SUSE Cloud Orchestration

Turn up the Heat...

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Service Deployment

How do I deploy it?

There are 3 ways to deploy services in the cloud:

The easy way

The “not quite as easy” way

The “hard up-front, but totally easier in the end” way

How do I deploy it?

The easy way ...

Manual deployment process

- Log into the dashboard
- Go to the images section
- Select your image(s) and launch it
- Configure networking and storage as necessary

Very quick and easy...
If you're doing it once

How do I deploy it?

The “not quite as easy” way ...

Use the API

- Python libraries
- Script out the manipulation of compute, network, and storage

Labor intensive up front, but scales easily to large deployments

Not terribly friendly to all potential cloud users

How do I deploy it?

The “hard up-front, but totally easier in the end” way

OpenStack Heat Project

- Incubated project for Grizzly
- Fully supported as of SUSE Cloud 3.0 (Havana)

openstack
CLOUD SOFTWARE

Heat is a service to orchestrate multiple composite cloud applications

How do I deploy it?

The “hard up-front, but totally easier in the end” way

“Heat is a service to orchestrate multiple composite cloud applications using the AWS Cloud Formation template format, through both an OpenStack-native ReST API and a CloudFormation-compatible Query API.”

How do I deploy it?

The “hard up-front, but totally easier in the end” way

“Heat is a service to orchestrate multiple composite cloud applications using the AWS Cloud Formation template format, through both an OpenStack-native ReST API and a CloudFormation-compatible Query API.”

Um ... what?

How do I deploy it?

The “hard up-front, but totally easier in the end” way

Heat allows you to pre-define a set of compute, network, and storage requirements to provide a specific service, and deploy the whole thing *automagically*.

It's demo time!

Thank you.

How can I do this?

URL's for demo materials:

https://www.dropbox.com/s/wk9mmczqw2ybmys/heat-template-wordpress.json

https://www.dropbox.com/s/7334ic3d86aypsq/MySQL.x86_64-0.0.3.qcow2

https://www.dropbox.com/s/xtsk9lbcqludu72/Wordpress.x86_64-0.0.8.qcow2

Things you MUST change

```
 "Parameters" : {

   "FloatingNetwork" : {
     "Description" : "ID of the Nova floating network",
     "Type" : "String",
     "Default" : "b826047a-9364-4b66-b1f2-398202ff6907"
   },

   "FixedNetwork" : {
     "Description" : "ID of the Nova fixed network",
     "Type" : "String",
     "Default" : "e6c13332-3479-4be0-92a4-ffe8157836e0"
   },

   "KeyName" : {
     "Description" : "Name of an existing EC2 KeyPair to enable SSH
access to the instances",
     "Type" : "String",
     "Default" : "rashford"
   },
```

Things you MUST change

```
"WWWSecGroup": {
  "Description" : "UUID of project www security group",
  "Type": "String",
  "Default": "2833ce99-6027-483e-9b53-fd9b5df4345c"
},

"MySQLSecGroup": {
  "Description" : "UUID of project mysql security group",
  "Type": "String",
  "Default": "554540ec-7fc8-4927-ac51-3a6bffa17372"
},

"DefaultSecGroup": {
  "Description" : "UUID of project default security group",
  "Type": "String",
  "Default": "86942181-25a5-4c19-939d-08f33c64ef61"
}
```

Things to try...

(I haven't tried these yet, so I don't know how well they work)

Autoscaling

Load Balancing

Auto-Restart

Alternative applications

- Your favorite web application
- WSO2 application servers
- SAP application server(s) + database server

Check out the documentation:

http://docs.openstack.org/developer/heat/template_guide/index.html

Thank you.

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