Configuring Nagios with Chef

Bryan McLellan Technical Program Manager, Open Source <u>btm@opscode.com</u> / @btmspox



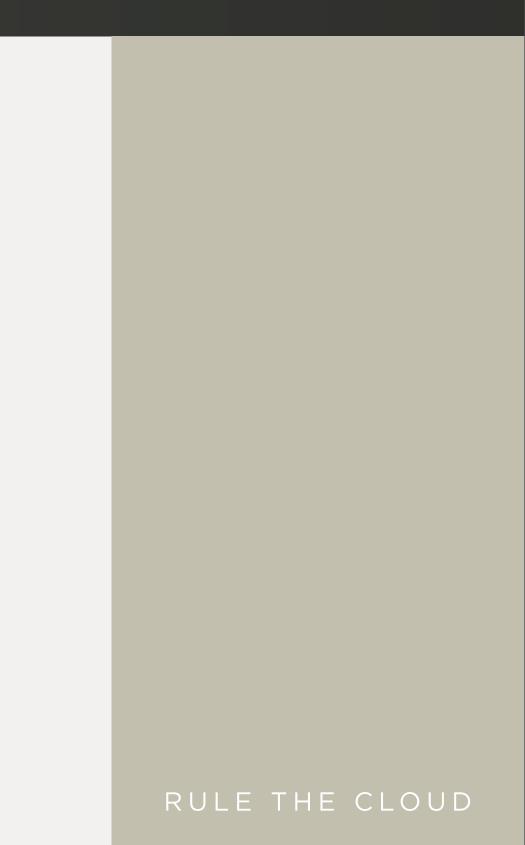


OPSCODE



- Who am I?
- Why automation
- Introduction to Chef
- Nagios Demo
- Questions







• <u>Chef</u>

Early developer, user, pundit

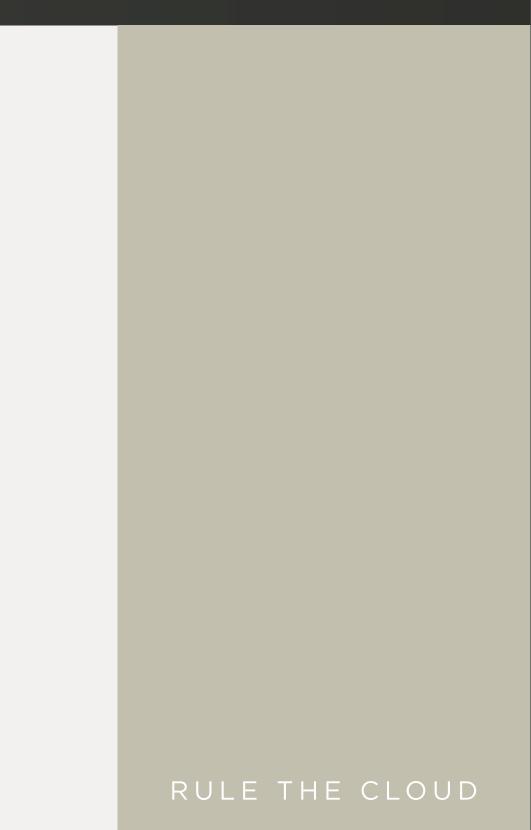
- <u>10+ years in Systems Administration</u>
 Computer repair, ISPs, Corporate IT,
 Web operations
- <u>Event Logistics Volunteer</u>
 Traffic Control, Parking,
 Communications, Networking,
 Emergency Management
- <u>Hacker-Operator</u>
 Trucks, Bikes, Radios, Tractors



Who am I?



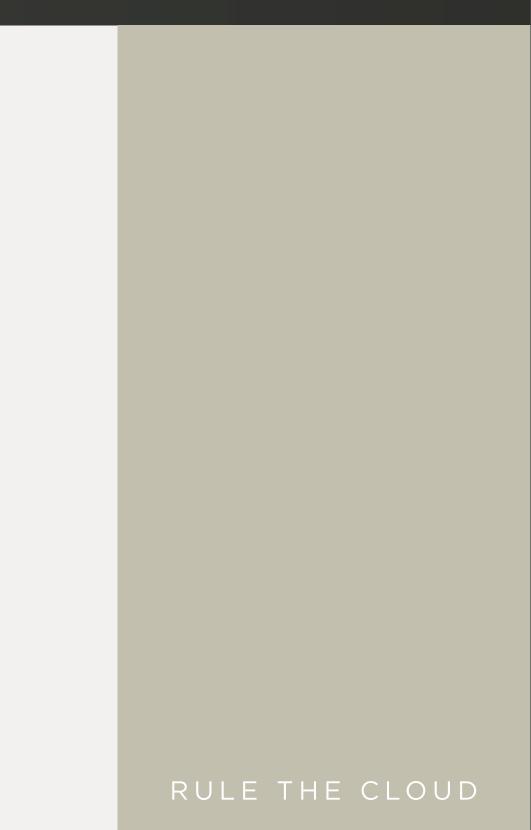








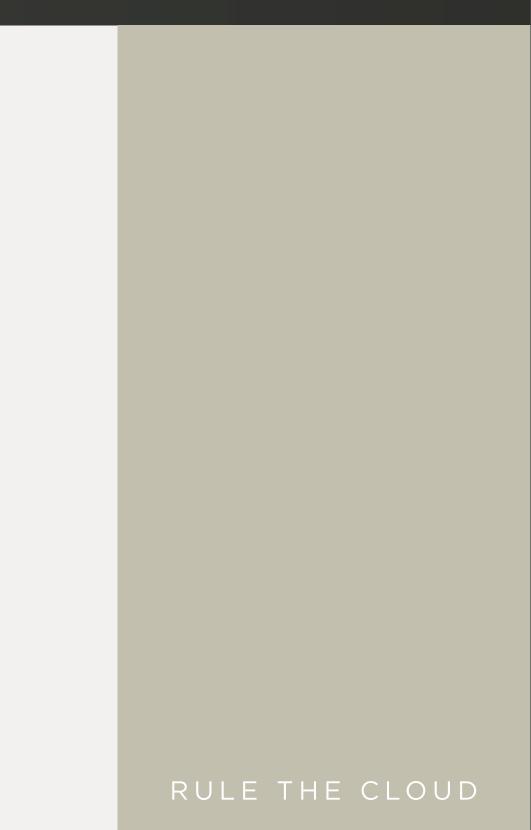
Purchasing







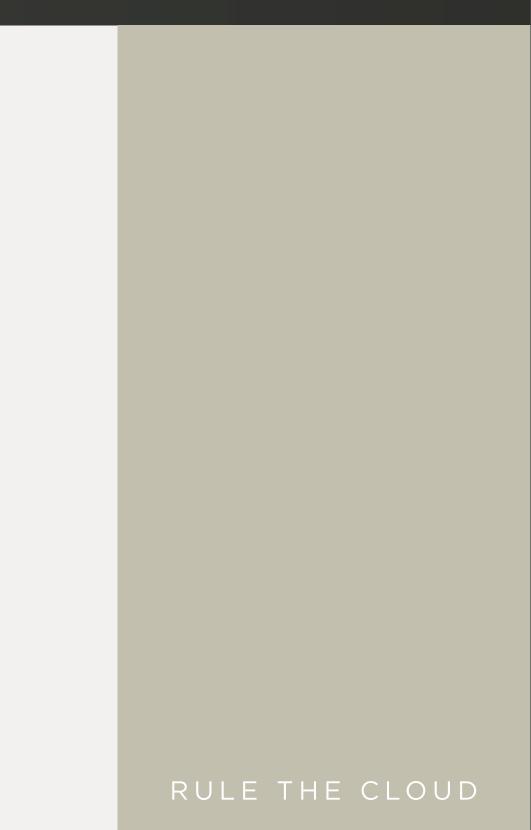
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- Vendor build







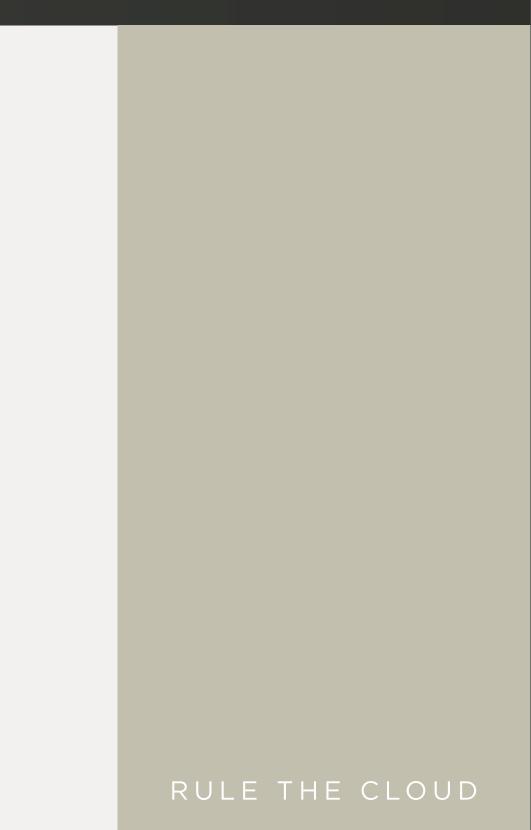
- Purchasing
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- Delivery







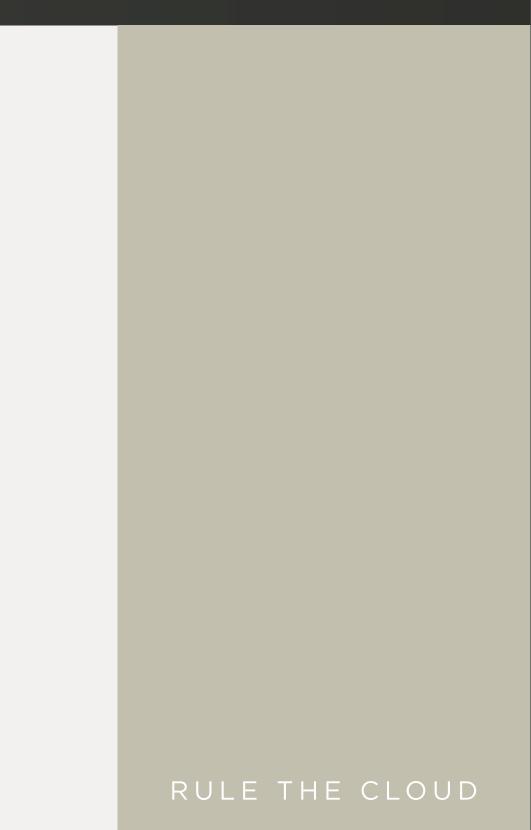
- Purchasing
- Vendor build
- Delivery
- Installation







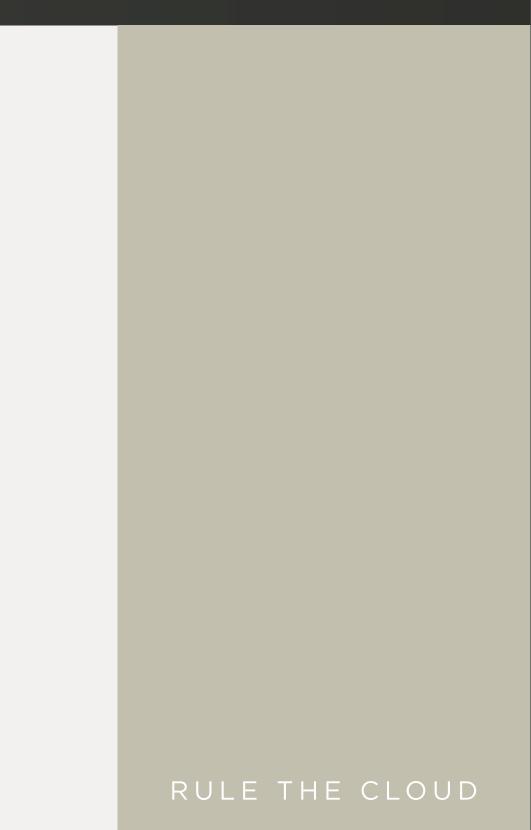
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- Purchasing
- Vendor build
- Delivery
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- **Application deployment**

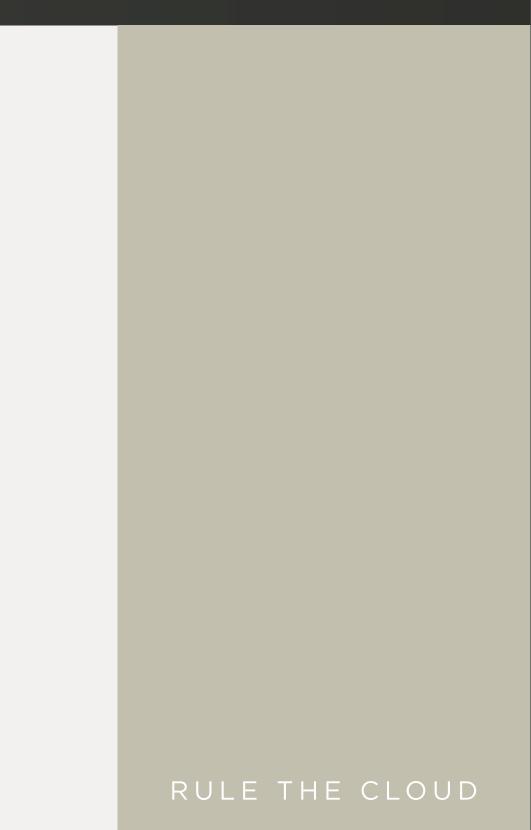






- Purchasing
- Vendor build
- Delivery
- Installation
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- Application deployment

Weeks?



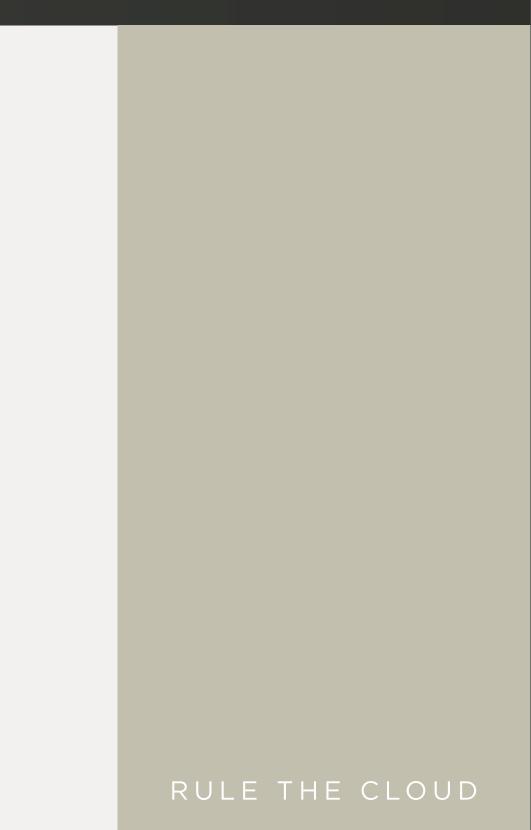




Cloud Deployment

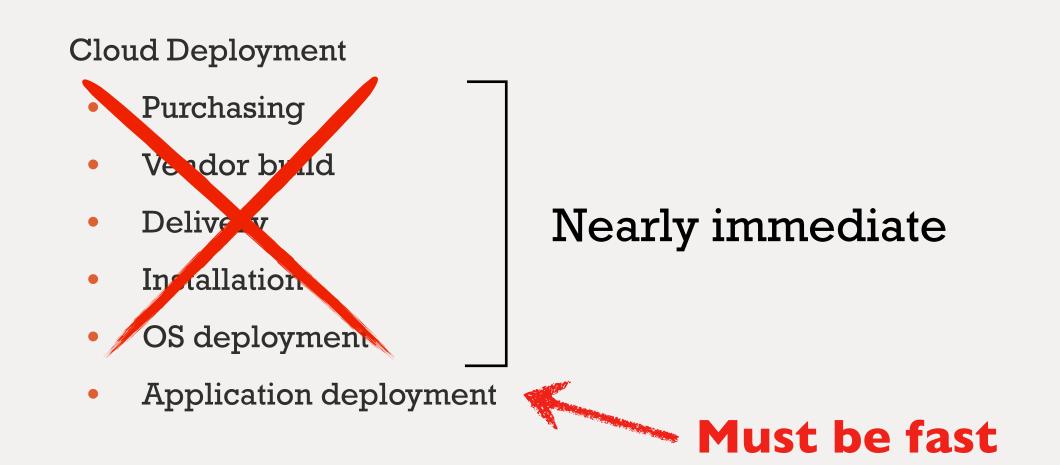
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- Vendor by id
- Delive
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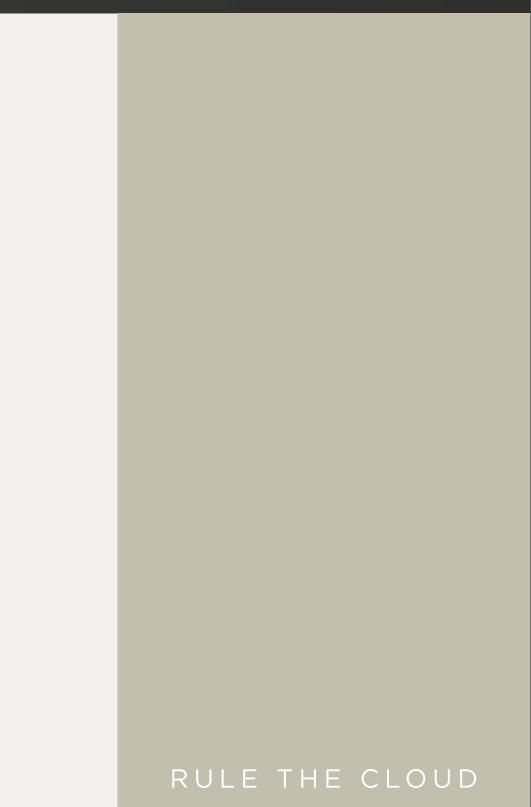
Nearly immediate









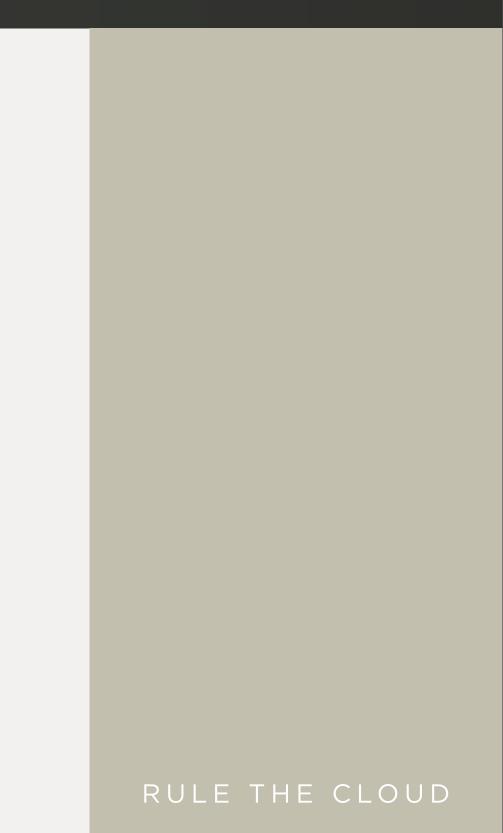




Good Reasons:

- More agility and faster scalability
- Improved infrastructure documentation
- Better disaster recovery

Why automate?





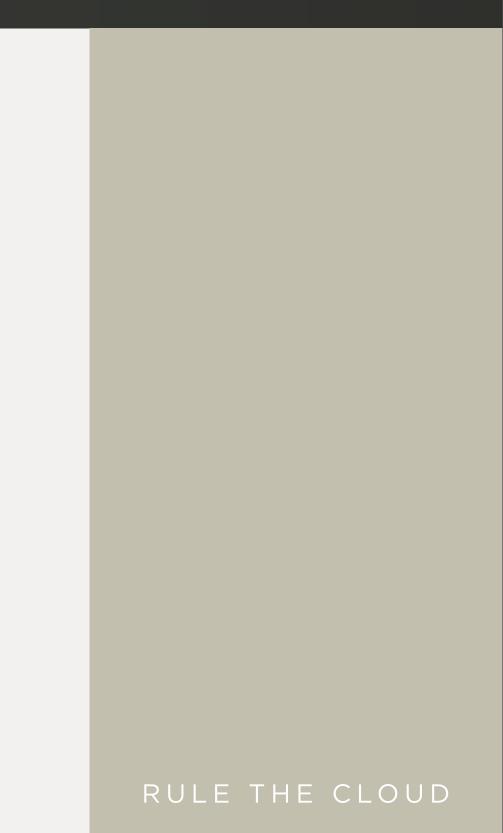
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Really Good Reasons:

- Spend less time on monotonous tasks
- Spend more time solving interesting problems

Why automate?









• Idempotent



Tuesday, September 25, 12



- Idempotent
- Reasonable





- Idempotent
- Reasonable
- Primitives





- Idempotent
- Reasonable
- Primitives
- Scalable





- Idempotent
- Reasonable
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- Hackable





- Idempotent
- Reasonable
- Primitives
- Scalable
- Hackable
- Shareable





- Configuration management language
- Systems integration framework
- API for your infrastructure

http://www.flickr.com/photos/morville/3220961040/

What is Chef?



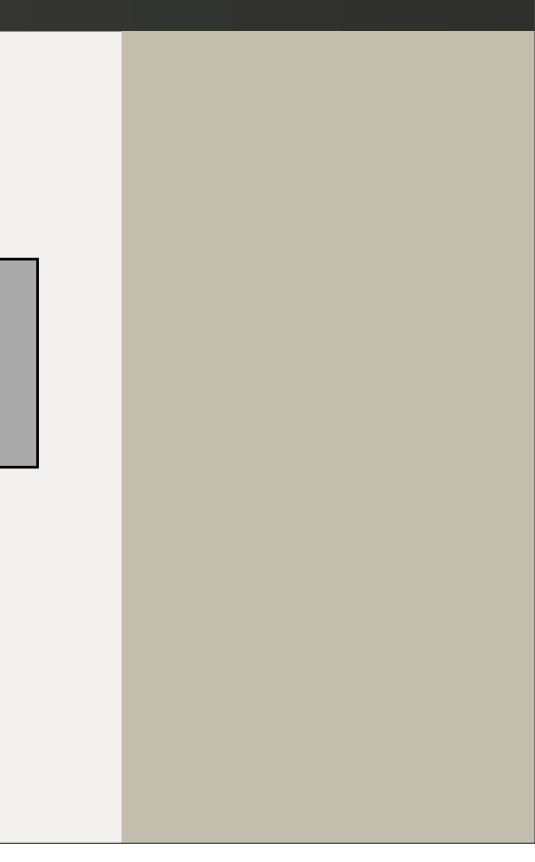


Application Programming Interface

The Meatcloud Manifesto

Give me an API or give me death.

-- Andrew Clay Shafer (@littleidea)











Nodes have Attributes







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Users and **Nodes** authenticate as **Clients**







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- **Users** and **Nodes** authenticate as **Clients**
- Cookbooks contain Recipes







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- **Nodes** have Attributes
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- Each node has a **Run List**
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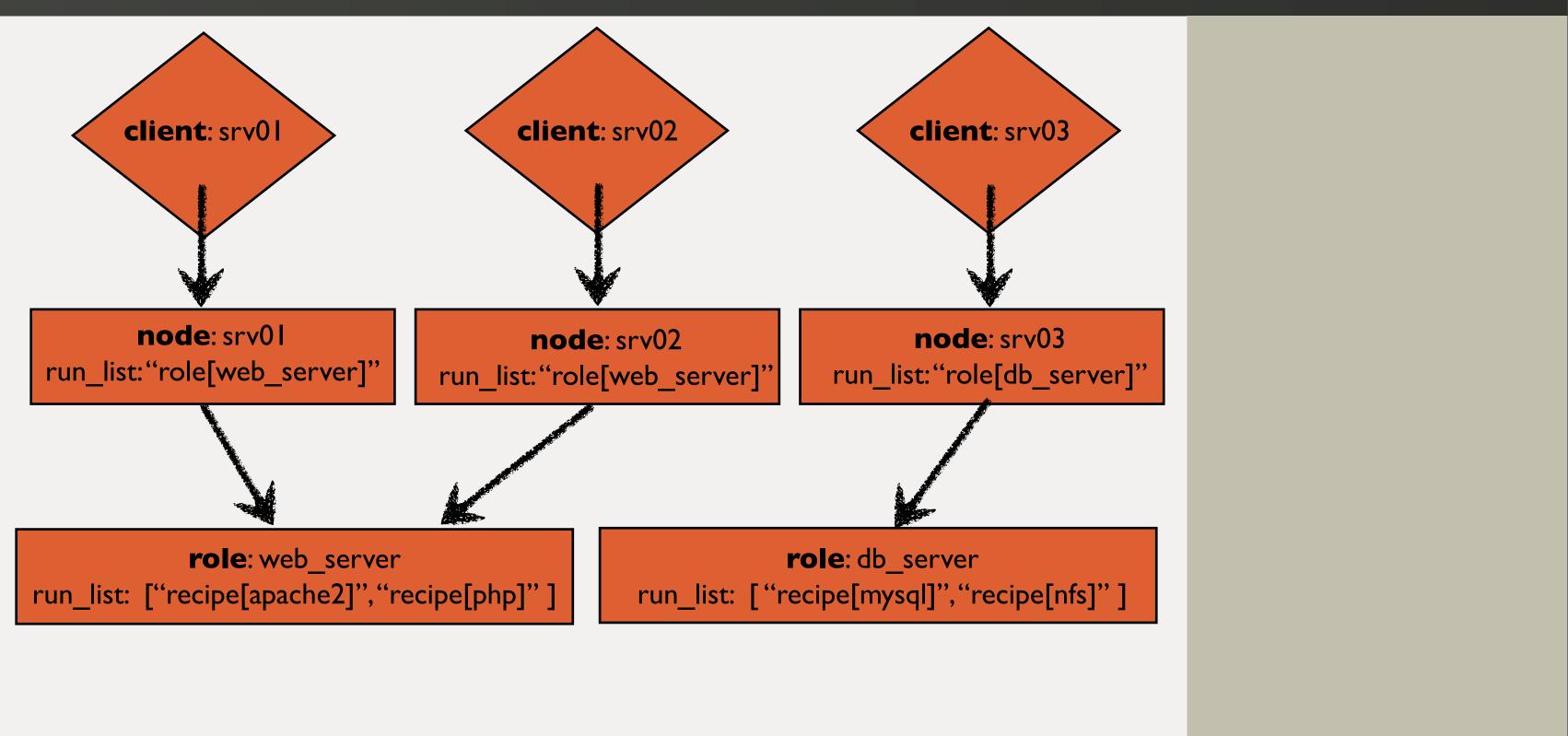


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- Data bags are... bags of data.





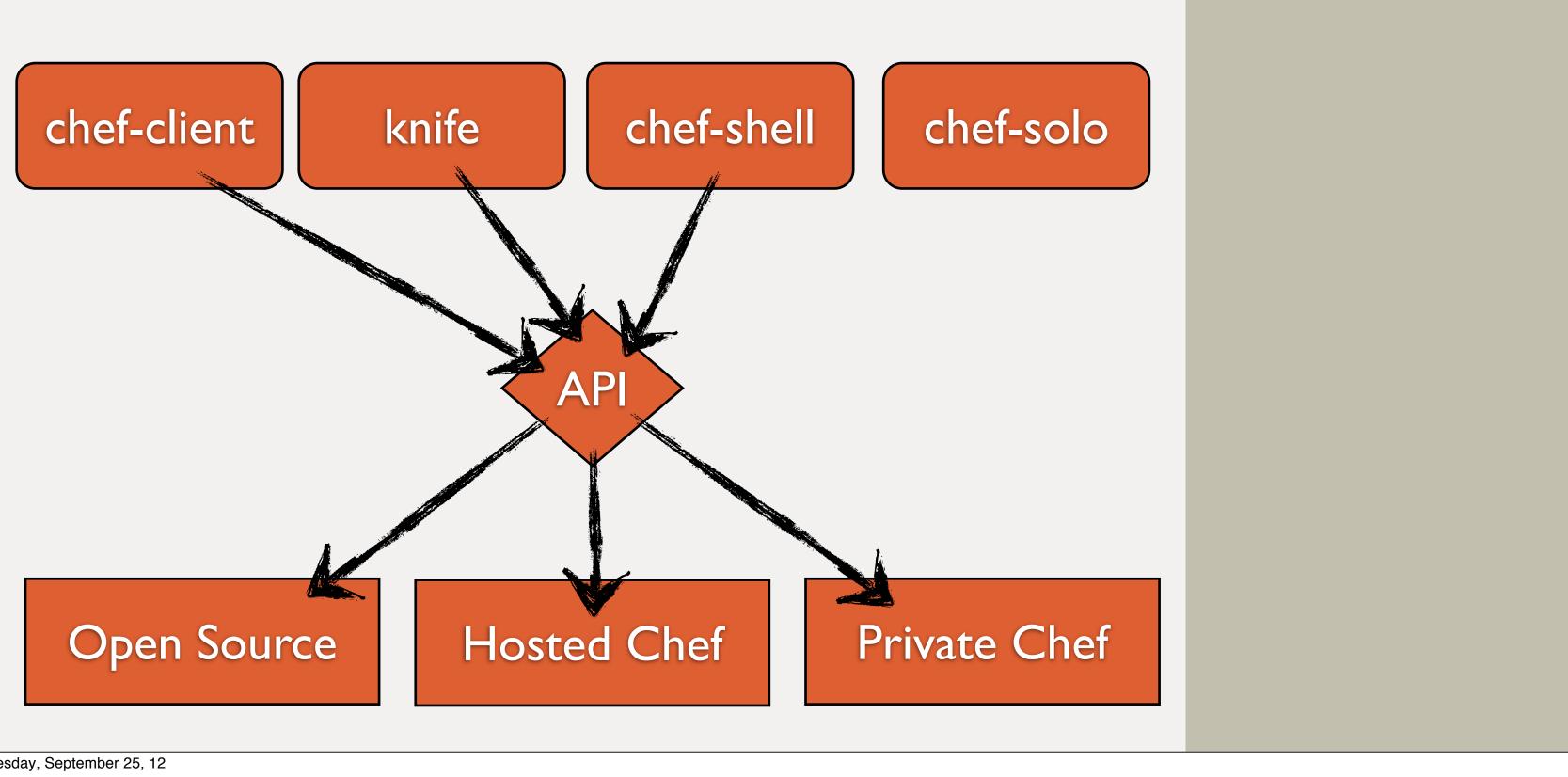




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Chef Basics Visualized

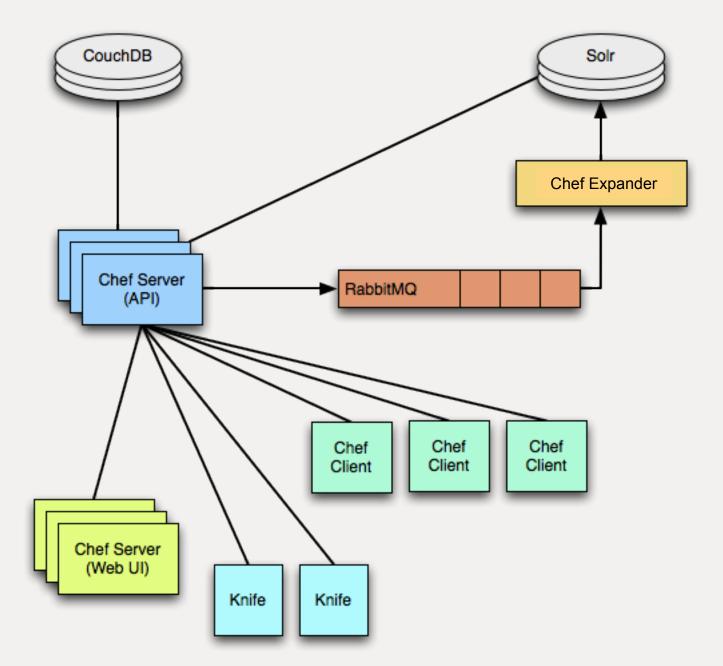


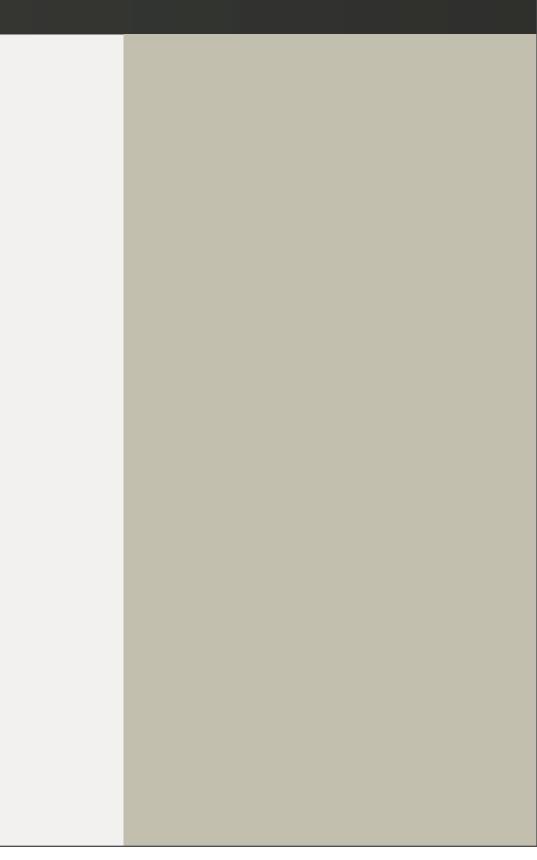






Chef 10 Open Source Architecture

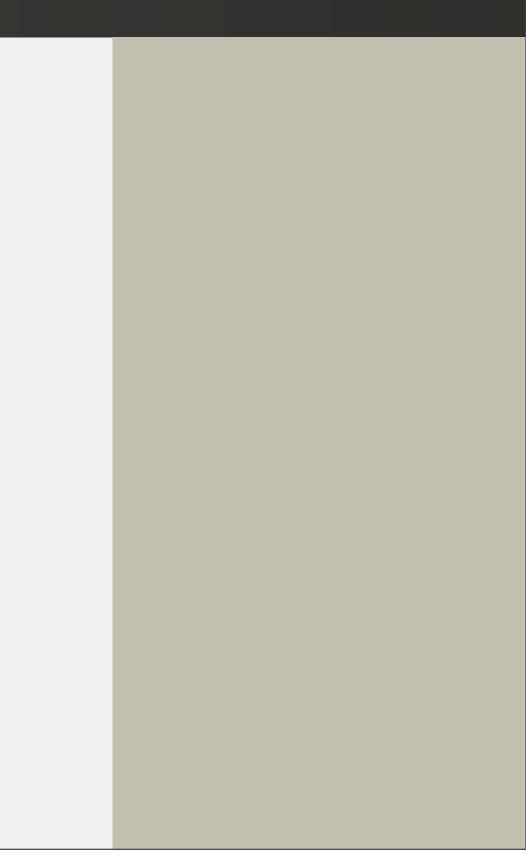






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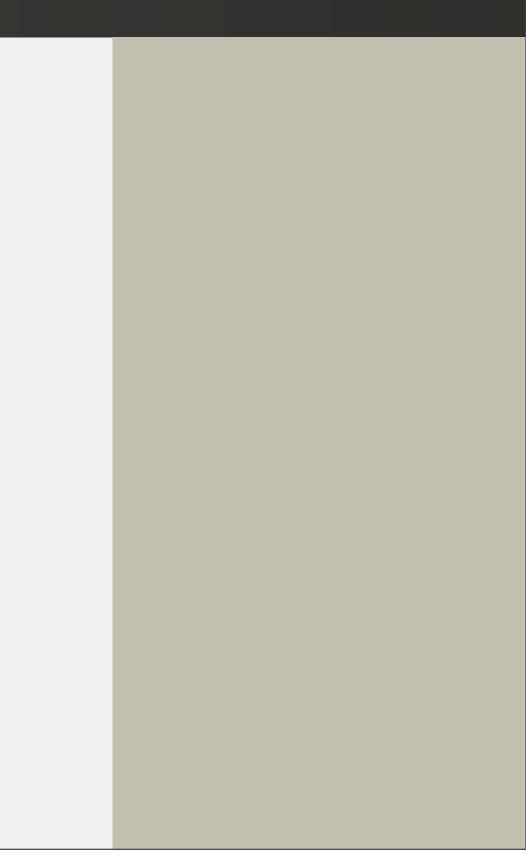






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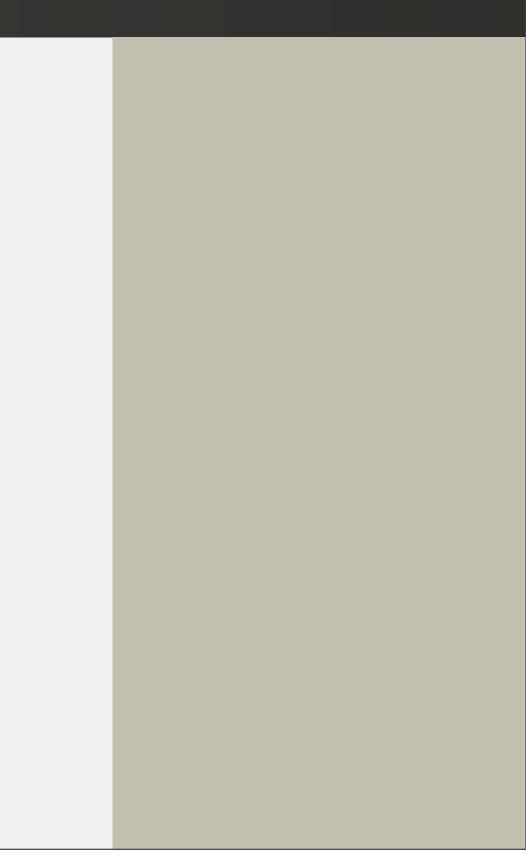




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- Resources can **notify** of other resources

```
cookbook_file "/etc/apache2/apache2.conf" do
  source "apache2.conf"
  owner "root"
  group "root"
  mode 0644
  notifies :restart, "service[apache2]"
end
```

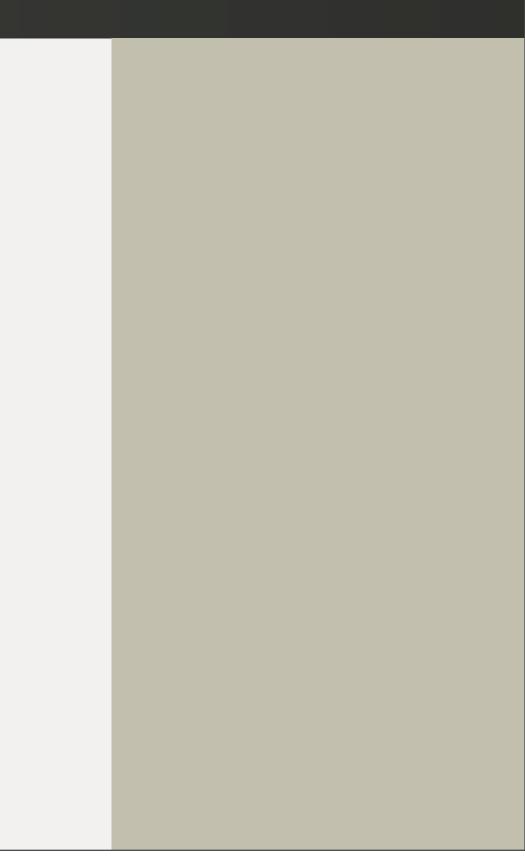






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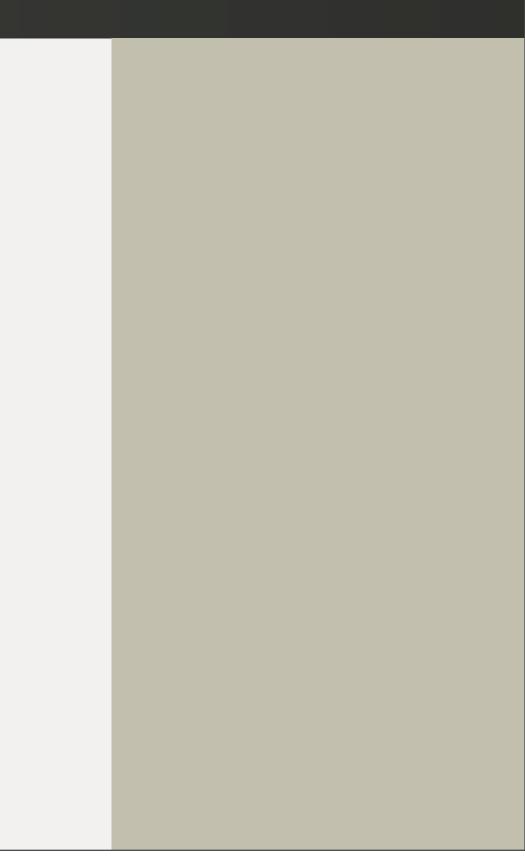






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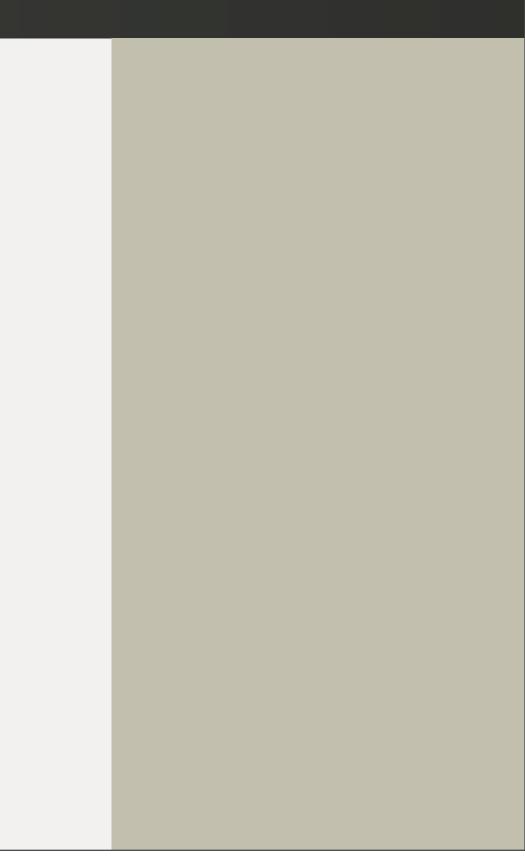




- A **Provider** performs the actions specified by the resource
- Each Resource can have multiple providers package: apt, yum, macports... service: upstart, windows, systemd...
- Each platform (OS) has default Providers that can be overridden

```
package "sudo" do
  provider Chef::Provider::Package::Yum
  action :install
end
```







package "apache2" do
 action :install
end





package "apache2" do
 action :install
end

service "apache2" do
 action :enable
end





package "apache2" do action :install end

service "apache2" do action :enable end

```
cookbook_file "/etc/apache2/apache2.conf" do
  source "apache2.conf"
  owner "root"
 group "root"
 mode 0644
end
```





```
package "apache2" do
 action :install
end
service "apache2" do
 action :enable
end
cookbook_file "/etc/apache2/apache2.conf" do
  source "apache2.conf"
  owner "root"
 group "root"
 mode 0644
end
service "apache2" do
action :start
end
```











Nagios Demo

- Download server cookbooks
- Install server
- Create fake nodes
- Update server



Questions?

There is lots more to learn about Chef at <u>http://wiki.opscode.com</u>