEVOPS

<#>
CONFIDENTIAL



COMMUNICATION IS THE KEY TO DEVOPS

ANSIBLE



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

Ansible is the only **automation engine** that can automate the entire application lifecycle and continuous delivery pipeline.

PLAYBOOK EXAMPLE

ANSIBLE

```
---
- name: install and start apache
  hosts: web
  become: yes
  vars:
    http_port: 80

  tasks:
    - name: httpd package is present
      yum:
        name: httpd
        state: latest

    - name: latest index.html file is present
      copy:
        src: files/index.html
        dest: /var/www/html/

    - name: httpd is started
      service:
        name: httpd
        state: started
```

ANSIBLE SHIPS WITH OVER 1250 MODULES

ANSIBLE

CLOUD

AWS
Azure
CenturyLink
CloudScale
Digital Ocean
Docker
Google
Linode
OpenStack
Rackspace
And more...

VIRT AND CONTAINER

Docker
VMware
RHEV
OpenStack
OpenShift
Atomic
CloudStack
And more...

WINDOWS

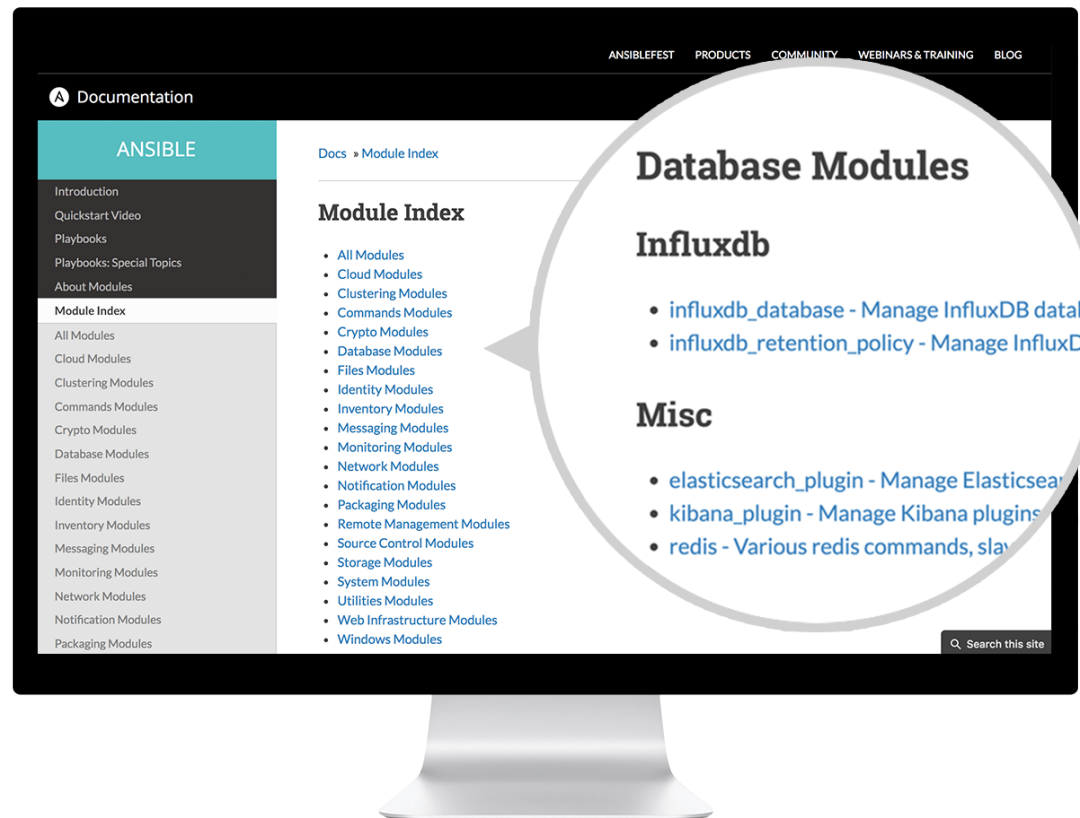
ACLs
Files
Commands
Packages
IIS
Regedits
Shell
Shares
Services
DSC
Users
Domains
And more...

NETWORK

Arista
A10
Cumulus
Big Switch
Cisco
Cumulus
Dell
F5
Juniper
Palo Alto
OpenSwitch
And more...

NOTIFY

HipChat
IRC
Jabber
Email
RocketChat
Sendgrid
Slack
Twilio
And more...





RED HAT®
ANSIBLE®
Tower

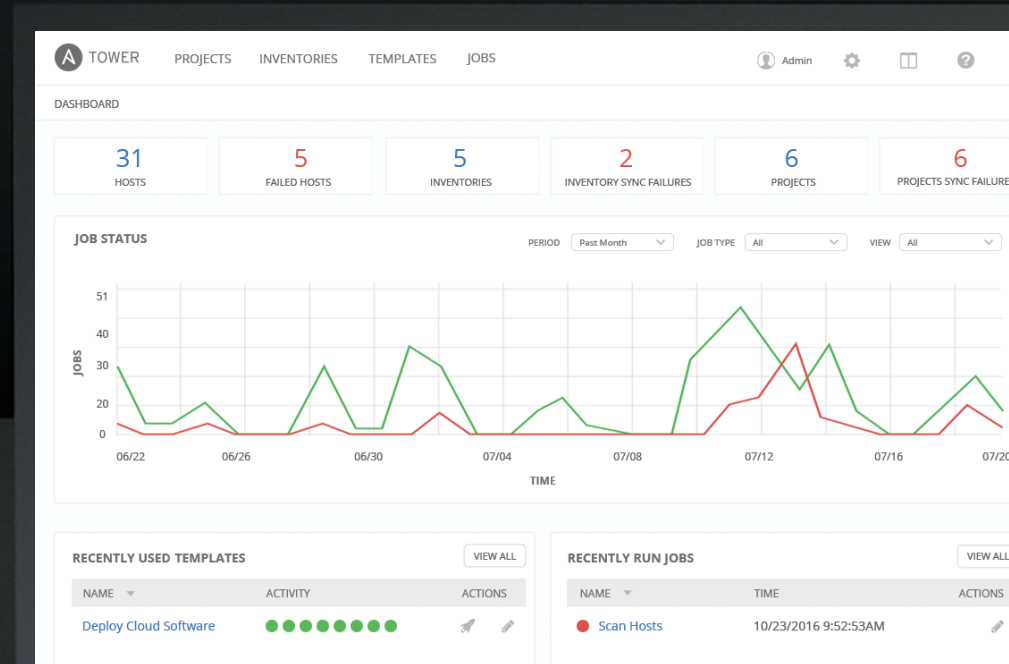
AUTOMATION FOR TEAMS

Ansible Tower technical introduction and overview

WHAT IS ANSIBLE TOWER?

Ansible Tower is an **enterprise framework** for controlling, securing and managing your Ansible automation – with a **UI and RESTful API**.

- **Role-based access control**
- **Deploy** entire applications with **push-button deployment** access
- All automations are **centrally logged**





RED HAT®
ANSIBLE®
Automation

RED HAT ANSIBLE TOWER

Scale + operationalize your automation

CONTROL

KNOWLEDGE

DELEGATION

RED HAT ANSIBLE ENGINE

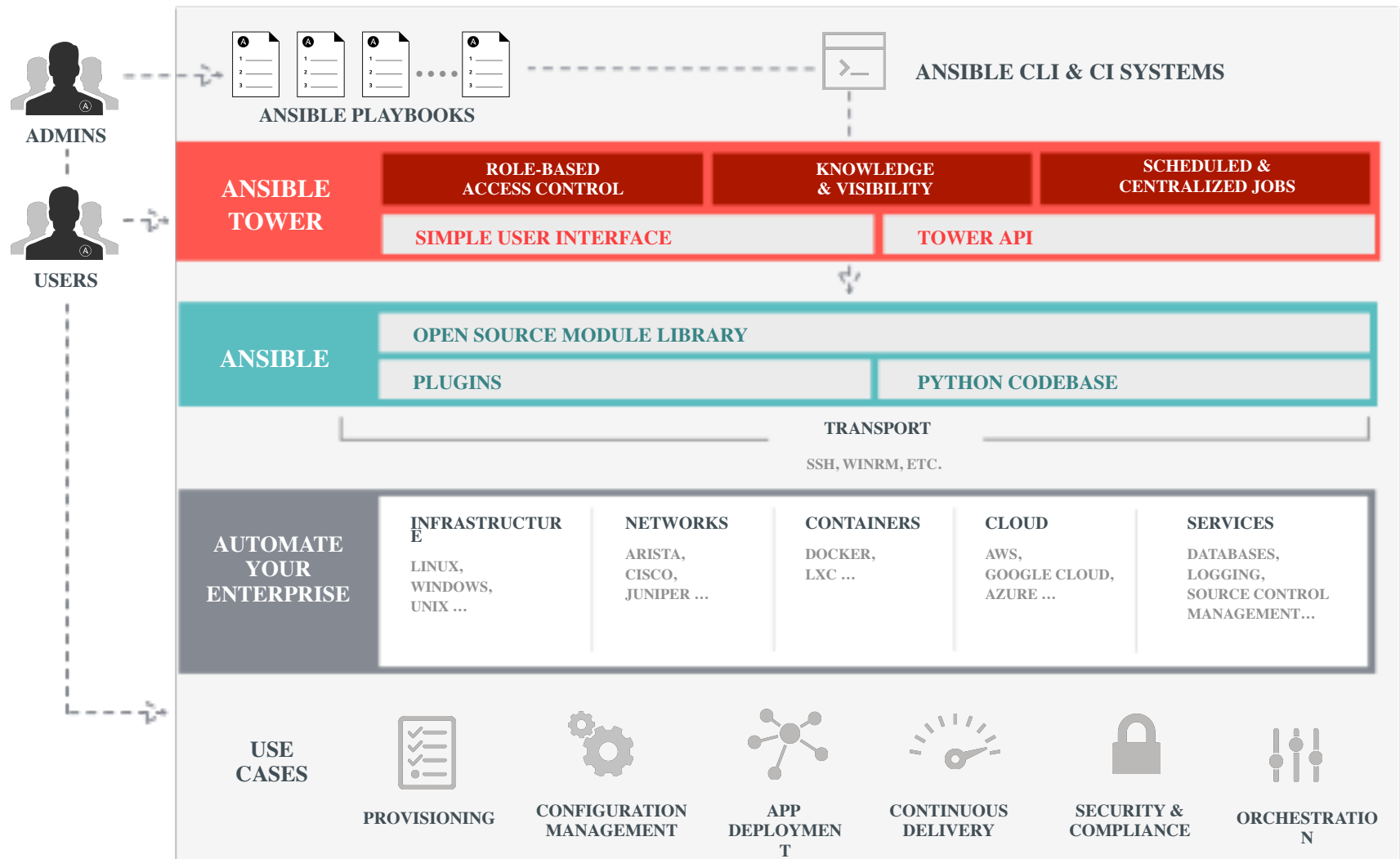
Support for your Ansible automation

SIMPLE

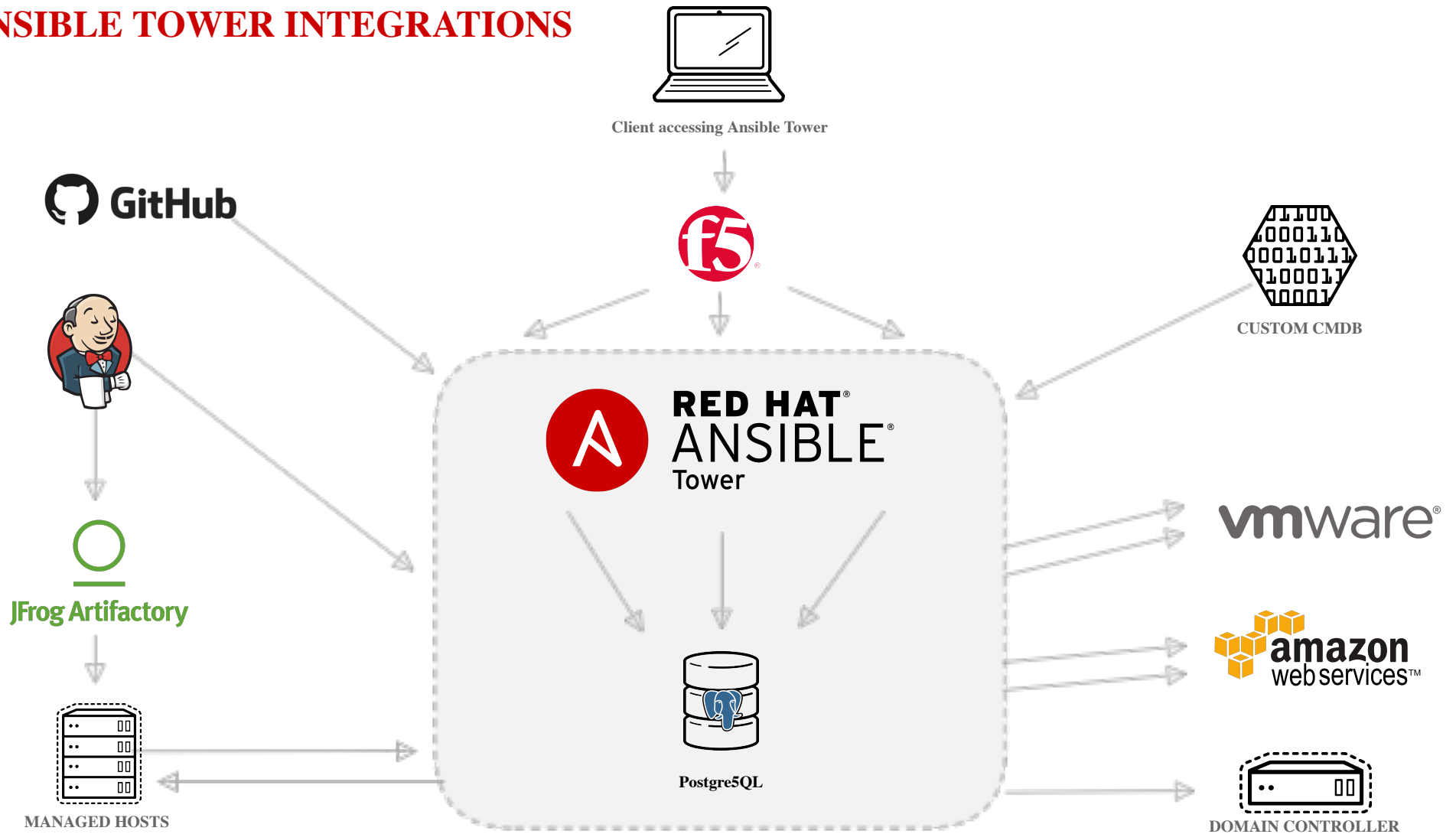
POWERFUL

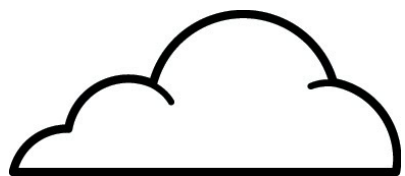
AGENTLESS

FUELED BY AN INNOVATIVE OPEN SOURCE COMMUNITY



ANSIBLE TOWER INTEGRATIONS





INTERNET

VMware Fusion



GitLab



JFrog Artifactory



TeamCity



clearOS

DHCP
DNS
LDAP
SQUID
SMTP



**ANSIBLE
TOWER**
by Red Hat®



Windows® 7



redhat.

dev scratch appsrv01 appsrv02

ANSIBLE

Demo



RED HAT[®]
ANSIBLE[®]
Tower

Questions ?