

Introduction to "Chef" framework

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- Open Source (Apache License v. 2.0)
- Framework
- Ruby
- Infrastructure configuration management tool

Chef Is Young

- Released on January 15th, 2009



Why To Use Chef?

- Only one administration guy in company?
- Forces order in system
- Existing solutions for your problems
- Best practices

- *chef-client* + *chef-server*
- *chef-client* + Opscode Platform
- *chef-solo*

- Ruby gem (*chef-server*)
- Stores cookbooks
- Stores information about nodes
- Accessible by REST API

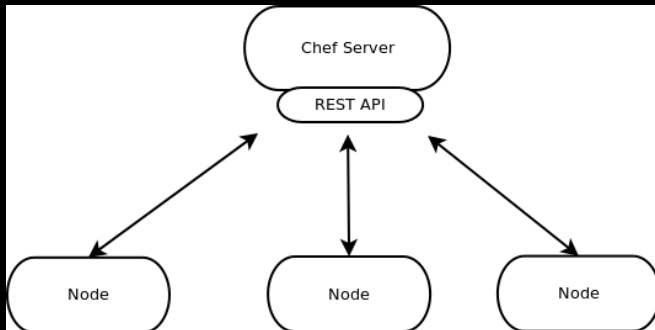
- CouchDB – stores node informations
- SOLR – data indexing
- RabbitMQ – helps in indexing
- Merb – API and web user interface

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That is lot of stuff!

- Free plan (upto 5 nodes)
- Configuration step by step
- Organizations and users managment

- Ruby gem (*chef*)
- Runs on machine that we want to configure
- Communicates with chef server
- Authenticates using RSA keys



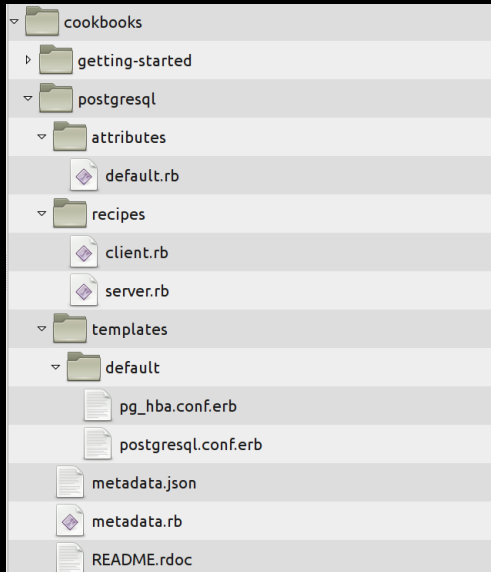
- Part of *chef* gem
- Standalone run (without connecting to server)
- Uses cookbooks from local tarballs

- Write cookbook with recipe
- Upload it to chef server
- Define run list by:
 - editing node on chef server
 - passing JSON file to chef-client
- Run chef-client on desired machine

"Cookbooks for Chef are like RubyGems for
Ruby"¹

¹I couldn't find author

Cookbook Skeleton



Example Attributes File

```
set[:postgresql][:version] = "8.4"  
set[:postgresql][:dir] =  
  "/etc/postgresql/#{node[:postgresql][:version]}/main"
```


PostgreSQL Server Recipe

```
include_recipe "postgresql::client"

package "postgresql-#{node[:postgresql][:version]}" do
  action :install
end

template "#{node[:postgresql][:dir]}/postgresql.conf" do
  source "postgresql.conf.erb"
  owner "postgres"
  group "postgres"
  mode "0600"
end

service "postgresql-#{node[:postgresql][:version]}" do
  action :start
end
```

```
include_recipe "postgresql::client"

package "postgresql-#{node[:postgresql][:version]}"

service "postgresql" do
  service_name "postgresql-#{node[:postgresql][:version]}"
  supports :restart => true, :status => true
  action :nothing
end

template "#{node[:postgresql][:dir]}/postgresql.conf" do
  source "postgresql.conf.erb"
  owner "postgres"
  group "postgres"
  mode "0600"
  notifies :restart, "service[postgresql]"
end
```

- Apt
- Yum
- MacPorts

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Many more

- Debian
- Gentoo
- FreeBSD
- MacOSX
- Solaris

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And more

- package
- template
- file
- user
- execute
- script (bash, ruby, perl, python, csh)
- http_request
- deploy

²<http://wiki.opscode.com/display/chef/Resources>

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- Released as a gem – *ohai*
- Collects system configuration/information
- Returns *JSON*

- Part of *chef* gem
- Console tool for chef server managment

- If using *RVM*, use *rvmsudo* for *chef-client*
- Take a look at chef bootstrap³
- Remember that Ruby (Chef) uses *sh*, not *bash*

³<http://wiki.opscode.com/display/chef/Bootstrap+Chef+RubyGems+Installation>

- <http://www.opscode.com/chef/>
- <http://help.opscode.com/faqs/start/how-to-get-started>
- <http://cookbooks.opscode.com/>
- <https://github.com/opscode/cookbooks>

Questions?