

What you see is what you get... for AWS infrastructure

by Anton Babenko

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Anton Babenko

Terraform AWS fanatic.

HUG, AWS, DevOps, DevOpsDays in Oslo, Norway.

I ❤️ open-source:

- ❏ [terraform-community-modules](#) + [terraform-aws-modules](#)
- ❏ [github.com/antonbabenko](#) — pre-commit-terraform, terraform-docs-as-pdf and more
- ❏ [www.terraform-best-practices.com](#)
- ❏ [medium.com/@anton.babenko](#)
- ❏ [twitter.com/antonbabenko](#)



Cloud Architect

Cloud architect plans and designs cloud environments, and typically provides guidance throughout the life of a development or deployment project.

~~Assumption~~ Statement

Cloud architects and DevOps engineers want to have a faster conversion from idea to product.

Tools for Cloud Architects



Online Drawing & Diagramming Tools



Lucidchart

[Lucidchart Libraries »](#)

[AWS Marketplace listing »](#)



Cacoo

[Cacoo Store](#)

[Design Pattern Templates](#)



Creately

[Creately Templates](#)



draw.io

[draw.io Diagram Editor](#)



Cloudcraft

[Cloudcraft smart AWS
diagram editor](#)



DC Solution Factory

[Visual Architecture and
Deployment](#)

<https://aws.amazon.com/architecture/icons/>



DESIGN

LIVE

BUDGET



AWS Components

Common

BLOCK

TEXT LABEL

ICON

IMAGE

AREA

Compute

AUTO SCALING

Auto scale EC2 group capacity

EC2

Elastic virtual server

LAMBDA

Run code in response to events

ZONE

Availability zone

Storage

EBS

EC2 block storage volume

S3

Simple object storage

EFS

Elastic file system

CLOUDFRONT

Content delivery network

Networking

ELB

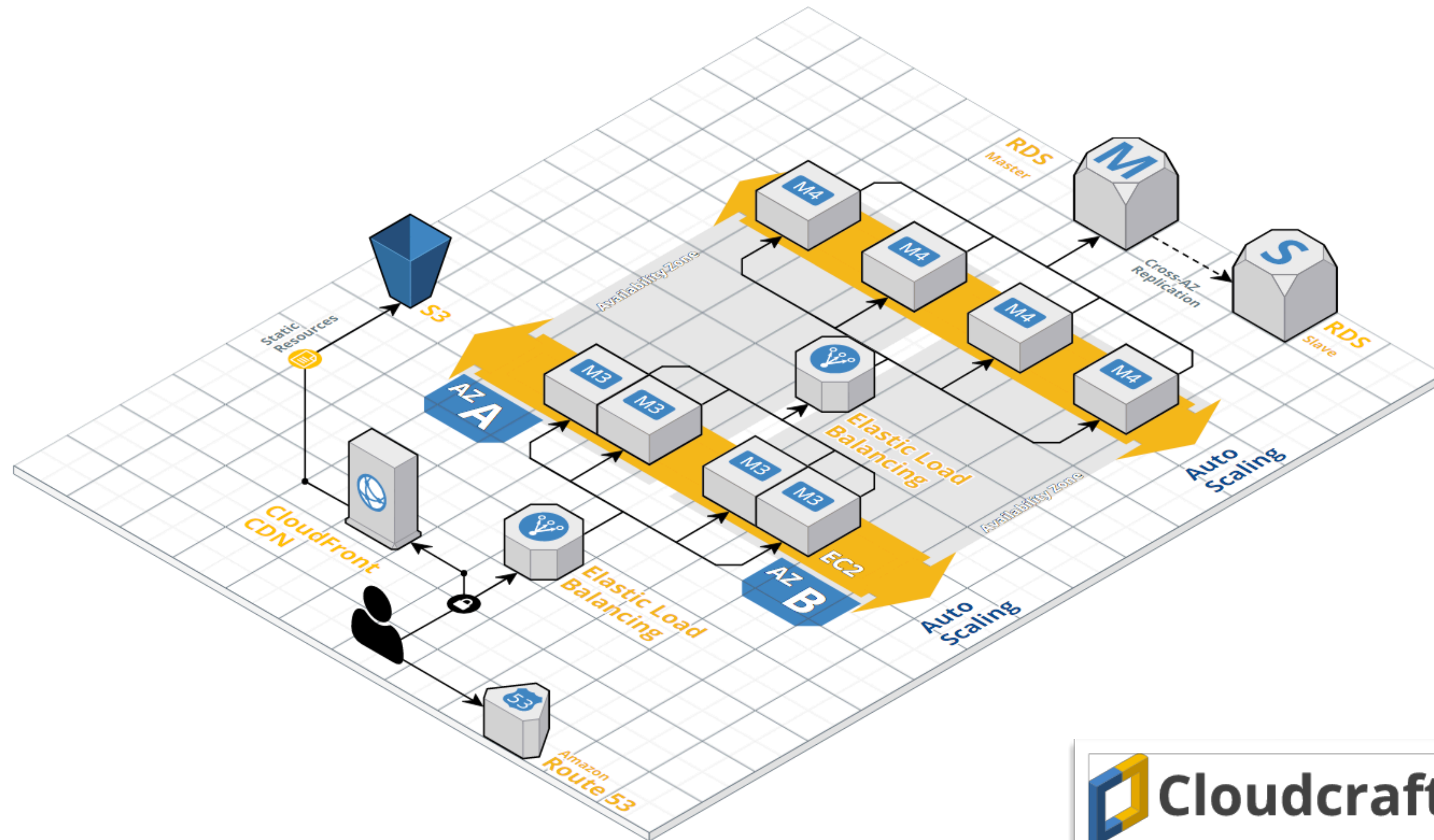
Elastic load balancer

ROUTE 53

Managed DNS service

VPC GATEWAY

Access instances in your VPC



cloudcraft.co features

- Manage components in browser (EC2 instances, autoscaling groups, RDS, etc)
- Connect components
- Import live AWS infrastructure
- Calculate the budget
- Share link to a blueprint
- Export as image
- Embed drawing to wiki, Confluence, etc

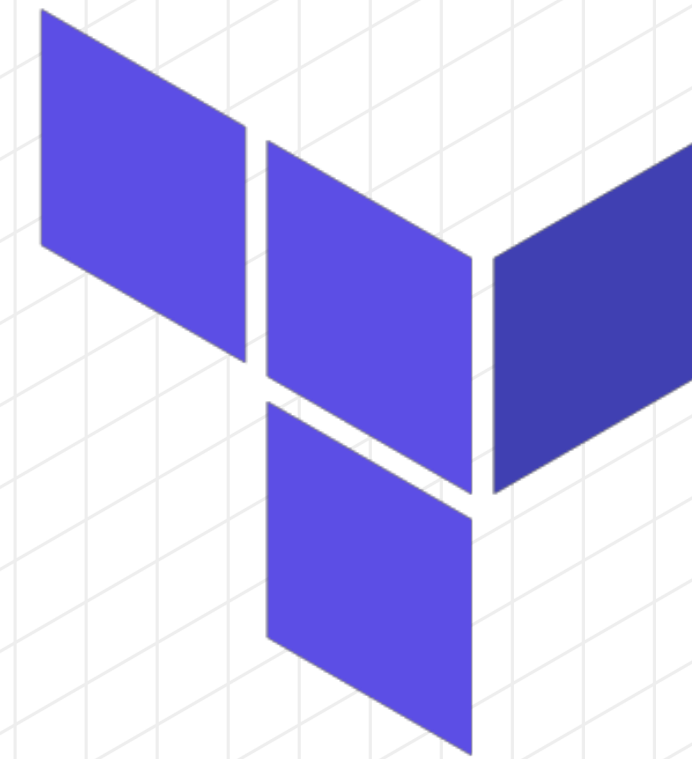
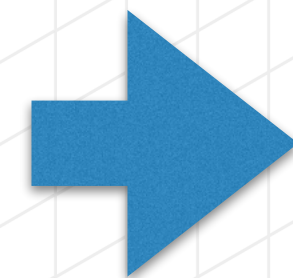
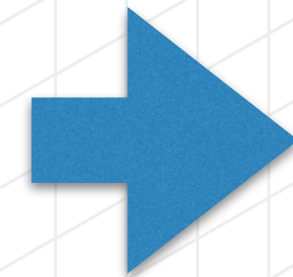
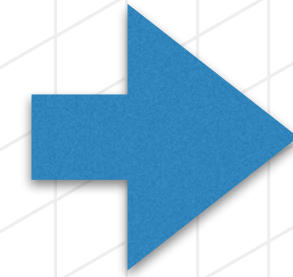
Infrastructure as code makes DevOps possible

Key benefits:

- Treat infrastructure like application code
- Always know what changed
- Validate infrastructure before deployment



Plus 100+ more providers



HashiCorp

Terraform

Write, plan, and create infrastructure as code

www.terraform.io

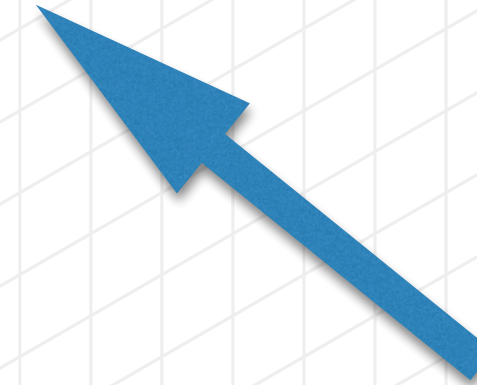
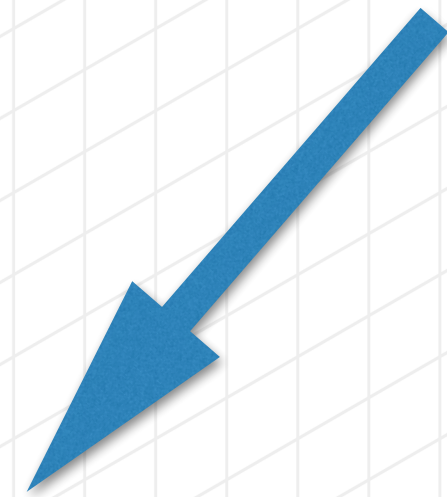
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2     description = "Region where resources should be created"
3     default     = "eu-west-1"
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6 provider "aws" {
7     region = "${var.aws_region}"
8 }
9
10 resource "aws_s3_bucket" "this" {
11     bucket = "my-bucket-${random_pet.bucket.id}"
12 }
13
14 resource "random_pet" "bucket" {
15     keepers = {
16         aws_region = "${var.aws_region}"
17     }
18
19     length = 1
20 }
21
22 output "this_s3_bucket_id" {
23     description = "ID of S3 bucket"
24     value       = "${aws_s3_bucket.this.id}"
25 }
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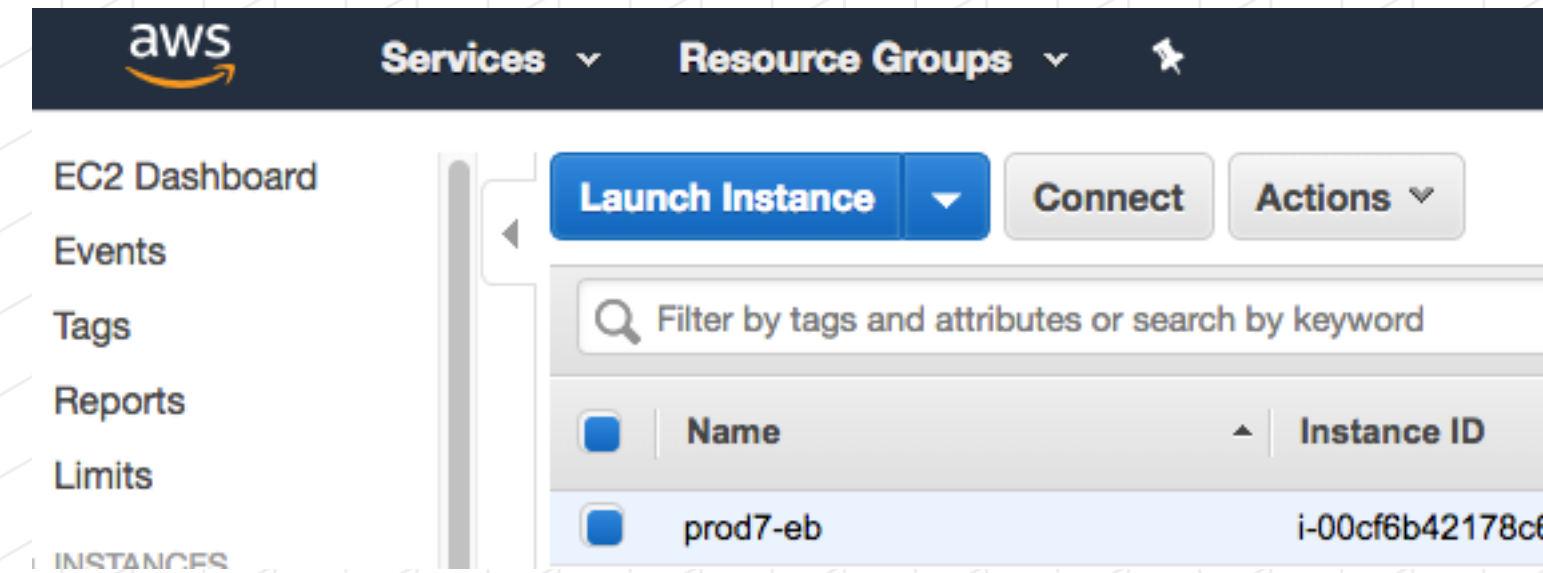
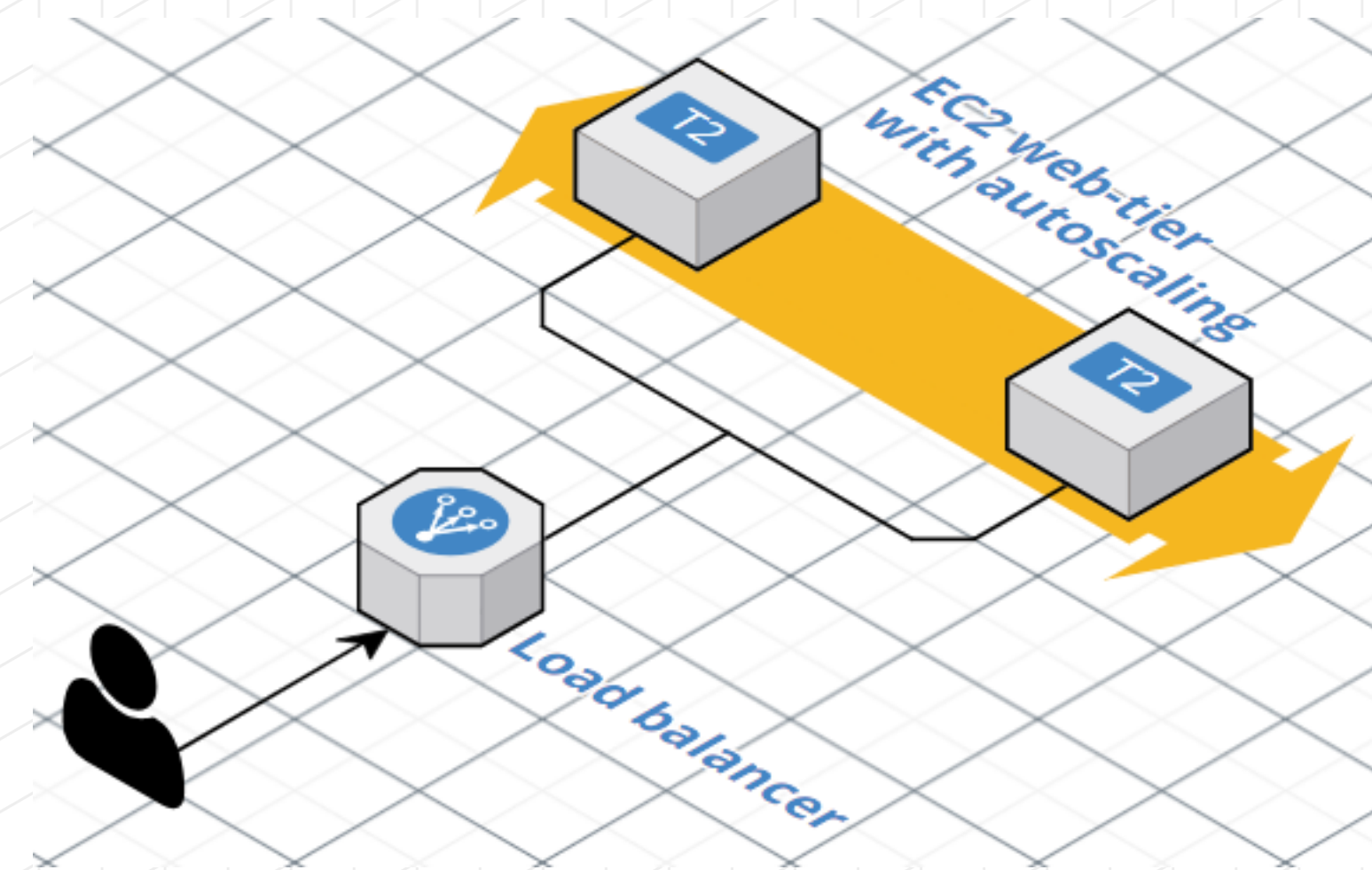



Collection of Terraform AWS modules supported by the community
(VPC, Autoscaling, RDS, Security Groups, ELB, ALB)

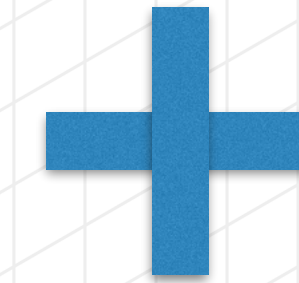
github.com/terraform-aws-modules

registry.terraform.io/modules/terraform-aws-modules





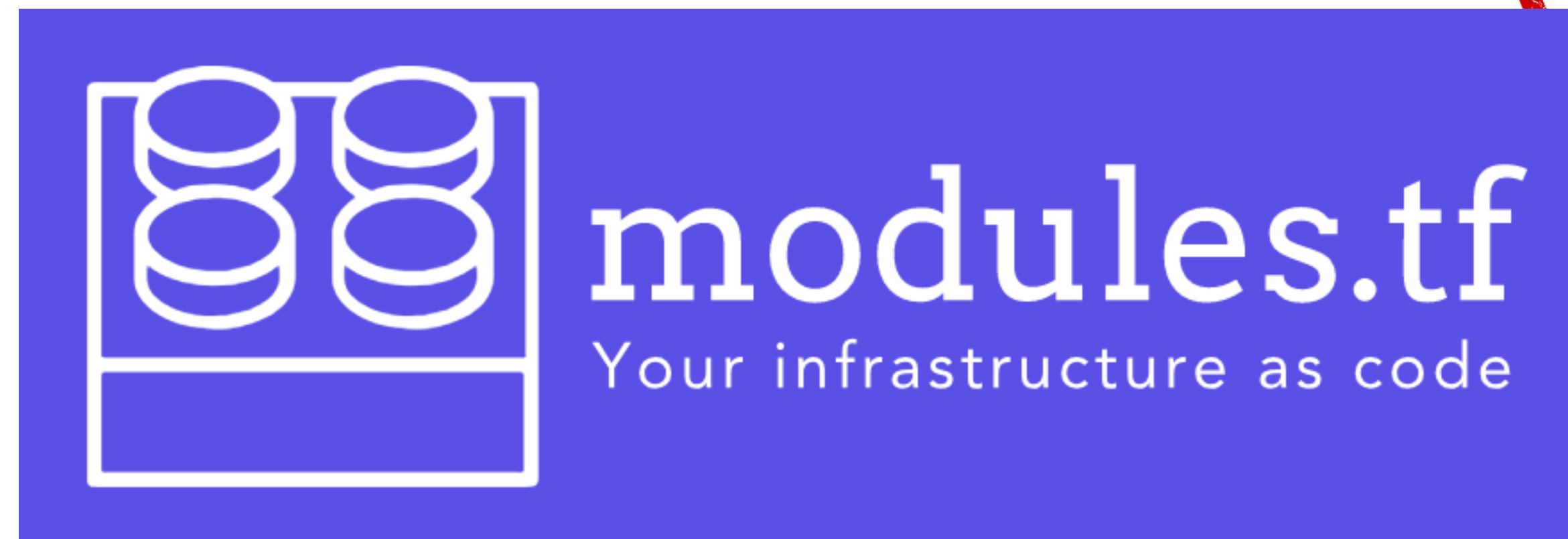
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- ✓ cloudcraft.co — design, plan and visualize
- ✓ terraform-aws-modules — building blocks of AWS infrastructure
- ✓ Terraform — infrastructure as code

100% Opensource

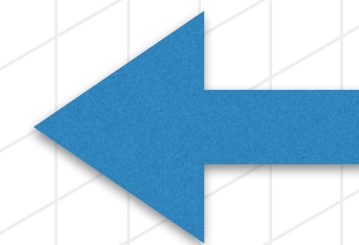
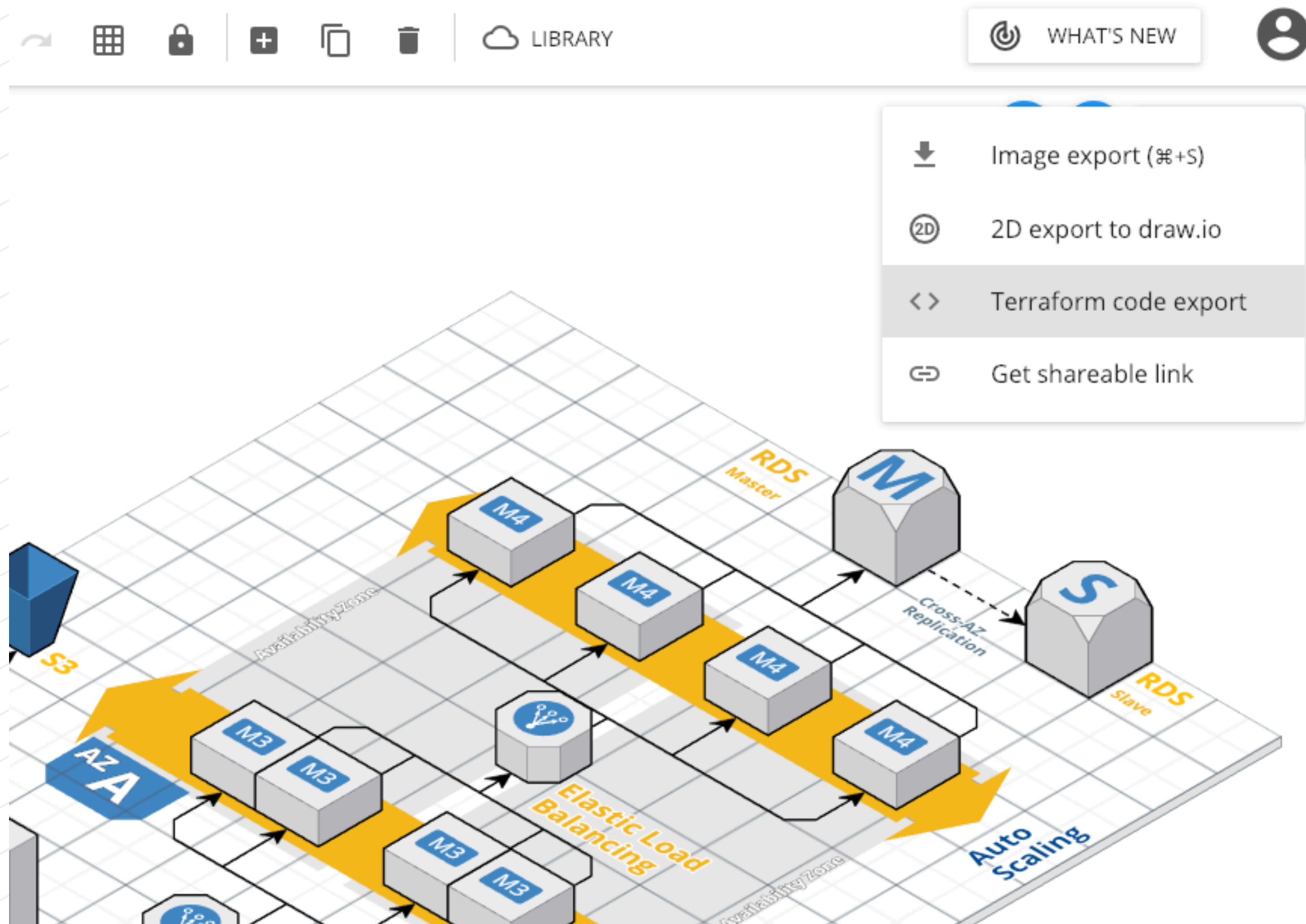
100% FREE



Infrastructure as code generator — from visual diagrams to Terraform

<https://github.com/antonbabenko/modules.tf-lambda>

Try it yourself!



1. Go to cloudcraft.co
2. Sign up, sign in (free account)
3. Draw your AWS infrastructure
4. Click "Export"
5. Click "Terraform code export"

modules.tf — generated code

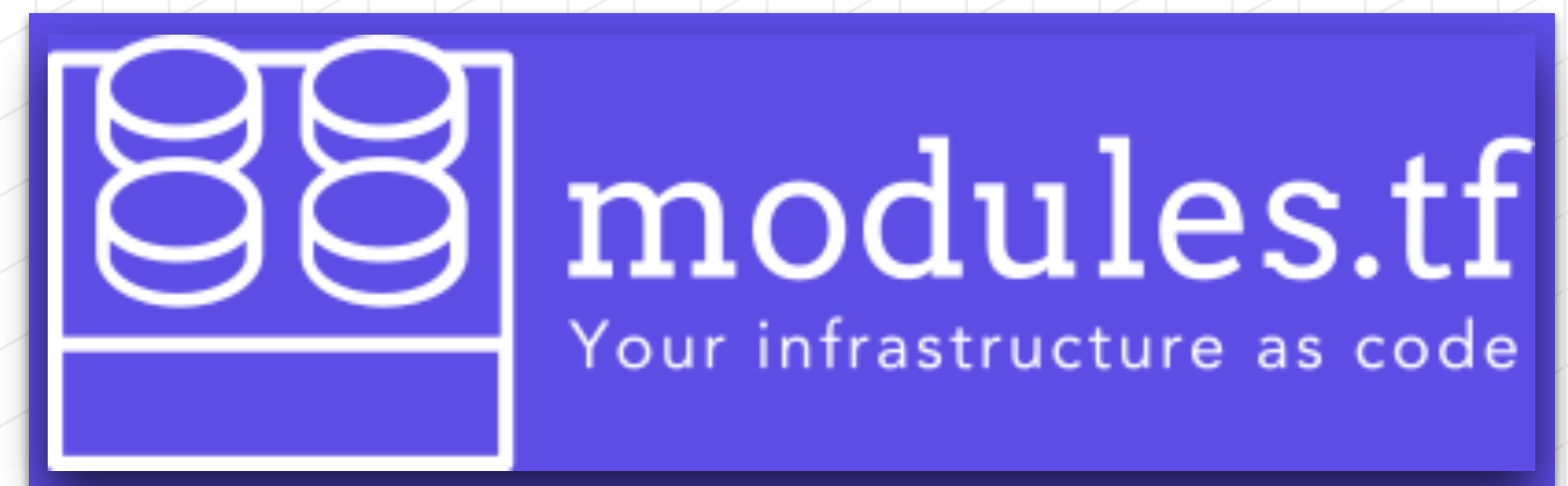
- ✓ Potentially ready-to-use Terraform configurations
- ✓ Suits best for bootstrapping
- ✓ Enforces Terraform best-practices
- ✓ Batteries included (terraform-aws-modules, terragrunt, pre-commit)
- ✓ 100% free and open-source (<https://github.com/antonbabenko/modules.tf-lambda>)
- ✓ Released under MIT license

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Summary

- ✓ A picture's worth a thousand words
- ✓ Do infrastructure is code
- ✓ Standing on the shoulders of giants — use open-source



Thank you!

github.com/antonbabenko

twitter.com/antonbabenko

PS: Did I tell you that modules.tf is a web-site?