AWS STORAGE GATEWAY

Storage Gateway : AWS Storage Gateway is a hybrid cloud storage service that connects your on-premises applications and infrastructure to scalable, cost-effective AWS cloud storage.

Types :

File Gateway :

File Gateway acts as a file server for your on-premises applications. It supports two primary types:

* + - Purpose: Stores files as objects in Amazon S3 using standard file protocols (SMB and NFS). It is ideal for data lakes, backups, and hybrid cloud workflows.
    - Access: Presents a file system mount point to clients. The most recently used data is cached locally for low-latency access.
    - Object storage: Files are stored as native Amazon S3 objects, allowing you to manage them with S3 features like lifecycle policies and cross-region replication.

Volume Gateway :

This type of gateway presents your on-premises applications with iSCSI block storage volumes. It operates in two different modes:

* Cached volumes:
  + How it works: Your primary data is stored in Amazon S3, while a local cache stores a copy of your most frequently accessed data.
  + Best for: Cost savings on primary storage and providing fast access to frequently used data.
* Stored volumes:
  + How it works: Your primary data is stored locally on-premises, and an asynchronous backup is created as a point-in-time snapshot in Amazon S3.
  + Best for: Applications that need low-latency access to their entire dataset. The snapshots can be used for disaster recovery or migration to Amazon EC2.

Tape Gateway :

Tape Gateway replaces physical tape libraries with a cloud-based Virtual Tape Library (VTL), which can reduce the cost and complexity of your backup strategy.

EXAMPLE SCENARIO :

AWS

VAULT

WEB SERVER2

WEB SERVER1

CLOUD

ONBOARDING

DATA

ON- PREMISES CLOUD

* Go to <https://aws.amazon.com>.
* Go to console home nd click on EC2.
* The page is open then click on launch instance.
* Enter web server name : Web server
* AMI : ubuntu
* Select instance type.
* Create new key pair name as Springkey2025julykey.
* Then select number of instances :2
* Then click on launch instance.
* Go to console page and search AWS backup plan in search bar .
* The page is open then click on create backup plan.
* Backup plan options : Build a new plan.
* Backup plan name :Backupplan101
* Rule name :rule101
* Then click on create new backup vault.

1. Vault name : Myvault101
2. Vault type : Backup Vault
3. Encryption key :default
4. Then click on create vault.

* Backup Frequency : Daily
* Start within : 8 hours
* Complete within : 7 days
* Then click on create plan.
* Next Resource Selection info page is open.
* Assinment name : Assign 101
* IAM role : Default role
* Resource selection : Include specific resource types
* Instance IDs : Select 2 instances
* Then click on assign resources.
* Next go to console page then search storage gateway in search bar.
* Then the page is open then click on create gateway.
* Gateway name : MyStoragegateway
* Gateway type :Amazon S3 Gateway
* Host platform : Amazon EC2
* Launch EC2 instance : Use default settings
* Key pair : Springkey2025julykey.
* Click on launch instance.
* Then click on next.
* Connection : Ip address
* IP address :34.224.21.223
* Service endpoint : publicly accessible
* Then click on next.
* Click activate gateway.
* After that click on configure.
* In mystoragegateway page click on file shares.
* Select Mystoragegateway.
* Share protocol : NFS
* Then create a S3 bucket.
* Then click on create file share.