

# Infrastructure Testing

Grey Matter

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DevOps Days Boston - 2014

# What is grey matter?

Grey matter is the area of your infrastructure where you have the least amount of confidence.

# Infrastructure

## Provisioning

- Ansible
- CF-Engine
- **Chef**
- **Kickstart**
- Powershell
- Puppet
- Salt
- **Shell scripts**

## Monitoring

- Cacti
- Icinga
- Nagios
- **Sensu**
- Zabbix

# Confidence

- Trust
- Experience
- Control
- Knowledge



# What about...

- images we did not create?
- machines we did not provision?
- machines we can not/do not monitor?



Buena Vista Pictures/Everett Collection



# Why ServerSpec?

- Easy to use
- Extensible
- Put tests into source control
- Only need SSH access on remote machine



# Integration Testing

- Utilize KitchenCI + ServerSpec for integration testing of Chef cookbooks and roles.
- Perform a basic set of specs that are applicable to all tests in a cookbook.
- Create highly specific tests to help increase confidence in a cookbook and cookbook dependencies.

# Developer Environments

- A spec was created for all of the pieces of the developer stack
- Organize the specs based off of a team
- Two commands to evaluate the configuration of the environment

# Box Creation and Delivery

- Utilize Packer and Racker to build boxes.
- Execute set of specs as part of build process.
- Lets us test kickstart, provisioning scripts, as well as Chef provisioned assets.



# Third Party Machines

- Guarantee compliance with requirements – disks, mounts, cpu, packages, etc.
- Continuous compliance, process, and system monitoring.
- Reduce the feedback loop for identifying issues.

“Reducing grey matter is essential to increasing confidence.”

How can you reduce grey matter?

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