



# Chef Cookbook Workflow

Testing your infrastructure code

Nathen Harvey - @nathenharvey



## Nathen Harvey

- VP, Community Development at Chef
- Co-host of the Food Fight Show
- Co-organizer of DevOpsDC meetup
- Occasional farmer – <http://bit.ly/farmer-nathen>
- Love Eggs – <http://eggs.chef.io>
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### Master in DevOps

DevOps

October 2014 – Present (1 year 1 month)



# Hello!

- System Administrator?



# Hello!

- System Administrator?
- Developer?



# Hello!

- System Administrator?
- Developer?
- DevOp?



# Hello!

- System Administrator?
- Developer?
- DevOp?
- Business Person?



## Are you experienced?

- Experience with Infrastructure as Code or Configuration Management?





## Are you experienced?

- Experience with Infrastructure as Code or Configuration Management?
- Experience with Chef?



## Are you experienced?

- Experience with Infrastructure as Code or Configuration Management?
- Experience with Chef?
- Experience writing automated tests?



**Which version control system do you use?**

# Which version control system do you use?

- `cp foo foo.bak`

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- `cp foo{,.`date +%Y%m%d%H%M` }`

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- `cp foo foo.bak`
- `cp foo{,.`date +%Y%m%d%H%M` }`
- `cp foo{,.`date +%Y%m%d%H%M`-`$USER` }`





## DevOps is a Two-Way Street

- It's great when developers care about
- **Uptime!**
- **Scaling!**
- **Deployment!**
- Put them on call! etc. etc. etc.





## DevOps is a Two-Way Street



- **Operations** also has as much or more to learn from developers

# Software Development Workflow

- Write some code

## Software Development Workflow

- Write some code
- <ad-hoc verification here>

## Software Development Workflow

- Write some code
- <ad-hoc verification here>
- Go to pre-production

## Software Development Workflow

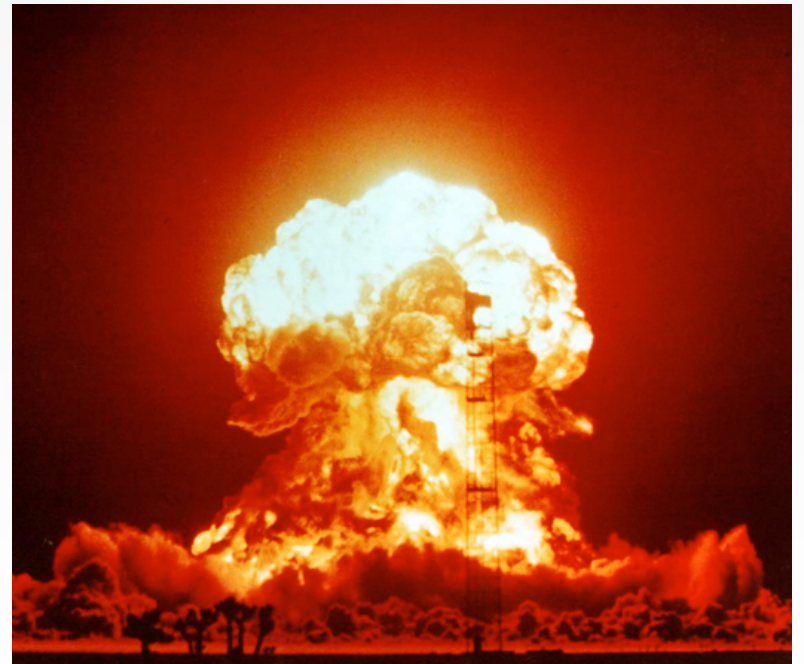
- Write some code
- <ad-hoc verification here>
- Go to pre-production
- <ad-hoc verification here>

## Software Development Workflow

- Write some code
- <ad-hoc verification here>
- Go to pre-production
- <ad-hoc verification here>
- Go to production

## Software Development Workflow

- Write some code
- <ad-hoc verification here>
- Go to pre-production
- <ad-hoc verification here>
- Go to production
- **Production failure**



## Software Development Workflow

- Write some code
- Write and run some **unit tests**
- Go to pre-production
- Run some **integration/acceptance tests**
- Go to production
- **Lowered chance of production failure**





## Old Chef Cookbook Workflow

- Write some cookbook code
- <ad-hoc verification here>
- Go to pre-production
- <ad-hoc verification here>
- Go to production
- **Whoops, broke production**



## New Chef Cookbook Workflow

- Write some cookbook code
- Check for **code correctness**
- Write and run some **unit tests**
- Go to pre-production
- Run some **integration tests**
- Go to production



## Chef Testing

- Did chef-client complete successfully?
- Did the recipe put the node in the desired state?
- Are the resources properly defined?
- Does the code following our style guide?

## Tools of the Trade

- **Code correctness:** Foodcritic, Rubocop
- **Unit tests:** ChefSpec
- **Integration tests:** Test Kitchen, ServerSpec, BATS

# What Questions Can I Answer For You?

Thank you!

@nathenharvey





**CHEF**™  
CODE CAN