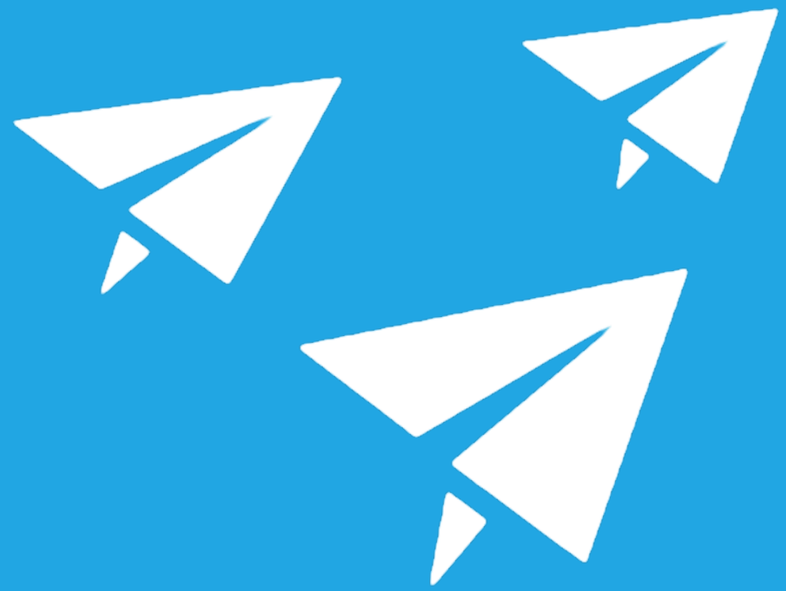
#8 FORMING CLOUDS: CLOUDFORMATION VS ANSIBLE VS TERRAFORM



skyscrapers

The Cloud & Ops Experts

GEERT THEYS

Sales guy @skyscrapers

Still likes to get his hands dirty.

* github.com/gtheys
* twitter.com/toadi
* geerttheys.com

MATTIAS

CLOUDFORMATION VS TERRAFORM VS ANSIBLE FOR AWS PROVISIONING

ALL DIFFERENT TOOLS

ALL HAVE THEIR ADVANTAGES

AND DISADVANTAGES

LETS COMPARE

SIMPLE SYNTAX?

EXAMPLE 1:

Cloudformation code block

EXAMPLE 2:

```
resource "aws_instance" "webserver" {
  ami = "${var.ami}"
  instance_type = "t2.micro"
  subnet_id = "${element(split(",", var.subnets), 0)}"
  key_name  = "${var.key_name}"
  security_groups  = ["${var.sg_all}","${aws_security_group.sg_tools.id}"]
  user_data = "#!/bin/bash\n/bin/bash <(/usr/bin/wget -qO-
  https://raw.githubusercontent.com/skyscrapers/bootstrap/master/autobootstrap.sh)
  -p puppetmaster -h webserver01 -f webserver01.fqdn.com -t \"UTC\""

  root_block_device {
    volume_type = "standard"
    volume_size = "10"
    delete_on_termination = "false"
  }
  ebs_block_device {
    device_name = "/dev/sdb"
    volume_type = "standard"
    volume_size = "40"
    delete_on_termination = "false"
  }
  tags {
    Name = "${var.name}-${var.environment}-tools01"
    Environment = "${var.environment}"
  }
}
```

EXAMPLE 3:

```
- name: WebServer | Create the WebServer Instance(s)
  local_action:
    module: ec2
    region: "{{ vpc_region }}"
    group: "{{ web_security_groups[0].sg_name }}"
    keypair: "{{ key_name }}"
    instance_type: "{{ web_instance_type }}"
    image: "{{ imgae_id.ami }}"
    vpc_subnet_id: "{{ item }}"
    assign_public_ip: True
    wait: True
    wait_timeout: 600
    user_data: |
              #!/bin/sh
              sudo apt-get install nginx -y
    instance_tags:
      Name: "{{ vpc_name }}_WEB_Instance"
      Environment: "{{ ENV }}"
      Role: "{{ server_role }}"
      Application: "{{ application }}"
  with_items:
     - "{{ public_subnet_1 }}"
     - "{{ public_subnet_2 }}"
  register: web
```

WHICH ONE WAS THE EASIEST TO READ?

EASY TO INSTALL?

MACOSX HAS THE FANTASTIC BREW:

» brew install awscli

» brew install terraform

» brew install ansible

Warning: None are up to date!

Up to date versions and on linux use pip install

SAFE TO USE?

PERFORMANT?

HOW DO THEY KEEP STATE?

DO I FEEL SAFE

GOOD DEPLOYING MORE ADVANCED INFRASTRUCTURE?

PERFORMANCE?

SUPPORT?

DO YOU LOOK COOL WHEN USING IT?

DO I WANT TO USE IT?

DO WE RECOMMEND 1?