



WELCOME

Solution Consulting Americas

FY23 Q1 Hack-a-thon

Team 9 (T9)



SA-ENTERPRISE

Meet T9

Big Bad Back End (BBBE)



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[illegible]



Disaster Simulator

Multi-Region: Business Continuity under a cloud region outage

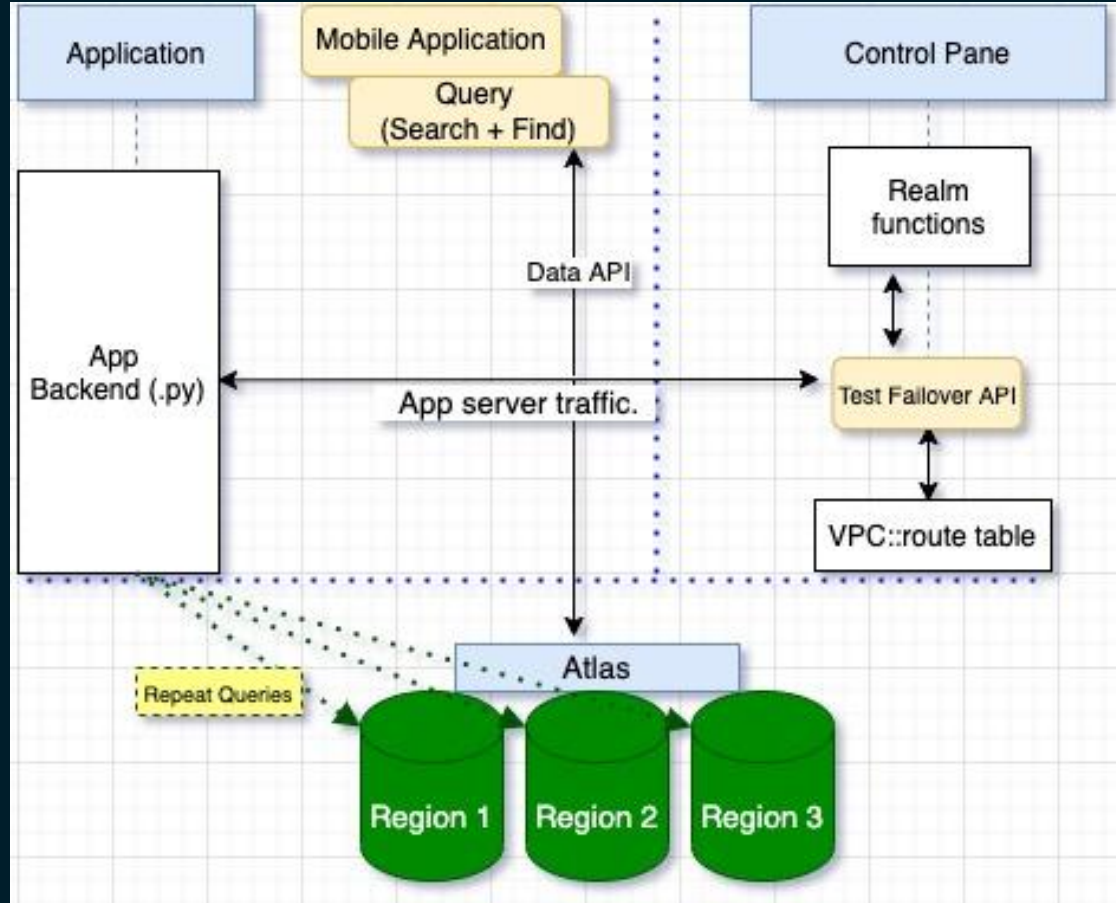
- Simulate outage, shutdown service
- Stop app traffic, trigger failover
- Atlas primary change, continuous read/write

Architecture design



App layer/backend:
EC2 & Python.
Multi-region app
layer.
Loops find/insert &
search queries.
Display results on
frontend.
Retryable reads &
writes configurable

Frontend:
Interactive
dashboard w/
realtime
health/status of
cluster & response
of queries to
backend



Control plane:
Simulates network
partition by
messing with route
tables;
Initiates Test
Failover in Atlas
via API

Atlas:
Multi-region (AWS)
3-node RS:
us-east-2,
us-west-2,
us-west-1

Trigger partial outage



Network fail:

AWS AZ

App traffic:

stop

Atlas cluster:

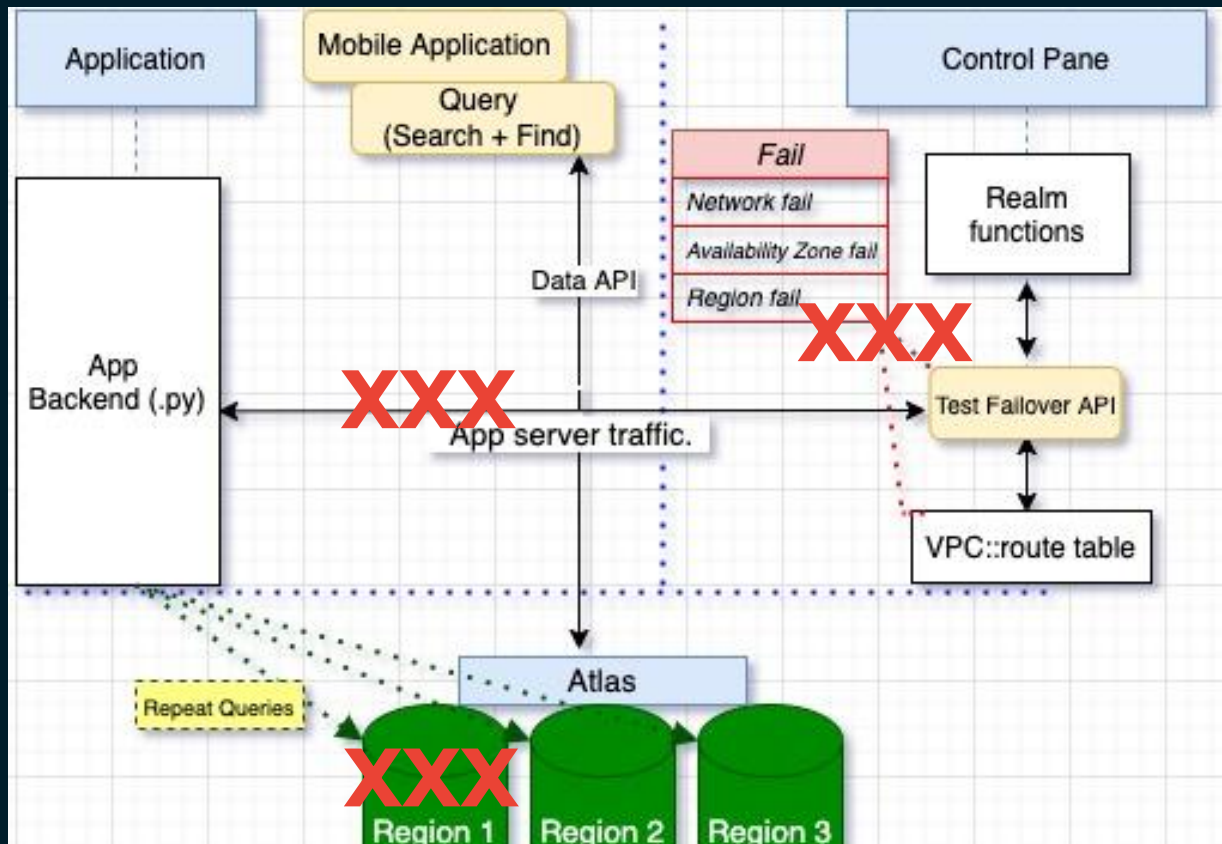
fail over

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

Roadmap

- Add Chart to show success/failures and average latency
- Realm Sync:
show offline-first capabilities for mobile



Vote Team9!

