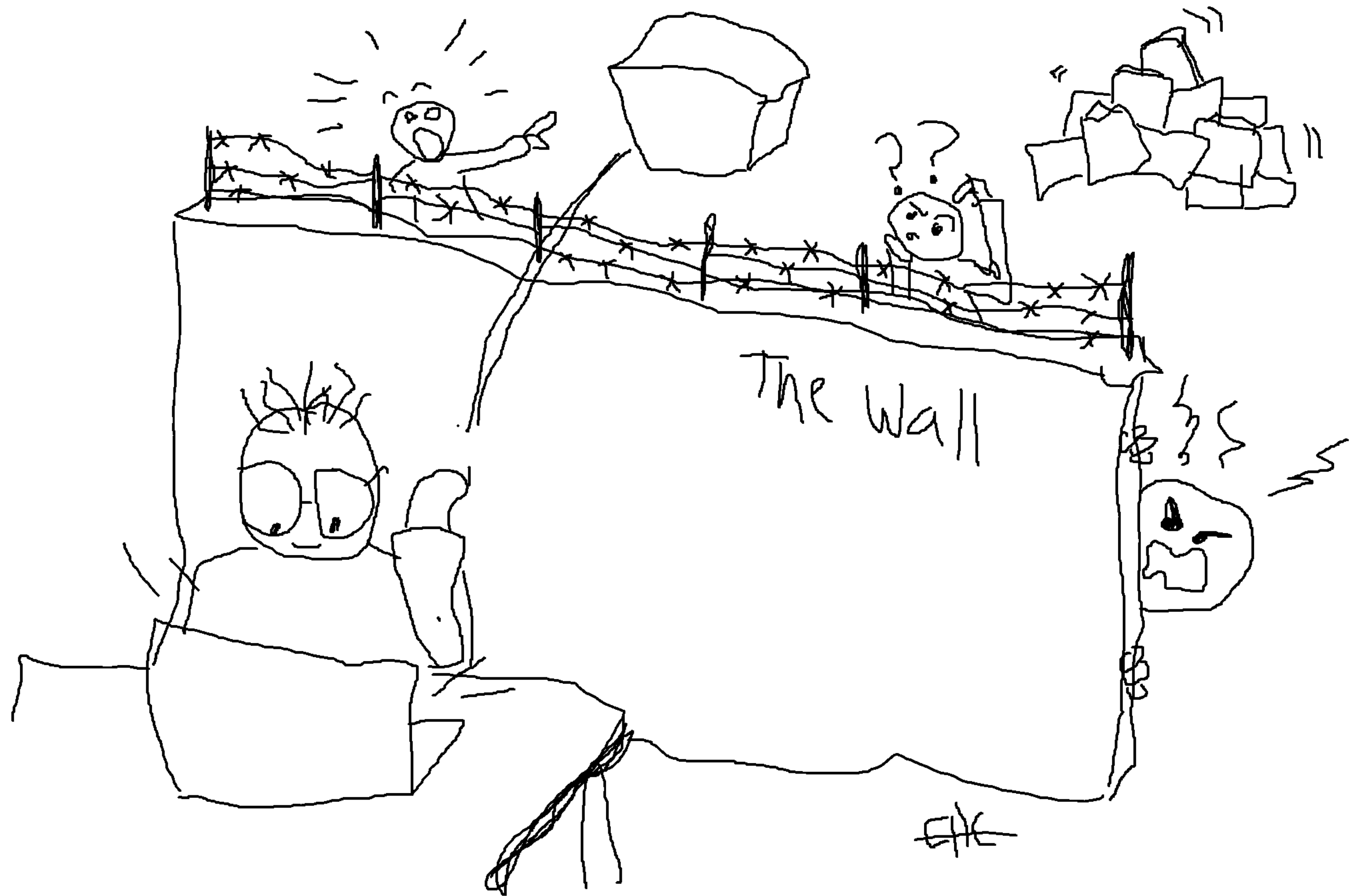


DEVOPS

Hvernig varð það til? Hvernig er ég að gera þetta?

Sölvi Páll Ásgeirsson
Forritari
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HVERNIG BYRJAÐI ÞETTA?





VIRKAR Á TÖLVUNNI MINNI

“Cartoon style. A computer programmer passes a gift-wrapped bomb to an IT operations person.”

HVAÐ BREYTTIST?

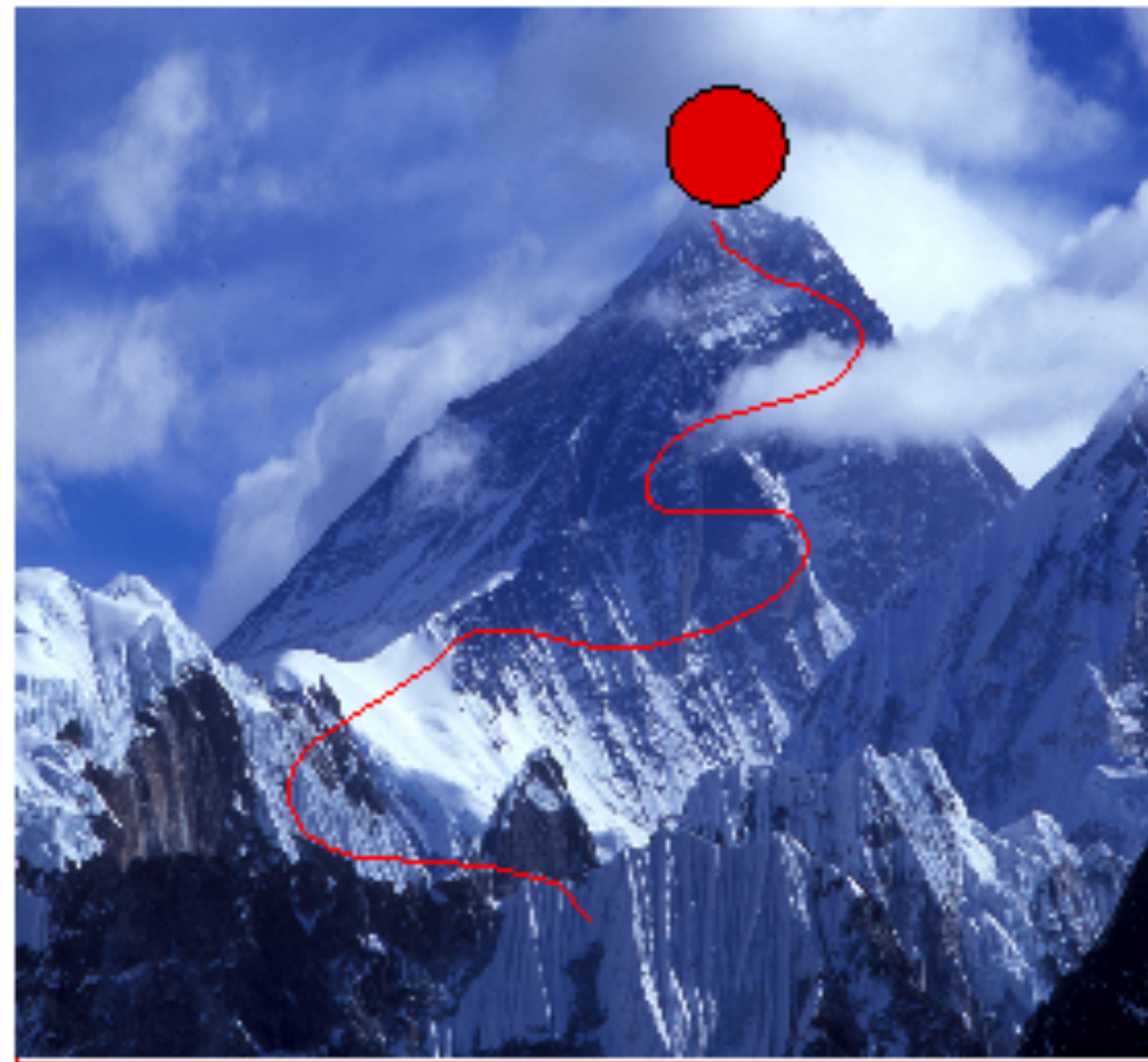
- Hugarfar
- Aðferðarfræði
- Verkfæri

SKÝJAÞJÓNUSTUR VERÐA TIL

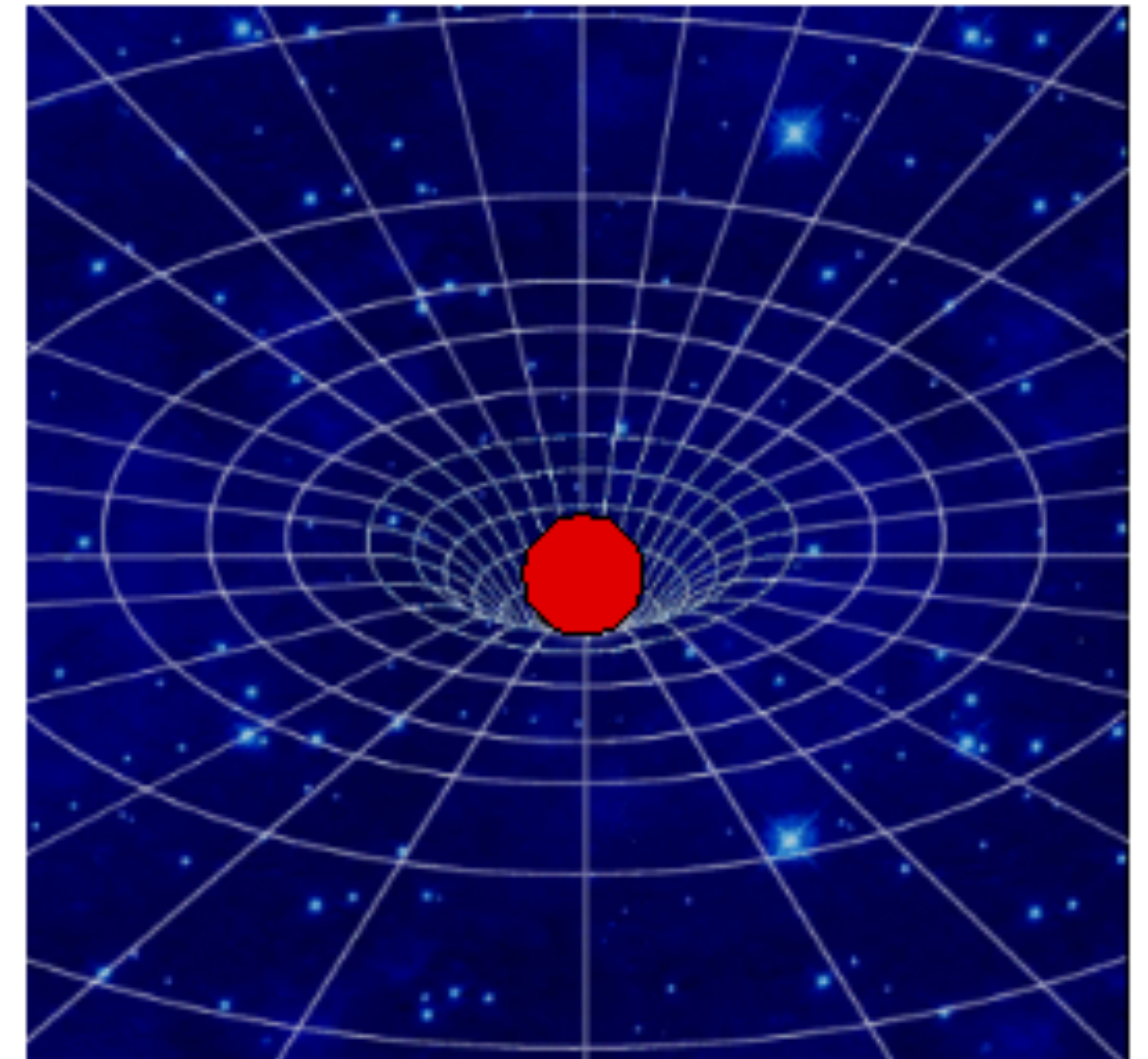
- aws ec2
- ms azure
- google cloud
- ...

DESIRED STATE CONFIG MGMT

- cfengine (1993) / infrastructures.org(1994)
- puppet (2005)
- chef (2009)
- salt (2011)
- cloudformation (2011)
- ansible(2012)
- terraform (2014)



Baseline and recipe



Convergence to end state

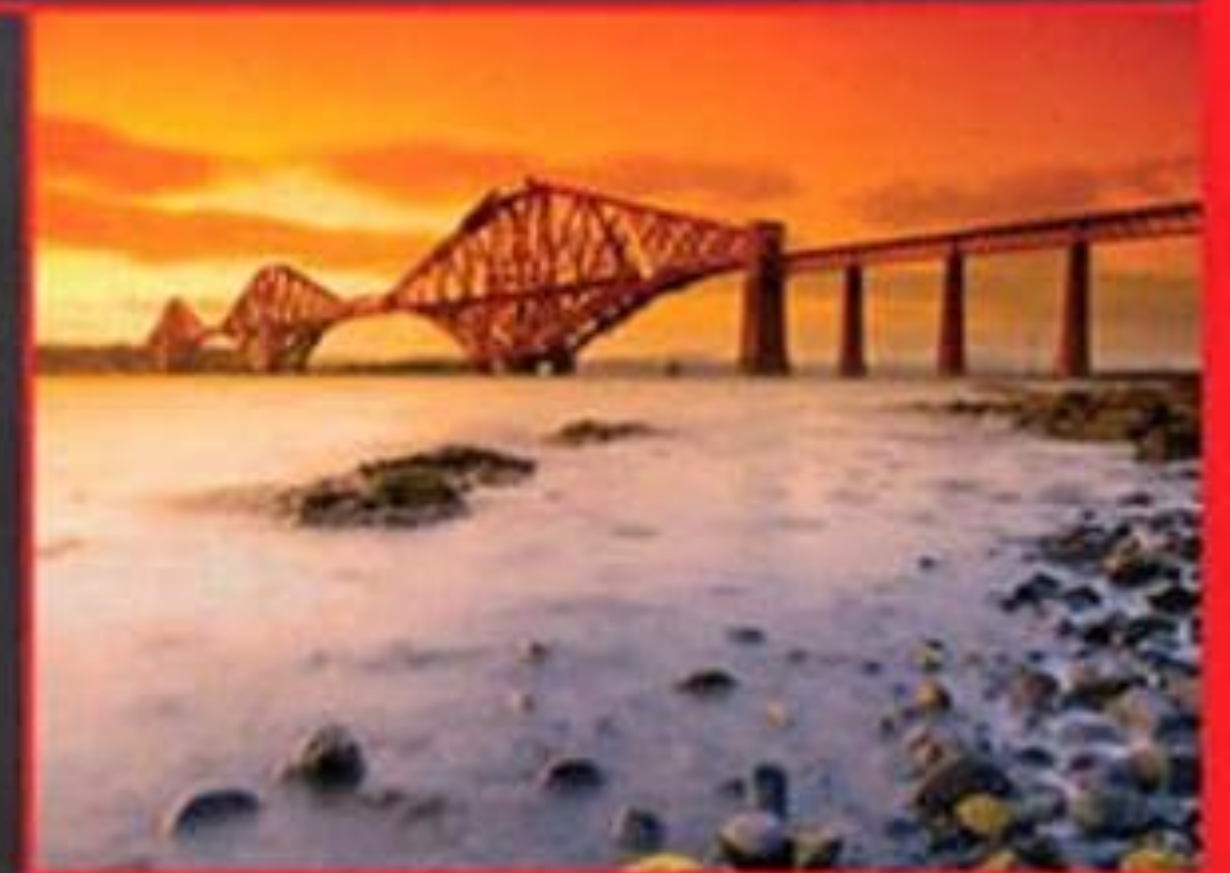
continuous delivery

- jenkins
- teamcity
- github actions
- gitlab
- ...

CONTINUOUS DELIVERY

RELIABLE SOFTWARE RELEASES THROUGH BUILD,
TEST, AND DEPLOYMENT AUTOMATION

JEZ HUMBLE
DAVID FARLEY



A MARTIN FOWLER SIGNATURE
BOOK

HLUTIRNIR FARA AÐ SMELLA

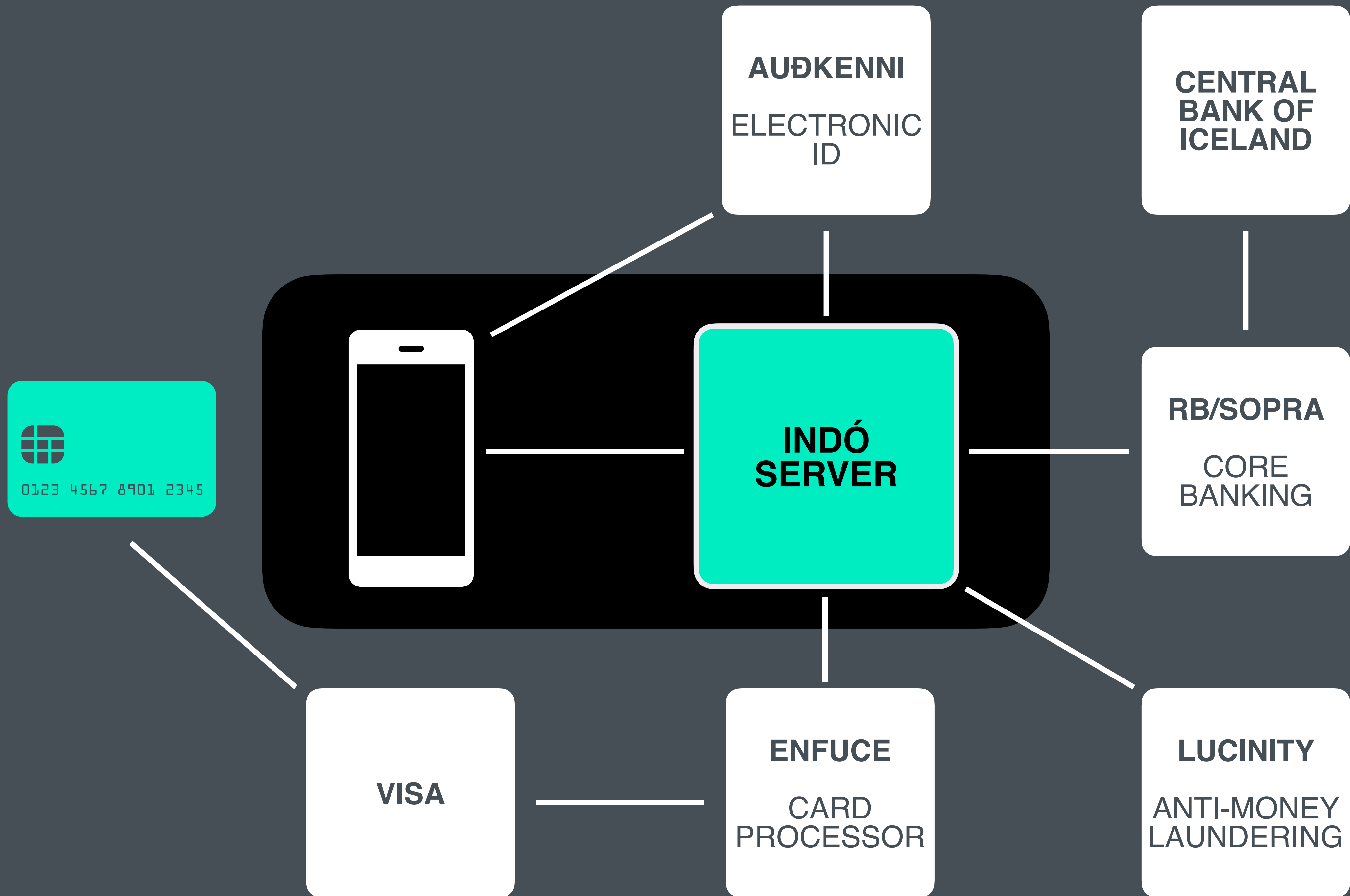
- API á innviði
- Config management fyrir servera
- Config management fyrir innviði
- Continuous delivery
- innviðir-sem-kóði
- rekstur er hugbúnaðargerð, hugbúnaðargerð er rekstur

“Don't be a Robot,
build the robot”

– *Wade Foster, Zapier*

HVERNIG GERIR INDÓ?









Innviðir sem kóði

infrastructure as code

```
alias = "c1"
}

# Request a SSL certificate for indo.is,
# www.indo.is
module "indo_website_ssl_cert" {
  source          = "../modules/ssl_cert"
  domain_names    = [ "indo.is", "www.indo.is" ]
  dns_zone_id     = module.dns.zone_id
  providers = {
    # CF requires that certs are created
    # in us-east-1.
    aws = aws.us_east_1
  }
}

module "indo_website" {
  source          = "../modules/s3_public_website"
  dns_zone_id     = module.dns.zone_id
  hostname        = "indo.is"
  aliases         = ["www.indo.is"]
  ssl_cert_arn    = module.indo_website_ssl_cert.arn
  tags = {
    "environment" = "production"
    "name"         = "indo.is website"
  }
}

# The website is running a react website using react
# javascript is responsible for updating the url bar
```

Feat/authentication/integrate with cognito #40

Edit

Merged

solvip merged 6 commits into master from feat/authentication/integrate-with-cognito on 16 Sep

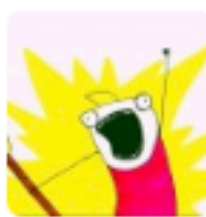
💬 Conversation 2

🔑 Commits 6

📋 Checks 0

📄 Files changed 9

+135 -29

 solvip commented on 4 Sep • edited by steinar

Allow the authentication service to integrate with Cognito

- Define a generic module eks_iam_service_role that knows how to create IAM roles that our Kubernetes workers can assume for pods
- Create the user pools, clients & policies

Related to indoservices/monorepo#97

Reviewers

 steinar

✓

 olafurorng

✓

Assignees

No one—assign yourself

Labels

None yet

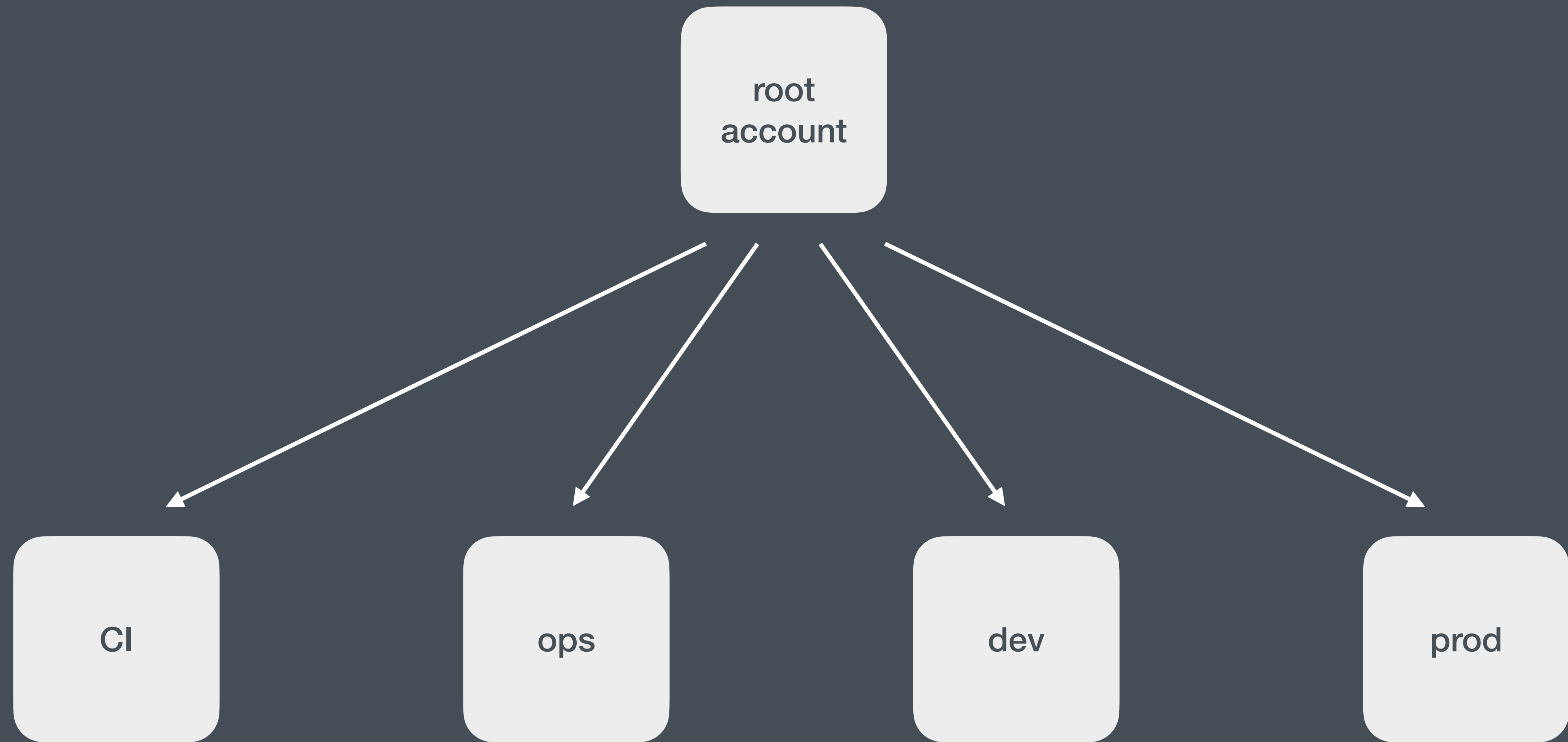
Projects

 solvip requested a review from steinar on 4 Sep

KÓÐI

- infrastructure
- monorepo

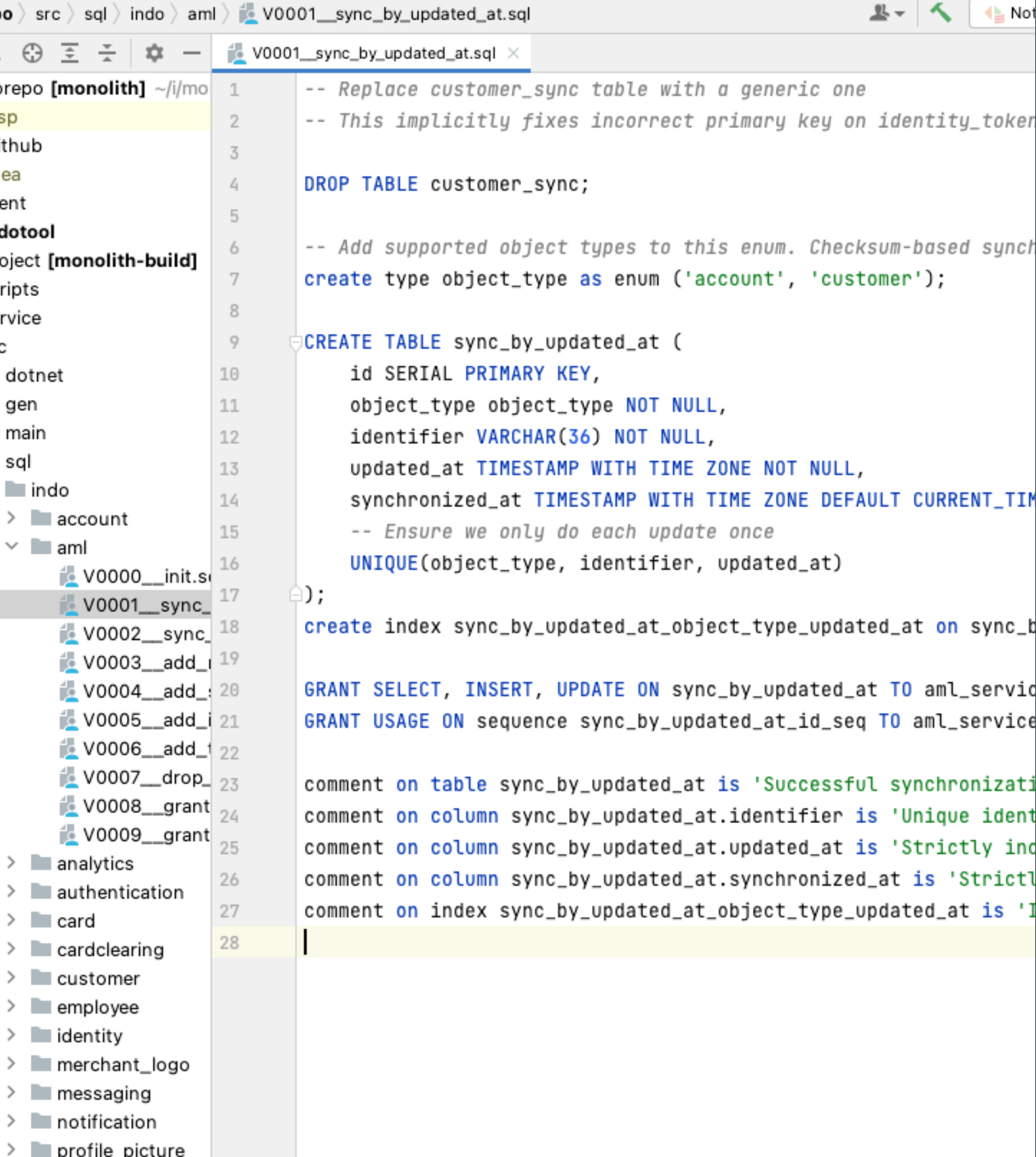
AÐSKILDIR AWS REIKNINGAR



Ein leið

Reynum að hafa eina leið





```
1  -- Replace customer_sync table with a generic one
2  -- This implicitly fixes incorrect primary key on identity_token
3
4  DROP TABLE customer_sync;
5
6  -- Add supported object types to this enum. Checksum-based sync
7  create type object_type as enum ('account', 'customer');
8
9  CREATE TABLE sync_by_updated_at (
10     id SERIAL PRIMARY KEY,
11     object_type object_type NOT NULL,
12     identifier VARCHAR(36) NOT NULL,
13     updated_at TIMESTAMP WITH TIME ZONE NOT NULL,
14     synchronized_at TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,
15     -- Ensure we only do each update once
16     UNIQUE(object_type, identifier, updated_at)
17 );
18 create index sync_by_updated_at_object_type_updated_at on sync_by_updated_at
19
20 GRANT SELECT, INSERT, UPDATE ON sync_by_updated_at TO aml_service;
21 GRANT USAGE ON sequence sync_by_updated_at_id_seq TO aml_service;
22
23 comment on table sync_by_updated_at is 'Successful synchronization';
24 comment on column sync_by_updated_at.identifier is 'Unique identifier';
25 comment on column sync_by_updated_at.updated_at is 'Strictly increasing';
26 comment on column sync_by_updated_at.synchronized_at is 'Strictly increasing';
27 comment on index sync_by_updated_at_object_type_updated_at is 'Index on object_type, identifier, updated_at';
28
```

Gagnaskemu

- Postgres
- Lýsing í monorepo
- Flyway
- In-house wrappers
- ./create-test-postgres.sh

SAMFELLD AFHENDING

- Jenkins + Jenkinsfile
- Keyrir í “ci” AWS reikningi
- Hefur aðgang að dev & prod; dev & prod hafa samt ekki aðgang að hvort öðru
- github triggerar build við push & merge
- build, lint, test
- skilar af sér Docker mynd í AWS ECR fyrir server-side hluti
- Rúllar öllu út á dev umhverfi

KUBERNETES

- EKS
- Infrastructure skilgreiningar í terraform
- Þjónustuskilgreiningar í monorepo
- Jobs
- Monolith
- Webs
- Heilsutékk



Virkar illa? Breytum því

- ~~Microservices~~
- Monolith

indo-dev-admin

Now an admin in the DEV env

~ on ~ indo-dev-admin (eu-west-1) >

kubectl get pod -lapp=monolith

NAME	READY	STATUS	RESTARTS	AGE
monolith-ffc8d9f97-4rnlt	1/1	Running	0	24m

~ on ~ indo-dev-admin (eu-west-1) >

psql-iam.sh admin indo

psql (14.6 (Homebrew), server 13.7)

SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)

Type "help" for help.

indo=>

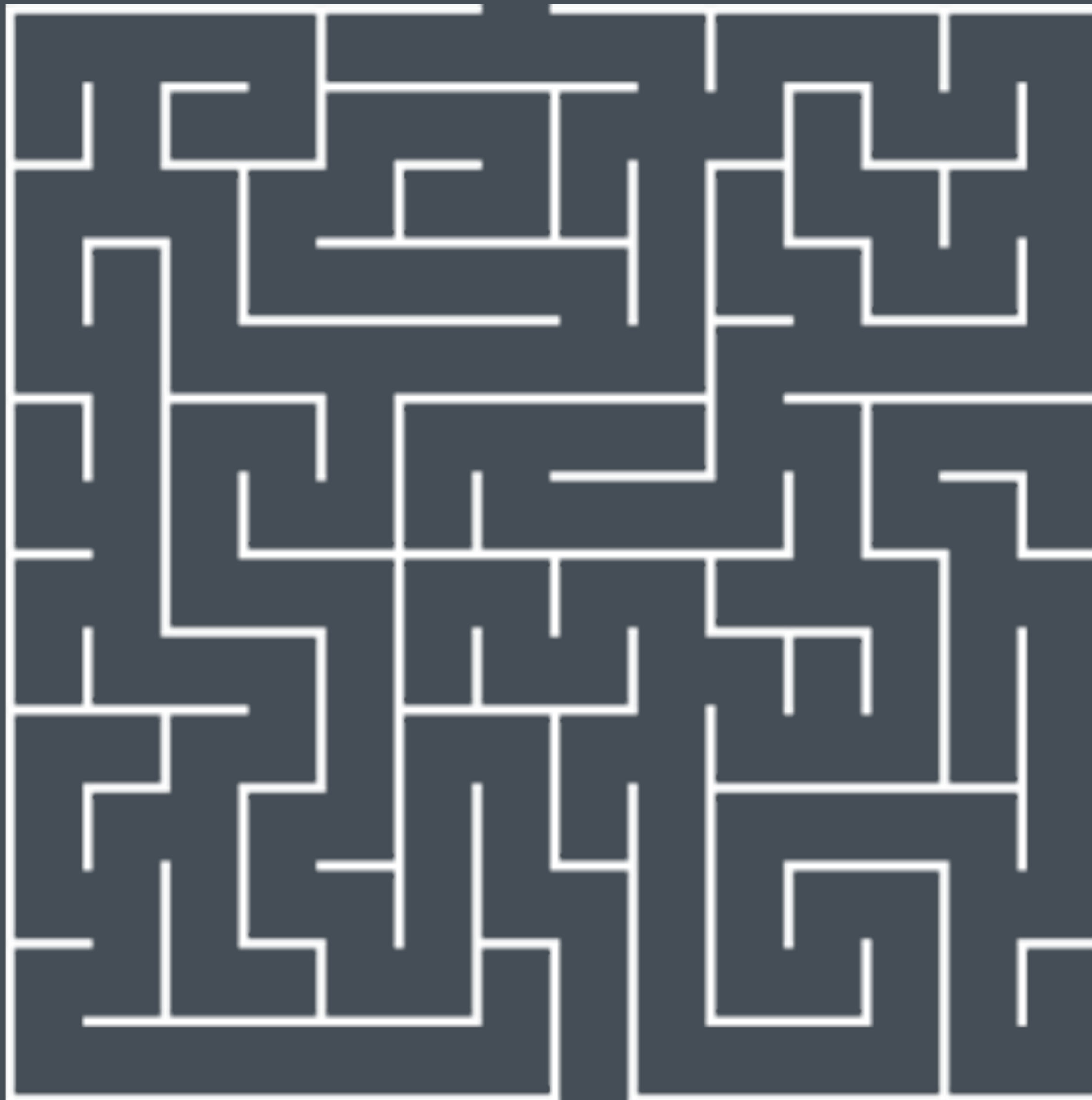
Með API er
auðvelt að gera
hvað sem er

Afrita afrit á milli regiona

```
object Main extends IndoIOApp {  
  implicit override protected val logger: Logger =  
    Logger.getLogger(name = "backupcopier")  
  
  Sölvi Páll Ásgeirsson +2  
  def indoRun(args: List[String]): IO[ExitCode] =  
    RDSBackupCopier(  
      Configuration(  
        sourceRegion = Region.EU_WEST_1,  
        targetRegion = Region.EU_NORTH_1,  
        keepLatestN = 7,  
        targetRegionKmsKeyId = "alias/aws/rds",  
      ),  
    ).use(_.run.map(_ => ExitCode.Success))  
}
```


Flækja

eða: hvernig þú bindur
fætuna á þér saman



Í STUTTU MÁLI

- Allt sem kóði
- Eigin tól ef það meikar sens
- Rýniferlar fyrir allt
- Samfelld útgáfa
- Markmiðið er að skapa sér minni vinnu - ekki meiri
- Keep it simple!!!!1

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