ANSIBLE

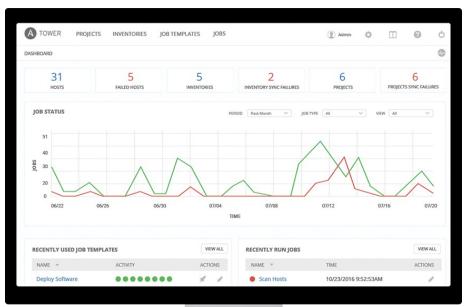
AUTOMATION FOR EVERYONE



It's a **simple automation language** that can perfectly describe an IT application infrastructure in Ansible Playbooks.

It's an **automation engine** that runs Ansible Playbooks.

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









SIMPLE

Human readable automation No special coding skills needed Tasks executed in order Get productive quickly



POWERFUL

App deployment Configuration management Workflow orchestration **Orchestrate the app lifecycle**

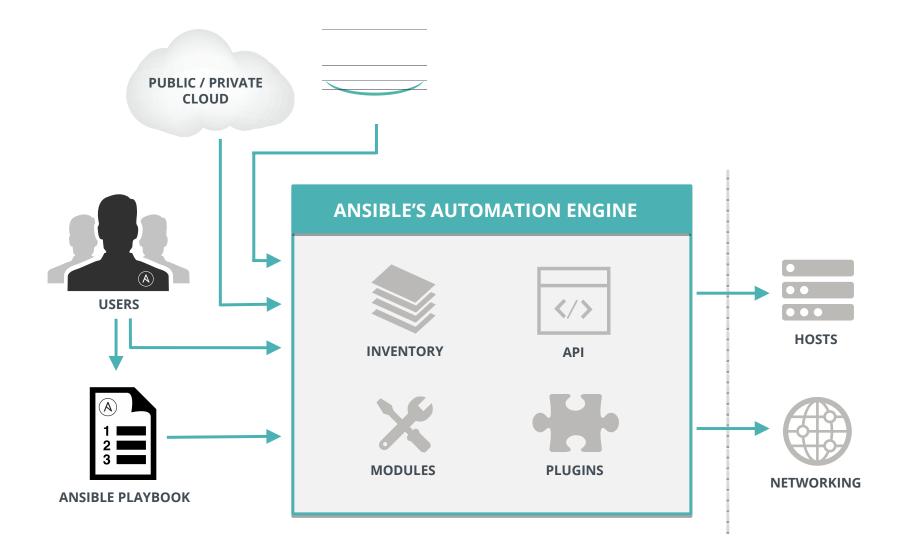


AGENTLESS

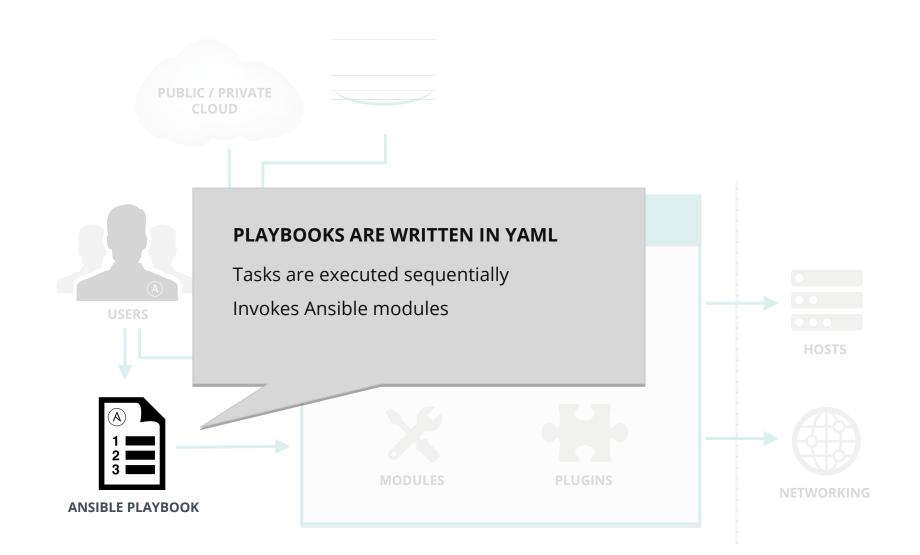
Agentless architecture Uses OpenSSH & WinRM No agents to exploit or update More efficient & more secure



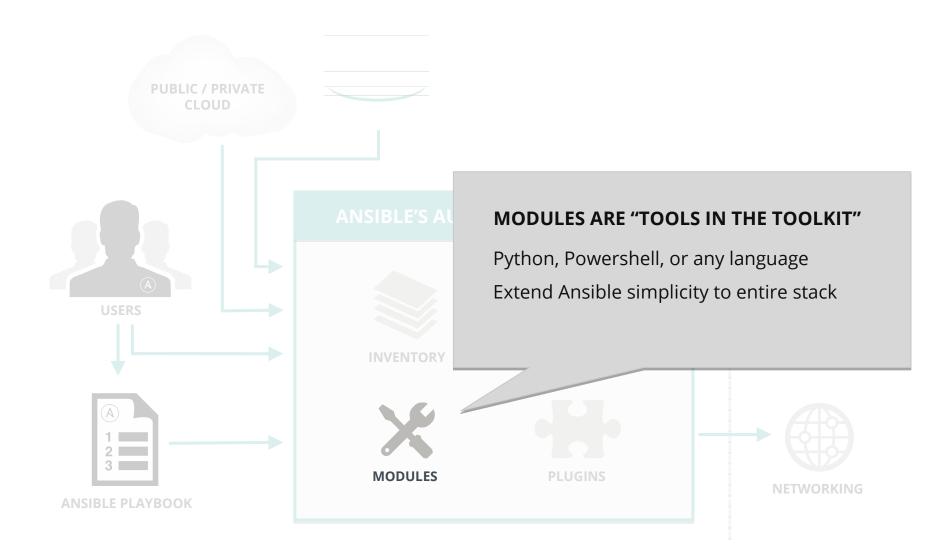








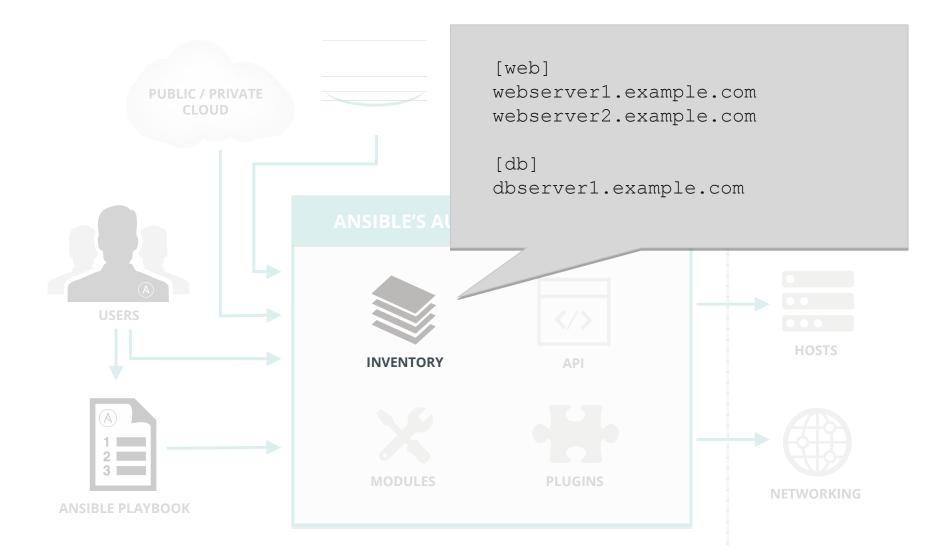




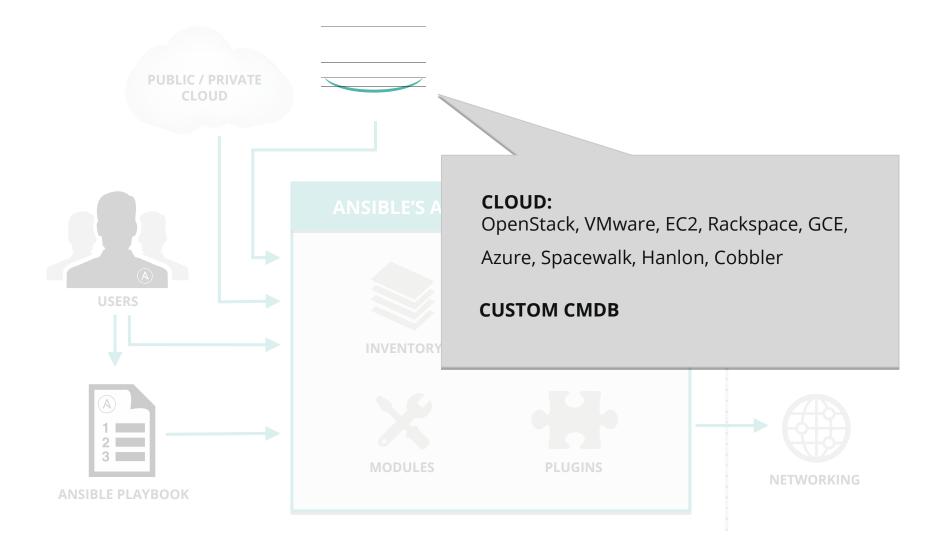




HOW ANSIBLE WORKS









```
- name: install and start apache
hosts: all
vars:
  http port: 80
  max clients: 200
 remote user: root
 tasks:
 - name: install httpd
   yum: pkg=httpd state=latest
 - name: write the apache config file
   template: src=/srv/httpd.j2 dest=/etc/httpd.conf
 - name: start httpd
   service: name=httpd state=running
```



```
- name: install and start apache
hosts: all
vars:
  http port: 80
  max clients: 200
 remote user: root
 tasks:
 - name: install httpd
   yum: pkg=httpd state=latest
 - name: write the apache config file
   template: src=/srv/httpd.j2 dest=/etc/httpd.conf
 - name: start httpd
   service: name=httpd state=running
```



```
- name: install and start apache
hosts: all
vars:
  http port: 80
  max clients: 200
 remote user: root
 tasks:
 - name: install httpd
   yum: pkg=httpd state=latest
 - name: write the apache config file
   template: src=/srv/httpd.j2 dest=/etc/httpd.conf
 - name: start httpd
   service: name=httpd state=running
```



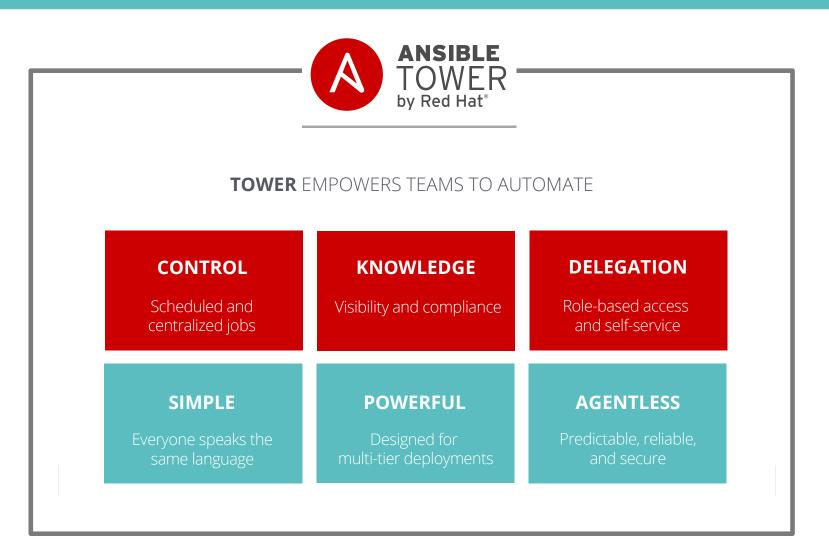
```
- name: install and start apache
hosts: all
vars:
  http port: 80
  max clients: 200
 remote user: root
 tasks:
 - name: install httpd
   yum: pkg=httpd state=latest
 - name: write the apache config file
   template: src=/srv/httpd.j2 dest=/etc/httpd.conf
 - name: start httpd
   service: name=httpd state=running
```

```
- name: install and start apache
hosts: all
vars:
  http port: 80
  max clients: 200
 remote user: root
 tasks:
 - name: install httpd
   yum: pkg=httpd state=latest
 - name: write the apache config file
   template: src=/srv/httpd.j2 dest=/etc/httpd.conf
 - name: start httpd
   service: name=httpd state=running
```



```
- name: install and start apache
hosts: all
vars:
  http port: 80
  max clients: 200
 remote user: root
 tasks:
 - name: install httpd
  yum: pkg=httpd state=latest
 - name: write the apache config file
   template: src=/srv/httpd.j2 dest=/etc/httpd.conf
 - name: start httpd
   service: name=httpd state=running
```

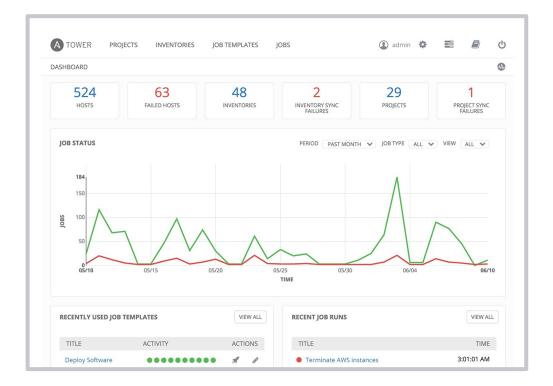




AT ANSIBLE'S CORE IS AN **OPEN-SOURCE** AUTOMATION ENGINE



WHAT IS ANSIBLE TOWER?

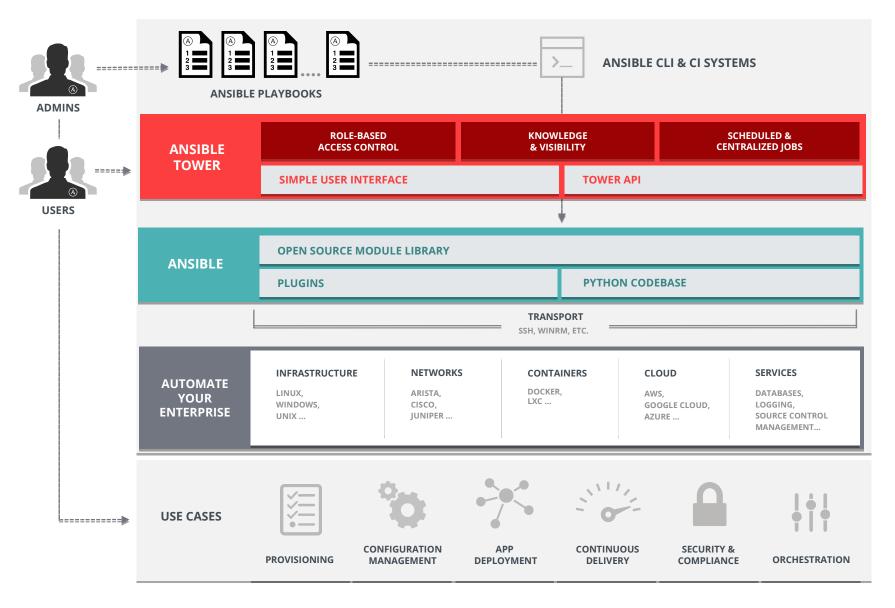


Ansible tower is an **enterprise framework** for controlling, securing and managing your Ansible automation – with a **UI and restful API.**

- Role-based access control keeps environments secure, and teams efficient.
- Non-privileged users can safely deploy entire applications with push-button deployment access.
- All Ansible automations are centrally logged, ensuring complete auditability and compliance.
- Integrates with the api



PLATFORM OVERVIEW





USE CASES



CONFIG MANAGEMENT

Centralizing configuration file management and deployment is a common use case for Ansible, and it's how many power users are first introduced to the Ansible automation platform.



APP DEPLOYMENT

When you define your application with Ansible, and manage the deployment with Tower, teams are able to effectively manage the entire application lifecycle from development to production.

. I.
1
•

PROVISIONING

Your apps have to live somewhere. If you're PXE booting and kickstarting bare-metal servers or VMs, or creating virtual or cloud instances from templates, Ansible and Ansible Tower help streamline the process.



NETWORK AUTOMATION

Ansible's simple automation framework means that previously isolated network administrators can finally speak the same language of automation as the rest of the IT organization, extending the capabilities of Ansible to include native support for both legacy and open network infrastructure devices.



CONTINUOUS DELIVERY

Creating a CI/CD pipeline requires buy-in from numerous teams. You can't do it without a simple automation platform that everyone in your organization can use. Ansible Playbooks keep your applications properly deployed (and managed) throughout their entire lifecycle.

SECURITY & COMPLIANCE

When you define your security policy in Ansible, scanning and remediation of site-wide security policy can be integrated into other automated processes and instead of being an afterthought, it'll be integral in everything that is deployed.



ORCHESTRATION

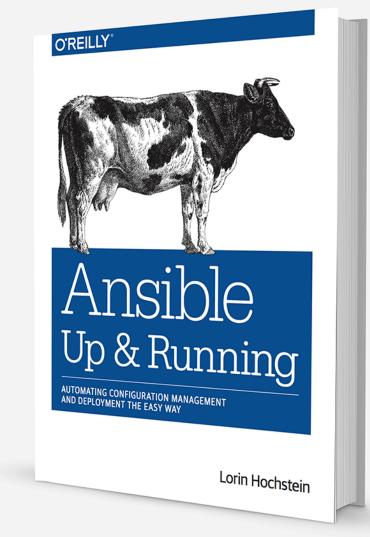
Configurations alone don't define your environment. You need to define how multiple configurations interact and ensure the disparate pieces can be managed as a whole. Out of complexity and chaos, Ansible brings order.



COMMUNITY

THE MOST POPULAR OPEN-SOURCE AUTOMATION COMMUNITY ON GITHUB

- 17,500+ stars & 5,300+ forks on GitHub
- 2000+ GitHub Contributors
- Over 450 modules shipped with Ansible
- New contributors added every day
- 1400+ users on IRC channel
- Top 10 open source projects in 2014
- World-wide meetups taking place every week
- Ansible Galaxy: over 7,000 Roles
- 250,000+ downloads a month
- AnsibleFests in NYC, SF, London





MODULES

Docs » Module Index

Module Index

- All Modules
- Cloud Modules
- Clustering Modules
- Commands Modules
- Database Modules
- Files Modules
- Inventory Modules
- Messaging Modules
- Monitoring Modules
- Network Modules
- Notification Modules
- Packaging Modules
- Source Control Modules
- System Modules
- Utilities Modules
- Web Infrastructure Modules
- Windows Modules

service - Manage services.

- Synopsis
- Options
- ExamplesThis is a Core Module
- **Synopsis**

Controls services on remote hosts. Supported init systems include BSD init, OpenRC, SysV, Solaris SMF, systemd, upstart.

Options

parameter	required	default	choices	comments
arguments	no			Additional arguments provided on the command line
				aliases: args
enabled	no		yesno	Whether the service should start on boot. At least one of state and enabled are required.
name	yes			Name of the service.
pattern	no			If the service does not respond to the status command, nam a substring to look for as would be found in the output of the <i>ps</i> command as a stand-in for a status result. If the string is found, the service will be assumed to be running.
runlevel	no	default		For OpenRC init scripts (ex: Gentoo) only. The runlevel that this service belongs to.
sleep (added in 1.3)	no			If the service is being <u>restarted</u> then sleep this many second between the stop and start command. This helps to workaround badly behaving init scripts that exit immediatel after signaling a process to stop.
state	no		startedstoppedrestartedreloaded	started / stopped are idempotent actions that will not run commands unless necessary. <u>restarted</u> will always bounce the service. <u>reloaded</u> will always reload. At least one of state and enabled are required.



CROSS PLATFORM – Linux, Windows, UNIX

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

HUMAN READABLE - YAML

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 THAT PLAYS WELL WITH OTHERS – HP SA, Puppet, Jenkins, RHNSS, etc.

Homogenize existing environments by leveraging current toolsets and update mechanisms.



ANSIBLE: THE LANGUAGE OF DEVOPS



COMMUNICATION IS THE KEY TO DEVOPS.

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.



	TEAM IMPACT	ENTERPRISE IMPACT
+	Save time and be more productive	+ Overcome complexity
+	Eliminate repetitive tasks	+ More resources for innovation
+	Fewer mistakes & errors	+ Increase accountability and compliance
+	Improve collaboration and job satisfaction	+ A culture of success



ANSIBLE

MODERNIZE

Automate existing processes

Manage legacy like DevOps

MIGRATION

Define applications once

Re-deploy anywhere

DEVOPS

Model everything Deploy continuously



LAMP + HA Proxy + Nagios:

https://github.com/ansible/ansible-examples/tree/master/lamp_haproxy_

JBoss Application Server:

https://github.com/ansible/ansible-examples/tree/master/jboss-standalone

RHEL DISA STIG Compliance:

http://www.ansible.com/security-stig

Nework automation webinar http://bit.ly/2cFnSJG

Many more examples at: <u>http://galaxy.ansible.com</u> <u>https://github.com/ansible/ansible-examples</u>



ANSIBLE

GETTING STARTED

Have you used Ansible already? Try Tower for free: **ansible.com/tower-trial**

Would you like to learn Ansible? It's easy to get started: ansible.com/get-started

Want to learn more? ansible.com/whitepapers

