



My Children Will Never
Deploy Active-Passive

Introduction

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- @dashaun on (Twitter|GitHub|GitLab|LinkedIn)

"My children will never deploy active-passive."

– **DaShaun Carter**

Quick Fix Haiku

```
A quick fix we made  
got integrated upstream  
now its critical
```

We have never done a game-day exercise.

Resilience > Robustness

A Zone is a single logical datacenter with its own power, network, and cooling resources.

A Region is set of collaborating Zones (datacenters) grouped together based on their geographical proximity.

- Laptop
- Single Datacenter
- Single Availability Zone
- Single Region



Latency is the new downtime.



Downdetector

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60



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Google Outage Yesterday

Google Outage Yesterday

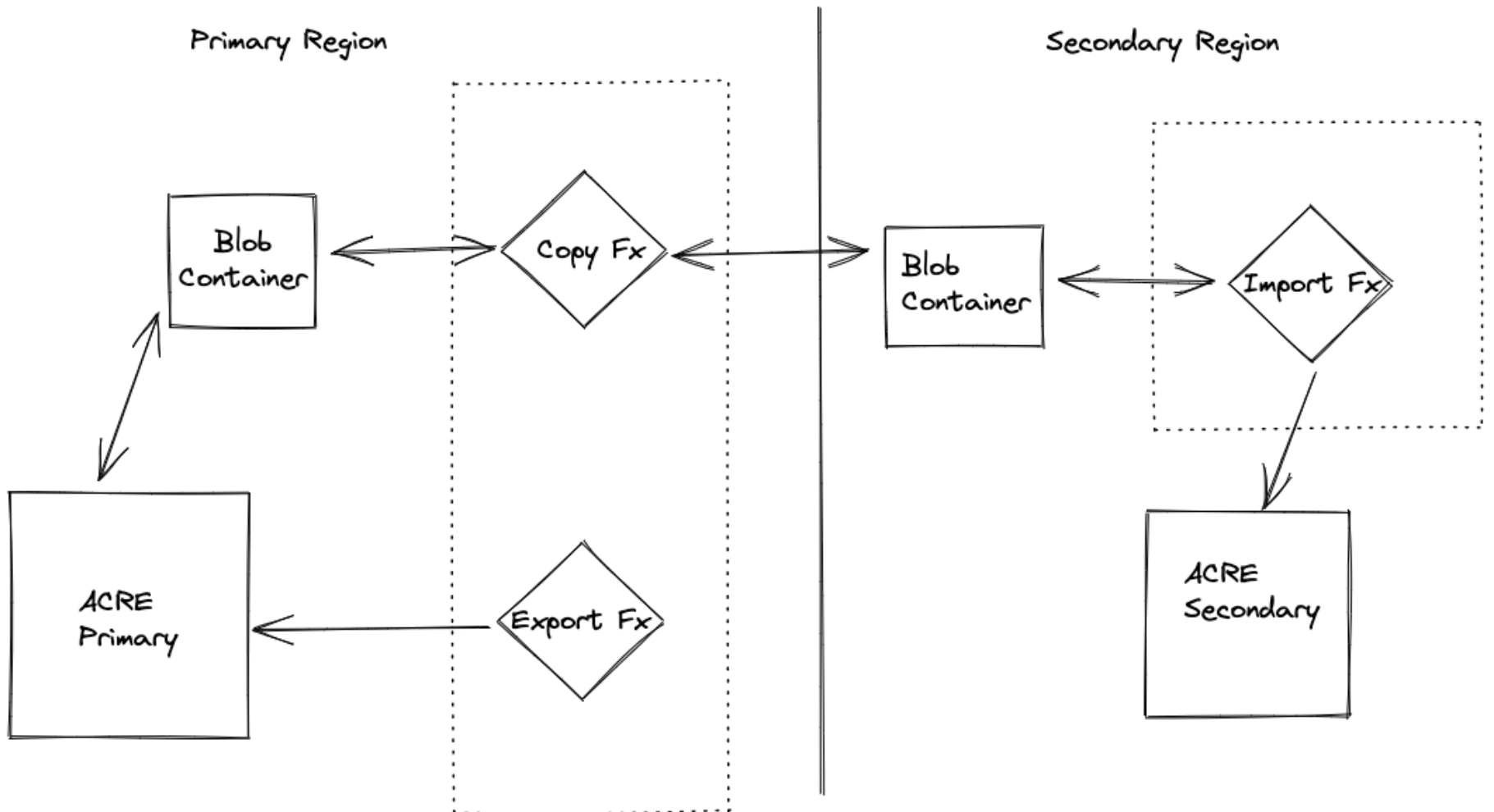
- Council Bluffs IA

Google Outage Yesterday

- Council Bluffs IA
- Cascading Effects

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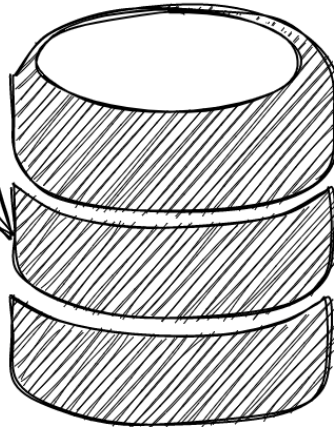
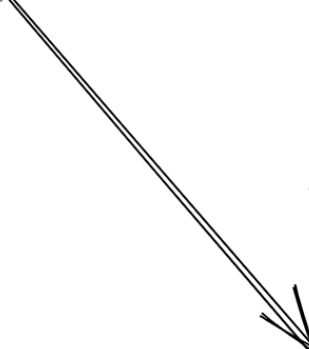
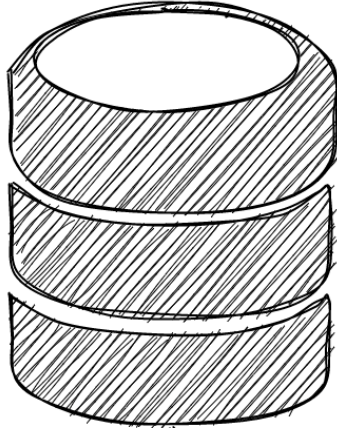
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Writes & Reads



Leader

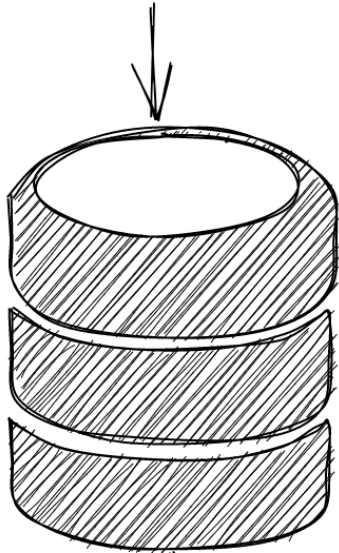


Follower

Leader-Follower-Pair of DBs

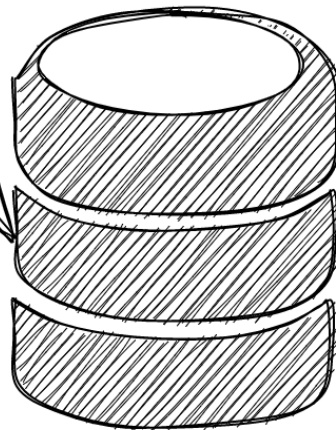
Writes & Reads

Leader



Leader-Follower-Pair of DBs

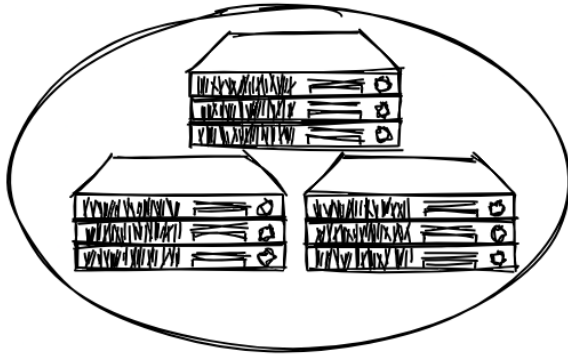
Reads



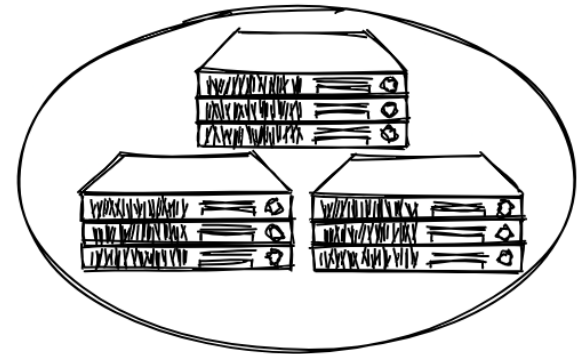
Follower

In a single region
leader-follower
should be in different zones

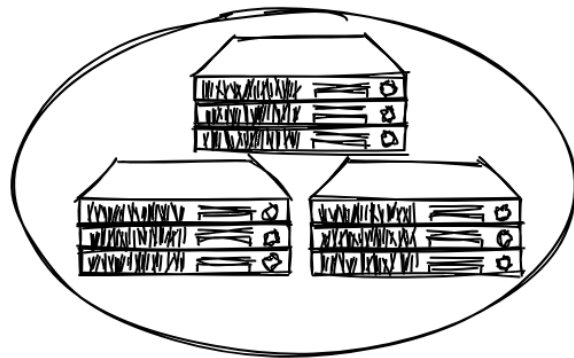
Traffic



#Active

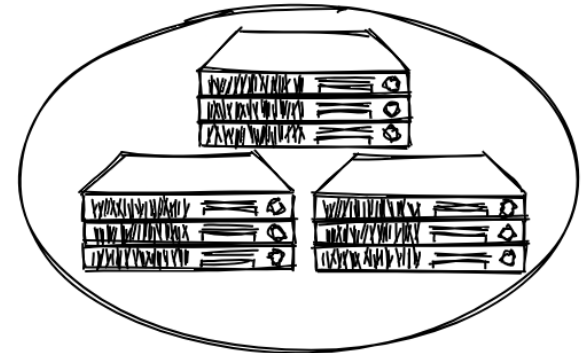


#Passive (Standby)



#Passive

Traffic



#Active

- "Brilliant!"

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- "This solves all of our problems!"
- "It only costs twice as much for infrastructure!"
- "Make it happen!"
- [Quotes from Former VP of Engineering]

Latency is the new downtime.

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I have scar tissue

Is your app alone and trembling in a dark,
single-region with failures,
latency, and retry storms closing in on every side?

Hundreds of Global2000 &
Fortune500 customers

Outages

- Money Lost

Outages

- Money Lost
- Trust Lost

Outages

- Money Lost
- Trust Lost
- Momentum Lost

Outages

- Money Lost
- Trust Lost
- Momentum Lost
- Sleep Lost

- Outages don't happen every day

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- Active-Passive datacenters waste money every day

- Active-Active can improve capacity & resiliency

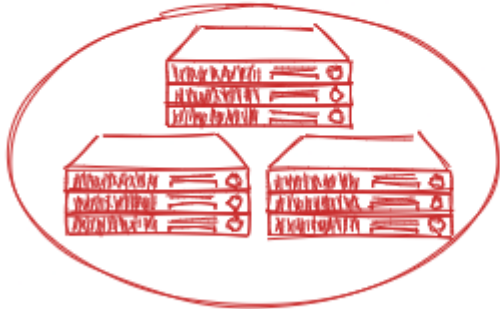
- Active-Active can improve capacity & resiliency
- Without additional infrastructure expense

- Active-Active can improve capacity & resiliency
- Without additional infrastructure expense
- If you are upgrading from active-passive

Raise your hand
if you like spending money
on infrastructure that isn't being used



Stop doing this



#DataCenter



#DataCenter

When you could do this





#DataCenter



#DataCenter

You have options

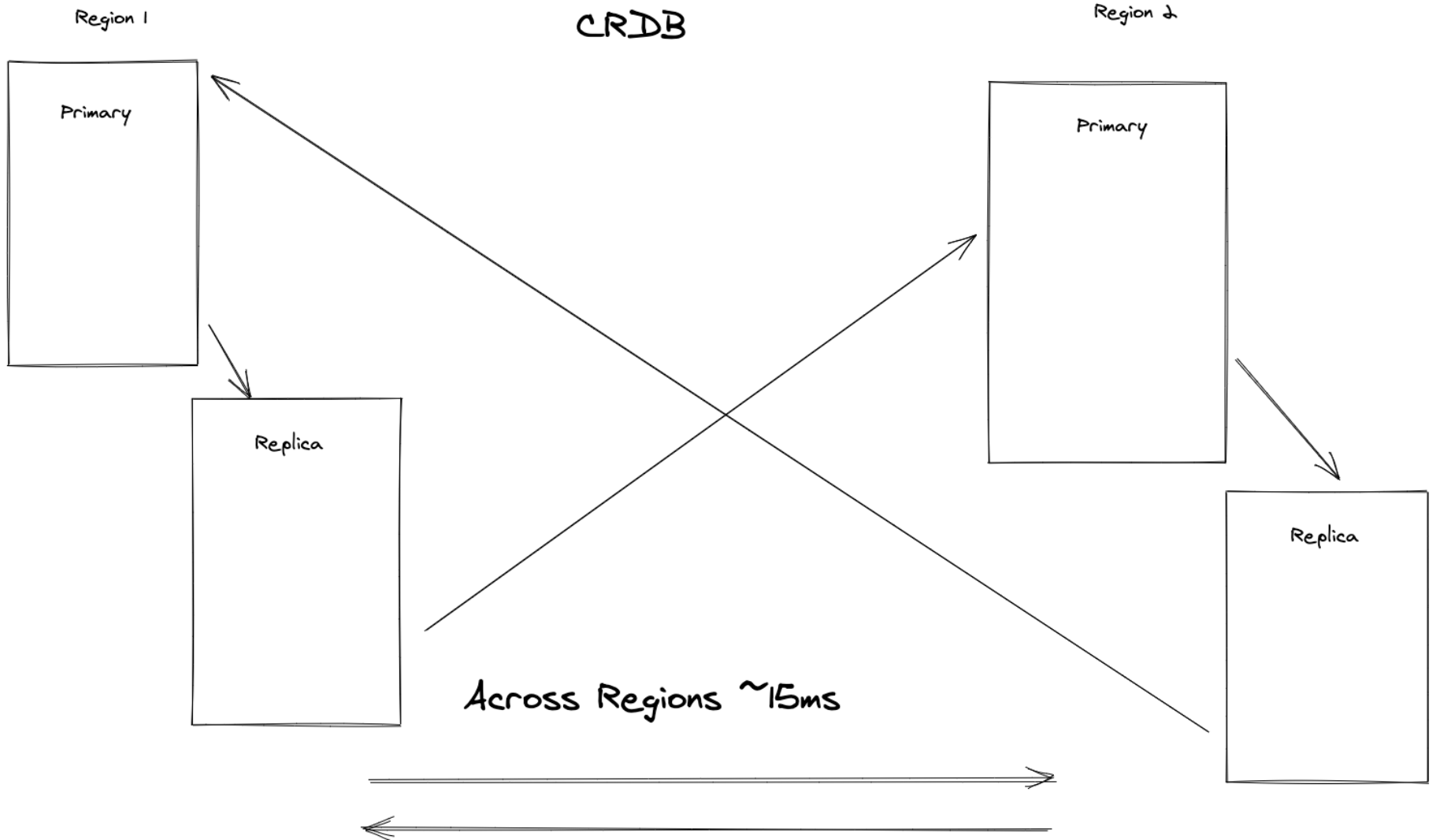
- Convert your "standby" infrastructure
- Into "active" infrastructure

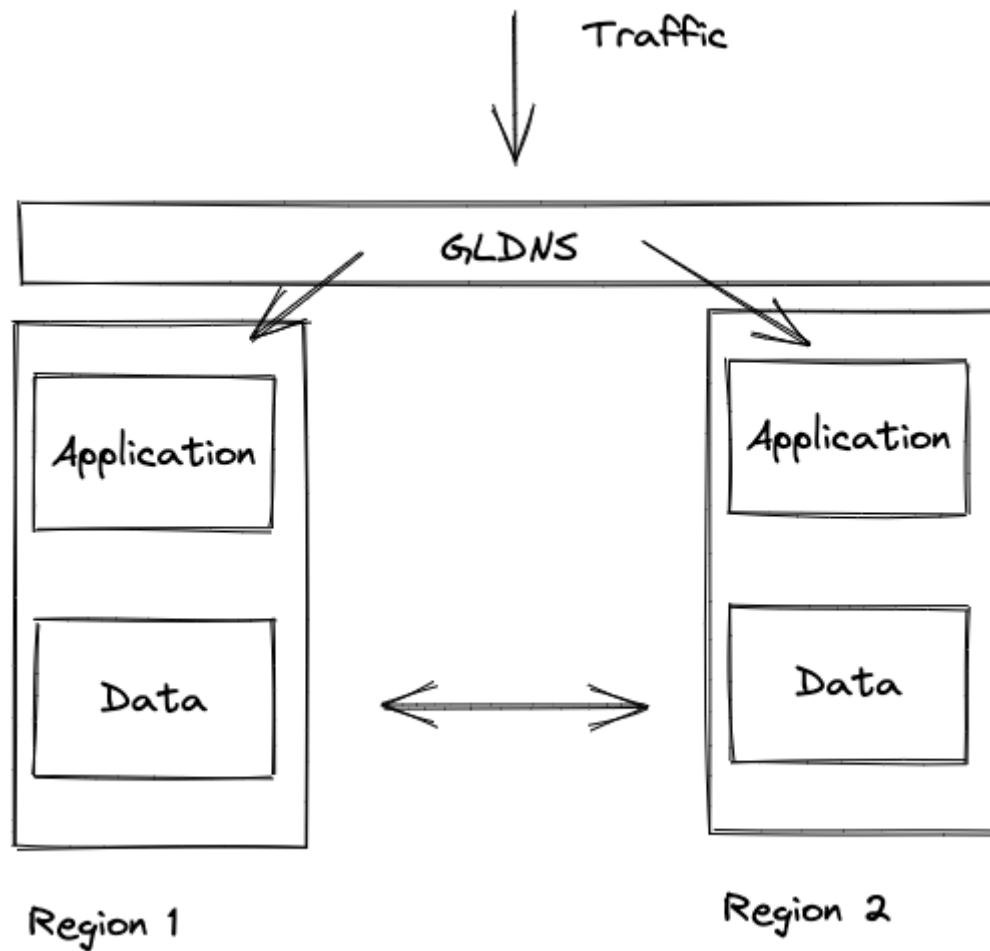
Negotiations

Multi-Region

Multi-Cloud

CRDB



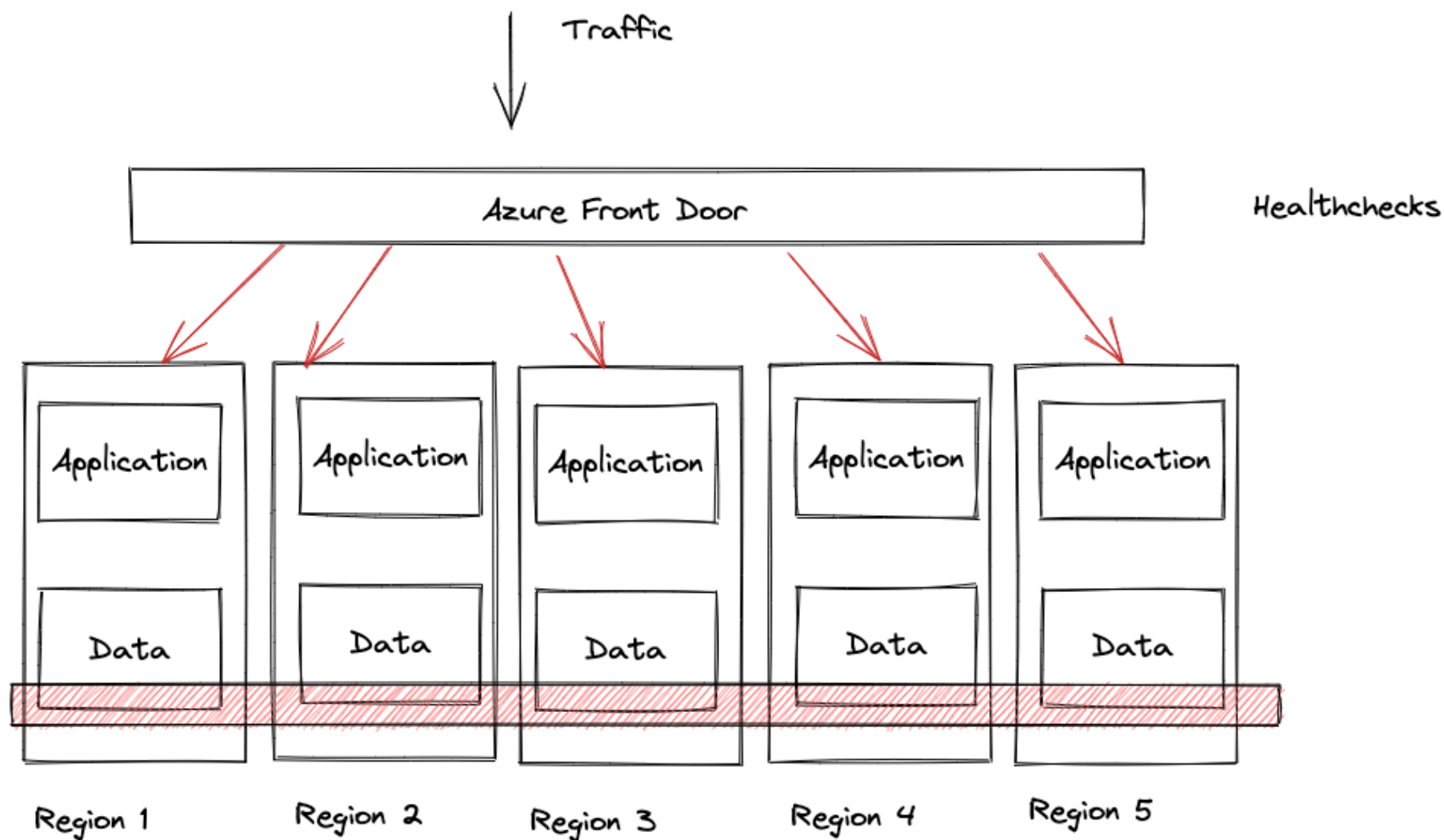


Bootiful

- Spring Boot
- Spring Data Redis
- Azure Spring Apps
- Azure Cache for Redis Enterprise (ACRE)

Single

- <https://acre-bootiful.azuremicroservices.io/>



Multi

- <https://centralus-centralus.azuremicroservices.io>
- <https://eastus-eastus.azuremicroservices.io>
- <https://westus2-westus2.azuremicroservices.io>
- <https://southcentralus-southcentralus.azuremicroservices.io>
- <https://eastus2-eastus2.azuremicroservices.io>

GLDNS

- <https://kcdc-frontdoor.azurefd.net>

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Questions?

Thanks

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