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Batch 04

Week 6

12-Aug-2023



# Week 06 – 12-Aug



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# DISASTER RECOVERY

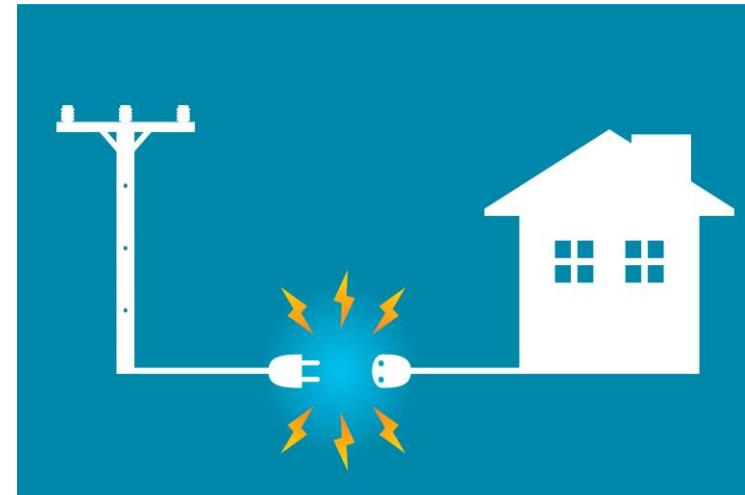
# What is a disaster?

- A serious disruption.
- A disaster is an unexpected problem resulting in a slowdown, interruption, or network outage in an IT system.



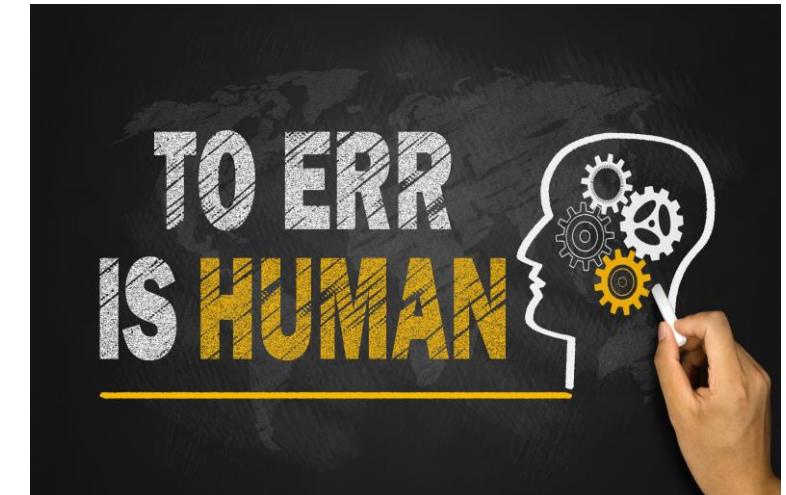
## Natural disasters

such as earthquakes, floods, fires, landslide



## Technical disasters

such as power failure or network outage



## Human actions

such as misconfiguration or unauthorized modification

# How does disaster recovery work?

- Disaster recovery is the process of preparing for and recovering from a disaster.
- Organizations address the following three components.



**Prevention**



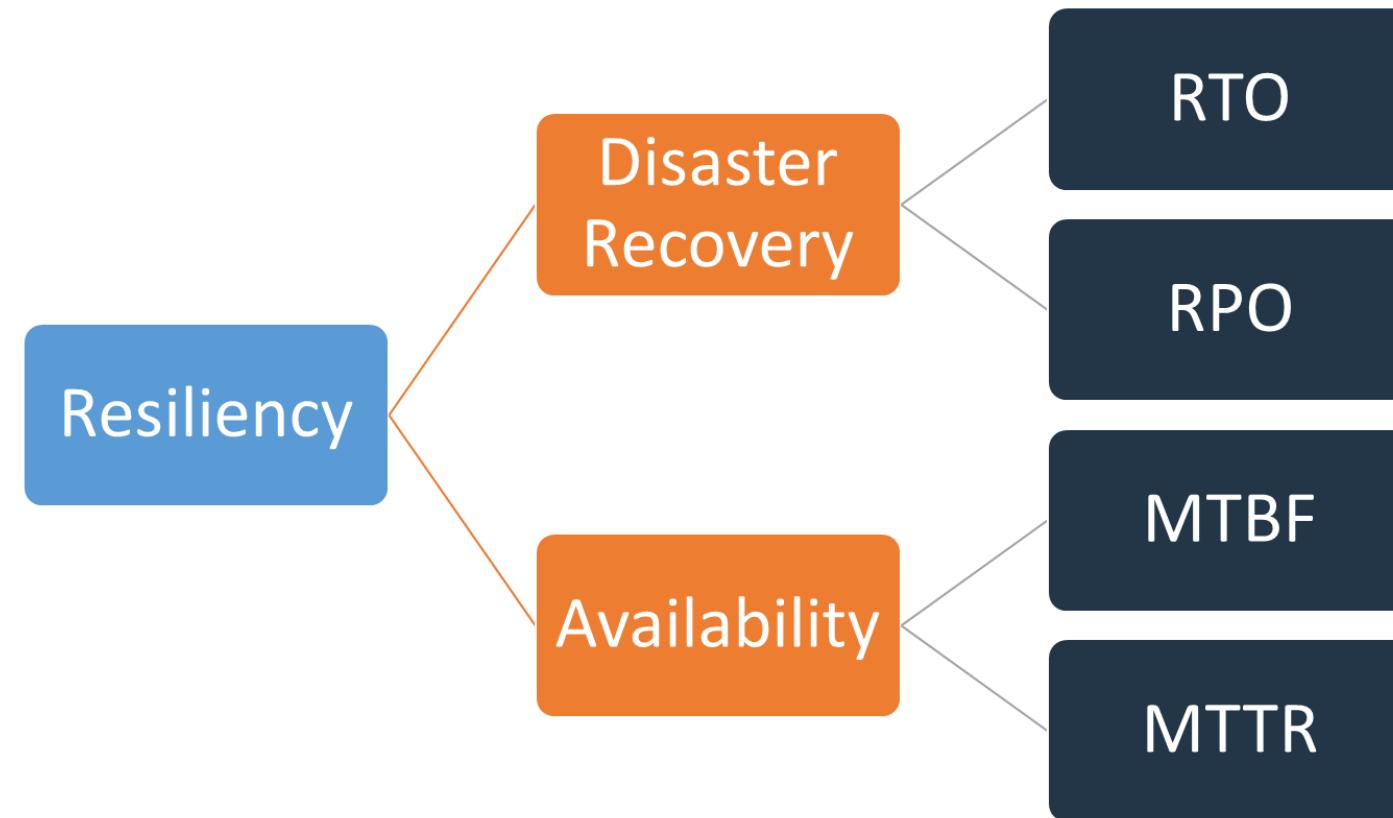
**Anticipation**



**Mitigation**

# Disaster recovery and availability

- Disaster recovery can be compared to availability, which is another important component of your resiliency strategy. Whereas disaster recovery measures objectives for one-time events, availability objectives measure mean values over a period of time.



R P T O

# Recovery Point Objective (RPO)

- How much data you can afford to lose?
- How much data will be lost when a disaster happens?

Backup/Replication Schedule	RPO
Daily – Everyday 10 PM	24 Hours / 1 Day
Weekly – Every Sunday 10 PM	1 week
Monthly – Last day of the month	1 month

## Recovery Time Objective (RTO)

- After wheel failure, if you have a spare wheel you may be able to replace the faulty wheel and you will be on track again in few minutes.
  - RTO = Few minutes

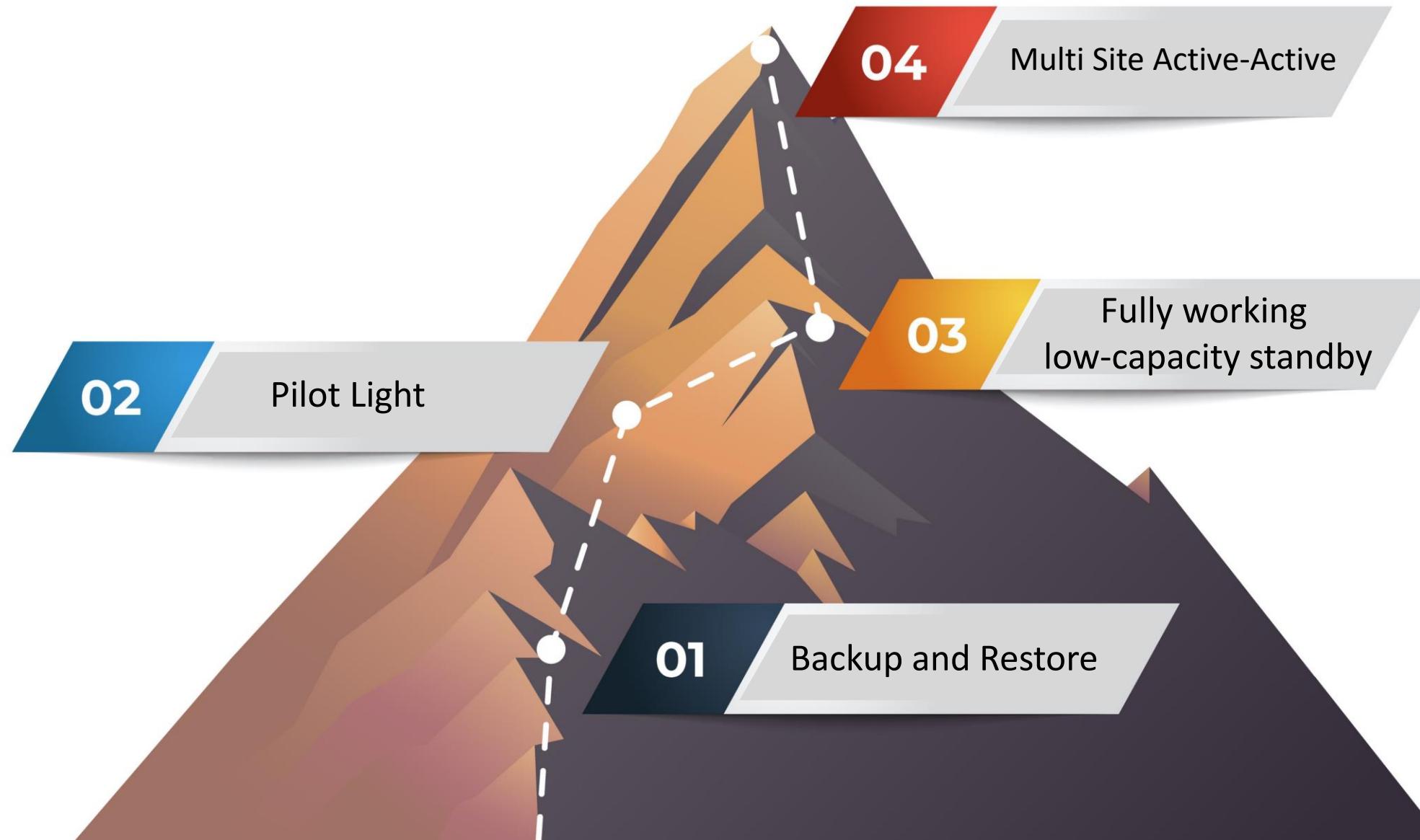


- If you do not have a spare wheel you may need more time
  - RTO = Few Hours

# RPO vs. RTO

	RPO	RTO
Focuses on	Data loss prevention	Whole business recovery
Depends on	Backup Frequency	Speed of recovery
Describes	Maximum data loss	Maximum recovery time
Consideration	How often your data changes?	How much downtime you can handle?

# RECOVERY STRATEGY



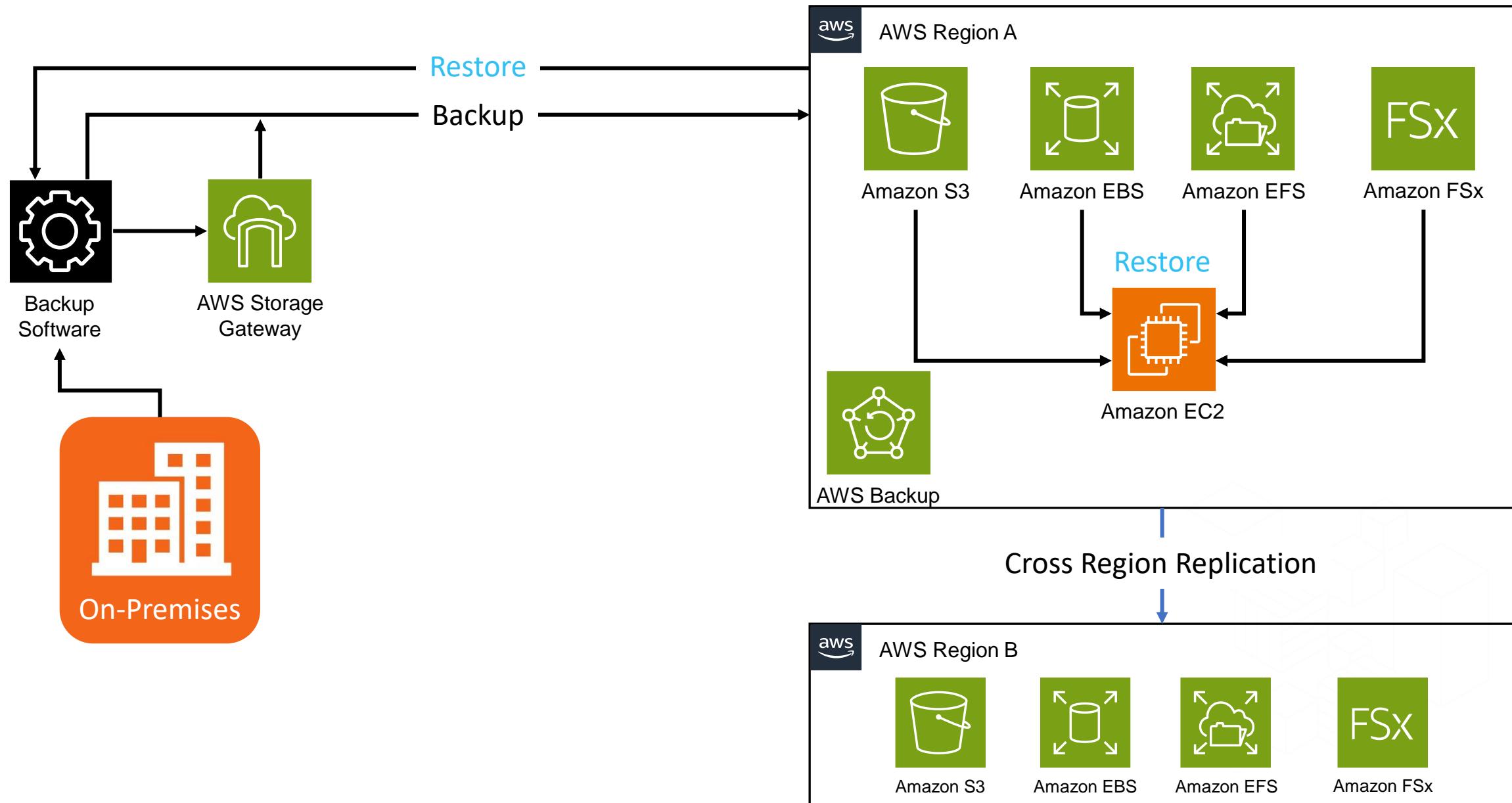
## 3-2-1 Backup Rule

Maintain at least **3** copies of your data

On **2** different media

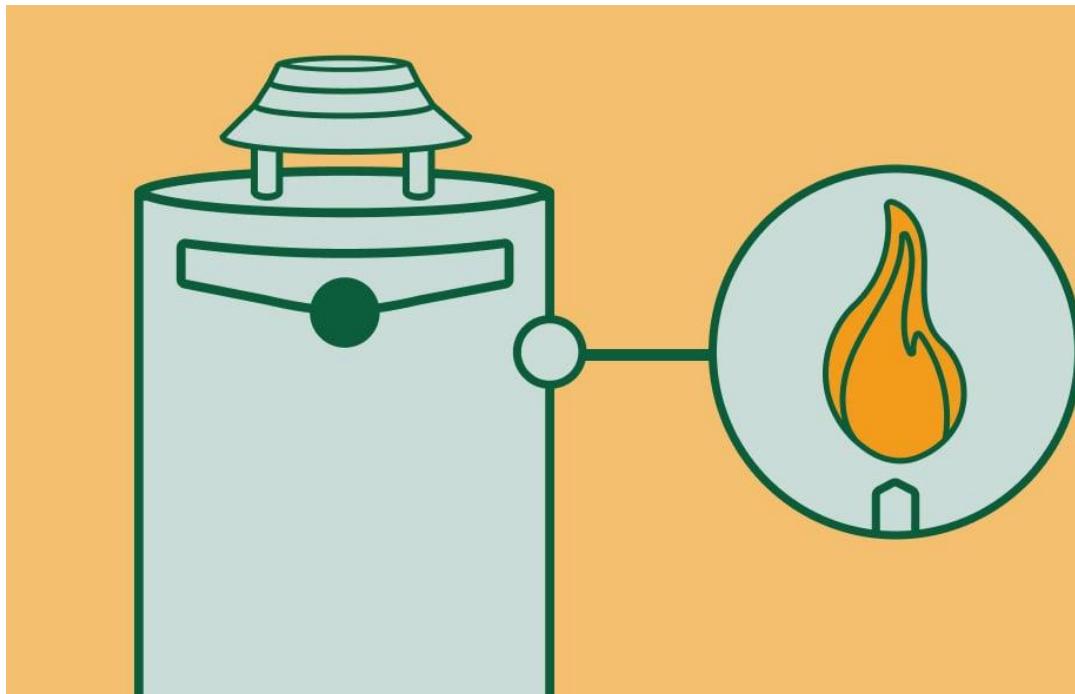
At least **1** copy off-site

# Backup and Restore

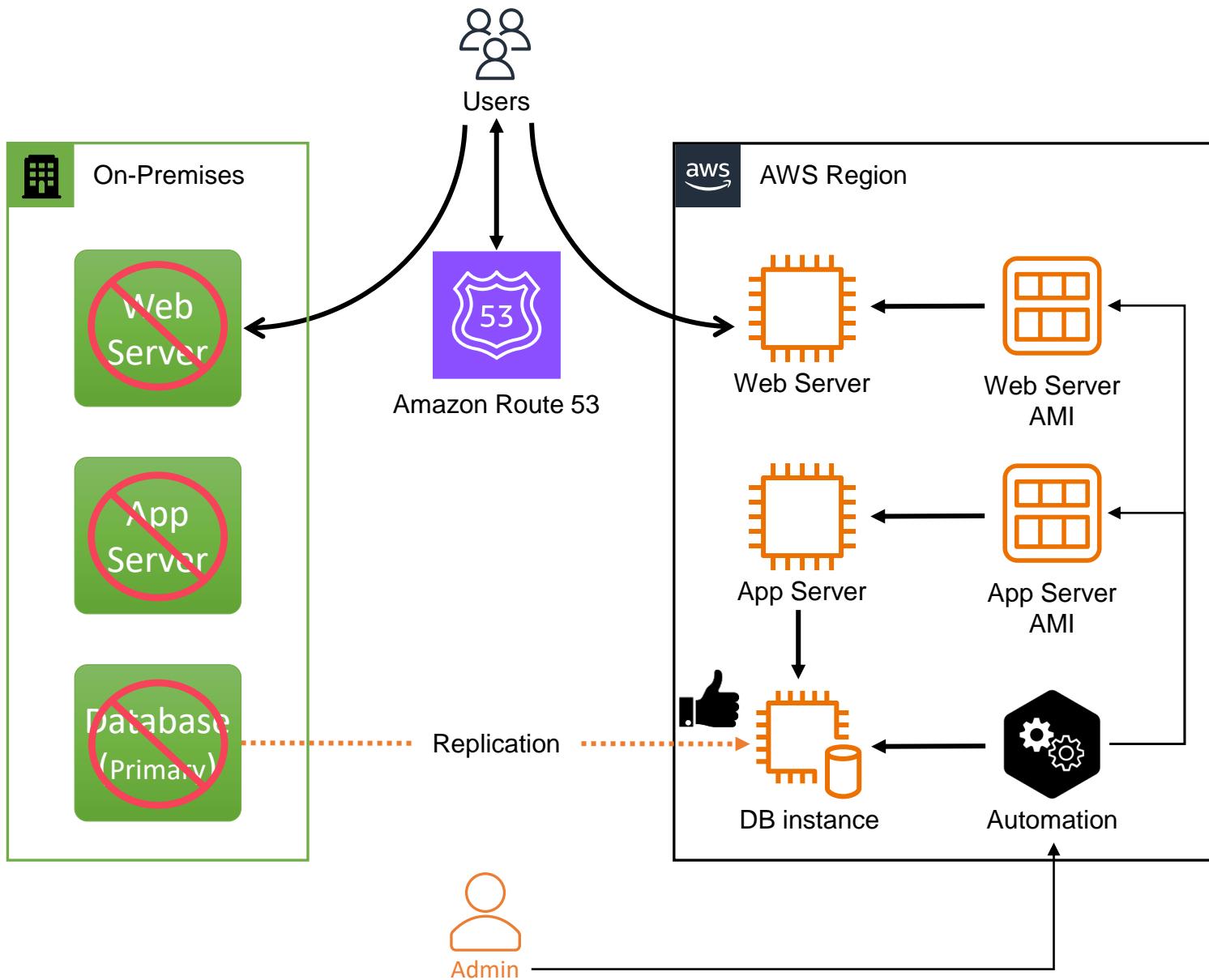


# Pilot Light

- Also called pilot, pilot burner. a small flame kept burning continuously, as in a gas stove or furnace, to relight the main gas burners whenever necessary or desired.



# Pilot Light



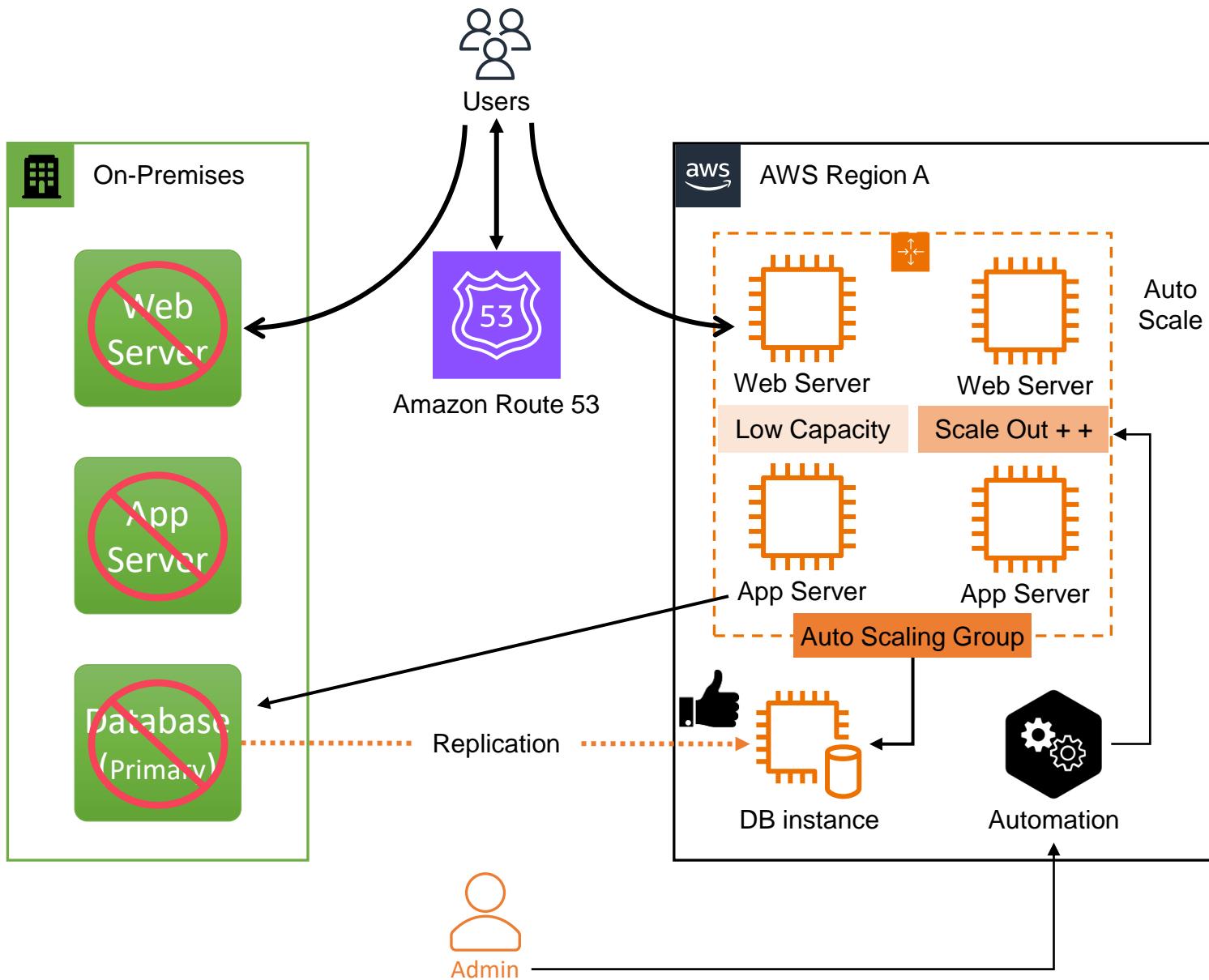
✓ Launch Servers from AMI

✓ Promote DB to primary

✓ Update DNS

✓ Auto Scale

# Fully working low-capacity standby



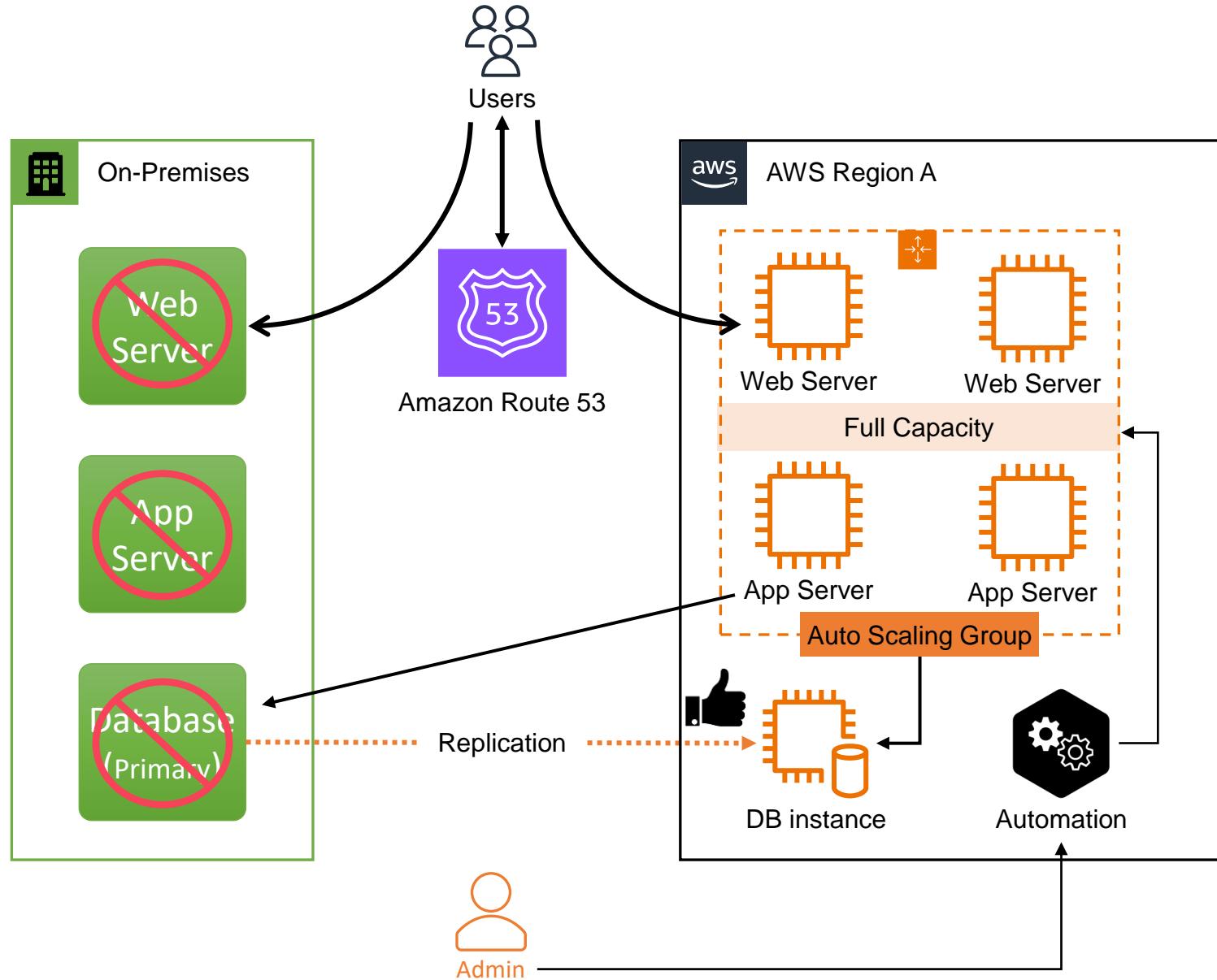
✖ Launch Servers from AMI

✓ Promote DB to primary

✖ Update DNS

✓ Auto Scale

# Multi Site Active-Active



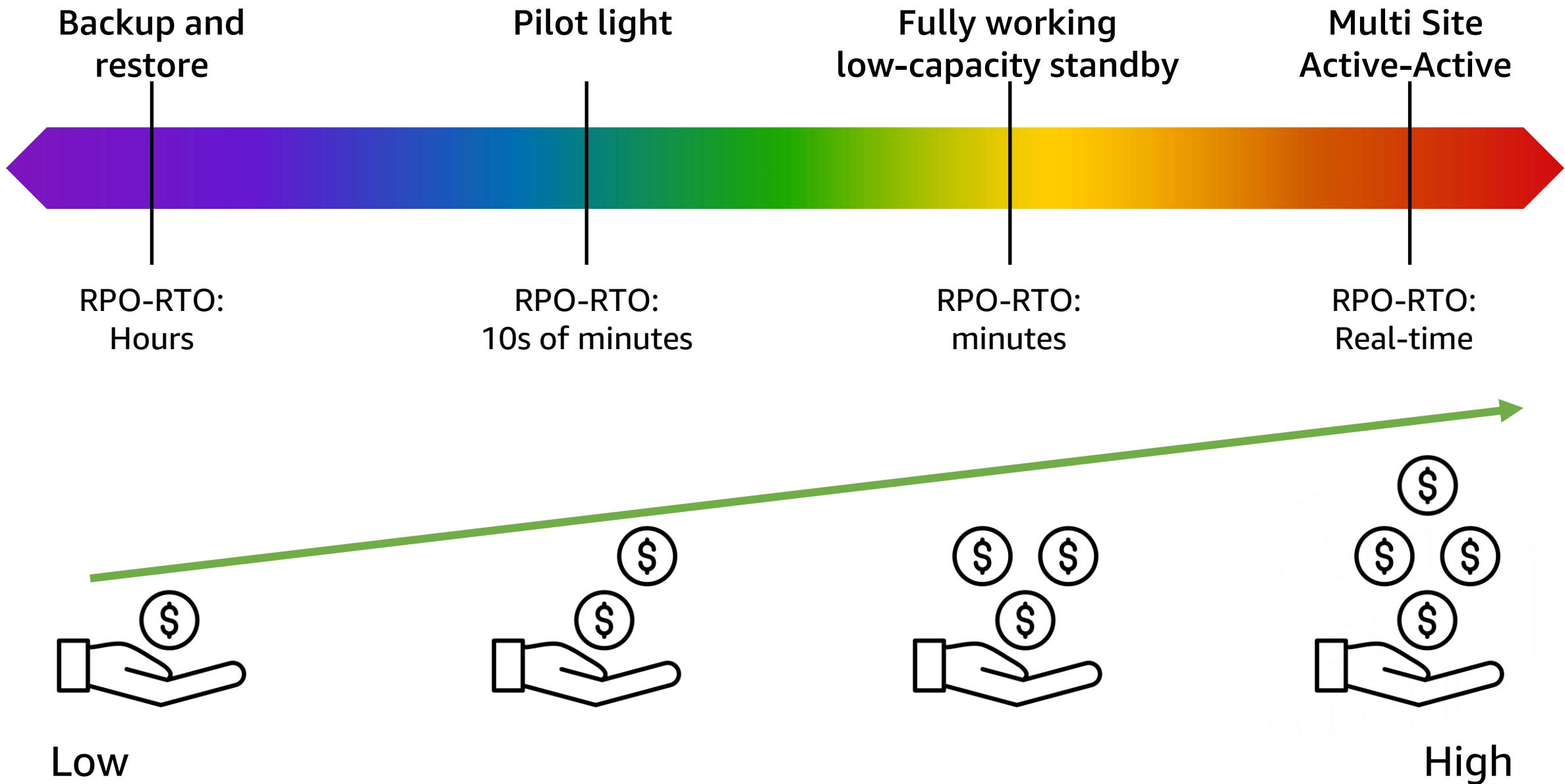
✖ Launch Servers from AMI

✓ Promote DB to primary

✖ Update DNS

✖ Auto Scale

# Recovery Strategies





5 Minutes  
Break





If you are back  
type in chat....

How you  
keep fit?

# Security Track

Week 6



# AWS Foundational and Layered Security Services



AWS Security Hub



AWS Organizations



AWS Transit Gateway



Amazon VPC



AWS IoT Device Defender



Amazon Cloud Directory



AWS Control Tower



AWS Trusted Advisor



Amazon VPC PrivateLink



AWS Direct Connect



Resource Access manager



AWS Directory Service



Amazon GuardDuty



Amazon Inspector



Amazon CloudWatch



AWS Step Functions



AWS OpsWorks



AWS CloudFormation

Identify



Protect

Detect

Respond

Recover



AWS Service Catalog



AWS Config



AWS Shield



IAM



AWS Secrets Manager



KMS



Amazon Cognito



AWS Well-Architected Tool



AWS Systems Manager



AWS WAF



AWS Firewall Manager



AWS Certificate Manager



AWS CloudHSM



AWS IAM Identity Center



Amazon Macie



AWS Security Hub

Investigate



Amazon Detective



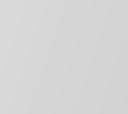
Amazon CloudWatch



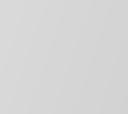
AWS CloudTrail



Amazon S3 Glacier



Snapshot



Archive



**Parna Mehta**  
AWS Technical Instructor



# A day in the life of an Amazonian



**Laura Smith**  
AWS Technical Account Manager

**Thank you for attending.  
See you next Saturday (19-Aug-2023)**



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