

A Short Ansible Introduction

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Table of content

- What is Ansible? Why should you use it?
- How companies used to do before Ansible?
- A quick Case Study.
- How does it work?
- How to install it?
- How to set it up?
- Demonstration
- Are there any alternatives?



What is Ansible?



Short description

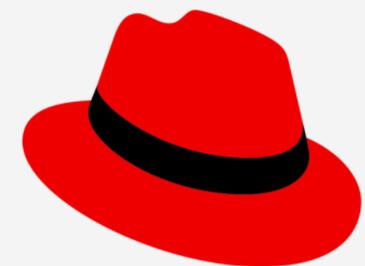
It can configure systems, deploy software, and orchestrate more advanced IT tasks such as continuous deployments or zero downtime rolling updates.

ANSIBLE DOCUMENTATION

A bit of context

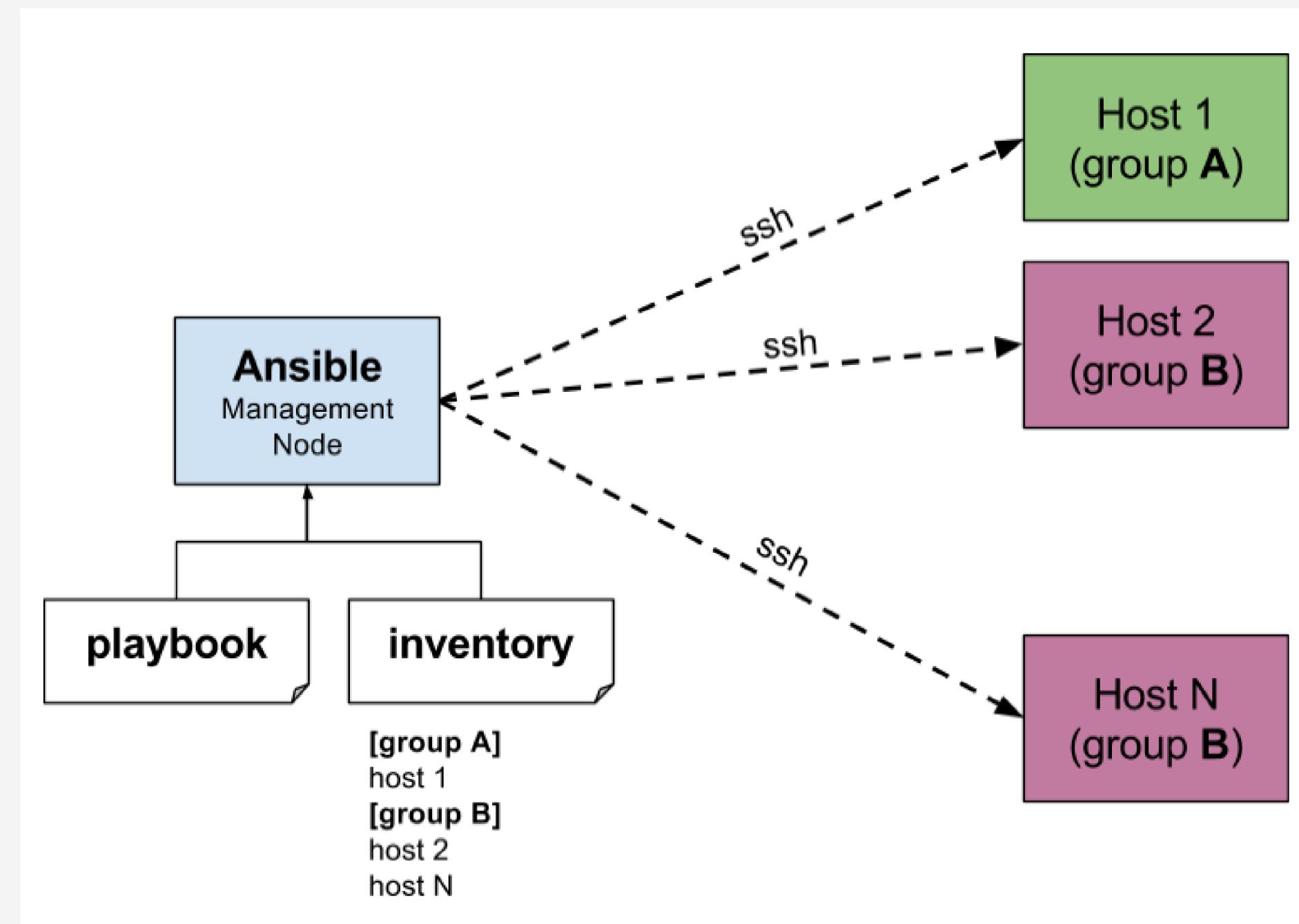


Michael DeHaan

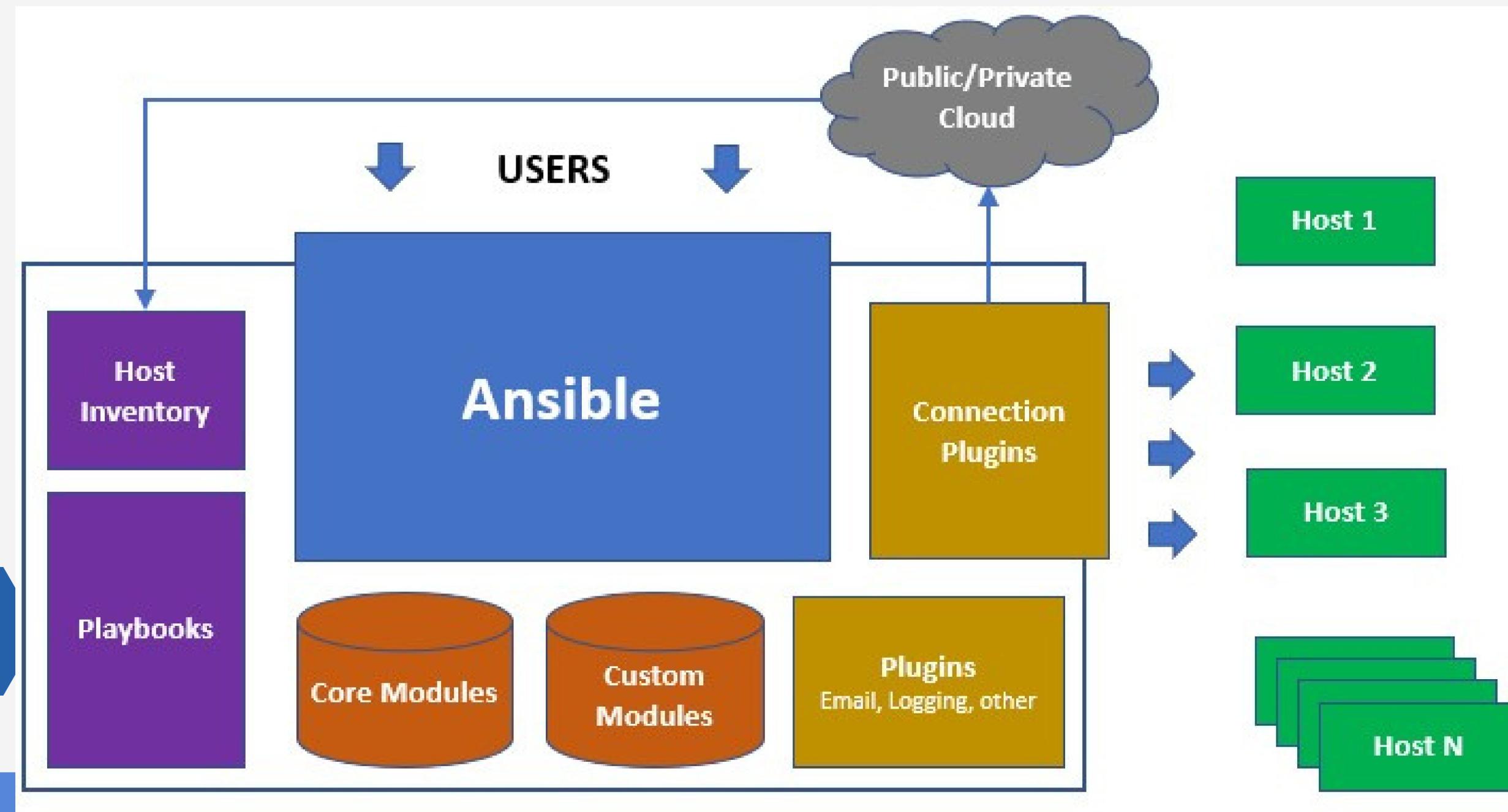


Red Hat

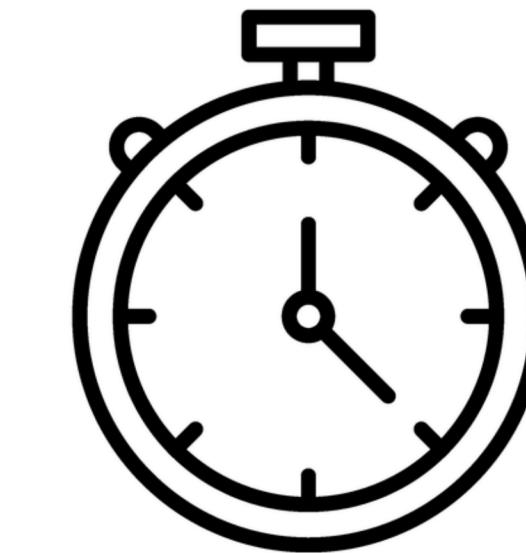
Use cases



Use cases



Where does the need to use Ansible come from?





Case study



How BP used ansible



BP is an energy company that produces oil and gas
Problem : complex technology infrastructure
Develop and deploy more easily

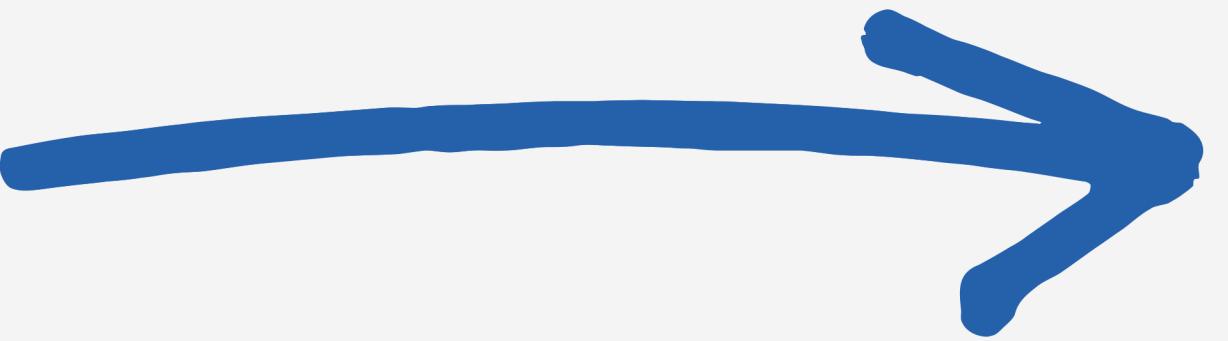


Solution

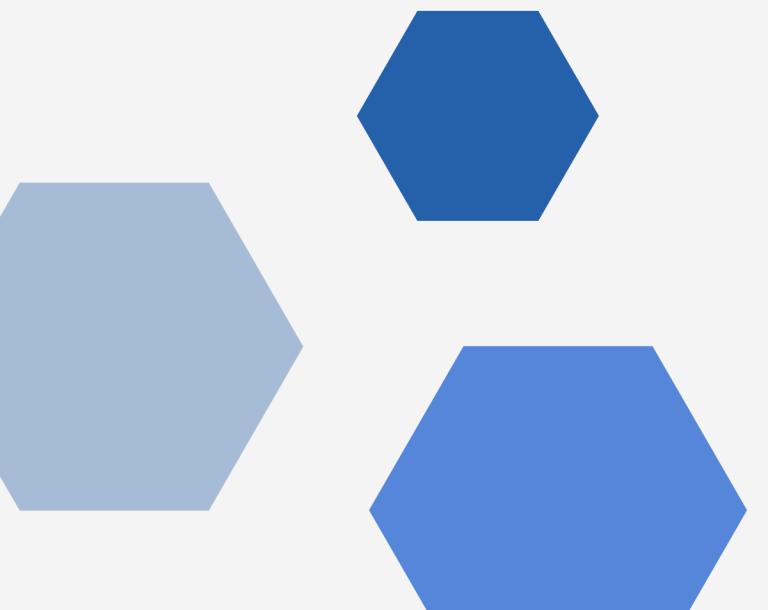
- DevOps approach
- OpenShift Container Platform running on AWS
- Fully automated CI/CD pipeline
- Automated security check on build and containers

Results

3 weeks



7 minutes



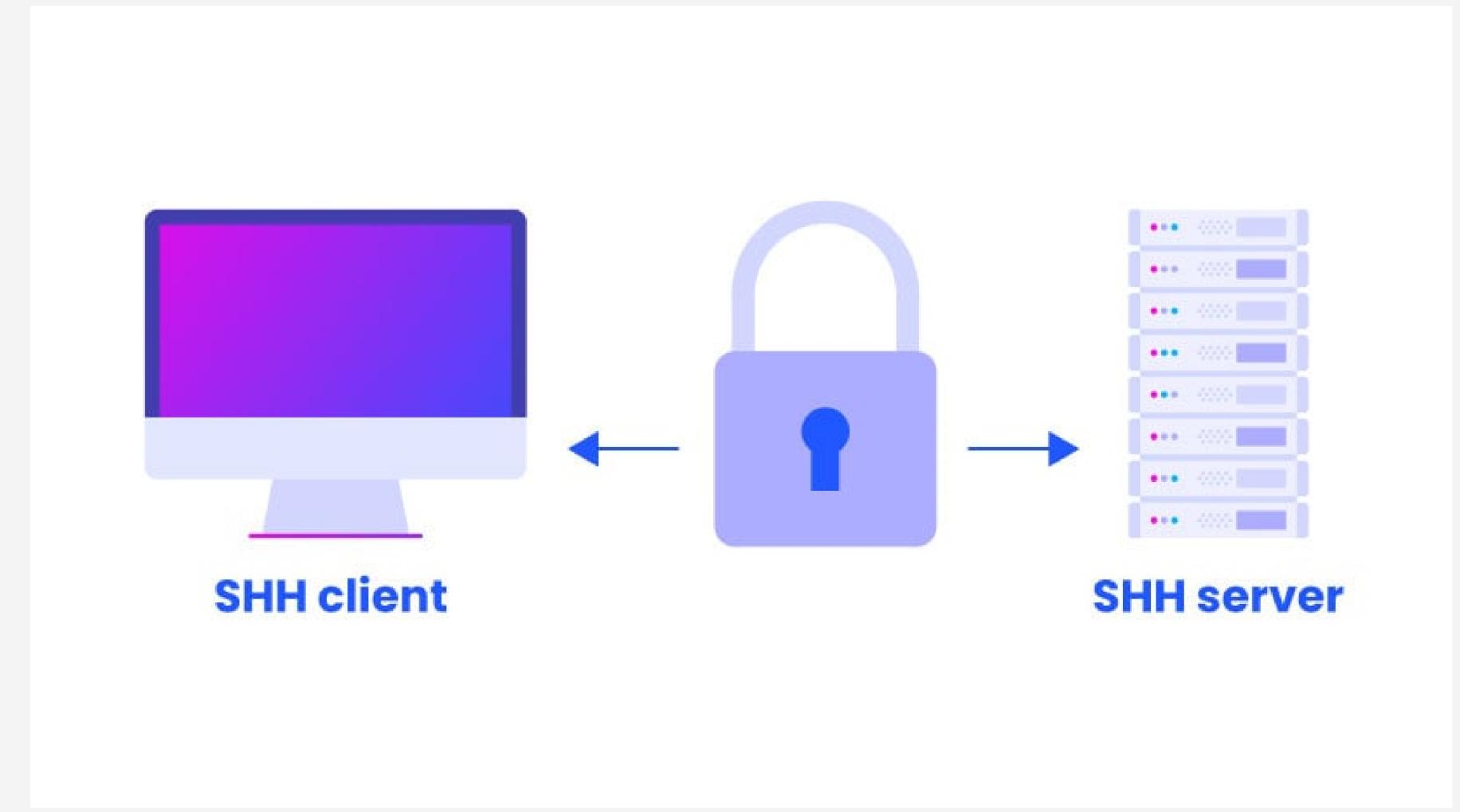


Installation



Setup

How to setup Ansible?



How to setup Ansible?

Inventory

```
all:  
  hosts:  
    mail.example.com:  
  children:  
    webservers:  
      hosts:  
        foo.example.com:  
        bar.example.com:  
    dbservers:  
      hosts:  
        one.example.com:  
        two.example.com:  
        three.example.com:
```

Playbook

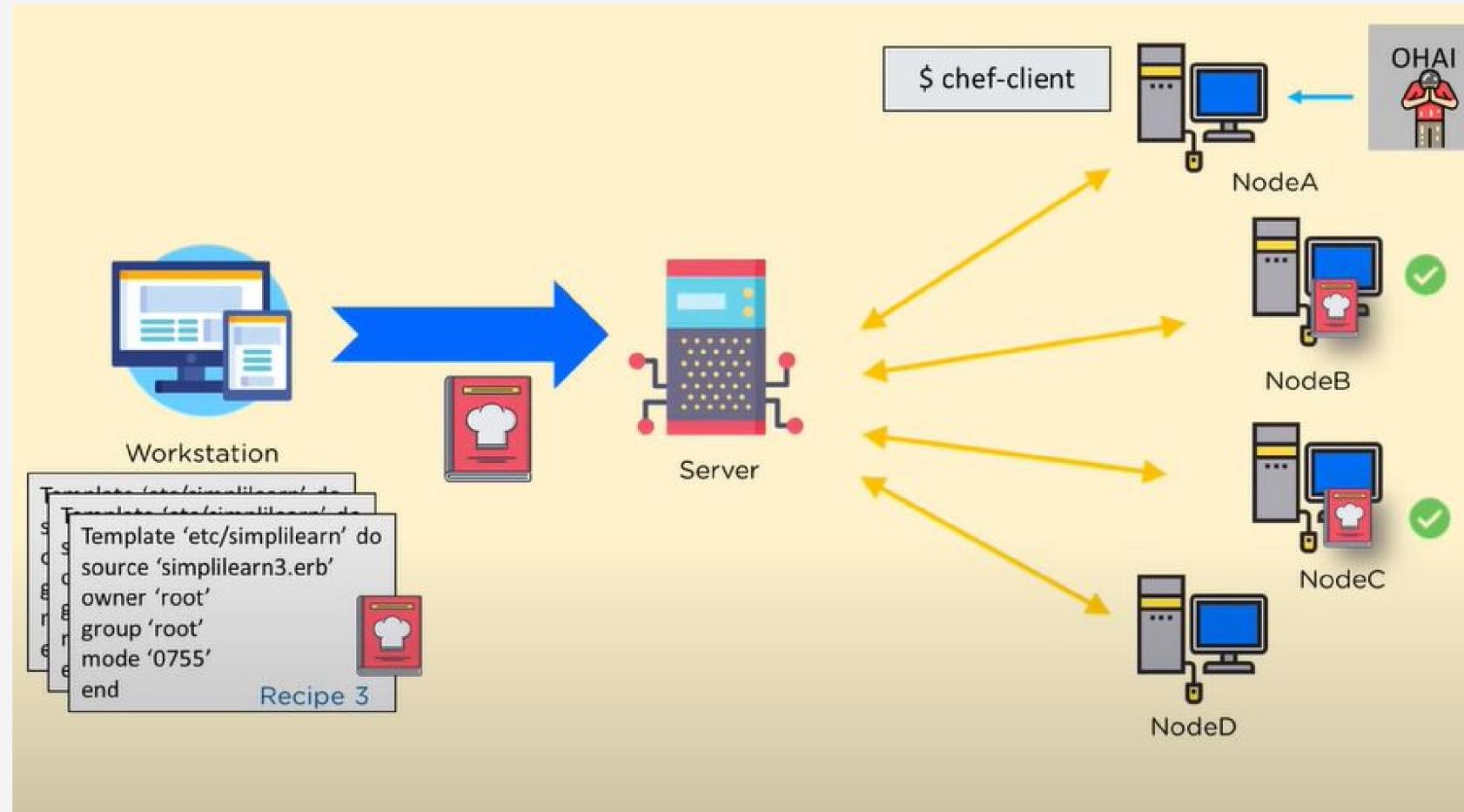
```
...  
  - name: Update web servers  
    hosts: webservers  
    remote_user: root  
  
  tasks:  
    - name: Ensure apache is at the latest version  
      ansible.builtin.yum:  
        name: httpd  
        state: latest  
    - name: Write the apache config file  
      ansible.builtin.template:  
        src: /srv/httpd.j2  
        dest: /etc/httpd.conf  
  
  - name: Update db servers  
    hosts: databases  
    remote_user: root  
  
  tasks:  
    - name: Ensure postgresql is at the latest version  
      ansible.builtin.yum:  
        name: postgresql  
        state: latest  
    - name: Ensure that postgresql is started  
      ansible.builtin.service:  
        name: postgresql  
        state: started
```



Alternatives

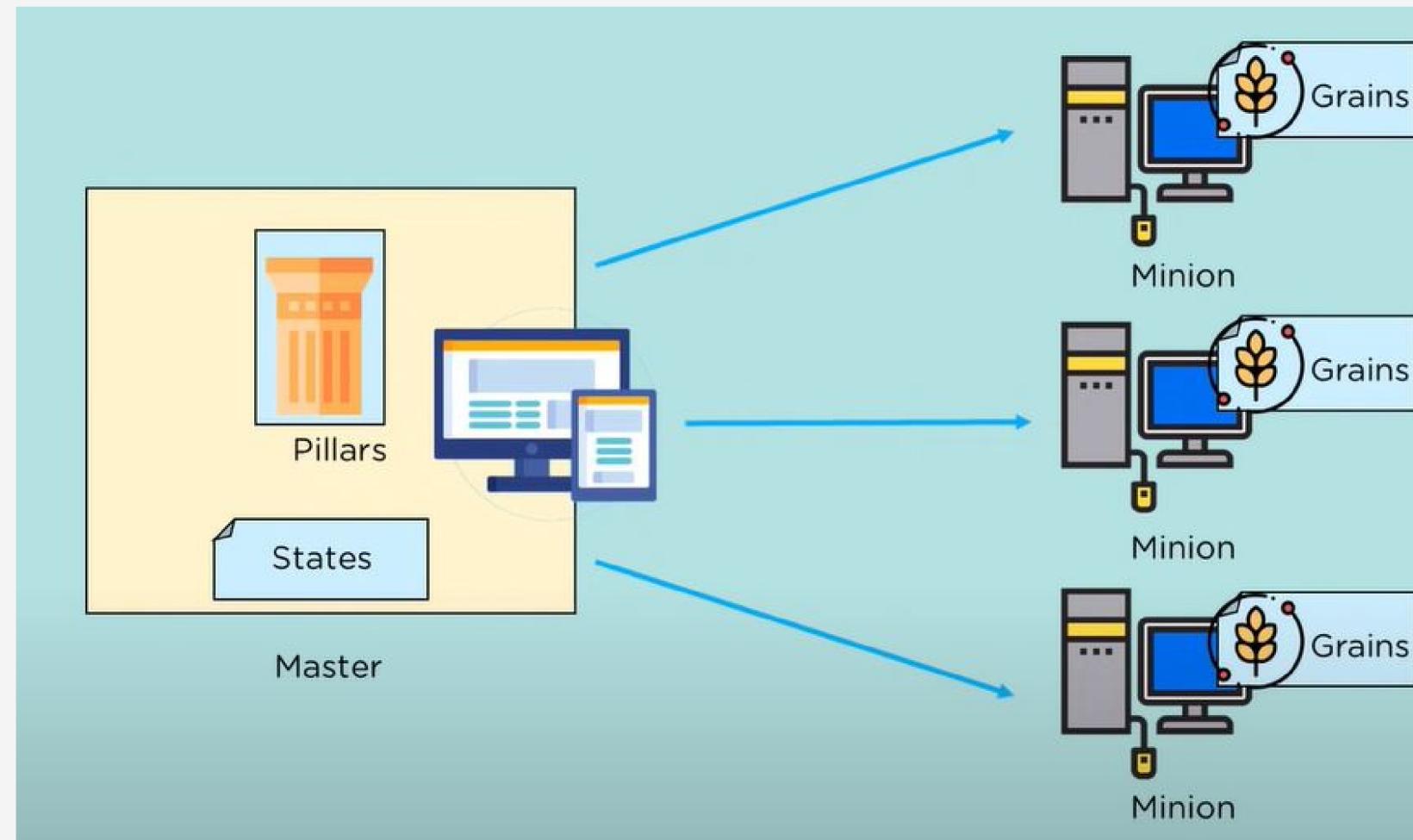


CHEF



- Open source tool developed in Ruby by Opscode in 2009
- Use Ruby DSL and Erlang DSL for configuration files
- Master/Slave architecture
- Knife tool for back and forth communication between master server and nodes

SALTSTACK



- Open source tool developed in Python by Thomas S Hatch in 2011
- Language-agnostic, any language for configuration files
- Flexible architecture (agent-only, server-only or agent/server environments)
- SSH for communication

Puppet



- Open source tool developed in Ruby by Opscode in 2005
- Use Puppet DSL and YAML datastore for configuration
- Master/Slave architecture
- SSL connection for communication
- Declarative configuration language

Conclusion



ANSIBLE

