



Datacenter, Rete, Sicurezza Proattiva e Cloud automatizzati con Ansible Tower

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[#RedHatOSD](https://twitter.com/RedHatOSD)



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

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33,000+

Stars on GitHub

7500+

Contributors

1900+

Ansible modules

500,000+

Downloads a month



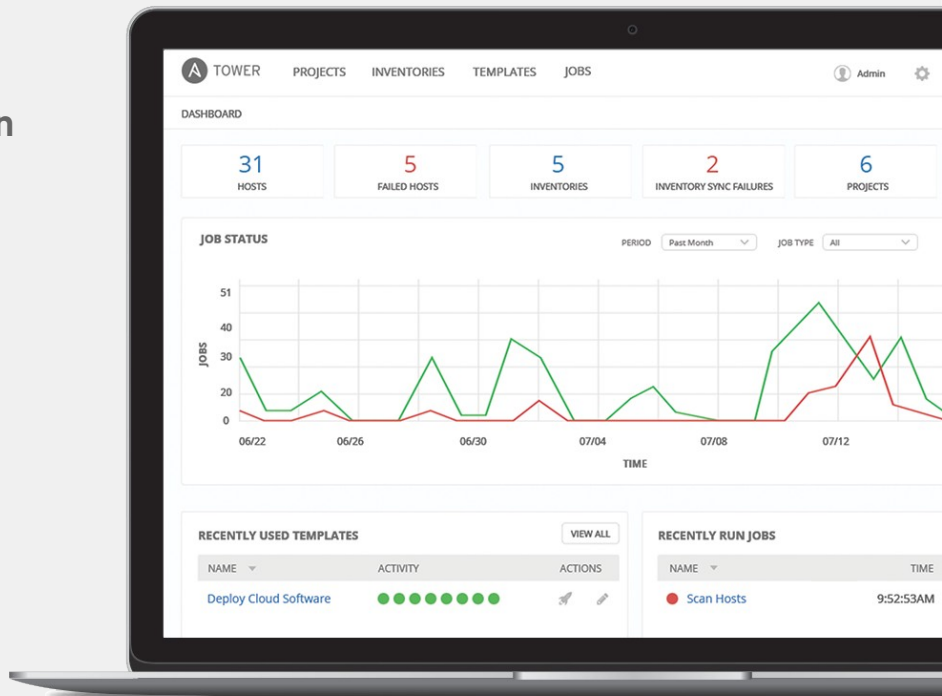
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WHAT IS ANSIBLE AUTOMATION ?

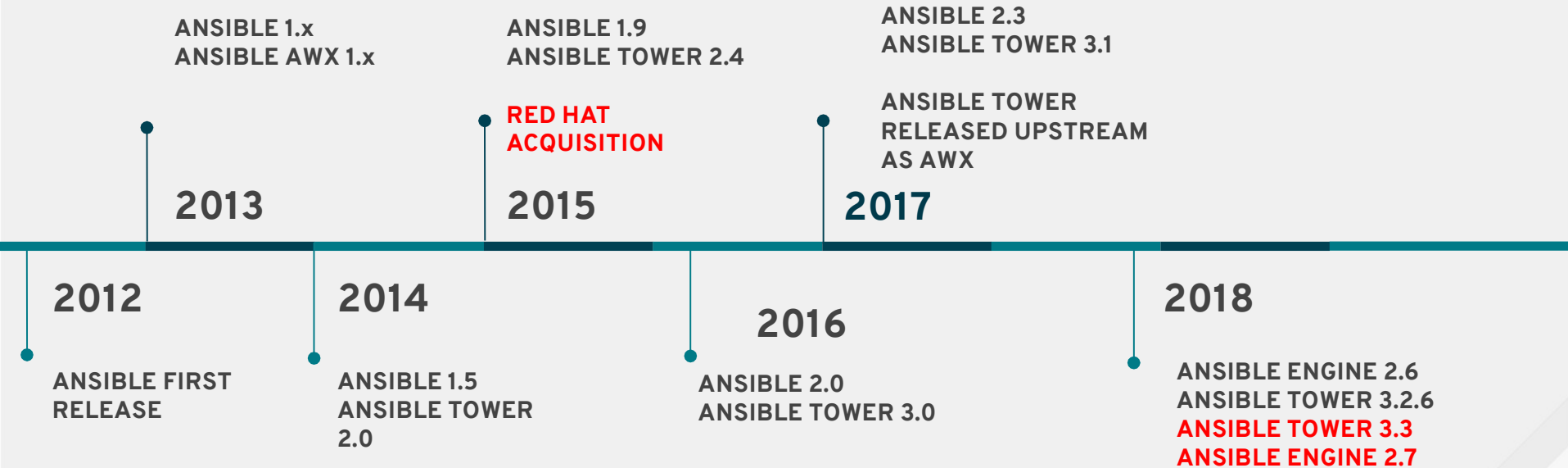
The Ansible project is an open source community sponsored by Red Hat. It's also a **simple automation language** that perfectly describes IT application environments in **Ansible Playbooks**.

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

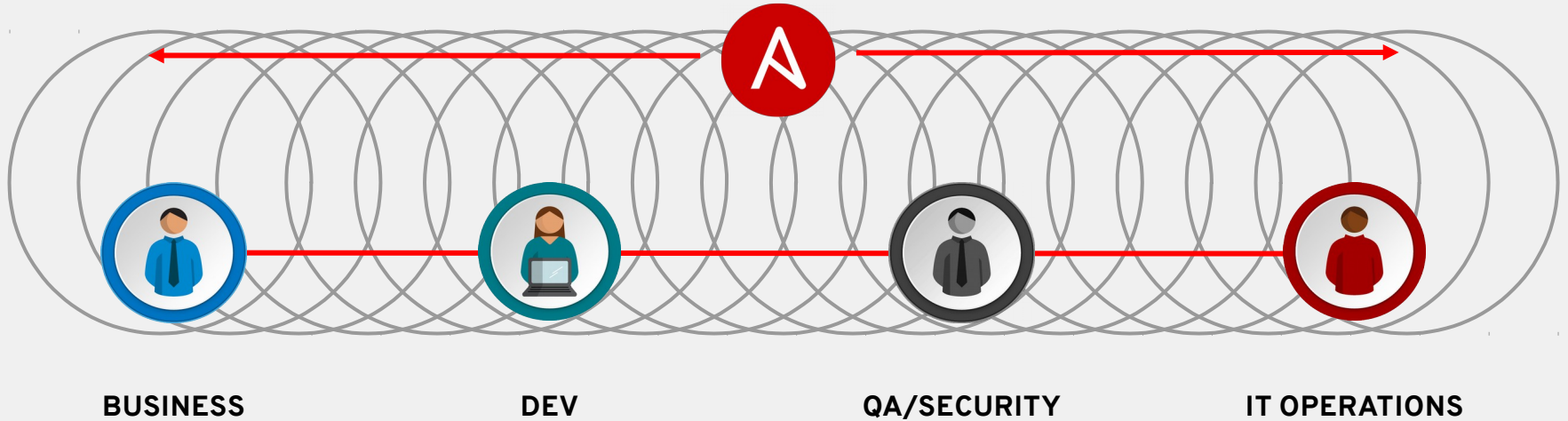
Ansible Tower is an **enterprise framework** for controlling, securing, managing and extending your Ansible automation with a **UI and RESTful API**.



ANSIBLE EVOLUTION



AUTOMATION FOR EVERYONE



EVEN I CAN RUN A PLAYBOOK :-)



A SIMPLE PLAYBOOK

- 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

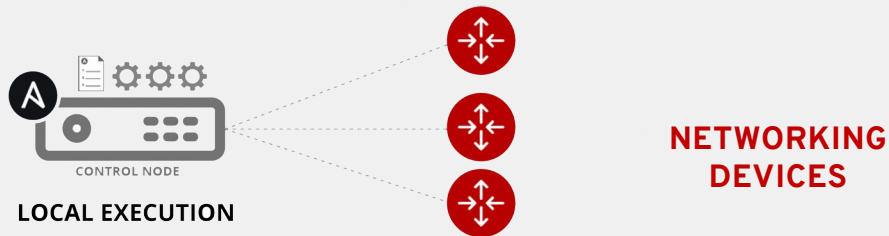
TASK

PLAY

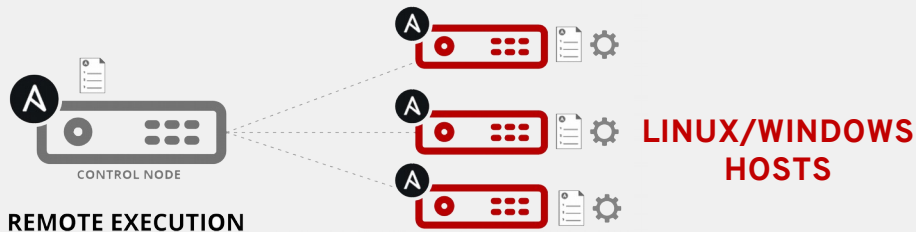


HOW ANSIBLE WORKS

Module code is executed locally on the control node



Module code is copied to the managed node, executed, then removed



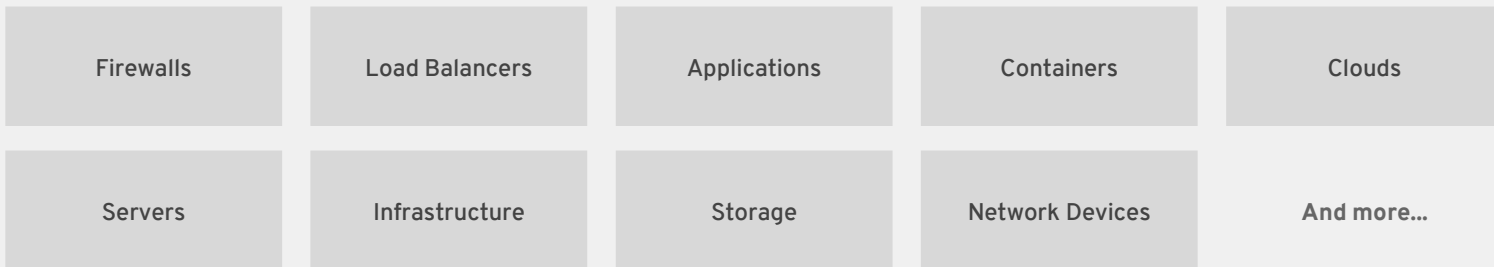
WHAT CAN I DO WITH ANSIBLE ?

Automate the deployment and management of your entire IT footprint.

Do this...



On these...

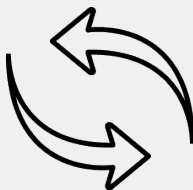


WHY ANSIBLE?



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**



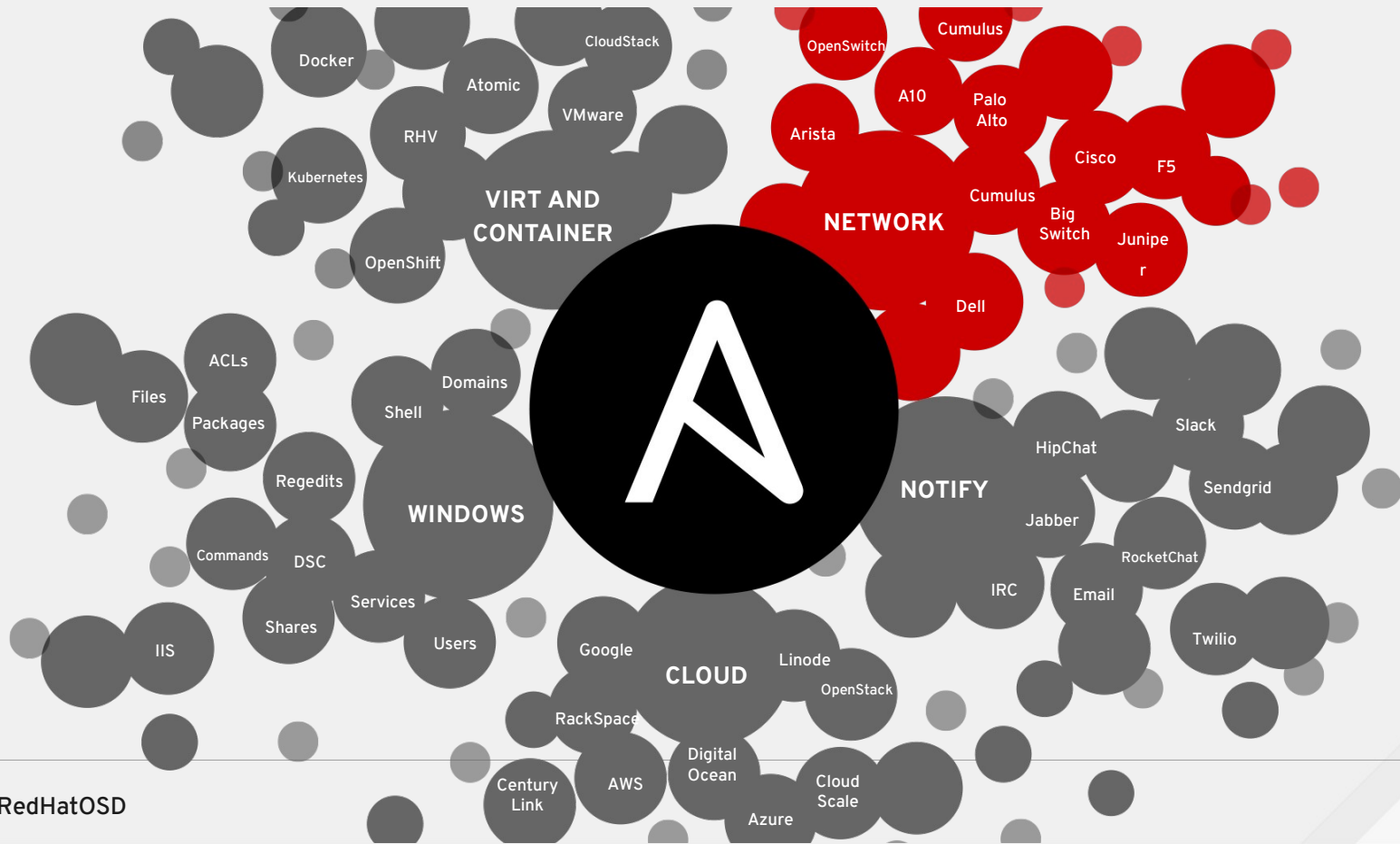
AGENTLESS

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



ANSIBLE AUTOMATES TECHNOLOGIES YOU USE

OVER 1900 MODULES





10,000 ROLES AT YOUR DISPOSAL

Re-usable Roles and Container Apps that allow you to do more, faster

Built into the Ansible CLI and Tower

galaxy.ansible.com



#RedHatOSD

RED HAT INTEGRATED ECOSYSTEM

RED HAT®
SATELLITE

RED HAT®
CLOUDFORMS

RED HAT®
INSIGHTS

+



RED HAT®
ANSIBLE®
Automation

POWERS

RED HAT®
ENTERPRISE
LINUX®

RED HAT® JBOSS®
MIDDLEWARE



RED HAT®
OPENSIFT

RED HAT®
STORAGE

RED HAT®
VIRTUALIZATION

RED HAT®
OPENSTACK®
PLATFORM



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RED HAT ANSIBLE TOWER

Scale + operationalize your automation

CONTROL

KNOWLEDGE

DELEGATION

RED HAT ANSIBLE ENGINE

Support for your Ansible automation

SIMPLE

POWERFUL

AGENTLESS

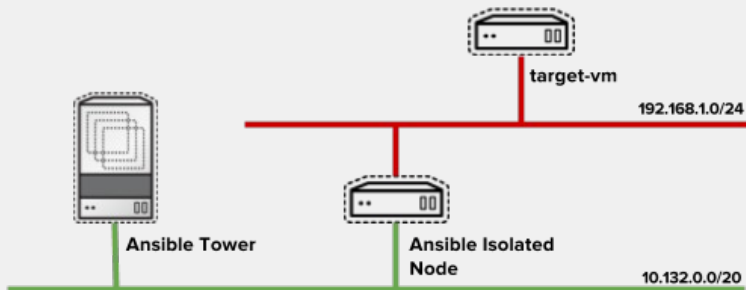
FUELED BY AN INNOVATIVE OPEN SOURCE COMMUNITY



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PROXIMITY AUTOMATION WITH TOWER ISOLATED NODES



A Tower Isolated Node is a **headless Ansible Tower** that can be used for local execution capacity either in:

- Constrained networking environment (DMZ)
- Virtual Private Cloud
- Remote Data center/Plants/POPs
- Edge Computing

The only prerequisite is that there is **SSH connectivity** from the Tower Cluster to the Isolated Node

<https://developers.redhat.com/blog/2017/12/20/understanding-ansible-tower-isolated-nodes/>



DEMO TIME

ENGINE
START

photo credit: flickr.com/photos/markwalker



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TRADITIONAL AUTOMATION SETUP SCENARIO



Build
OS

Updates

Tower
Install

Tower
Config

Use
Cases



END-TO-END AUTOMATION

POWERED BY ANSIBLE



Build
OS

Updates

Tower
Install

Tower
Config

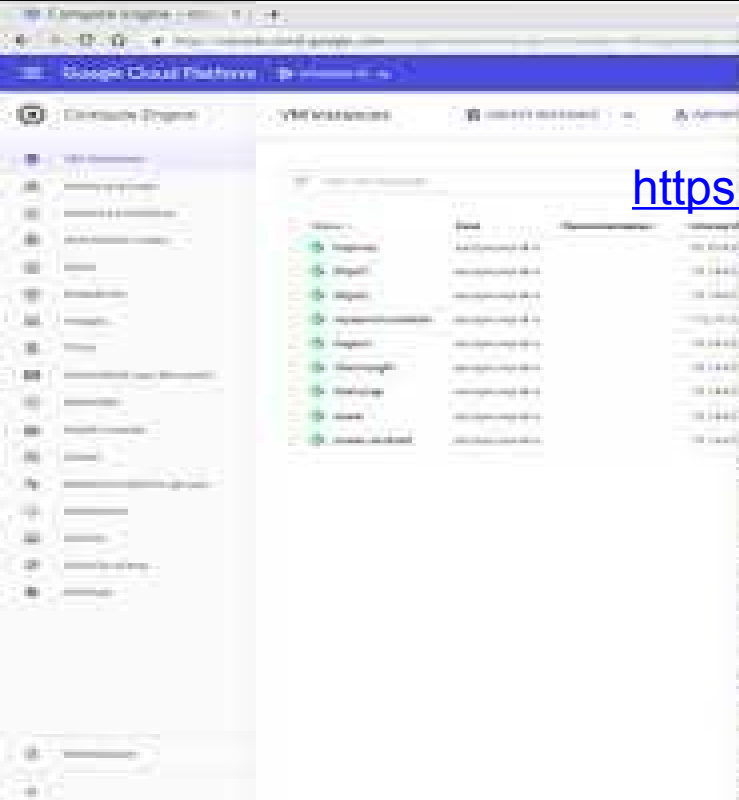
Use
Cases

<https://cloudformsblog.redhat.com/2018/09/10/infrastructure-tour-italy-part-3/>



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<https://youtu.be/89IZv6-roso>

```
#####
TASK [tower : create /root/.ssh/ dir on host] *****
Monday 22 October 2018  16:47:52 +0200 (0:00:01.227)    @:00:41.106 #####
changed: [tower]

TASK [tower : set permissions for /root/.ssh folder] *****
Monday 22 October 2018  16:47:53 +0200 (0:00:00.938)    @:00:42.106 #####
changed: [tower]

TASK [tower : copy ssh key files to /root/.ssh/] *****
Monday 22 October 2018  16:47:54 +0200 (0:00:00.897)    @:00:42.102 #####
changed: [tower] => [tower:ansible]
changed: [tower] => [tower:ansible_rsa_key]

TASK [tower : Download Ansible Tower tar.gz file] *****
Monday 22 October 2018  16:47:56 +0200 (0:00:01.576)    @:00:44.718 #####
downloaded: [tower]

TASK [tower : Extract Ansible Tower tar.gz file] *****
Monday 22 October 2018  16:47:58 +0200 (0:00:03.101)    @:00:47.800 #####
[WARNING]: Consider using the smartest module rather than running tar.  If you need to use command because a module is insufficient you can add warnings=False to this command task or set command_warnings=False in ansible.cfg to get rid of this message.

##### [tower]

TASK [tower : Configure Single Node inventory file for the integrated installation] ****
Monday 22 October 2018  16:48:00 +0200 (0:00:01.111)    @:00:48.901 #####
changed: [tower] => [tower:password]
changed: [tower] => [tower:password]
changed: [tower] => [tower:installing_password]

TASK [tower : insert/update Isolated Node configuration block inside Inventory file] **
Monday 22 October 2018  16:48:02 +0200 (0:00:02.478)    @:00:51.470 #####
changed: [tower]

TASK [tower : Install Tower] *****
Monday 22 October 2018  16:48:03 +0200 (0:00:00.912)    @:00:52.162 #####
```

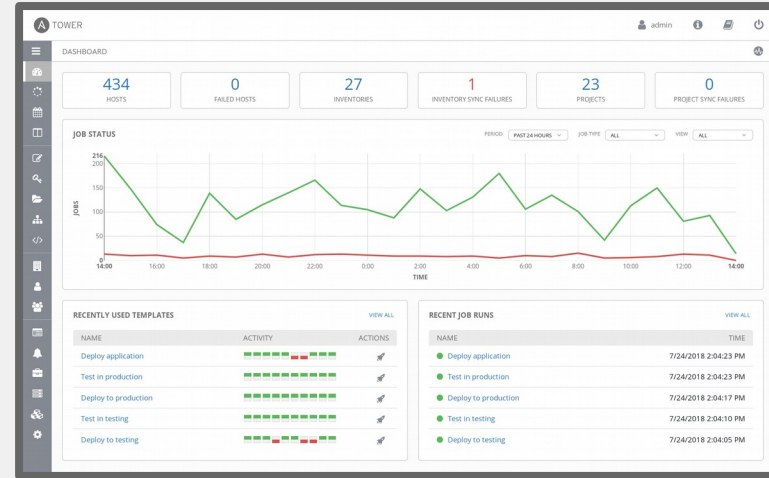
WHAT'S NEW IN ANSIBLE TOWER 3.3

TOWER AS A SERVICE

- Now deployable as a **container** in OpenShift
- **Dynamically scale & add capacity** Ansible Tower at runtime
- **Push-button Ansible Tower deployment for OpenShift users**

SECURITY

- More granular role-based permissions
- Run **multiple versions of Ansible Engine** in parallel
- New set of **permissions for admin users**



<https://www.ansible.com/blog/ansible-tower-3.3-available-now>



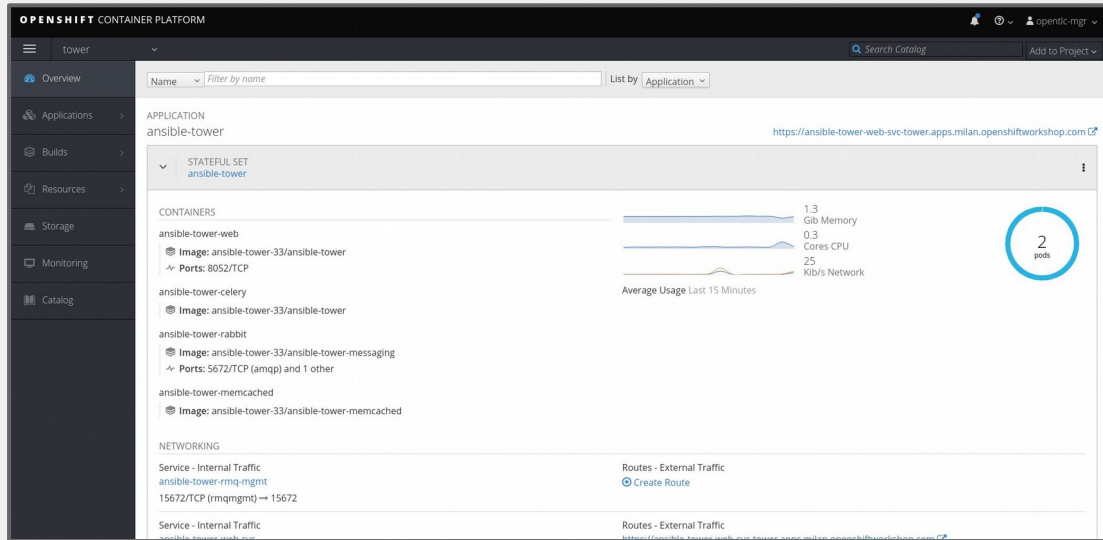
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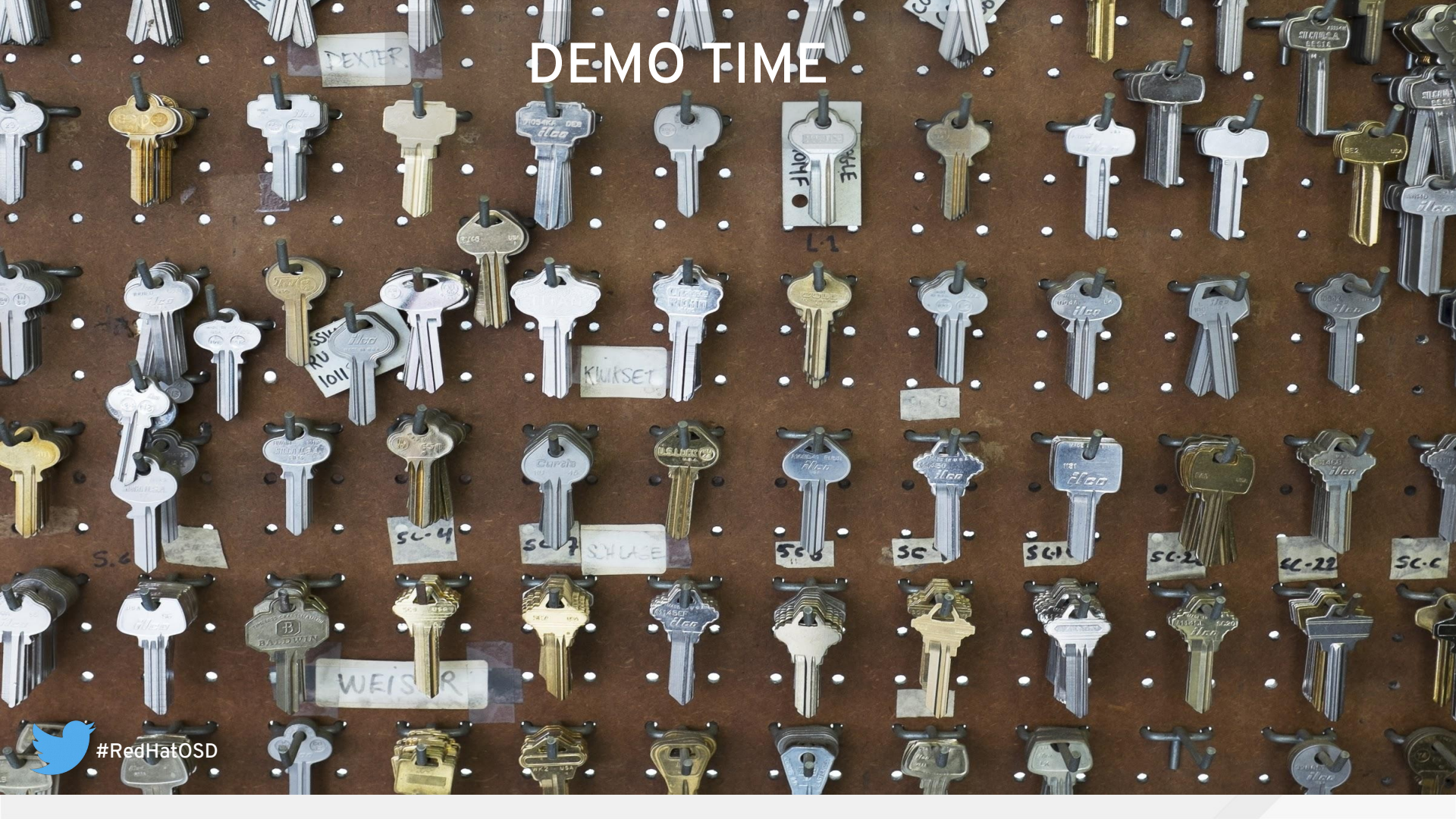
WHAT'S NEW IN ANSIBLE TOWER 3.3

IMPROVED SCALING

- **Scale up and down** based on job capacity
- **Manage Instance Groups by policy**
- Instance Groups can be defined by **percentage of total cluster capacity**



DEMO TIME



SECURITY AS A CODE



RED HAT[®]
ANSIBLE[®]
Tower



RED HAT[®]
INSIGHTS



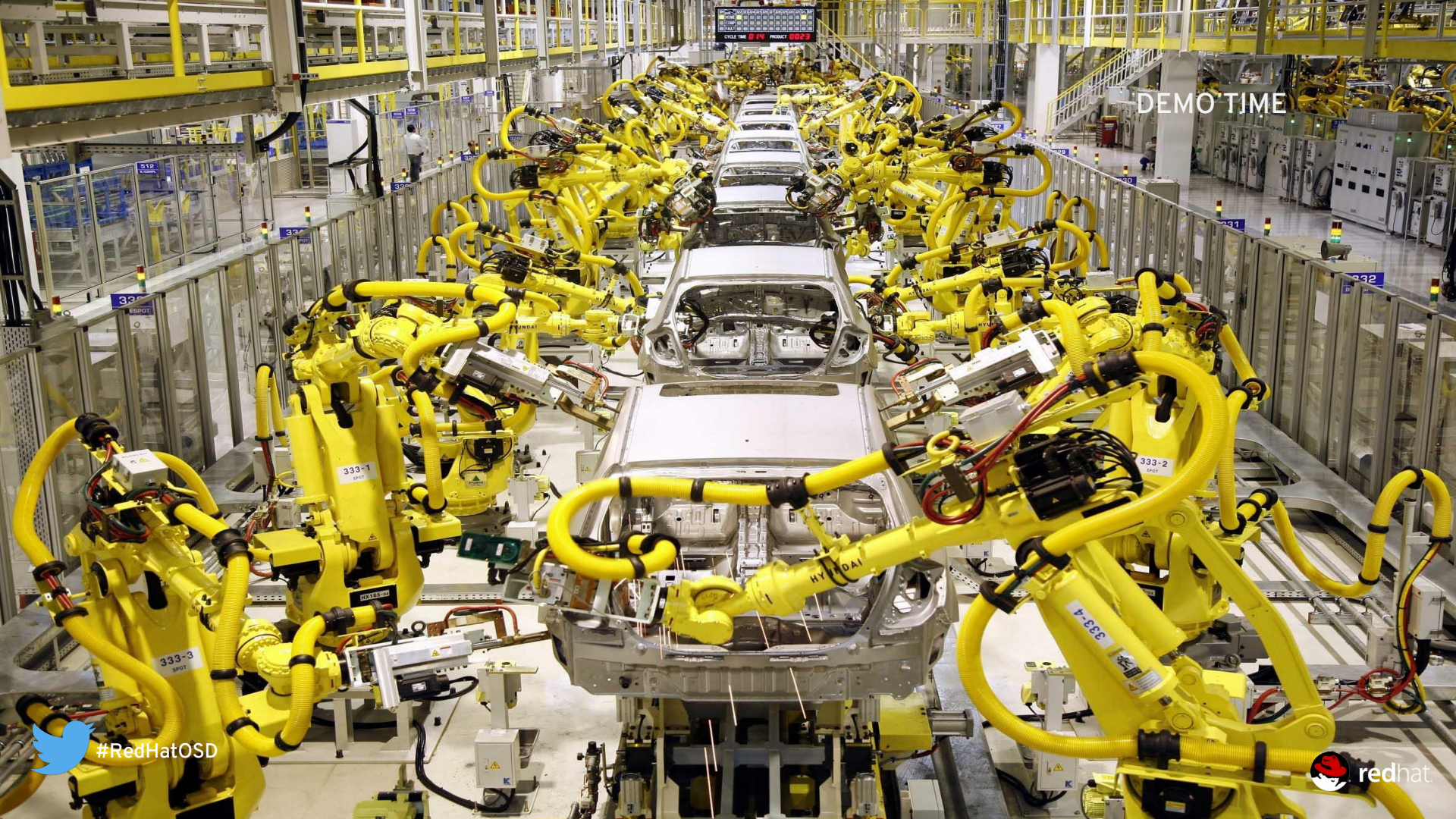
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<https://youtu.be/akN7LOKjwSQ>

- 1. [Faded text]
- 2. [Faded text]
- 3. [Faded text]
- 4. [Faded text]
- 5. [Faded text]



DEMO TIME

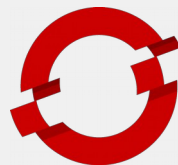
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 redhat

AUTOMATION AS A SERVICE



RED HAT®
ANSIBLE®
Tower



RED HAT®
OPENSHIFT
Container Platform

<https://developers.redhat.com/blog/2018/10/26/installing-and-managing-ansible-tower-on-red-hat-openshift-container-platform>

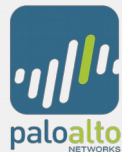


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ANSIBLE NETWORKING

173+ modules developed, maintained and tested by Red Hat



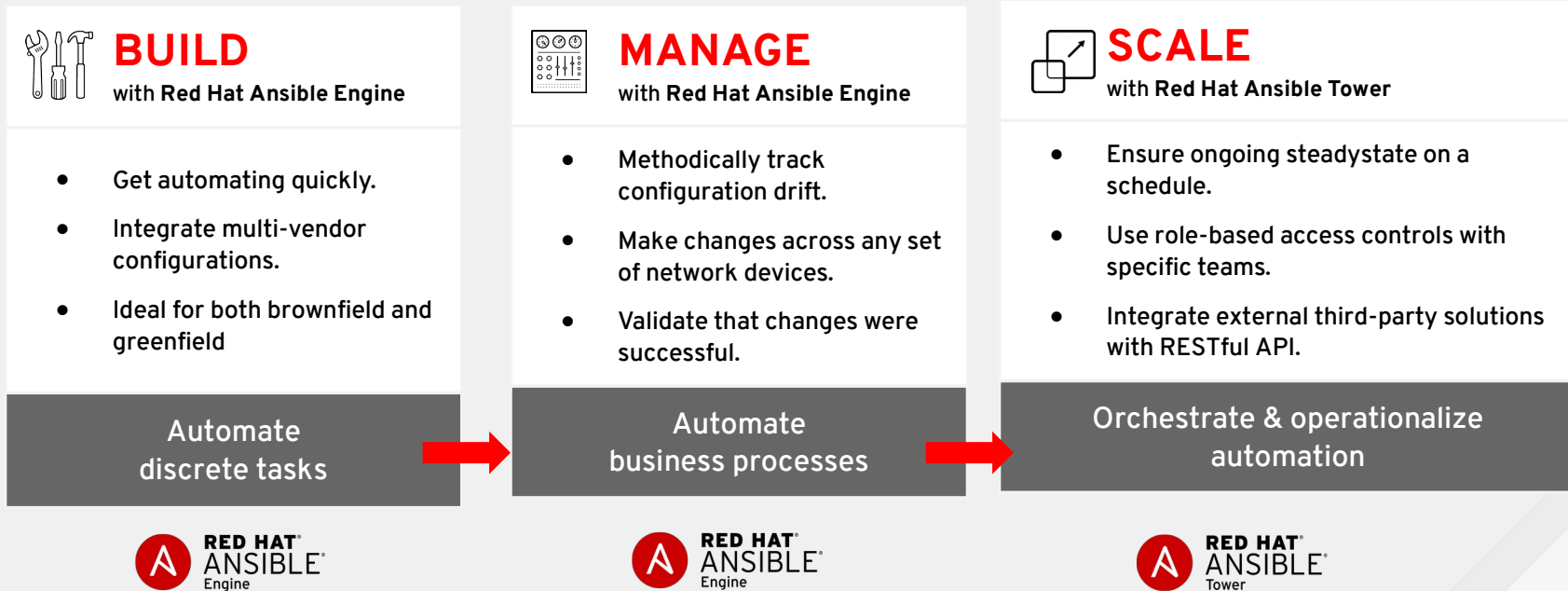
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ansible.com/networking



NETWORKING AUTOMATION

Configure, validate, & ensure continuous compliance for network devices



RESOURCES

- [Get Started with Red Hat Ansible Tower](#)
- [The Total Economic Impact of Red Hat Ansible Automation](#)
- [Supporting GDPR compliance with automation](#)
- [The Automated Enterprise](#)





GRAZIE PER L'ATTENZIONE

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