

Terraform, Infrastructure As Code

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HashiCorp

Terraform

Hi

I'm Eric

I'm a Web Developer / Software engineer

I'm a motorcycle junkie

I'm an avid Magic The Gathering™ player

I like cloud computing

I work for



Professional photogrammetry and
drone-mapping



What we'll talk about today

- What's Infrastructure As Code (IaC)
- What is Terraform and how does it work
- A real example live



Let's talk about :
Infrastructure as Code

The Benefits

Auditable

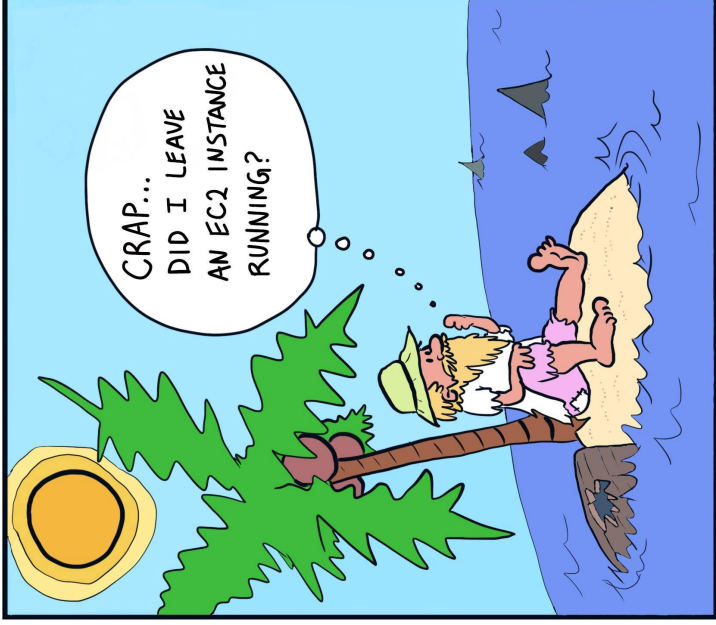
It's easier to audit
code than physical
infrastructure

Repeatable

Because going
through hundreds of
different buttons and
screens on your cloud
provider's web UI isn't
the kind of thing that's
easy to replicate 100%
accurately

Dependable

If you can't audit and
repeat the actions that
built your
infrastructure, you
can't depend on your
infra



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<https://read.acloud.guru/acg-faas-and-furious-b9574b6675c5>

Advantages of IaC

It's code, so you can work on it just like your application

- Versioning
- Easy to collaborate on
- Easy to integrate in a CI setup (it's code after all)
- Automate your deployment and recovery processes
- No need to repair, just redeploy
- Etc.

What's Terraform ?



HashiCorp

Terraform

A tool by HashiCorp

Terraform is a tool for provisioning infrastructure, from low-level components such as virtual machines, storage and networking, to higher-level components such as DNS entries.

Terraform is :

Open Source

Yeah Open Source !

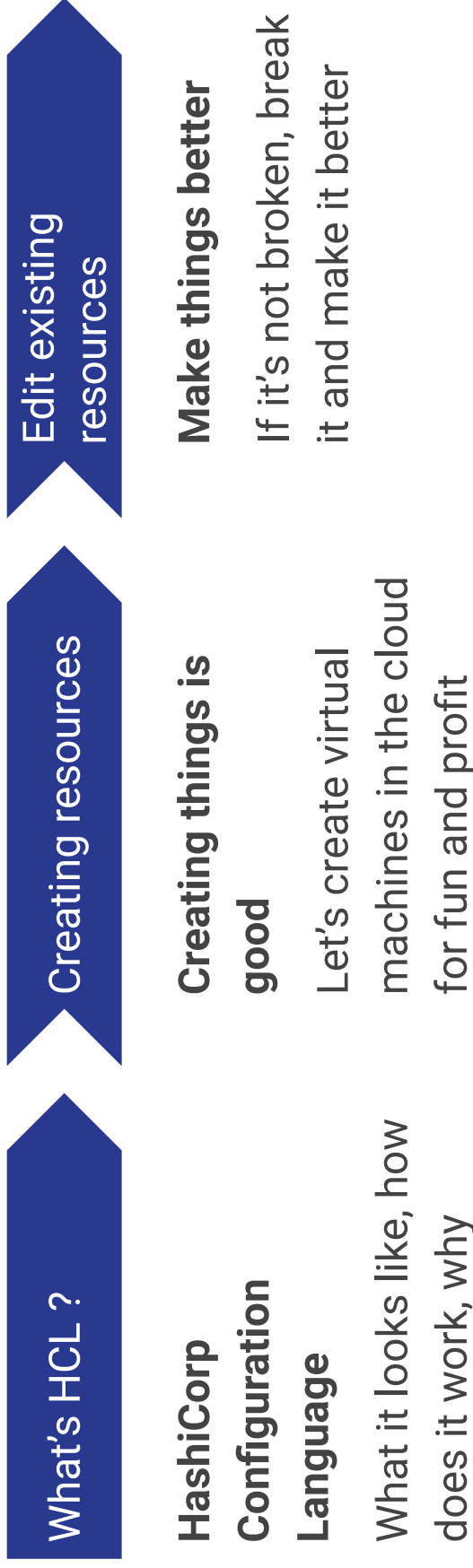
It's available on [Github](#)



Multi vendor

95 different providers supported
(as of 05.02.2018), not counting
community providers

Tonight's plan



Tonight's plan, Part 2 : The return of the revenge

Remastered edition

Make it reproducible

Delete everything

Beer Time

The greatness of IaC

Let's create a new workspace and make a copy of our infrastructure

Nuke from orbit

Let's destroy the entire infrastructure we created

Let's talk around a drink

Let's talk cloud infrastructure, the web and beer preferences

What's HCL (HashiCorp Configuration Language) ?

HCL is a configuration language built by HashiCorp.

- Designed to be written and modified by humans
- Designed to allow JSON as an input so that it is also machine-friendly

```
resource "aws_instance" "example" {  
    ami = "${data.aws_ami.latest-ubuntu.id}"  
    instance_type = "t2.micro"  
}
```



Now is time for a live example

Some prerequisites

- Install Terraform (Obviously)
- An AWS account (for our use case)
- An AWS user with an Access key and a secret key
- Install the AWS CLI

This is already setup as this is not very interesting

Thank You !

Thanks for listening,
Time for questions

