

# Introduction to Ansible

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# About me

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- Software engineer at Quantel
- Broadcast content production
- Scala Johannesburg User Group



Let's talk about ...  
plumbing



# What is Ansible?

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- Open-source tool to configure and manage IT infrastructure
- Manage desktops / servers
- From 1 to thousands of machines
- Linux (and Windows)

# Powered by

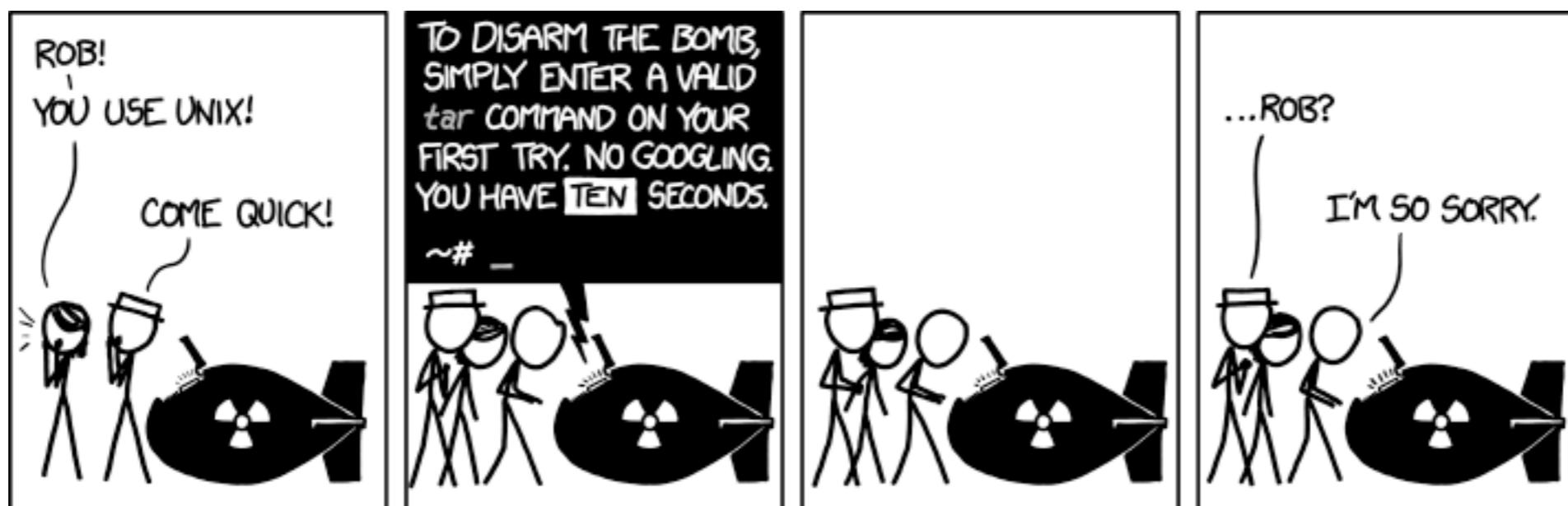
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- Python
- SSH
- YAML

# Why configuration management?

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- If you do something more than once: automate
- If you do anything complicated: automate



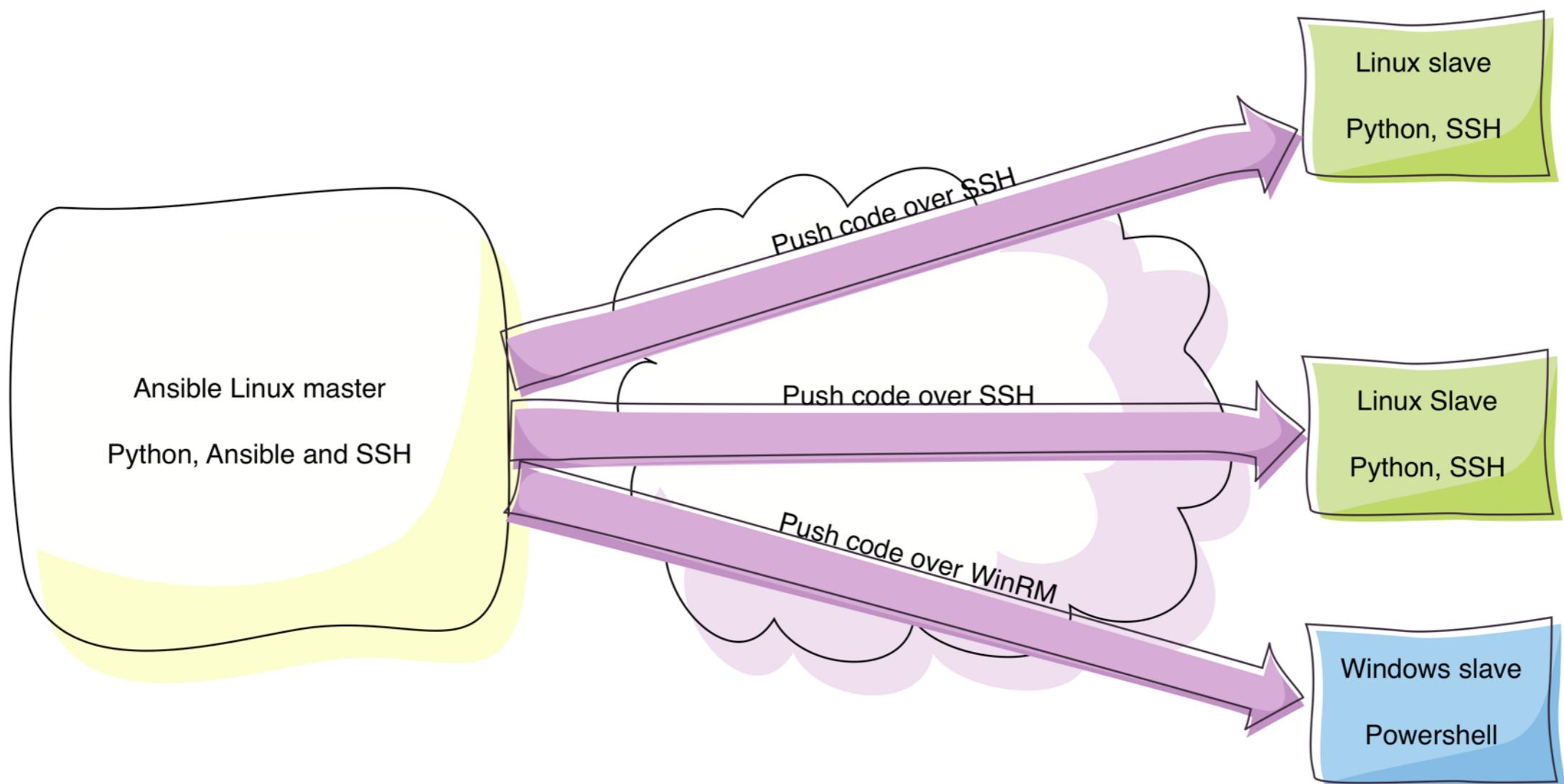


# Why Ansible?

It's “blissfully” simple

# Operating model

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# Setup

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- `sudo yum install ansible -y`
- Mmm, that's it :-)

# Concepts

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- Inventory
- Modules
- Playbooks / Roles

# Inventory

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## [webservers]

192.168.56.100

192.168.56.101

## [databases]

192.168.56.102

192.168.56.103

# Modules

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- Package managers
- User/group configuration
- File upload, templates
- DBs (mySQL, MongoDB, etc..)
- EC2, S3, OpenStack
- Large list of modules out of the box
- Write your own

“Idempotence is not a medical condition.”

**-Pat Helland**

# Demo-time

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Ad-hoc module execution

# Patch theShell Shock” vulnerability

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ansible all -m apt -a 'update\_cache=yes  
name=bash state=latest'

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**rothgar** [@rothgar](#) · 13h  
@svg @laserllama you also need -m command -a '/sbin/ldconfig' or reboot :)

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@rothgar a more tweaked #ansible playbook to fix bash CVE-2014-6271 :  
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@svg pretty much the same approach we took - [github.com/edx/configurat...](https://github.com/edx/configurat...)

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# Playbooks

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- **Playbooks:** 1 or more **plays**
- Play: **tasks** targeting a set of nodes
- Tasks: execute **modules** sequentially
- **Handlers:** execute at end of play to handle events
- Variables for customisations
- **No Code, Just Data !!!**

# Nginx: step by step guide

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- On the web servers
  - download & enable the EPEL repo
  - ensure nginx is installed
  - modify the default config to use port **8183**
  - customise the default static website
  - ensure that nginx runs at boot time

# Demo-time: Nginx playbook

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# Roles

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- Convention for playbook structure
- Enable reuse and sharing
- Ansible Galaxy

# Ansiblify

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Linux “How To” ~> Ansible playbook

# Ansible pros

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- Easy plumbing
- Almost no learning curve
- Extremely easy to read/write
- Batteries included





Ansible cons

The elephants in the room

# Thanks for listening !

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Questions?

Comments?