

# Automating with Ansible

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# Agenda

- Introduction
- Inventories
- Ad-Hoc Ansible
- Playbooks
- Roles
- Going Further

# Introduction

# What is Ansible?

- Simple SSH-based configuration management
- Uses Python and SSH
- Idempotent



# Inventory

- Hosts
  - IPs
  - Hostnames
- Groups
- Additional variables

```
[linux_lan]
10.[1:15].1.10 #Rogue Linux(client)
10.[1:15].1.40 #Ubuntu Desktop(client)

[linux_cloud]
10.[1:15].2.3 #Database(DB)
10.[1:15].2.10 #Linux Forensics(server)

[test_rit]
10.13.1.10
10.13.1.40
10.13.2.3
10.13.2.10
```

# Ad-Hoc Ansible

- One-off commands to be run against hosts or groups
- At-a-glance queries
  - Uptime

```
[michael@tachibana ansible_demo]$ ansible all -m ping -i inventory.ini
192.168.56.10 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
192.168.56.11 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
192.168.56.12 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
```

# Demo

Inventory and Commands  
(basic shell and other modules)

# Playbooks

- Multiple module calls to automate some functionality
  - Setting up users for your system
  - Installing NGINX
  - Running integration tests
  - Deploying SELinux
- Written in YAML
- Comprised of **Tasks**



# Roles

- One or more playbooks that “do one thing”
  - Configure a timeshared computer
  - Deploy your logging infrastructure
    - Database
    - Prometheus
    - Grafana
- Easily uploaded to Ansible Galaxy
  - Public registry of roles, playbooks, and modules

# Questions?



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