**Swift** also known as the OpenStack Object Store project, is a cloud storage software that allows users to store and retrieve data. It's an S3 compatible object storage service that's built for scale and optimized for durability, availability, and concurrency across the entire data set.

**SWIFT - OPENSTACK**

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**ARCHITECTURE**

Storage Node

Storage Node

Storage Node

Zone 2

Storage Node

Storage Node

Storage Node

Zone 3

Storage Node

Storage Node

Storage Node

Zone 1

Storage Nodes

Authentication

Access Tier

Proxy Node

Proxy Node

Proxy Node

Load balacer

Border

INTERNET

**CLUSTER ARCHITECTURE**

* ****Proxy servers**** - Handle all of the incoming API requests.
* ****Rings**** - Map logical names of data to locations on particular disks.
* ****Zones**** - Isolate data from other zones. A failure in one zone does not impact the rest of the cluster as data replicates across zones.
* ****Accounts and containers**** - Each account and container are individual databases that are distributed across the cluster. An account database contains the list of containers in that account. A container database contains the list of objects in that container.
* ****Objects**** - The data itself.
* ****Partitions**** - A partition stores objects, account databases, and container databases and helps manage locations where data lives in the cluster.

Zone 4

Zone 3

Zone 2

Zone 1

***API CALLS***

Proxy Servers

Physical Storage

Physical Storage

Physical Storage

Node

Node

Node

The ring

Openstack storage realms

- Block Storage (cinder)

- Object Storage (swift)

- Image Storage (glance)

- Epermeral Storage (nova)