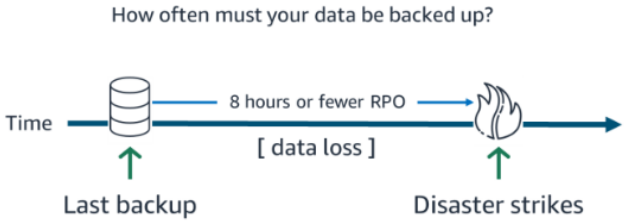
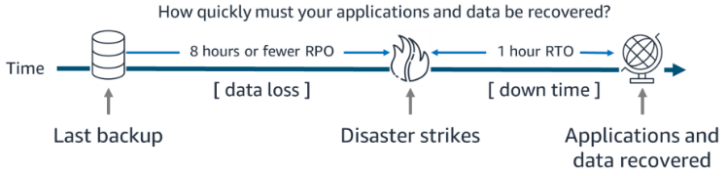
DISASTER PLANNING

Disaster planning strategies

RPO is the maximum acceptable amount of data loss, measured in time.



RTO is the maximum acceptable amount of time after a disaster strikes that a business process can remain out of commission.



A **Business Continuity Plan** (BCP) consists of the following:

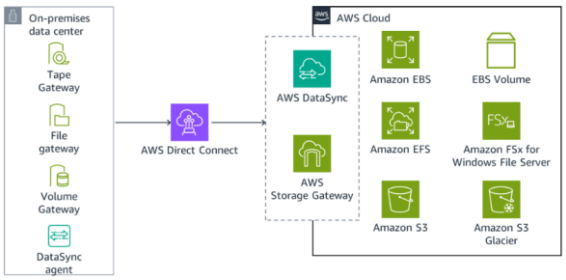
- Business impact analysis
- Risk assessment
- Disaster recovery plan
- Evaluated and determined RPO and RTO

AWS disaster recovery planning

To properly scope your disaster recovery planning, services can be categorized in five categories:

- Storage (S3)
- Compute (EC2)
- Database (RDS)
- Networking & Content Delivery (Amazon VPC)
- Deployment orchestration services within Management & Governance (CloudFormation)

A. Storage



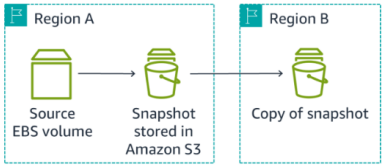
DataSync sync data between on premises storage and Amazon S3, Amazon EFS, or Amazon FSx. It supports scripted copy jobs and scheduled data transfers from on premises Network File System (NFS) and Server Message Block (SMB) storage. It can also optionally use AWS Direct Connect links.

1. Cross region replication (S3)

   S3 Standard, S3 Standard IA, and Amazon S3 Glacier automatically store objects across a minimum of three Availability Zones, each separated miles apart across a single Region.

   For critical applications and data scenarios, it is a best practice to configure S3 **Cross Region Replication** (CRR)

2. EBS volume snapshots

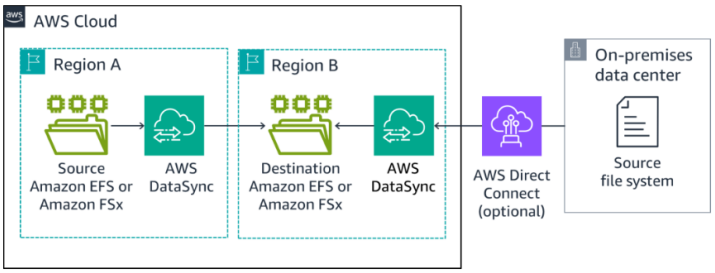


Snapshots are incremental backups (save only the blocks on the device that have changed since your most recent snapshot) -> minimizes the time to create the snapshot, and saves on storage costs by not duplicating data.

Amazon Data Lifecycle Manager to automate the creation, retention, and deletion of snapshots that back up your EBS volumes.

⚠ You cannot create snapshots of EC2 instance store volumes.
Create a new EBS volume and format it.
Mount the new volume to the EC2 instance
Copy the data on your instance store volume to the EBS volume.
⚠ *Instance store volumes provide temporary block level storage that works well for information that changes frequently (buffers, caches, and scratch data).*

3. File system replication



B.