



Infrastructure as Code with AWS

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Infrastructure as Code

"Enable the reconstruction of the business from nothing but a source code repository, an application data backup, and bare metal resources."

- Adam Jacob, CTO at Chef -

Cloudformation

X Peppers

Amazon Web Service



- JSON Syntax
- Versioning
- Runtime parameters
- Dependency

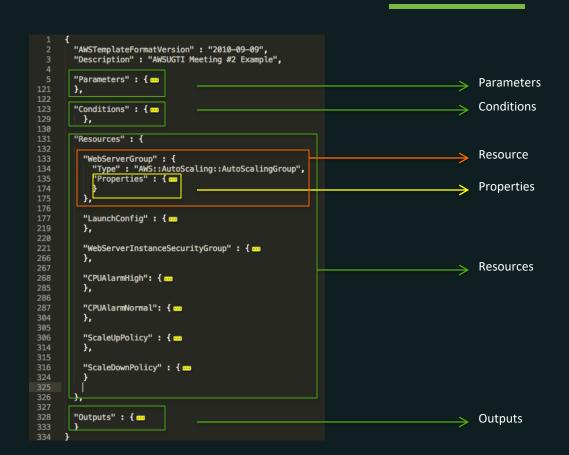
- Dependency
- AWS Resources
- Create/Update/delete
- Scriptable

- Deploy several times
- Multiregions
- Dev, Test, Prod

Cloudformation



Template example



What about resources dependency ?

Cloudformation and Chef



--local-mode

```
"LaunchConfig" : {
 72 ▼
            "Type": "AWS::AutoScaling::LaunchConfiguration",
 74 ▼
            "Metadata" : {
              "AWS::CloudFormation::Init" : {
                "configSets": {
                 "bootsrap_instance": ["cookbooks_setup", "run_chef"]
                                                                                                                                      Cfn-Init config sets
                "cookbooks_setup" : { ---
                "run_chef" : { ...
126▶
137 ▼
            "Properties" : {
              "ImageId" : { "Ref" : "AmiId" },
              "KeyName": "EU-Central-Posso-Test",
              "SecurityGroups" : [ { "Ref" : "InstanceSecurityGroup" } ],
              "InstanceType" : { "Ref" : "InstanceType" },
             "AssociatePublicIpAddress": "true",
143▶
              "UserData" : { "Fn::Base64" : { "Fn::Join" : ["", [ ...
                                                                                                                                      User data
             1133
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What about AWS driver and resources for Chef? https://github.com/chef/chef-provisioning-aws

Cloudformation and Chef



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Cloudformation and Ansible



Automation and Systems configuration

```
# Basic task example
     - name: provision stack
       hosts: localhost
       connection: local
       gather_facts: false
        - name: ansible-cloudformation
             stack_name: "awsugti-example-elb-tier"
             state: "present"
             region: "eu-west-1"
             disable_rollback: true
             template: "cloudformation/elb.json"
             template parameters:
              Project: "REPS"
               Environment: "DevTest"
               Service: "Web"
               Role: "fe"
20
               VpcId: "vpc-a67e13c3"
               Subnets: "subnet-593a7f2e, subnet-07396462"
               WebServerPort: "80"
               IngressCidrIP: "0.0.0.0/0"
               HealthCheckUrl: "/ping.php"
               Stack: "awsugti-example-elb-tier"
        - name: show stack outputs
           debug: msg="My stack outputs are {{stack.stack_outputs}}"
```







Questions?

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http://www.meetup.com/AWS-User-Group-Ticino/

