

Chef and the Opscode Platform

System Administration Made Awesome

Me

Nathan L Smith

- <http://cramerdev.com/>
- <https://github.com/smith/>
- @nlsmith



Chef

<http://www.opscode.com/chef/>

“Chef is an open source systems integration framework built to bring the benefits of configuration management to your entire infrastructure. You write source code to describe how you want each part of your infrastructure to be built, then apply those descriptions to your servers. The result is a fully automated infrastructure: when a new server comes on line, the only thing you have to do is tell Chef what role it should play in your architecture.”

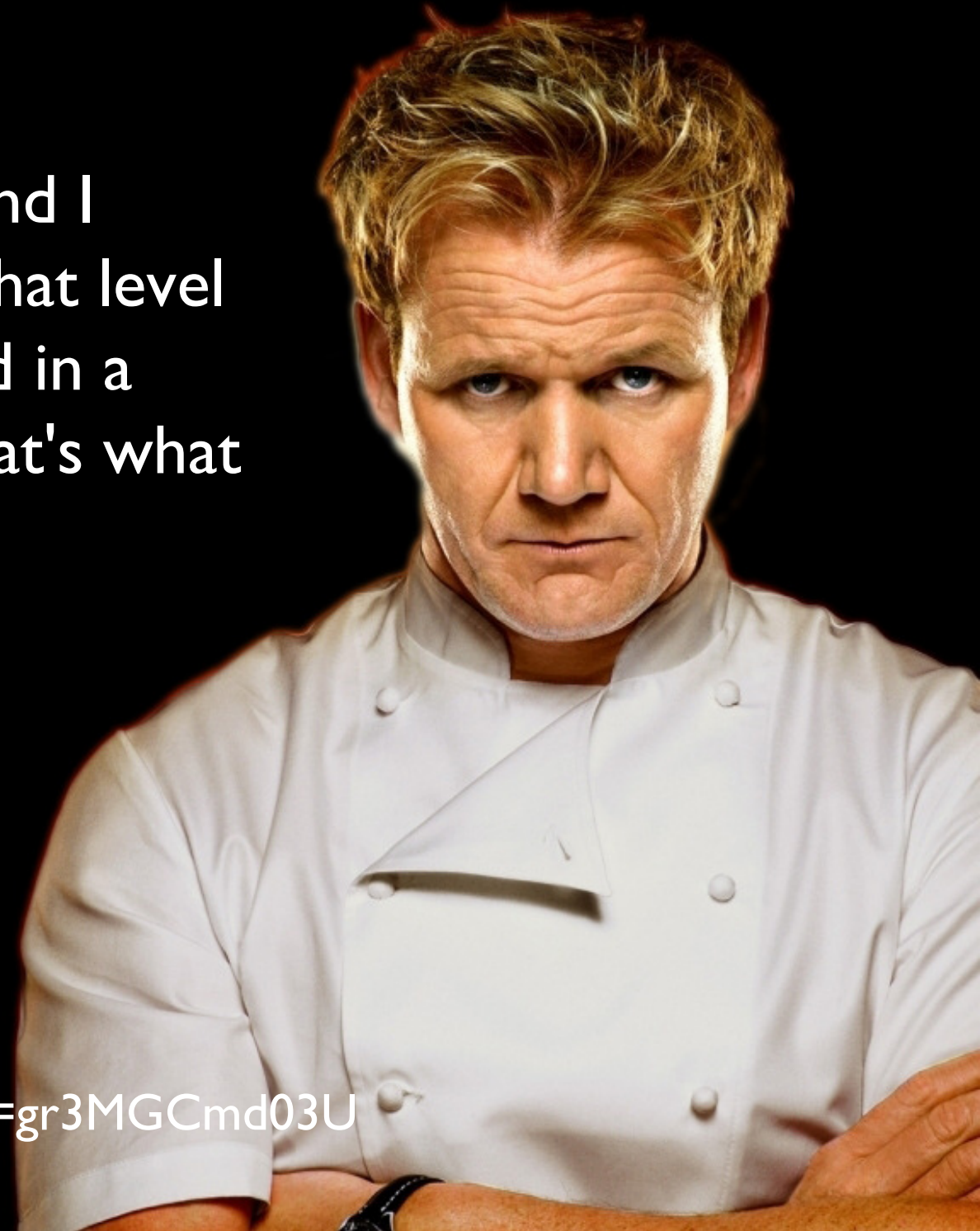
Opscode

- <http://opscode.com/>
- Hosted Chef platform
- Main developers of Chef
- Training & support

Why?

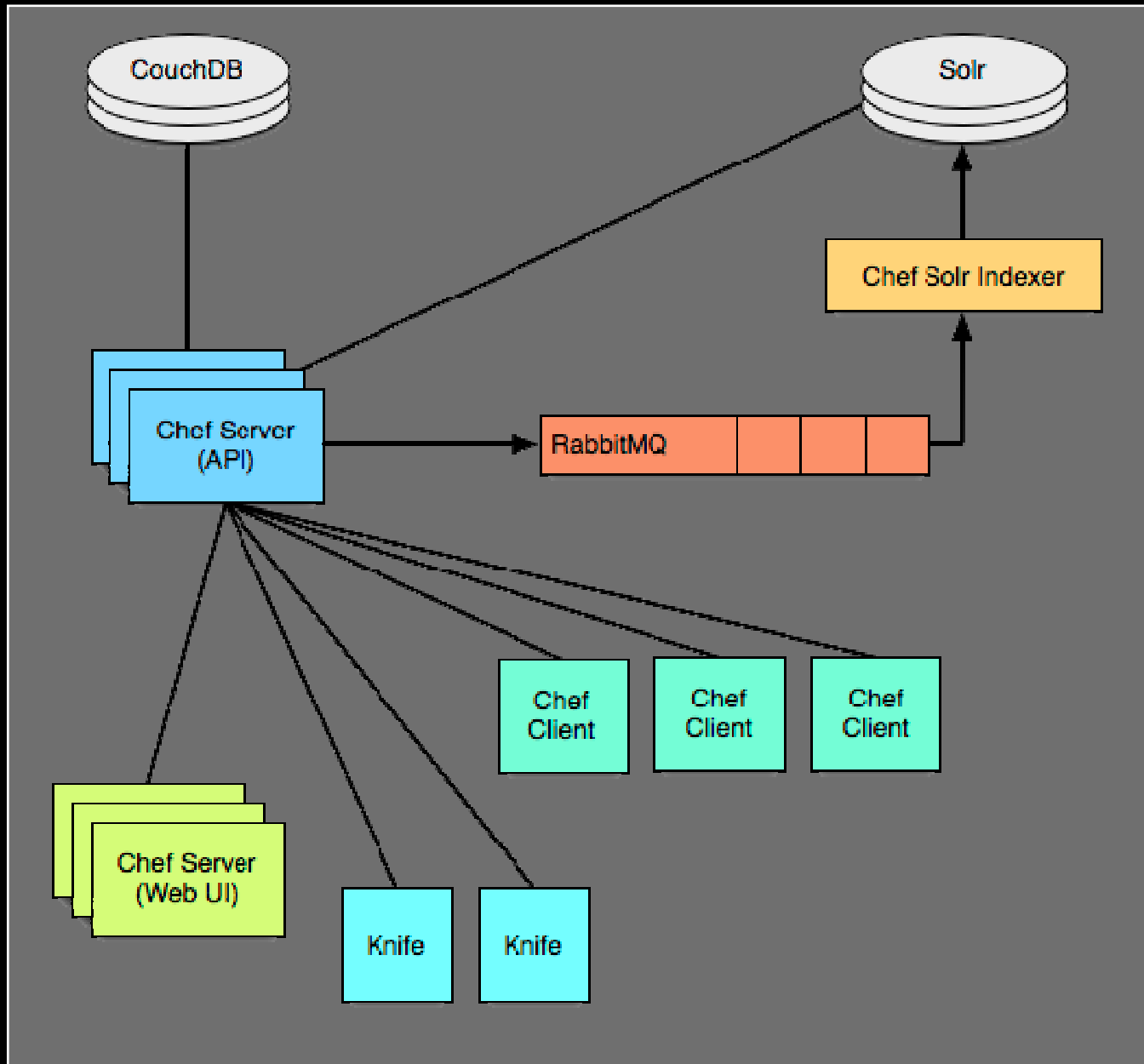
- Living documentation
- Infrastructure as code
- Disasters will happen
- Repeatability & Idempotence

“I maintain standards and I strive for perfection. That level of pressure is conveyed in a very bullish way and that's what cooking is all about.”



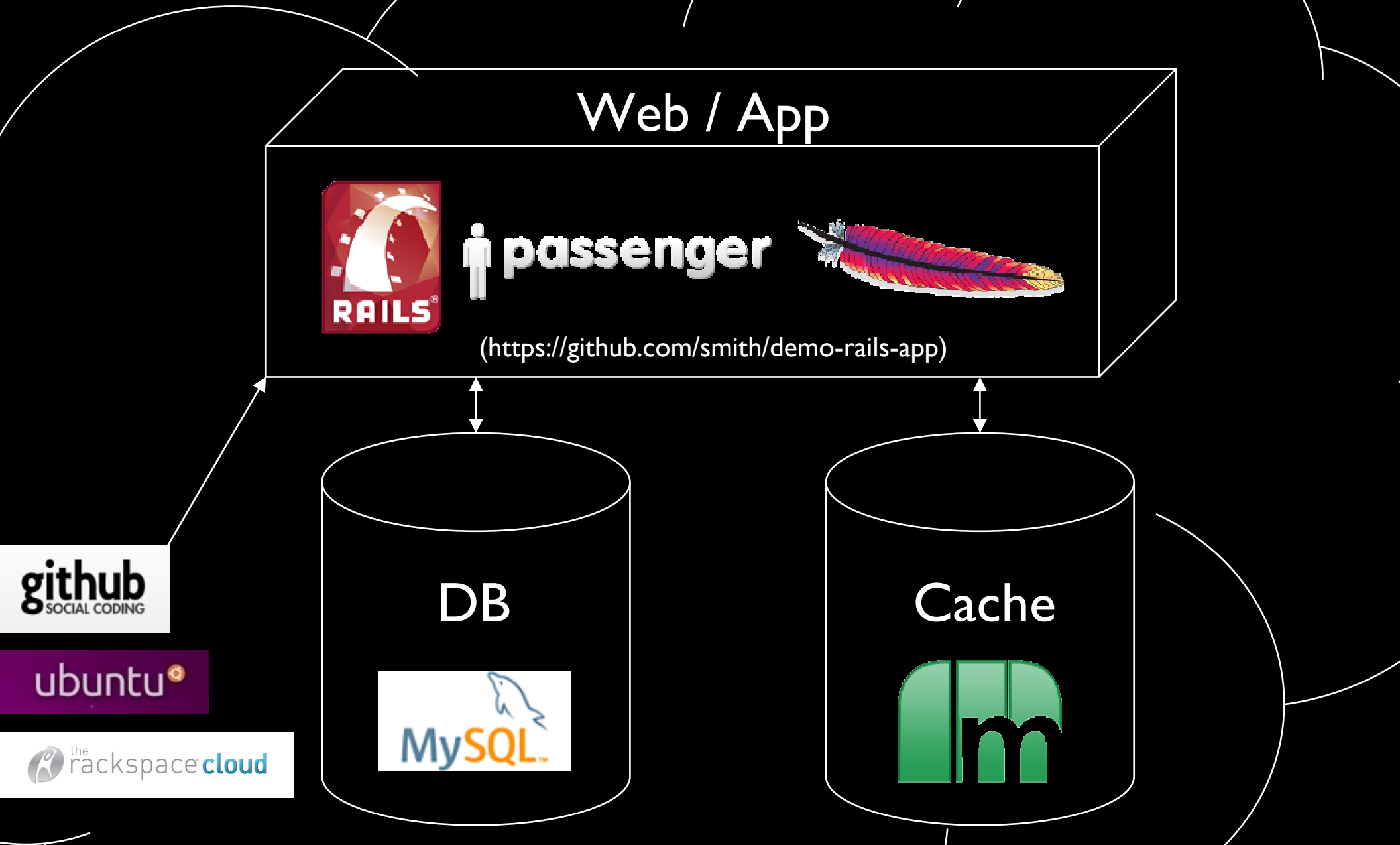
<http://www.youtube.com/watch?v=gr3MGCmd03U>

Chef Server Architecture



(<http://wiki.opscode.com/display/chef/Architecture>)

Demo Application



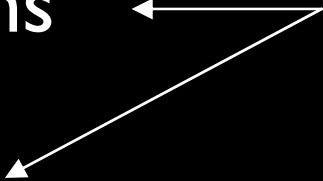
Nodes

- Attributes
- Run list

Roles



Cookbooks

- Definitions
 - Recipes
 - Templates (.erb)
 - Files
 - Providers
 - Libraries
- (use Resources)
- 
- ```
graph LR; A["(use Resources)"] --> B["Definitions"]; A --> C["Recipes"];
```

# Resources

<http://wiki.opscode.com/display/chef/Resources>

# Data Bags

```
{
 "id": "demo",
 "server_roles": ["demo_web_app"],
 "type": { "demo_web_app": ["rails", "passenger_apache2"] },
 "packages": { "libmysqlclient-dev": "" },
 "gems": { "rake": "0.8.7", "bundler": "1.0.12", "mysql": "2.8.1" },
 "deploy_to": "/var/apps/demo",
 "owner": "demo",
 "group": "demo",
 "database_master_role": ["demo_database_master"],
 ... (it's JSON, yo!) ...
 "revision": { "production": "HEAD" },
 "repository": "git://github.com/smith/demo-rails-app.git",
 "force" : { "production": true },
 "migrate": { "production": true }
}
```

# Application & Database Cookbooks

Data Bags + Recipes = Deploy!

# Environments



# Chef Disadvantages

- Time investment
- Testing
- You're going to need a *sous* chef
- Opscode not cheap (<http://www.opscode.com/pricing/>)



# Opscode Links

- Chef Wiki: <http://wiki.opscode.com/display/chef/Home>
- Manage: <https://manage.opscode.com/>
- Cookbooks: <http://community.opscode.com/cookbooks>
- GitHub: <http://github.com/opscode>
- Twitter: @opscode

“I have a very assertive way. It’s wake up, move your ass, or piss off home.”



# Thank You

Questions?