

Ansible 101



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- 1987
- CTO at [Saluspot](#)
- Dev + IT + OP + Manager...
 - aka: *Problem solver*
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What is ansible

- A very powerful administration and orchestration tool.
- Command line interface to easily test module usage or execute commands.
- YML based role and task configuration to easily automate almost everything from single to multi host environments.
- Written in python.
- Can use it for dedicated/virtual servers or docker containers (since 2.1).

Internals

TODO

ROLES? TASKS?

Ansible vocabulary

Vocabulary

Task

- The smallest in the hierarchy.
- Consists on the execution of a module.

Vocabulary

Role

- A group of tasks that perform the configuration/installation of a given service or related stuff.
- For example, the installation, configuration, privilege setup of a postgresql service is a role. The update/upgrade of a server packages can be a role too.

Vocabulary

Host

- A server or container of some sort.

Group

- A group of hosts that have the same role.

Example: webservers, dbsservers, ...

Vocabulary

Inventory

- A file where all hosts are defined.
- You can have multiple inventory files for multiple environments.
(Production, staging, demo, ...)

Vocabulary

Playbook

- The file where the roles are segmented into groups.
- Roles and groups can have tags defined to better filter the roles and tasks you want to execute at a given time.

What modules can I use?

- **Package management:** apt, yum, pacman, pip, bower, npm, ...
- **Files:** file, stat, acl, copy, patch, replace, ...
- **Version control:** git, bzd, hg, gitlab/github hooks
- **Databases:** postgresql_{user,db,priv,...), mysql_{...}, ...

You get the idea.

Enough theory!

Usage examples

Command line usage

Basic usage

```
ansible (hostname) -m (module) -a (arguments)
```

Install git on my machine.

```
ansible localhost -m apt -a "name=git ensure=present"
```

apt-get update && apt-get upgrade

```
ansible localhost -m apt -a "update_cache=yes safe_upgrade=yes"
```

Our first playbook

Using the same examples as a playbook:

```
- name: Update and upgrade system
  become: true
  apt: update_cache=yes safe_upgrade=yes
- name: Ensure git is updated
  become: true
  apt: name=git ensure=latest
```

Run it with the command:

```
ansible-playbook localhost playbook.yml
```