ANSIBLE

Ansible Montreal Meetup

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redhat

AGENDA

18:00 - 18:30

Bienvenue et nouvelles Ansible par Michael Lessard, Red Hat

Ansible collections, Gonéri Le Bouder, Red Hat

18:30 - 19:00

18:30: David Moreau-Simard, Red Hat

Une nouvelle API pour consulter et intégrer les résultats de vos playbooks Ansible avec ARA 1.0

19:00 ::::::: Pause :::::::

19:15 - 20:00

Mohammed Naser, VEXXHOST

Learn about what NOT to do when you're building out your infrastructure with Ansible: from CI/CD, management (monorepo vs. many small roles with an integrated repo), security (run it from laptops vs CD vs a jumpbox) and more !

20:00 - 20:30: Questions, réseautage et conclusion du meetup

ANSIBLE MEETUP

Cherche présentateurs :

- Bonne histoire autour d'Ansible
- Ce que vous faites avec Ansible
- Vos trouvailles , etc …

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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

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ANSIBLE IS THE UNIVERSAL LANGUAGE

BUSINESS

DEV

QA/SECURITY

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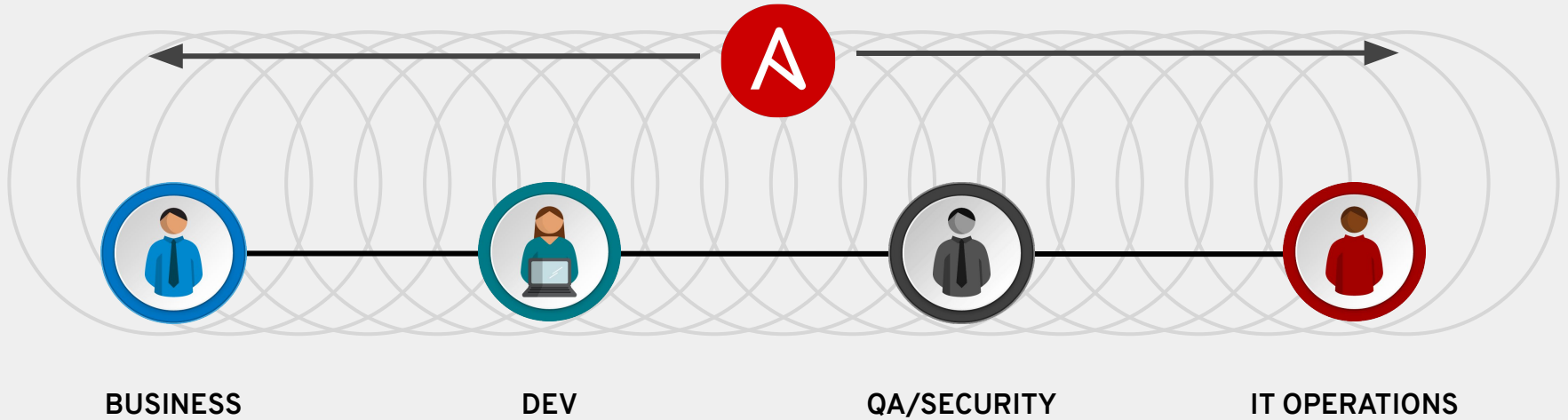
Ansible is the first **automation language** that can be read and written across IT.

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

36,000+
Stars on GitHub

2100+
Ansible modules

500,000+
Downloads a month

GitHub

STARS	TECHNO	CONTRIBUTEURS	
36,516	Ansible	4,335	
18,269	Vagrant	882	
16,401	Terraform	1,259	
9,809	Salt	2,233	↓
5,745	Chef	563	↓
5,249	Puppet	513	

Mise à jour : 15 Avril 2019

Configuration Tools Used

% of All Respondents

Tool	2019	2018
Ansible	41%	36%
Chef	37%	36%
Puppet	37%	34%
Terraform	31%	20%
Salt	18%	13%
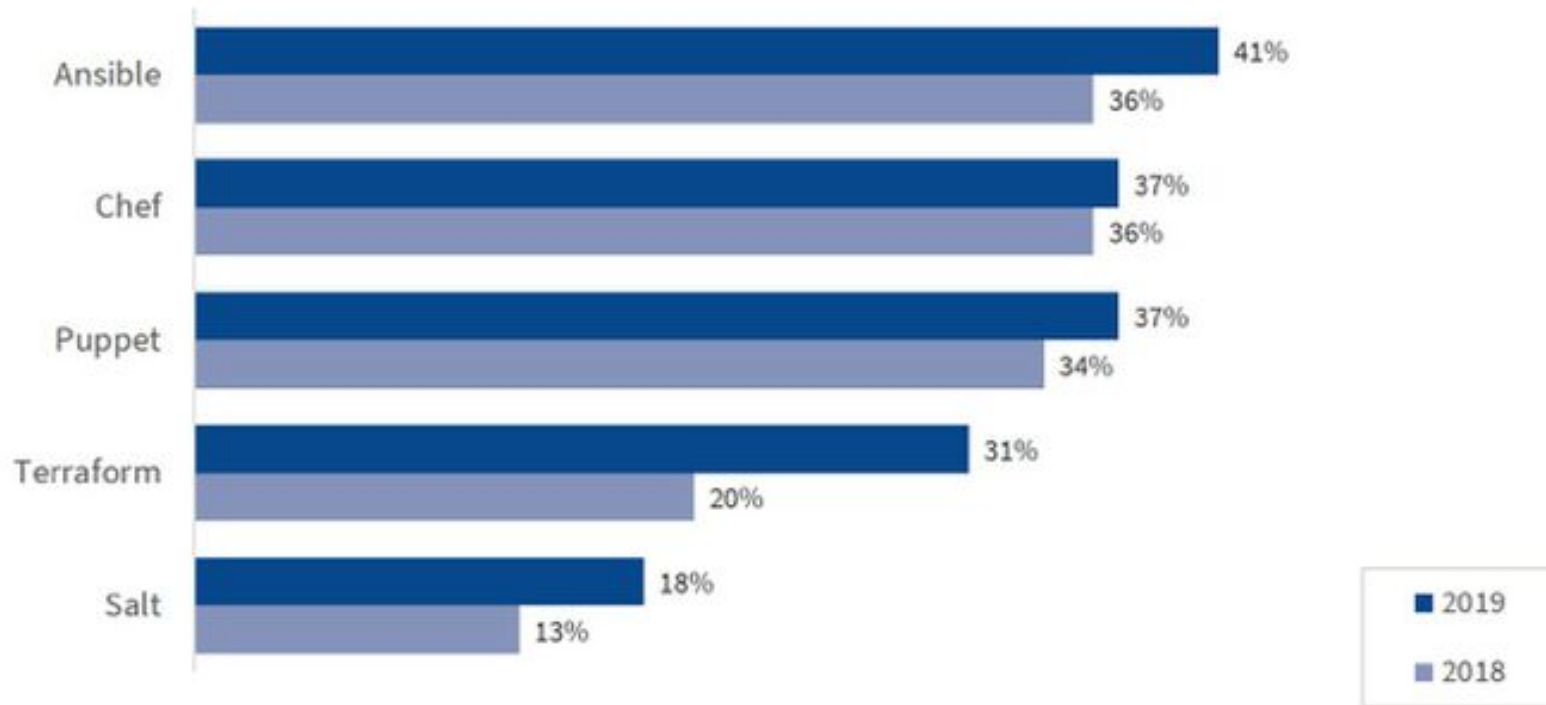
Source: RightScale 2019 State of the Cloud Report from Flexera
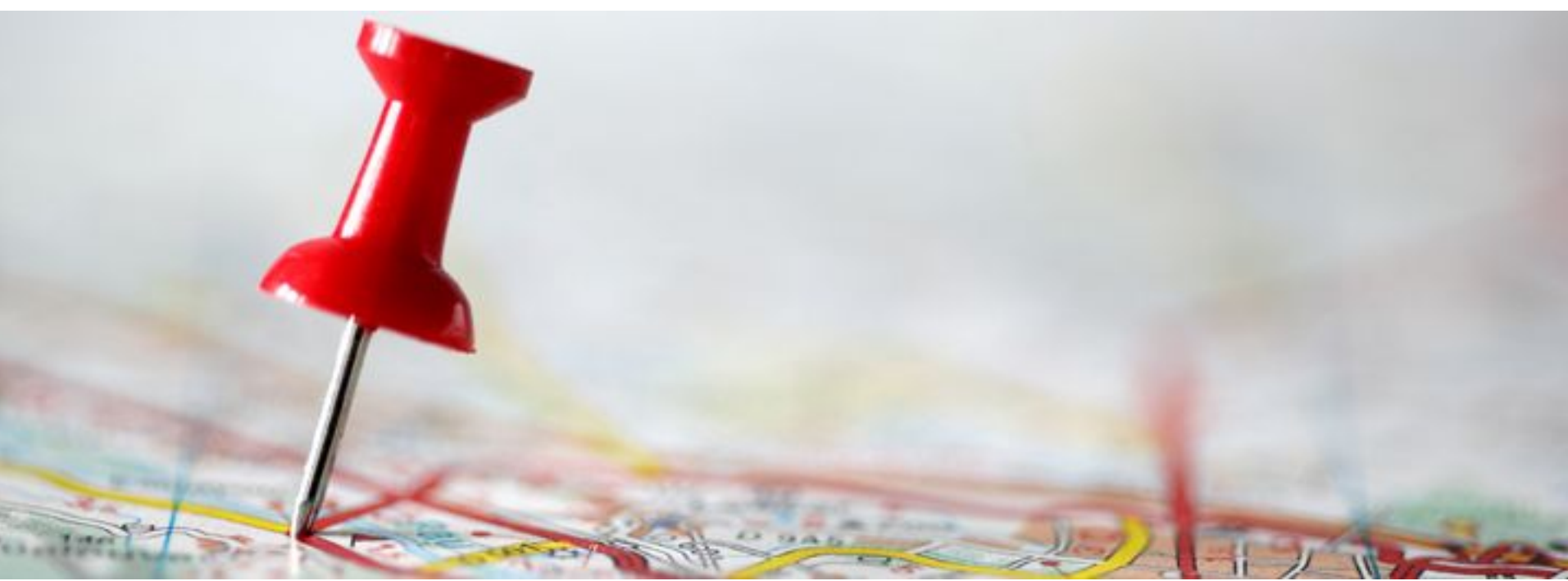
SOMMES-NOUS À LA BONNE PLACE ?

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

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WINDOWS AUTOMATION

90+
Windows
Modules

1,300+
Powershell DSC
resources

ansible.com/windows

ANSIBLE NETWORK AUTOMATION

50
Network
Platforms

700+
Network
Modules

12*
Galaxy
Network Roles

ansible.com/for/networks
galaxy.ansible.com/ansible-network

*Roles developed and maintained by Ansible Network Engineering - Ansible

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CLOUD AUTOMATION

800+

Cloud
Modules

30+

Cloud Platforms

ansible.com/cloud

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ANSIBLE 2.8

BETA

GA PLANNED : 16/05/2019

04/04/2019	::	Alpha 1
11/04/2019	::	Beta 1
25/4/2019	::	Release Candidate 1
2/5/2019	::	Release Candidate 2 (if needed)
9/5/2019	::	Release Candidate 3 (if needed)
16/05/201	::	Release

ANSIBLE 2.8

Python interpreter discovery
The first time a Python module runs on a target, Ansible will attempt to discover the proper default Python interpreter to use for the target platform/version (instead of immediately defaulting to /usr/bin/python). Support for RHEL 8.

Experimental support for Ansible Collections
Ansible content can now be packaged in a collection and addressed via namespaces. This allows for easier sharing, distribution, and installation of bundled modules/roles/plugins, and consistent rules for accessing specific content via namespaces.

Tons of new modules and bugfixes

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ANSIBLE 2.8

MODULE ADDITIONS

CLOUD
AWS (7 new modules : ec2_launch_template, aws_secret, …)
Azure (69 new modules :azure_rm_mariadbserver, azure_rm_postgresqlconfiguration …)
GCP (33 new modules : gcp_resourcemanager_project, gcp_iam_role, ….)

WINDOWS (13 new modules)
win_partition
win_hosts
win_dns_record
win_user_profile

…

MORE MODULES FOR :
NetAPP (20 new modules)
F5 (35 new modules)
VMware (29 new modules)
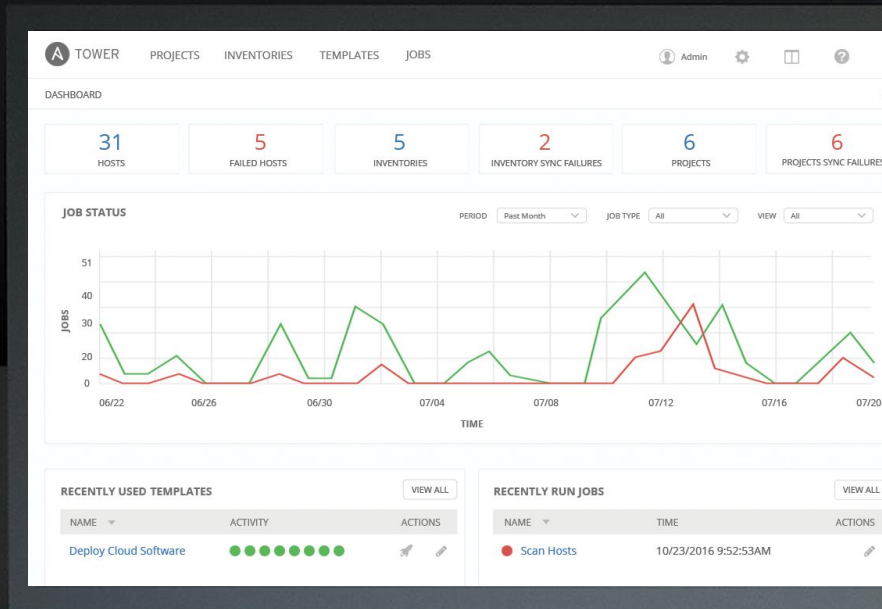FortiManager (25 new modules)
Fortios (219 new modules)

https://github.com/ansible/ansible/blob/devel/changelogs/CHANGELOG-v2.8.rst
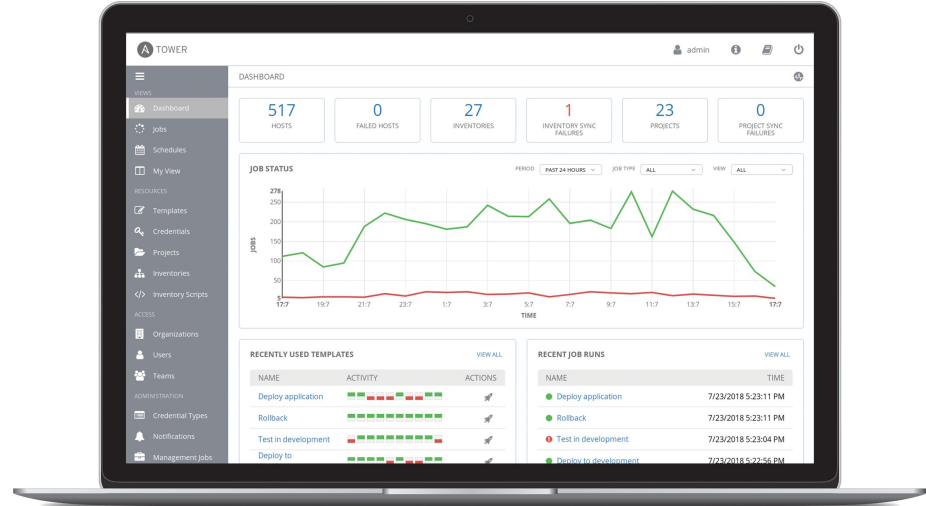
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WHAT IS ANSIBLE TOWER?

Ansible Tower is an **enterprise framework** for controlling, securing and managing your Ansible automation — with a **UI and RESTful API.**
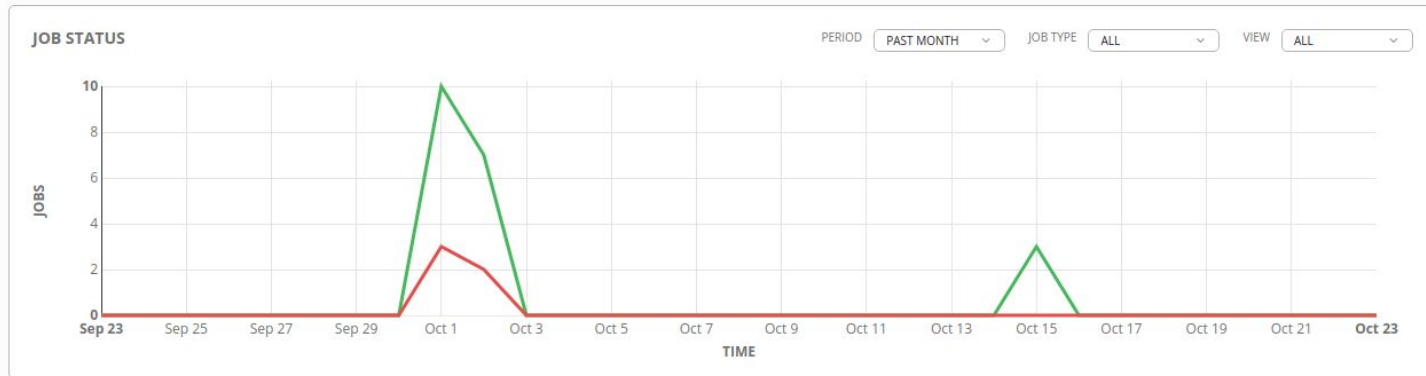
- **Role-based access control** keeps environments secure, and teams efficient.

- Non-privileged users can **safely deploy** entire applications with **push-button deployment** access.

- All Ansible automations are **centrally logged,** ensuring **complete auditability and compliance.**

Apps | Customer Portal | RHDocs | CustomerService | Red Hat Skills Ex | Oracle | Management Stra | Learning Manage | CFME: Login | workerbee | Other bookmarks

TOWER

admin

DASHBOARD

VIEWS

Dashboard

Jobs

Schedules

My View

RESOURCES

Templates

Credentials

Projects

Inventories

Inventory Scripts

ACCESS

Organizations

Users

Teams

ADMINISTRATION

Credential Types

Notifications

Management Jobs

Instance Groups

Applications

3	0	4	0	7	0
HOSTS	FAILED HOSTS	INVENTORIES	INVENTORY SYNC FAILURES	PROJECTS	PROJECT SYNC FAILURES

JOB STATUS

PERIOD PAST MONTH   JOB TYPE ALL   VIEW ALL

JOBS

10
8
6
4
2
0

Sep 23 Sep 25 Sep 27 Sep 29 Oct 1 Oct 3 Oct 5 Oct 7 Oct 9 Oct 11 Oct 13 Oct 15 Oct 17 Oct 19 Oct 21 Oct 23

TIME

RECENTLY USED TEMPLATES   VIEW ALL

NAME	ACTIVITY	ACTIONS
Create RHEL VM on Amazon		
Provision LinkLight		
MSSQL_create_database		
MSSQL_Install_on_RHEL7		
MSSQL_Uninstall		

RECENT JOB RUNS   VIEW ALL

NAME	TIME
Create RHEL VM on Amazon	16/10/2018 11:34:30
Provision LinkLight	3/10/2018 14:03:18
Provision LinkLight	3/10/2018 13:43:05
Provision LinkLight	3/10/2018 09:20:08
Provision LinkLight	2/10/2018 17:17:24

WHAT'S NEW IN ANSIBLE TOWER 3.4?
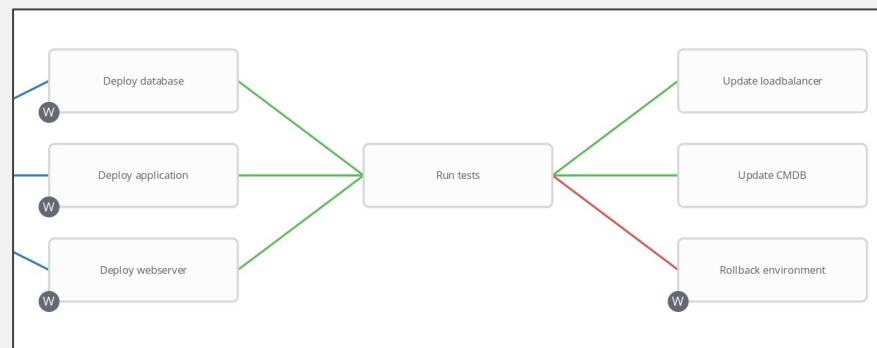
Enhanced workflows

Job distribution via job slicing

Support for deployments with FIPS enabled

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ENHANCED WORKFLOWS

NESTED WORKFLOWS

- Application teams can control their application deployment, while other teams reuse them in their own workflows

- Create generic backup, rollback, or other workflows that can be used repeatedly in larger orchestration

Nested workflows allow easy automation reuse across applications, environments, and teams, allowing for complex provisioning, deployment, and orchestration automation.

ENHANCED WORKFLOWS

WORKFLOW-LEVEL INVENTORY

- Build reusable deployment workflows and delegate them for any environment

- Define an inventory to use at workflow definition time, or at launch time

- Can apply to both jobs and workflows inside the workflow

Workflow-level inventory allows for deployment, configuration, remediation, and many other classes of automation to be easily reused across any environment.

PROMPT

INVENTORY   SURVEY   PREVIEW

SELECTED   Prod ✖   REVERT

⚠ This inventory is applied to all job template nodes that prompt for an inventory.

SEARCH   🔍   KEY

NAME ▲

○ Dev

⦿ Prod

○ Test

ITEMS 1 - 3

CANCEL   NEXT

ENHANCED WORKFLOWS

WORKFLOW CONVERGENCE NODES

- Wait for any number of steps to finish before proceeding

- Allows for built-in synchronization points, easy result collection, and simplified error handling

Workflow convergence makes it easier than ever to have your Ansible automation workflows model and match your actual deployment processes.
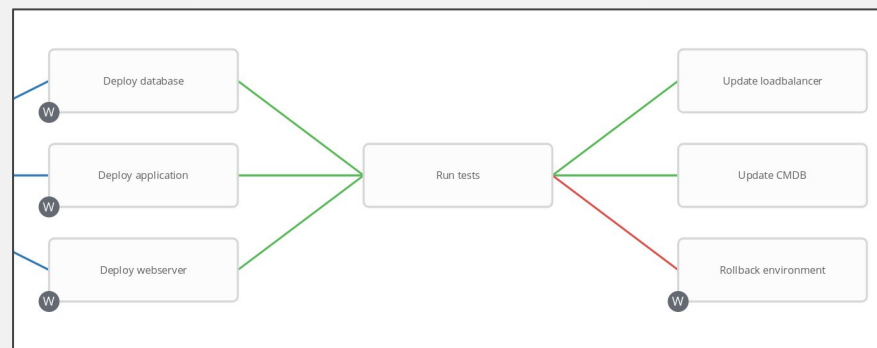
JOB DISTRIBUTION VIA JOB SLICING

BEFORE ANSIBLE TOWER 3.4

- Any playbook run would run one `ansible-playbook` process on one cluster node
- Jobs run across thousands of machines could potentially starve that cluster node's resources, or fail due to memory contention
- Job resizing could be a complicated manual process

WITH TOWER 3.4 JOB SLICING

Jobs have a configurable number of slices. Each slice will be run as a separate `ansible-playbook` run, and slices will be distributed across the Tower cluster.

- Run fact gathering, configuration, and more across thousands of machines with ease
- Increase both job throughput and job reliability

NOTE: Job slicing is only appropriate when each host's automation is independent of other hosts

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SUPPORT FOR FIPS-ENABLED ENVIRONMENTS

DEPLOY INTO SECURE ENVIRONMENTS

Ansible Tower now supports deployment
on Red Hat Enterprise Linux 7 when in
FIPS mode. This allows Tower to run in
highly-regulated and hardened public
sector environments

4.0 - 28 mars 2019

SEPTEMBER 24-26

#ANSIBLEFEST
ATLANTA
2019

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