

Configuring Resources After Creation



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Overview



Country grammar with Terraform

What's the (updated) scenario?

Get the party started with provisioners



Automating Infrastructure Deployment



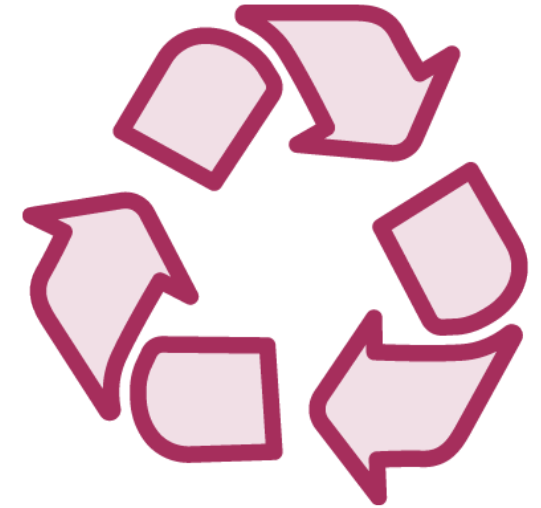
Provisioning
resources



Planning
updates



Using source
control



Reusing
templates

Terraform Syntax



HashiCorp configuration language

Why not JSON?

Human readable and editable

Configuration syntax and expressions

Conditionals, functions, templates

Terraform Syntax - Blocks

#Basic block

```
block_type label_one label_two {  
    key = value  
    embedded_block {  
        key = value  
    }  
}
```

Terraform Syntax - Blocks

#Example block

```
resource "aws_route_table" "route-table" {  
    vpc_id = "id928310928"  
    route {  
        cidr_block = "0.0.0.0/0"  
        gateway_id = "id128073987"  
    }  
}
```



Terraform Syntax – Object Types

#Different value types

string = "taco"

number = 5

bool = true

list = ["bean-taco", "beef-taco"]

map = {name = "Ned", age = 42, loves_tacos = true}



Terraform Syntax - References

#Keyword reference

`var.taco_day`

`aws_instance.taco_truck.name`

`local.taco_toppings.cheeses`

`module.taco_hut.locations`

#Interpolation

`taco_name = "neds-${var.taco_type}"`



Terraform Syntax - References

#Strings, numbers, and bools

`local.taco_count` **#returns the number**

#Lists and maps

`local.taco_toppings[2]` **#returns element 3**

`local.taco_map["likes-tacos"]` **#returns value at keyname**

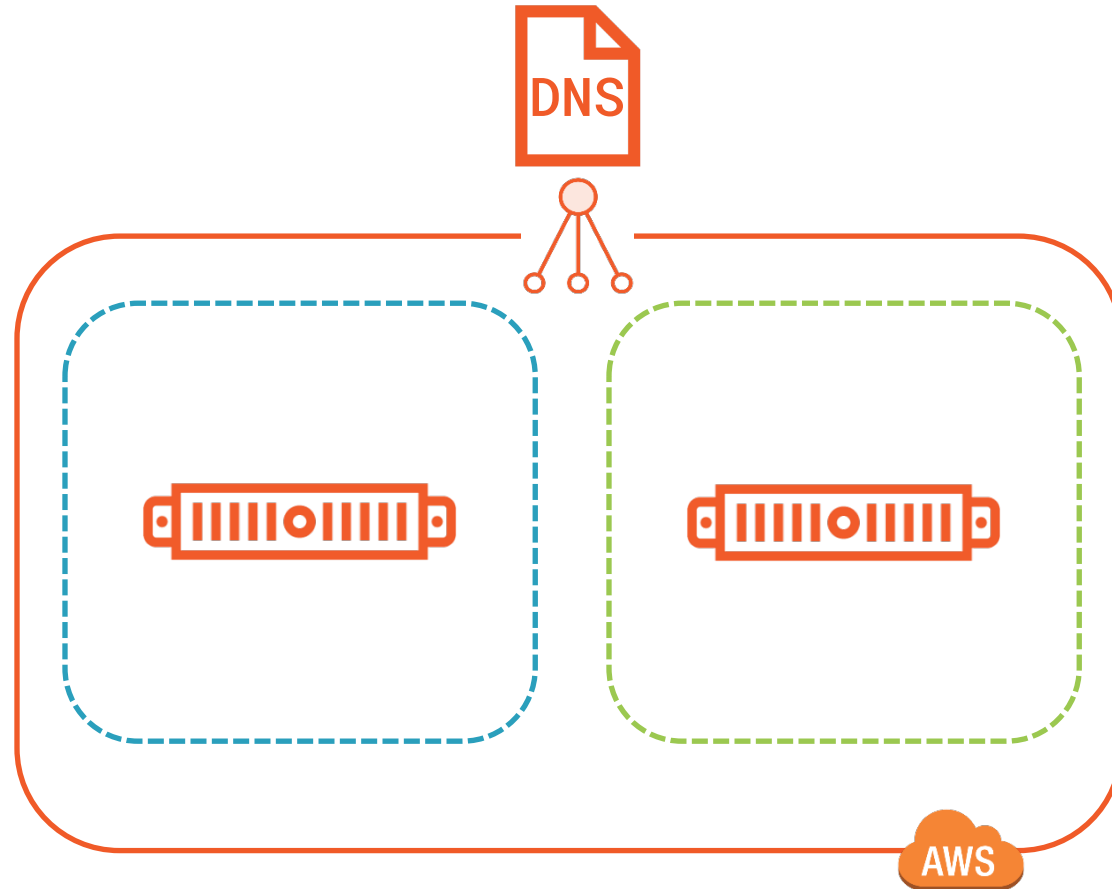
#Resource values

`var.region` **#returns us-east-1**

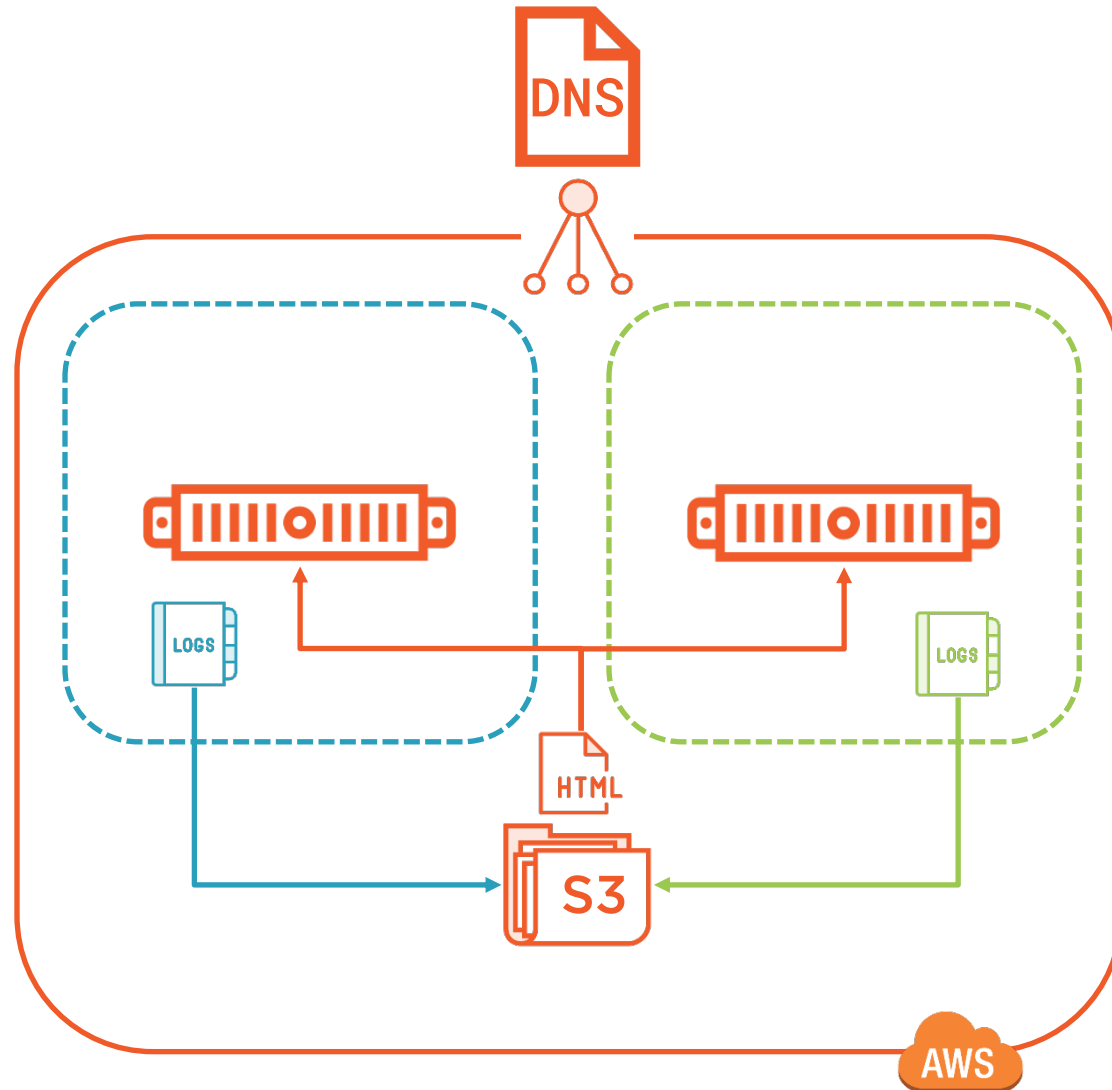
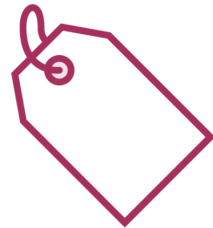
`data.aws_availability_zones.azs.names[1]` **#returns 2nd AZ**



The Scenario



The Scenario



Terraform Provisioners



Last resort

Local or remote

Creation or destruction

Multiple provisioners

What if it all goes wrong?

Provisioner Example

```
provisioner "file" {  
  connection {  
    type = "ssh"  
    user = "root"  
    private_key = var.private_key  
    host = var.hostname  
  }  
  source = "/local/path/to/file.txt"  
  destination = "/path/to/file.txt"  
}
```



Provisioner Example

```
provisioner "local-exec" {  
  command = "local command here"  
}
```

```
provisioner "remote-exec" {  
  scripts = ["list", "of", "local", "scripts"]  
}
```



Summary



Terraform provisioners

Syntax and object types

S3 buckets, tags, and more!

Coming up

- Providers
- Functions
- Talking cmd.exe!

