

# Infrastructure Developer

**The new “DevOps”**  
By Christopher Coffey

# Whoami

- 20 + years in IT
- Got my start in the Military (US Navy 1991-2001)
- Joined Rackspace in 2003 and again in 2008
- Held lots of certificates across the industry such as: CISSP, RHCE, and various SANS security certs

# What are we here to talk about ?

- Infrastructure Development
- DevOps
- Infrastructure as code
- Buzzword of the Week

# Why Python ?

So many use cases building just about anything across IT.

- Websites (Django / Flask)
- API's (Bottle)
- IaaS (Openstack)
- Configuration management (Ansible / Salt)
- etc...

# Who uses it ?

Almost everyone in some way or another...

- HP, IBM, Redhat, Rackspace all are major player in OpenStack
- Two of the major configuration management players are open source Python projects (ansible / salt)
- Even such major PHP shops as facebook use a lot of python on the backend  
<https://code.facebook.com/posts/1040181199381023/python-in-production-engineering/>

# So Why make infrastructure into code ?

- Maintainability
- Repeatability
- Testability (automated unit and Integration testing)
- Documentation
- No more clicking through an interface to create something: API all the things.
- Cattle not Pets [http://www.theregister.co.uk/2013/03/18/servers\\_pets\\_or\\_cattle\\_cern/](http://www.theregister.co.uk/2013/03/18/servers_pets_or_cattle_cern/)
- 12 Factor - <http://12factor.net/>

# So what is it you do again ???

I take old school pet server farms and turn them into beautiful code.

- Using AWS SDK's such as Boto3 <https://github.com/boto/boto3>
- Troposphere to build Cloud Formation templates <https://github.com/cloudtools/troposphere>
- Packer <https://www.packer.io/>
- Vagrant <https://www.vagrantup.com/>
- Ansible <https://www.ansible.com/>

Demo Time



Questions ?