

Chef

Automation on the Cloud

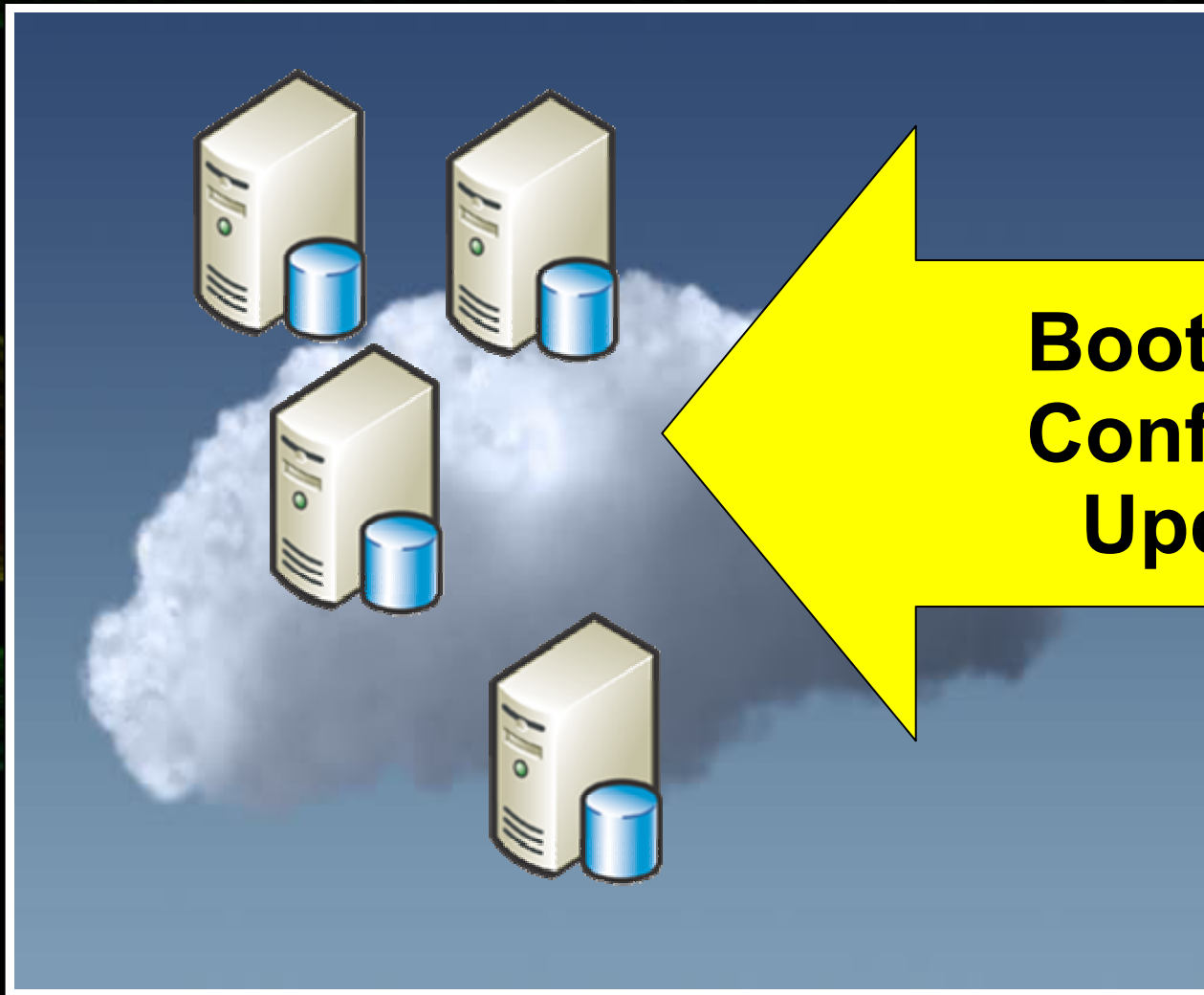


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Deployment



**Bootstrap
Configure
Update**



Bootstrap instance

Cloud
provider

A diagram illustrating the components of a Bootstrap instance. It features a central white cloud on a blue background. Four yellow ovals are positioned around the cloud, each containing a label: 'Web UI' (bottom-left), 'API' (bottom-right), 'Command-line tools' (top-right), and 'Cloud provider' (top-left, in white text). The 'Cloud provider' label is positioned to the left of the cloud, while the other three labels are inside or overlapping the cloud's boundary.

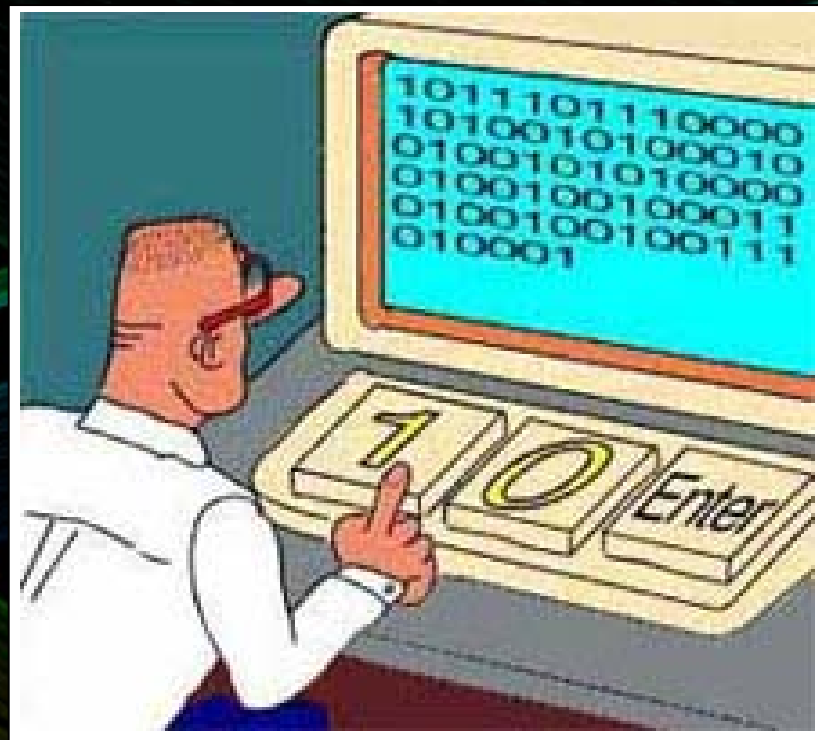
Command-
line
tools

Web UI

API

Configure

Manually



by Scripts

Shell

Python

Ruby

Capistrano

by Scripts, but...



NOT scalable

NOT idempotent

**DEPENDENT to *NIX
distribution**

Idempotency



Chef



Idempotent resources

Easy to collaborate

Configuration? Programming!

Chef operates with...

Recipes

Templates

Attributes

Files



Resources

```
package "tar" do  
  action :install  
end
```

Abstraction

Define required state

1+ providers

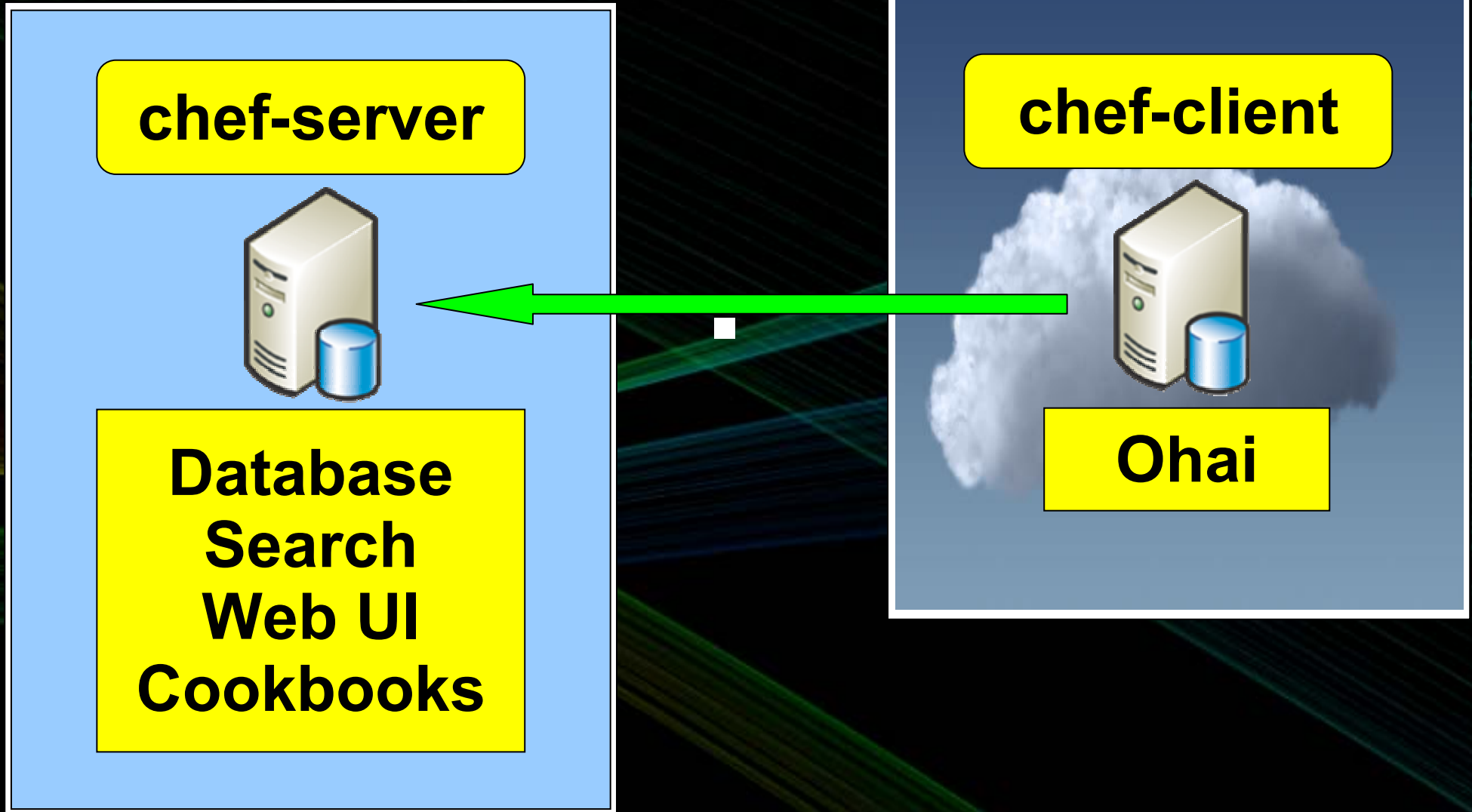
Attributes

```
apache[:listen_ports] = [ 8080 ]
```

Related to the node

Indexing

Architecture #1



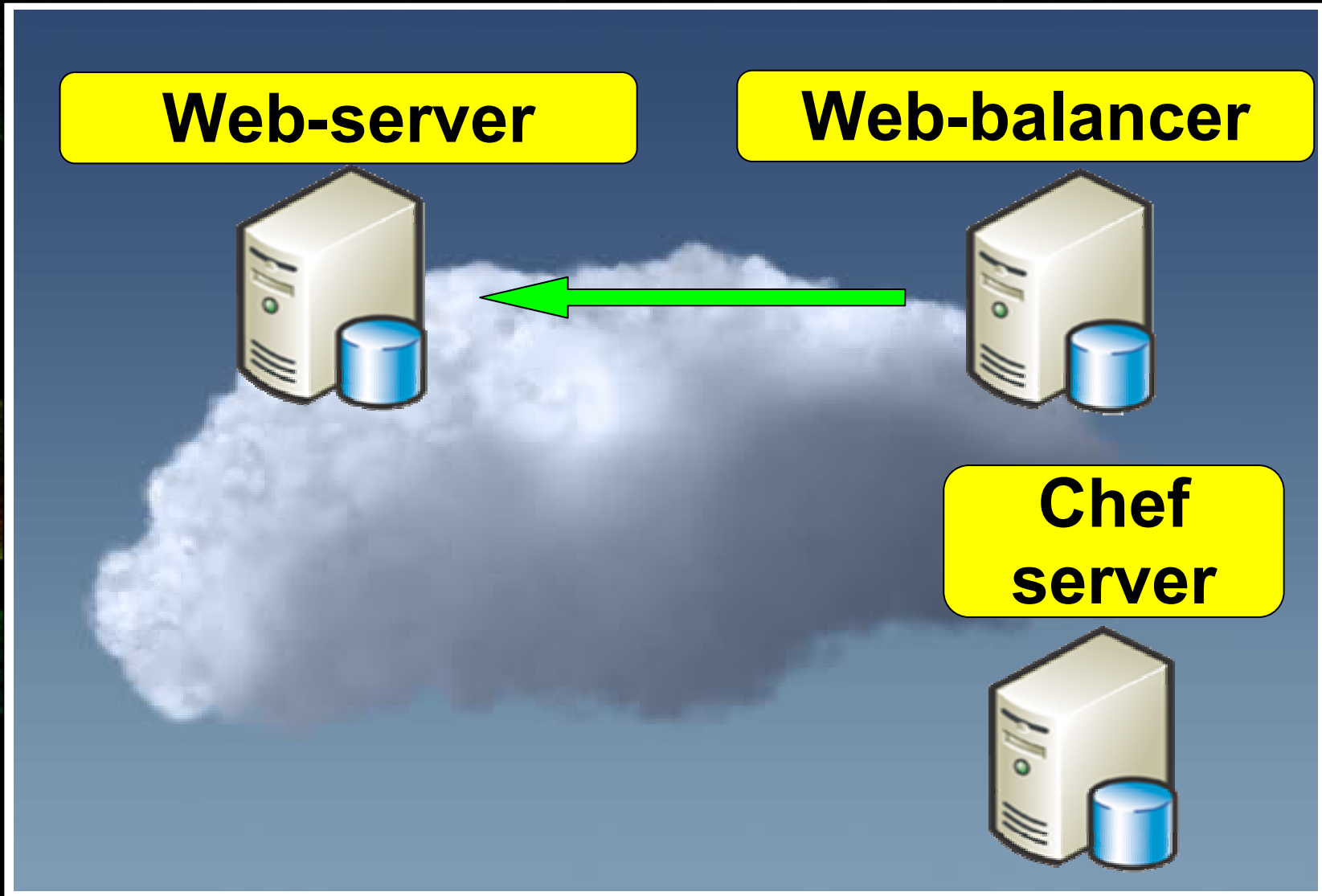
Architecture #2

chef-solo

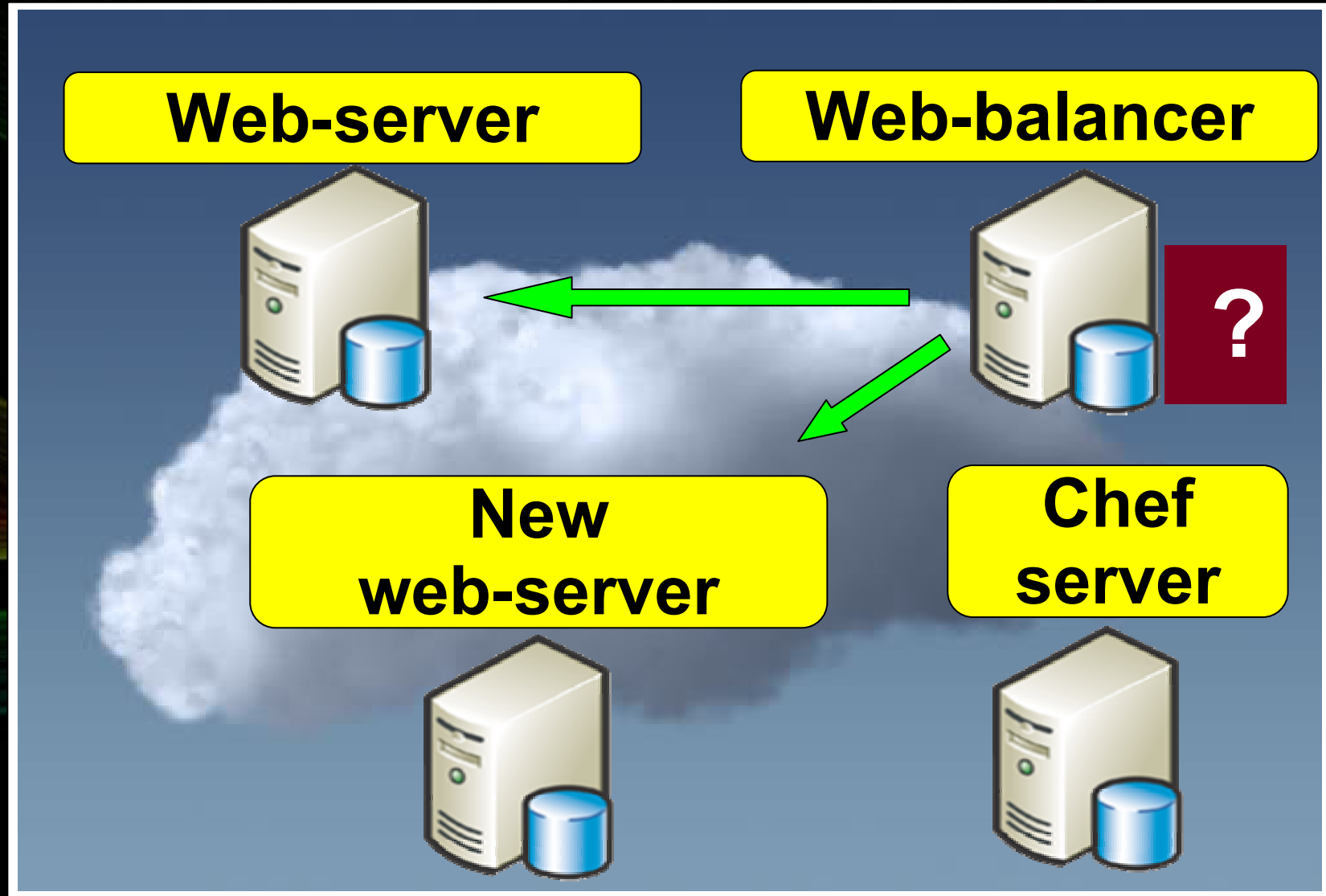


**Ohai
Cookbooks**

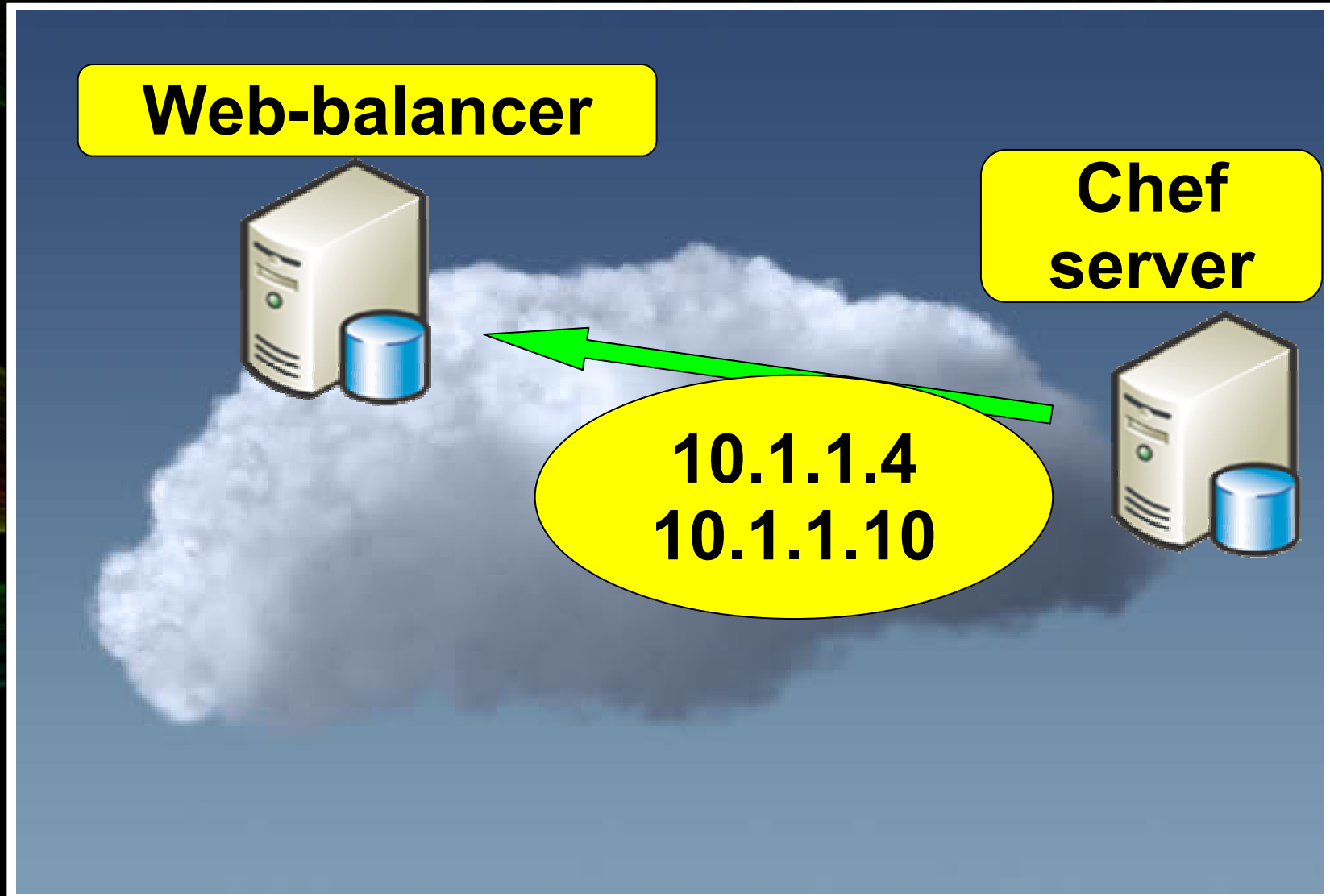
Example



Add new server



Update configuration



Recipes

```
service "haproxy" do
  action [:enable, :start]
end
```

```
webs = search(:node, "recipe:simple-httpd").map
{ |w| [ w["ipaddress"], w["fqdn"] ] }
```

```
template "/etc/haproxy/haproxy.cfg" do
  source "haproxy.cfg.erb"
  variables(:webs => webs)
  notifies :restart, resources(:service =>
"haproxy")
end
```

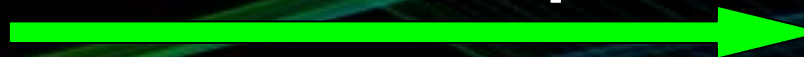
Workflow #1

Client node



**Install
chef-client**

`validate.pem`



**Chef
server**

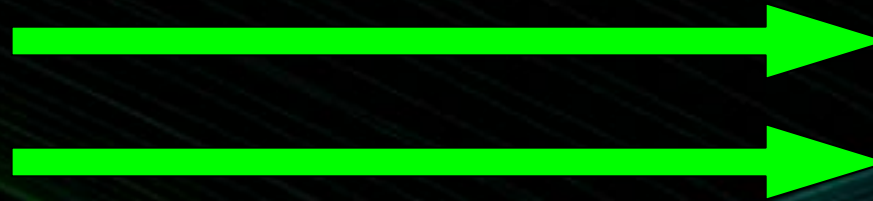


Workflow #2



Write recipe

Chef
server



Assign it to the node



Client node:



Run
chef-client

Alternatives

SmartFrog



Puppet

CFEngine

Thank you for attention!



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