## Linux System Optimization

#### ADMINISTRATION AUTOMATION USING ANSIBLE



**David Clinton**SYSTEM ADMINISTRATOR

bootstrap-it.com/optimization | @davidbclinton | linkedin.com/in/dbclinton





#### **Orchestration automation**



## Orchestration automation Ansible



#### **Orchestration automation**

**Ansible** 

pssh



**Orchestration automation** 

**Ansible** 

pssh

**Network Time Protocol (NTP) servers** 



**Orchestration automation** 

**Ansible** 

pssh

Network Time Protocol (NTP) servers Version control systems





Linux container virtualization (LXC/LXD)



Linux container virtualization (LXC/LXD)
Containers



Linux container virtualization (LXC/LXD)
Containers
Networking



Linux container virtualization (LXC/LXD)
Containers
Networking
Storage



Linux container virtualization (LXC/LXD)
Containers
Networking
Storage
udev (dynamic device management)



Linux container virtualization (LXC/LXD)

**Containers** 

**Networking** 

Storage

udev (dynamic device management)

**System recovery** 



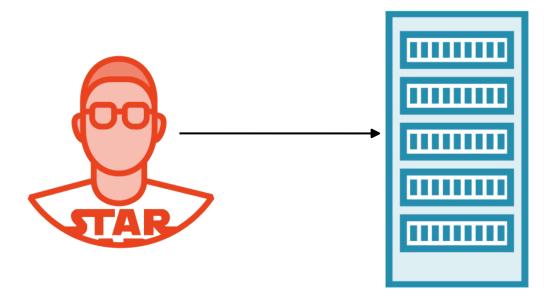
Linux container virtualization (LXC/LXD)
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System recovery

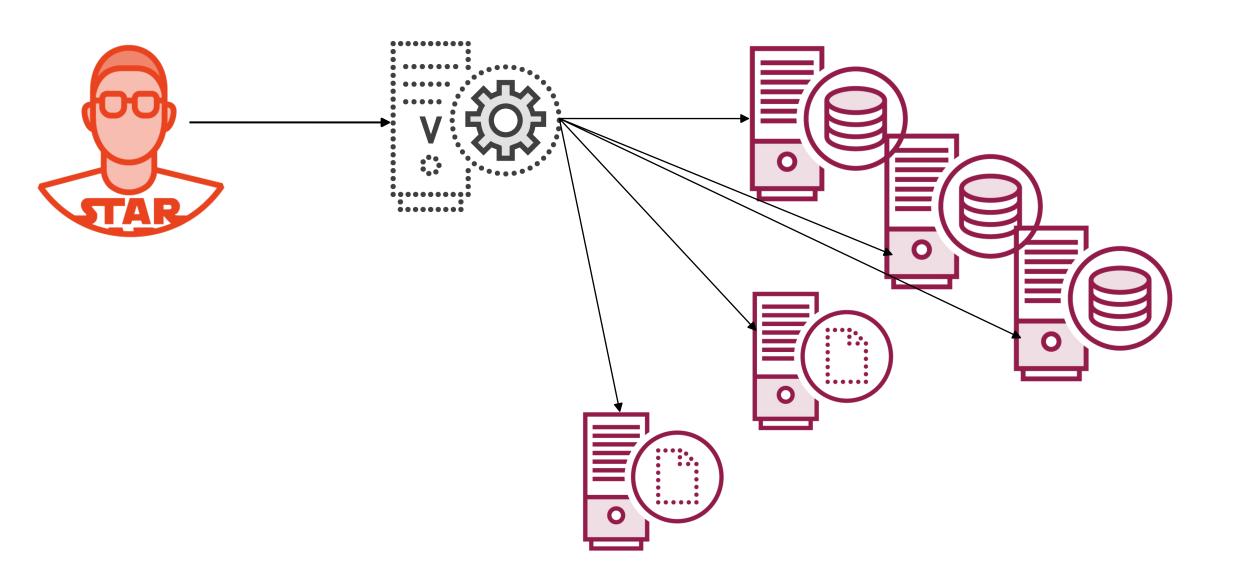
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#### **Understanding Orchestration Automation**

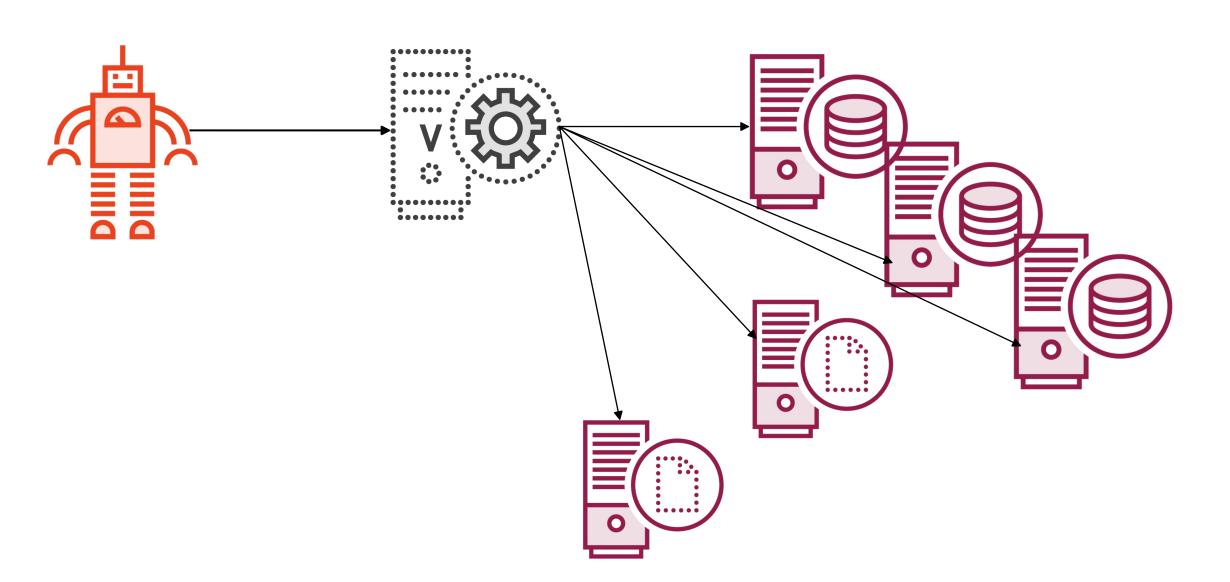
## **Traditional Deployment**



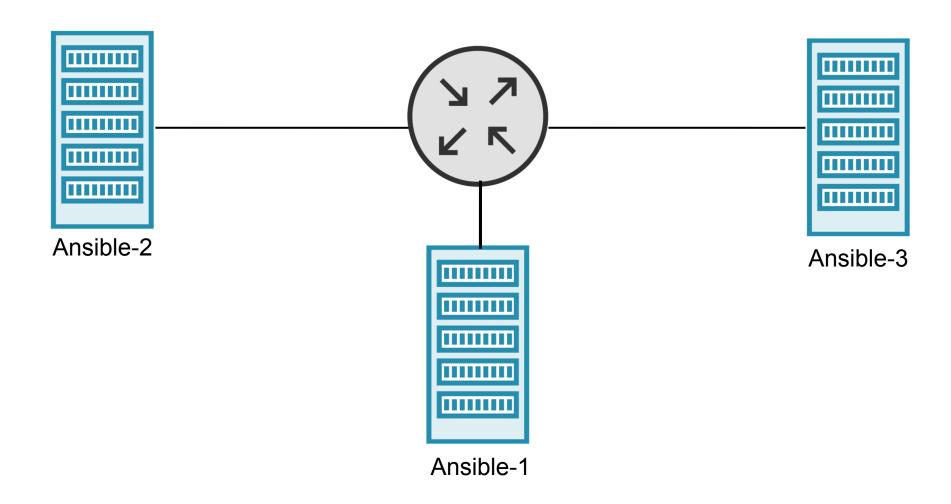
### Microservices Deployment



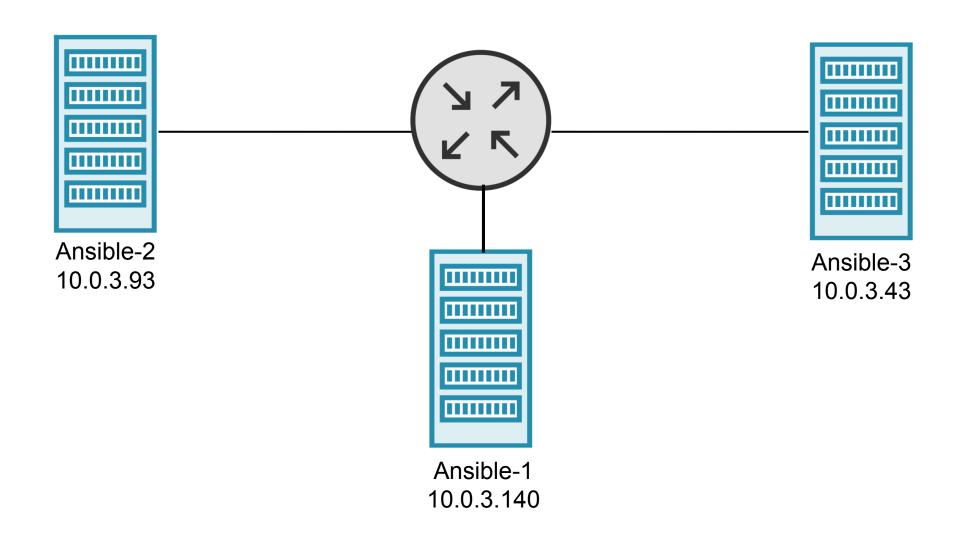
### Microservices Deployment

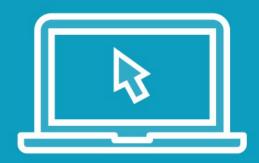


#### Lab Setup



#### Lab Setup







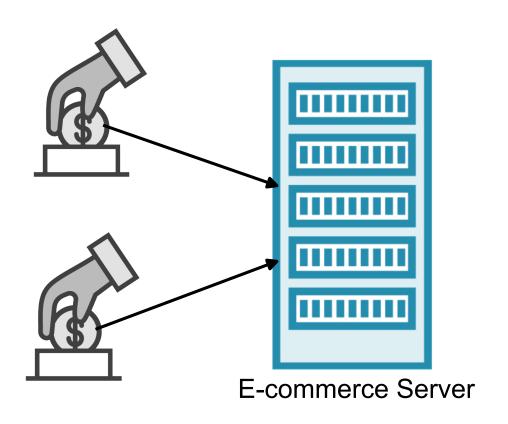
Install and run pssh



Install and run pssh
Build Ansible-powered web servers

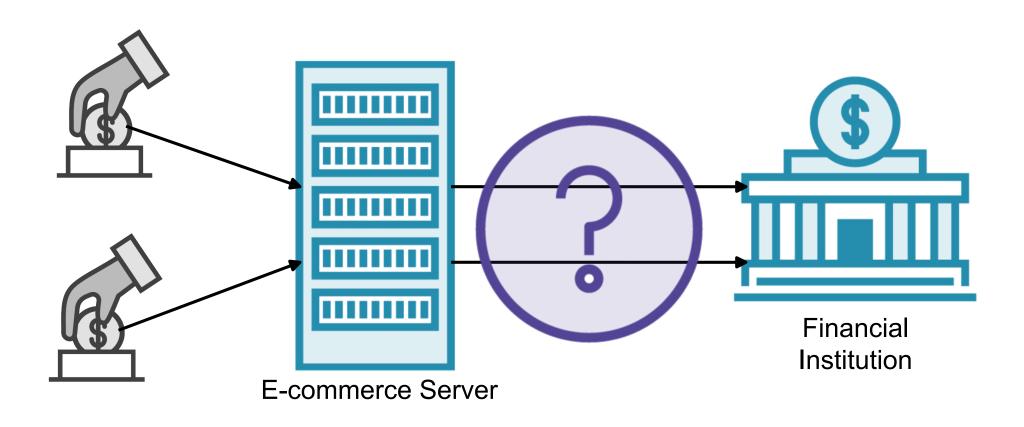
## Building an NTP Server

#### Transaction Synchronization

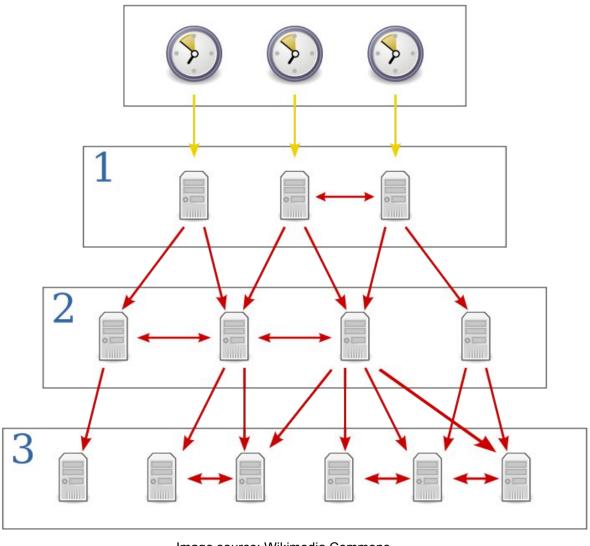


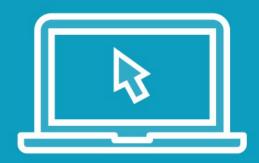


#### Transaction Synchronization



#### NTP Servers and Clients







**Build NTP server** 



Build NTP server

Configure NTP clients

### **Using Version Control Tools**





parallel-ssh -i -h sshhosts.txt df -ht ext4



parallel-ssh -i -h sshhosts.txt df -ht ext4 ansible-playbook webserver.yml



parallel-ssh -i -h sshhosts.txt df -ht ext4
ansible-playbook webserver.yml
ansible-playbook ntp-clients.yml



parallel-ssh -i -h sshhosts.txt df -ht ext4
ansible-playbook webserver.yml
ansible-playbook ntp-clients.yml
Git vs SVN vs CVS