

Cloud Architecture Terminologies :-

Solutions Architect :-

Role in a technical organization that architects a technical solution using multiple systems via researching, documentation, experimentation.

Cloud Architect :-

Solutions architect solely focused on architecting technical solutions using cloud services

Considerations when designing cloud architecture:-

Availability

Elasticity - Ability to shrink & grow

Scalability

Fault Tolerance - Ability to prevent failure

Disaster Recovery (Highly Durable)

(Security) How secure is the solution?

(Cost) How much is it going to cost?

High Availability :-

Ability for your service to be available.

- * ensuring there is no single point of failure
- * ensure a certain level of performance.

Solution:- Running your workload across multiple AZs.

Elastic Load Balancer:-

evenly distribute traffic to multiple servers.

If the ~~load balancer~~ server/datacenter becomes unavailable, load balancer will route traffic only to available servers.

High Scalability:- ability to increase your capacity based on the increasing demand of traffic, memory and computing power.

Vertical Scaling:-

Scaling up

Upgrade to a bigger server

Horizontal Scaling:-

Scaling out

Add more servers of same size.

High elasticity:-

Ability: to increase/decrease your Capacity based on current demand of traffic, memory & computing power

Horizontal Scaling:-

Scaling out: Add more Servers

Scaling in: Remove under utilized servers

Auto Scaling Groups:- AWS feature that will automatically add or remove Servers.

Highly Fault tolerant:-

Ability for your service to ensure there is no single point of failure.

Fail-overs:- plan to shift traffic to redundant system in case primary system fails.

RDS Multi-AZ:-

When you run a duplicate standby database in another AZ in case your primary database fails.

High Durability:-

ability to recover from a disaster.

Solutions that recover from a disaster

↳ Disaster Recovery (DR).

* Do you have a backup?

* How fast can you restore backup?

* Does your backup still work?

* How do you ensure current live data isn't corrupt?

Cloud Endure Disaster Recovery:-

Continuously replicates your machines into a low cost staging area in your target AWS account and preferred region enabling fast and reliable recovery in case of IT data center failures.

Business Continuity Plan (BCP) :-

document that outlines how a business will continue operating during an unplanned disruption in services

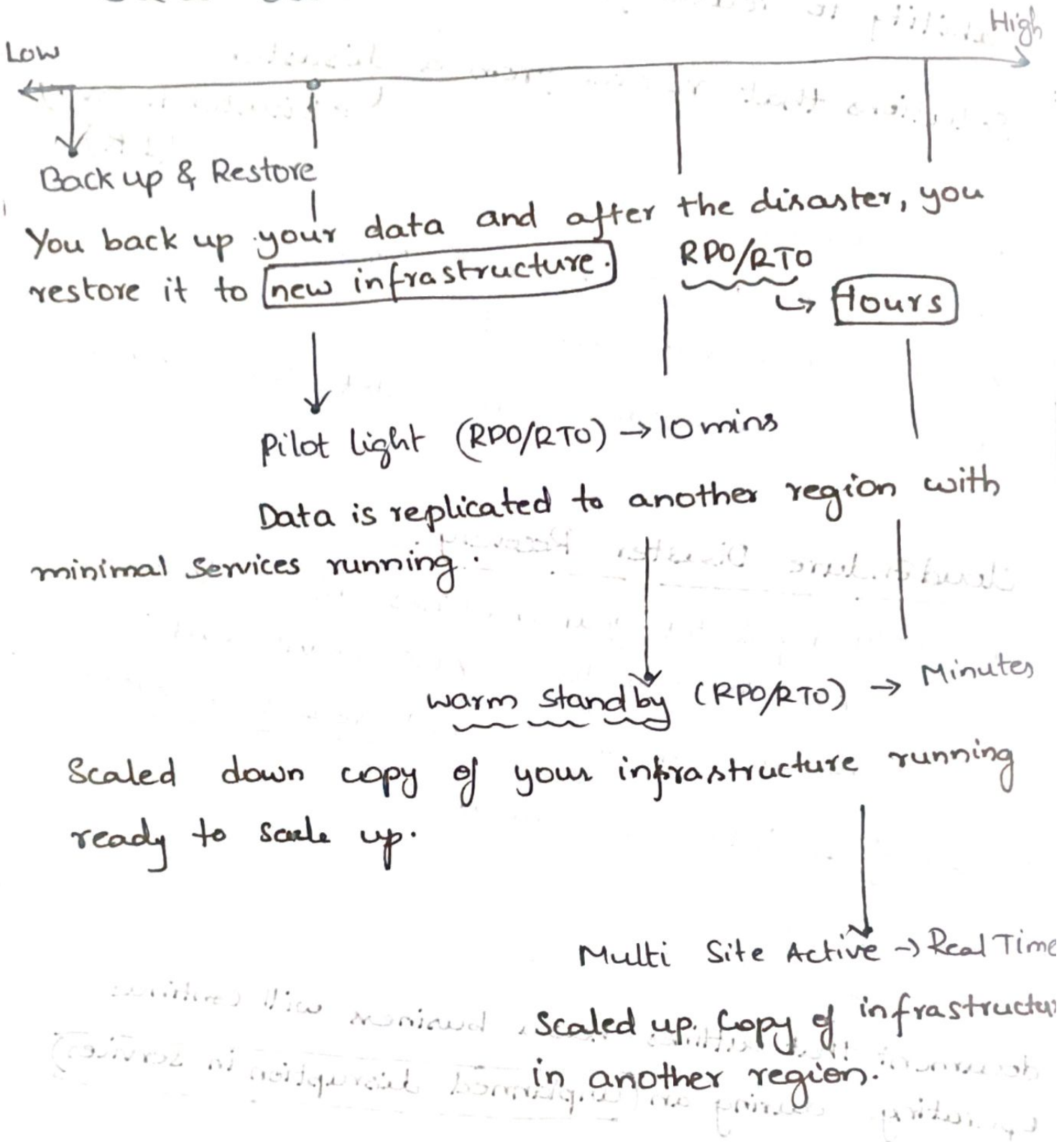
Recovery Point Objective:-

maximum acceptable amount of data loss expressed in time

Recovery Time Objective:-

maximum amount of downtime your business can tolerate.

Disaster Recovery Options:-



Cost increases from low end to high end.