



WELCOME

Solution Consulting Americas

FY23 Q1 Hack-a-thon

Team 9 (T9)



SA-ENTERPRISE

Meet T9

Big Bad Bad End (BBBE)



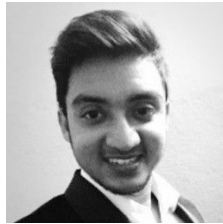
Robert
Kauffman



Shawn
Chai



Marianne
Myers



Partho
Bardhan



Joseph
Hansen



Timothy
Marland



Jake
Cosme

Disaster Recovery Simulator



Multi-Region: Business Continuity under a cloud region outage

Atlas provides business continuity in the event of a cloud region outage via cross-region clusters. Application stack failover with app deployment, security, network routing.

This is a problem

Many of our customers are not cross-region ready from the application layer, and don't scale their Atlas cluster for cross-region as they can't reap the benefits.

Architecture design

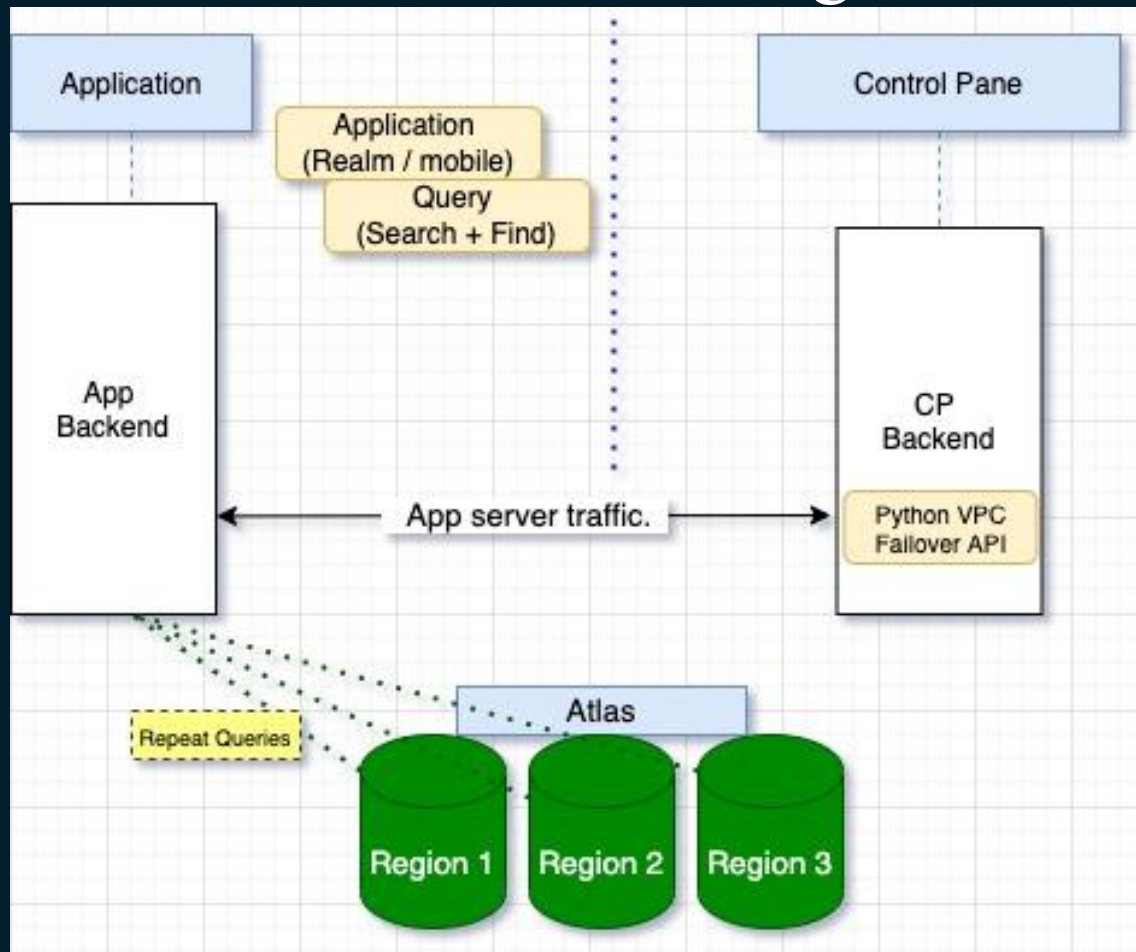


App layer/backend:

EC2 - python, PoV
18 (multi-region
HA) to Atlas.
Multi-region app
layer.
Loops w/simple find
queries. Return on
frontend.
Retryable writes.

Realm App Services:

Interactive
dashboard w/ health
& results of find
queries.



Control plane:

Backend executes
failover/disaster
when initiated from
frontend.
Single region
failure due to
network partition->
VPC peering
connection to
Atlas.

Atlas:

Multi-region (AWS)
single node
(us-east-2,
us-west-2,
us-west-1)



Cap Theorem

INTRODUCE CHAOS!

No distributed system is safe from network failures!

[illegible]

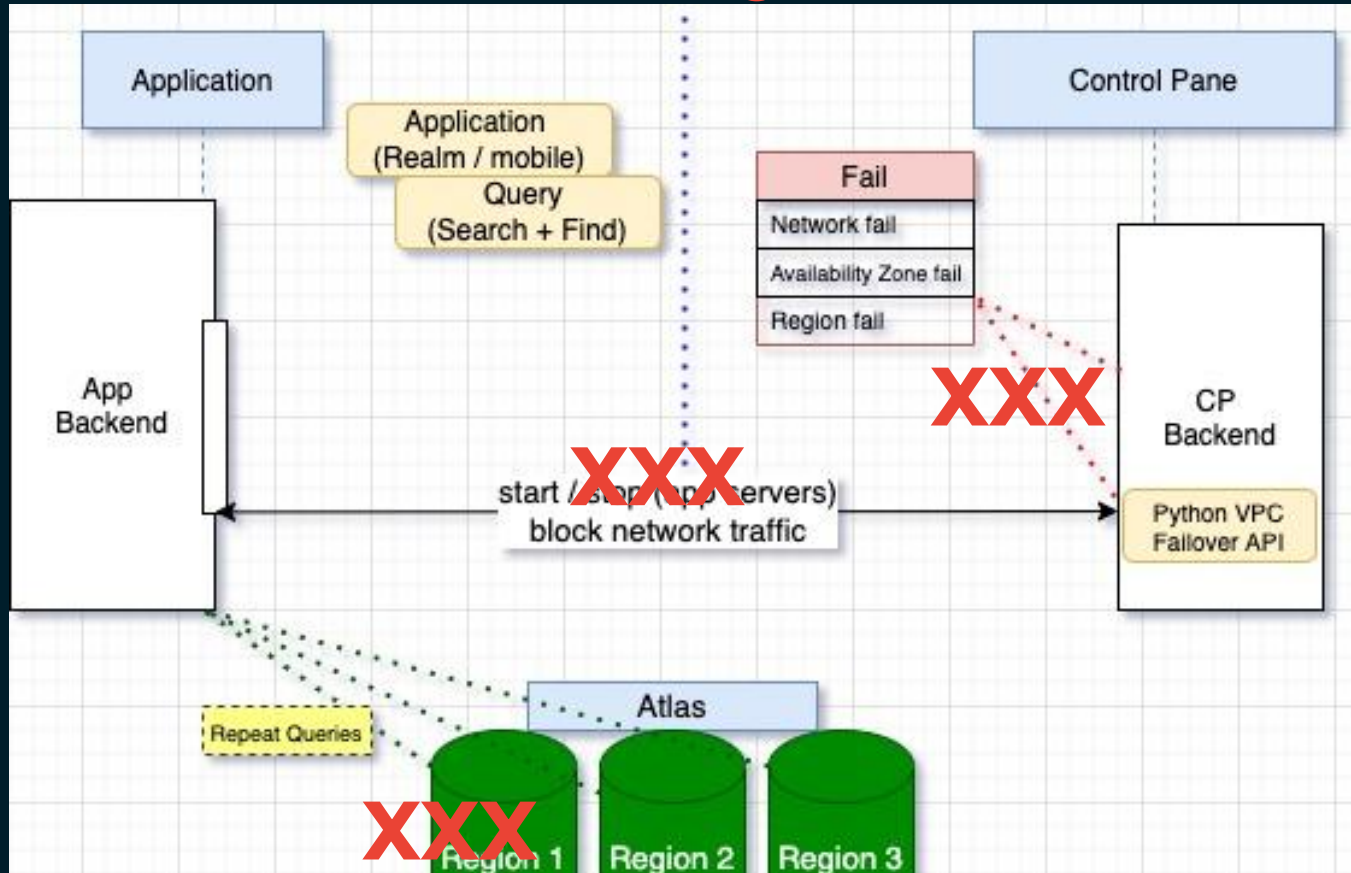
Partial outage

Network fail:
AWS AZ

App traffic:
stop


Atlas cluster:
fail over

Application
(api): read /
write no
interruptions

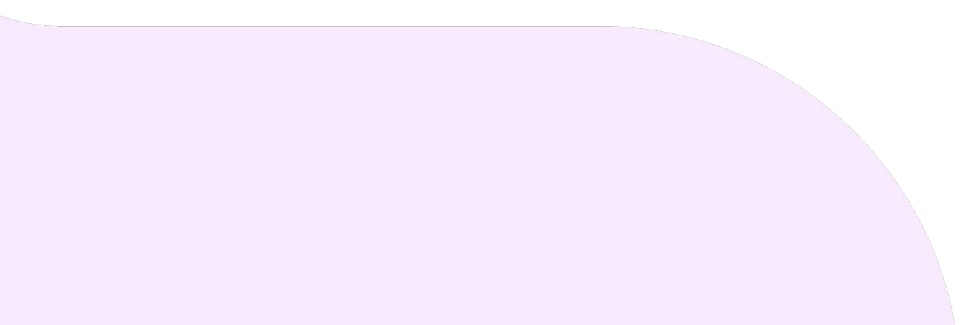


As configured below, your cluster is:

✓ Available during partial region outage × Not available during full region outage × Not available during a cloud provider outage

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Thank you for
your time.

A solid purple shape is located in the bottom left corner of the slide, featuring a rounded top edge.