

Steps: Configuration

1. Download the chefdk for windows on laptop.
2. Install the chefdk on workstation
3. Sign Up an hosted chef account and create organization and download starter kit on workstation
4. Navigate into chef-repo directory.
5. Knife node list.
6. We have to create ec2 instance (redhat linux) for node.
7. Bootstrap: `knife bootstrap <public ip of node> --ssh-user <ec2-user> --sudo --identity-file "C:\ pem file localtion" -N <U11>`
8. Knife node list

Bootstrap

```
knife bootstrap <ip>  
--ssh-user <user name>  
--sudo  
--identity-file "pem file location"  
-N <name of server>
```

Step by step for recipes

1. Navigate to chef-starter kit and get into cookbooks_folder and then create a cookbook(hello) using **chef generate cookbook** hello command
2. In recipes/default.rb write sample/your implementation by vsc
3. From chefdk navigate into cookbook(hello) and execute "**berks install**" and "**berks upload**" to upload cookbook(hello) to chef server
4. Navigate into cookbook(hello)Then recipes add to run_list of node, you choice using **knife node run_list add nodename 'recipe[cookbook name::recipe name]'**
5. We have to Wait for convergence (30 minutes) or login into node machine then execute "chef-client"

Attributes

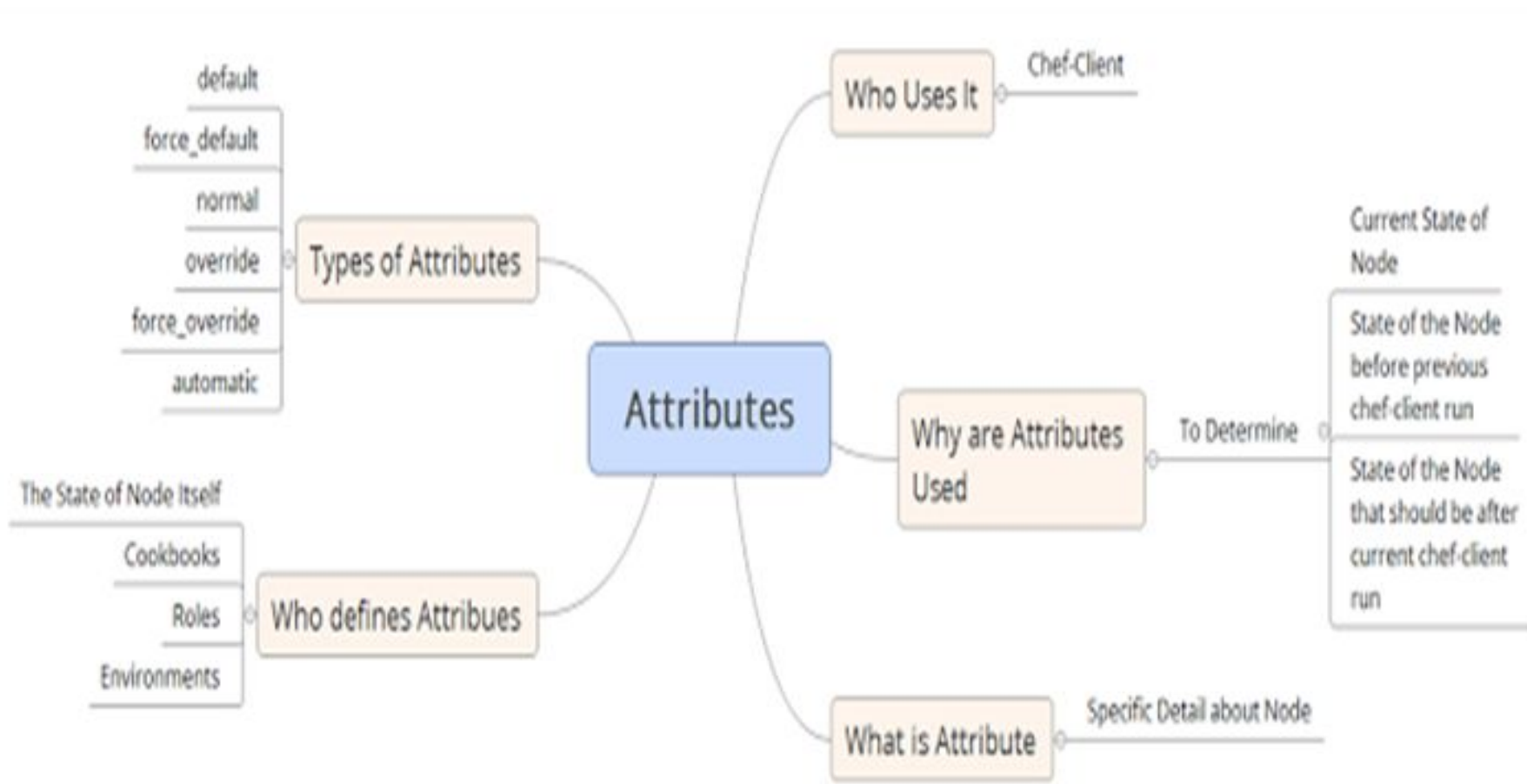
Attributes that are collected by Ohai,

An attribute is a specific detail about a node.

Attributes are used by the chef-client.

- Platform details
- Network usage
- Memory usage
- CPU data
- Kernel data
- Host names
- Fully qualified domain names
- Other configuration details

Attributes



Attribute Types

default

- Automatically reset at every chef-client run
- Lowest Precedence
- recommended attribute type

force_default

- Use the force_default to ensure that attribute defined in cookbook takes precedence over default defined in roles or environment

normal

- Normal attributes are never reset
- Normal attribute persists in node object
- Higher precedence than default attribute

override

- An override attribute is automatically reset at the start of every chef-client run
- higher attribute precedence than default, force_default, and normal attributes
- An override attribute is most often specified in a recipe, but can be specified in an attribute file, for a role, and/or for an environment.
- A cookbook should be authored so that it uses override attributes only when required.

force_override

- Use the force_override attribute to ensure that an attribute defined in a cookbook (by an attribute file or by a recipe) takes precedence over an override attribute set by a role or an environment.

automatic

- An automatic attribute contains data that is identified by Ohai at the beginning of every chef-client run
- An automatic attribute cannot be modified and always has the highest attribute precedence.

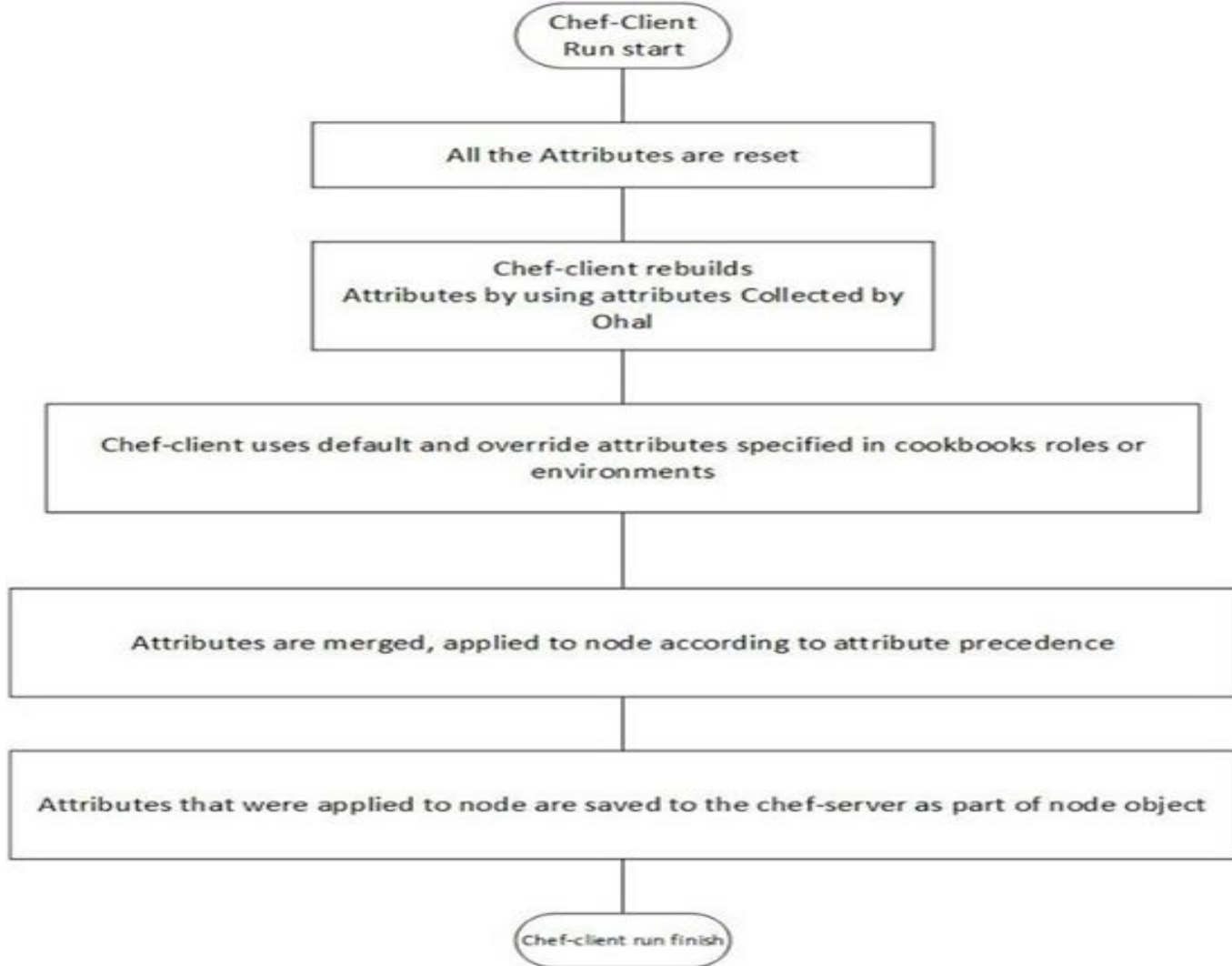
	Attribute Files	Node / Recipe	Environment	Role
default	1	2	3	4
force_default	5	6		
normal	7	8		
override	9	10	12	11
force_override	13	14		
automatic			15	

CHEF COMPONENTS

Ohai : it is detect and collect the all node attributes

Chef-client: when it run, it will reset all attributes except normal , Ohai pull and merge the based on attribute final precedence values and assign to the node of chef-client and save into chef server

Book chef : it maintains the all cookbooks .



knife data bag create admin

knife data bag from file admin mysql.json

knife data bag from file admin mysql.json --secret myrk

knife data bag from file admins mysql.json --secret myrk --local-mode

1 data bags

```
data_bag_item('admins','mysql')
```

```
data_bag_item('admins','mysql',IO.read("/home/ubuntu/mypassfile"))
```

```
sudo chef-server-ctl install chef-manage  
sudo chef-server-ctl reconfigure  
sudo chef-manage-ctl reconfigure
```

chef server install

```
chef-server-ctl user-create USER_NAME FIRST_NAME LAST_NAME EMAIL 'PASSWORD' --filename FILE_NAME
```

```
chef-server-ctl user-create maha4iac maha b maha4iac@gmail.com 'abc123' --filename /home/ubuntu/maha4iac.pem
```

```
chef-server-ctl org-create short_name 'full_organization_name' --association_user user_name --filename  
ORGANIZATION-validator.pem
```

```
chef-server-ctl org-create short_name 'mahaorgg' --association_user maha4iac --filename mahaorgg-validator.pem
```