

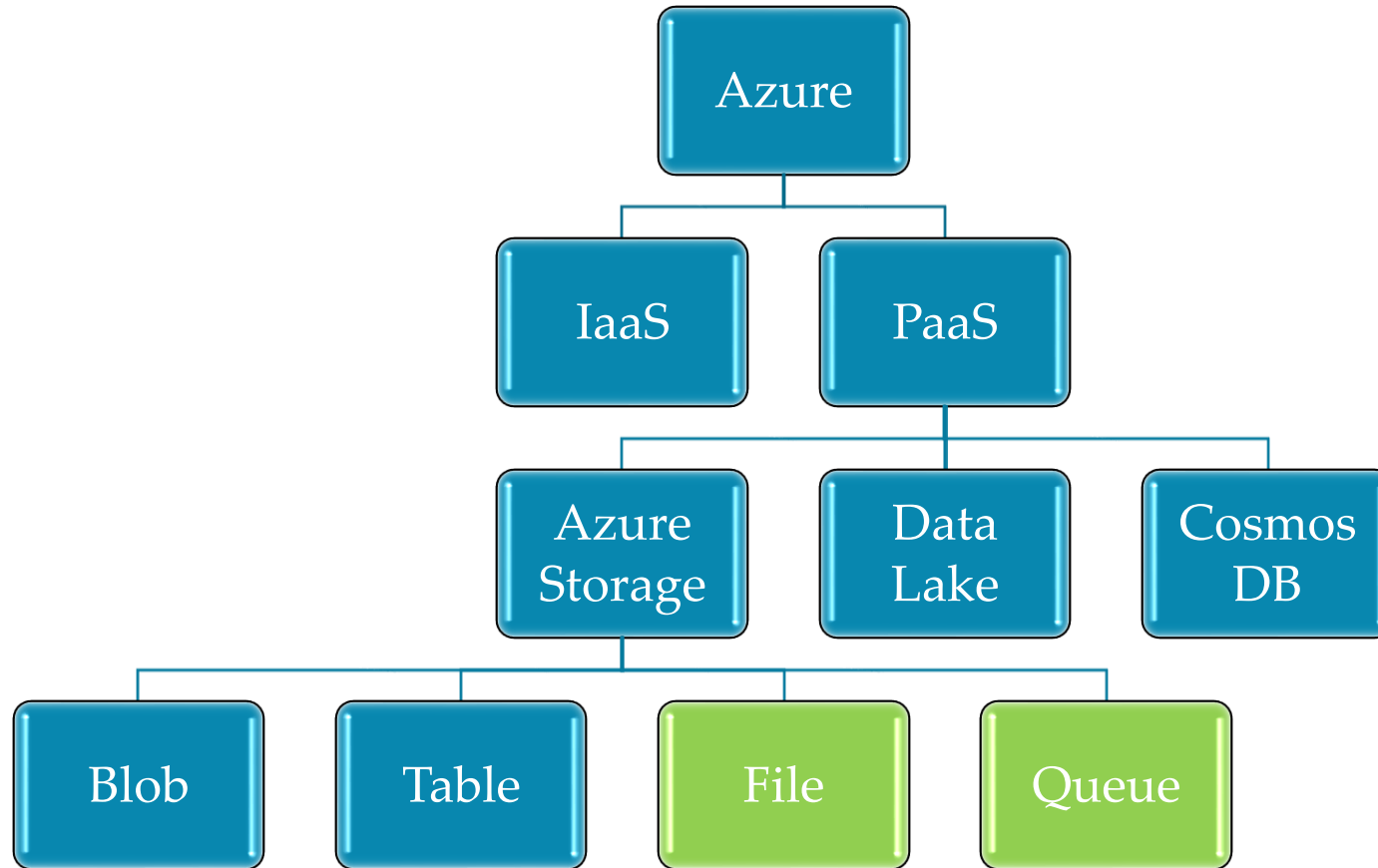
Azure NoSQL Offerings

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NoSQL Offerings by Microsoft Azure



Microsoft Azure Storage

Highly Available

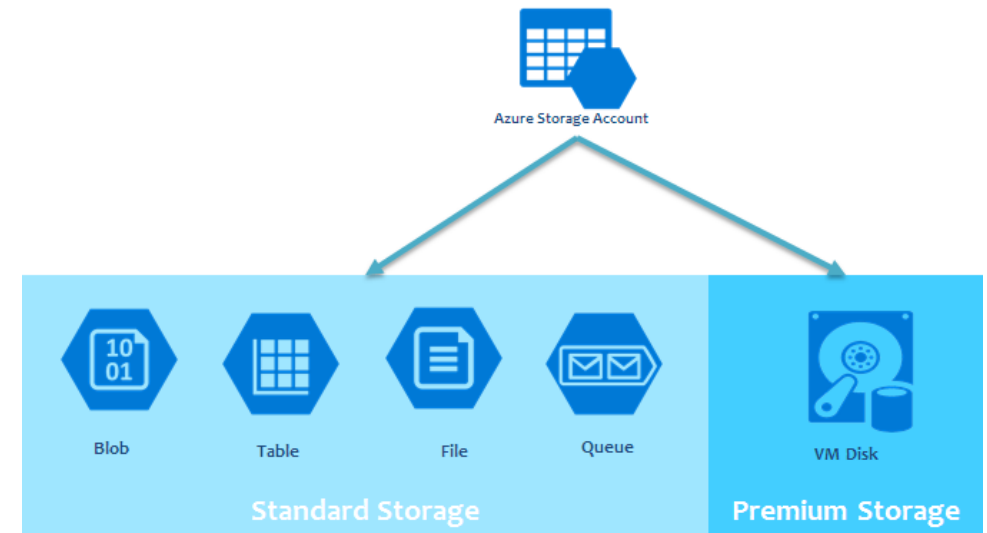
Durable

Secure

Scalable

Cost effective

Accessible



Programmatic Access to Storage Accounts

REST APIs

SDKs

PowerShell

Azure CLI

Azure Storage
Explorer

AzCopy

Azure Storage Account Type

General Purpose V2

Supported Services: Blob, File, Disk, Table and Queue Storage

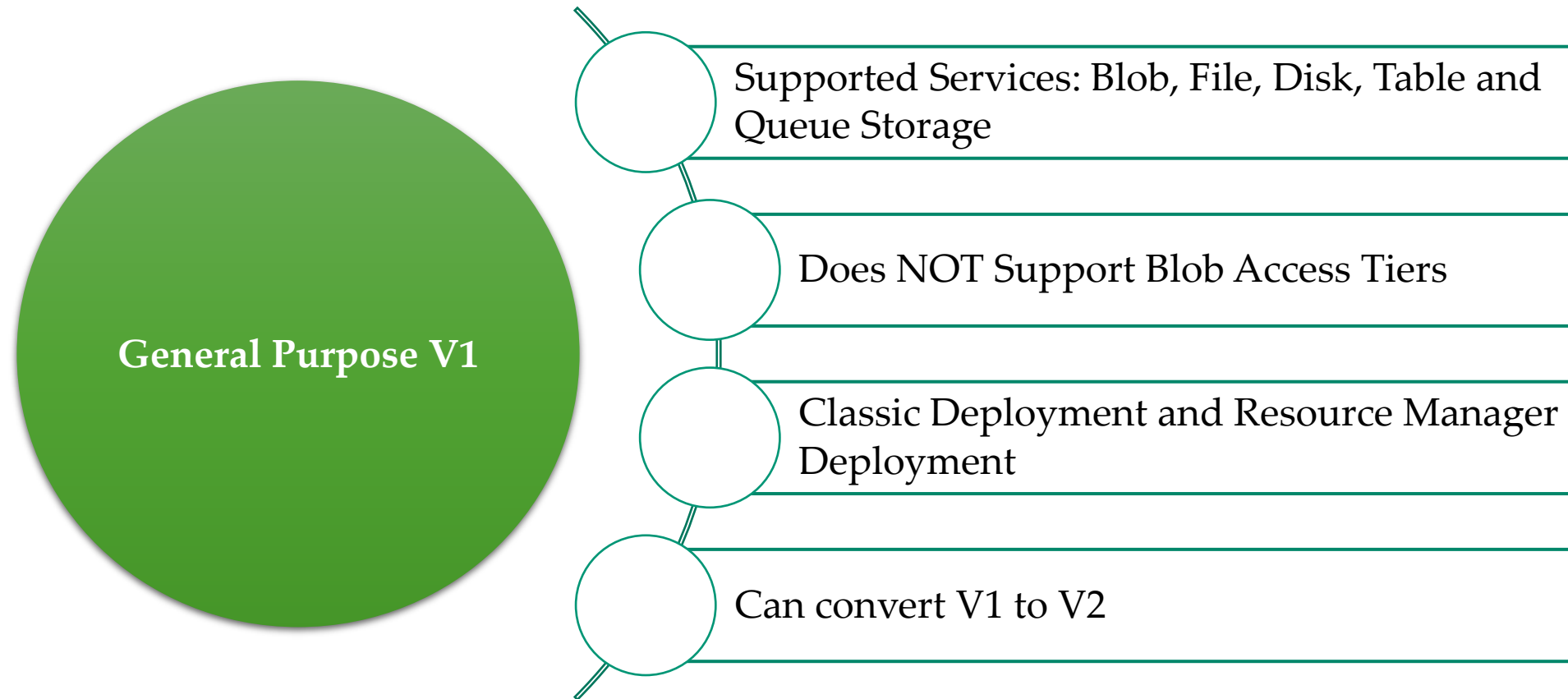
Supports Blob Access Tiers

Block Blobs, Append Blobs, Page Blobs

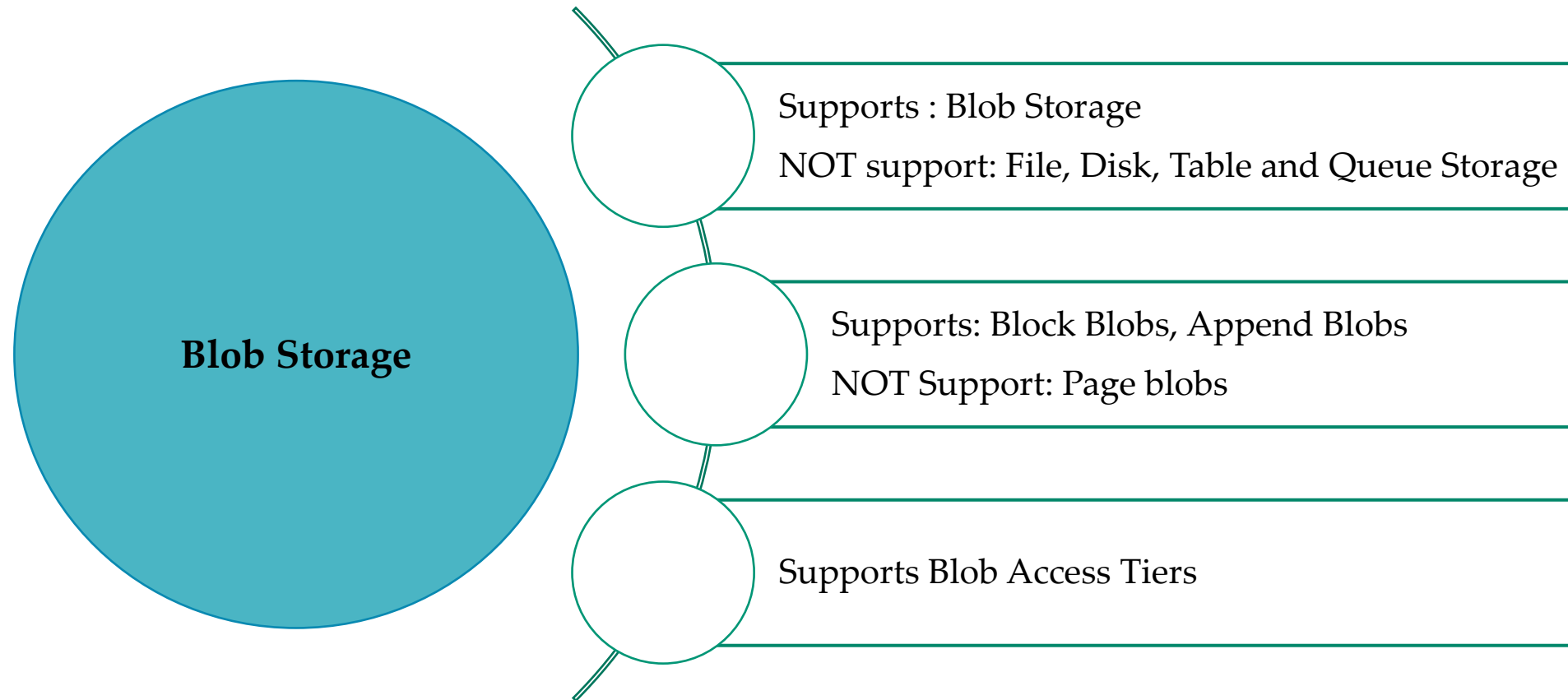
Hierarchical namespace support (Data Lake Gen2)

Premium tier available for Page Blobs only

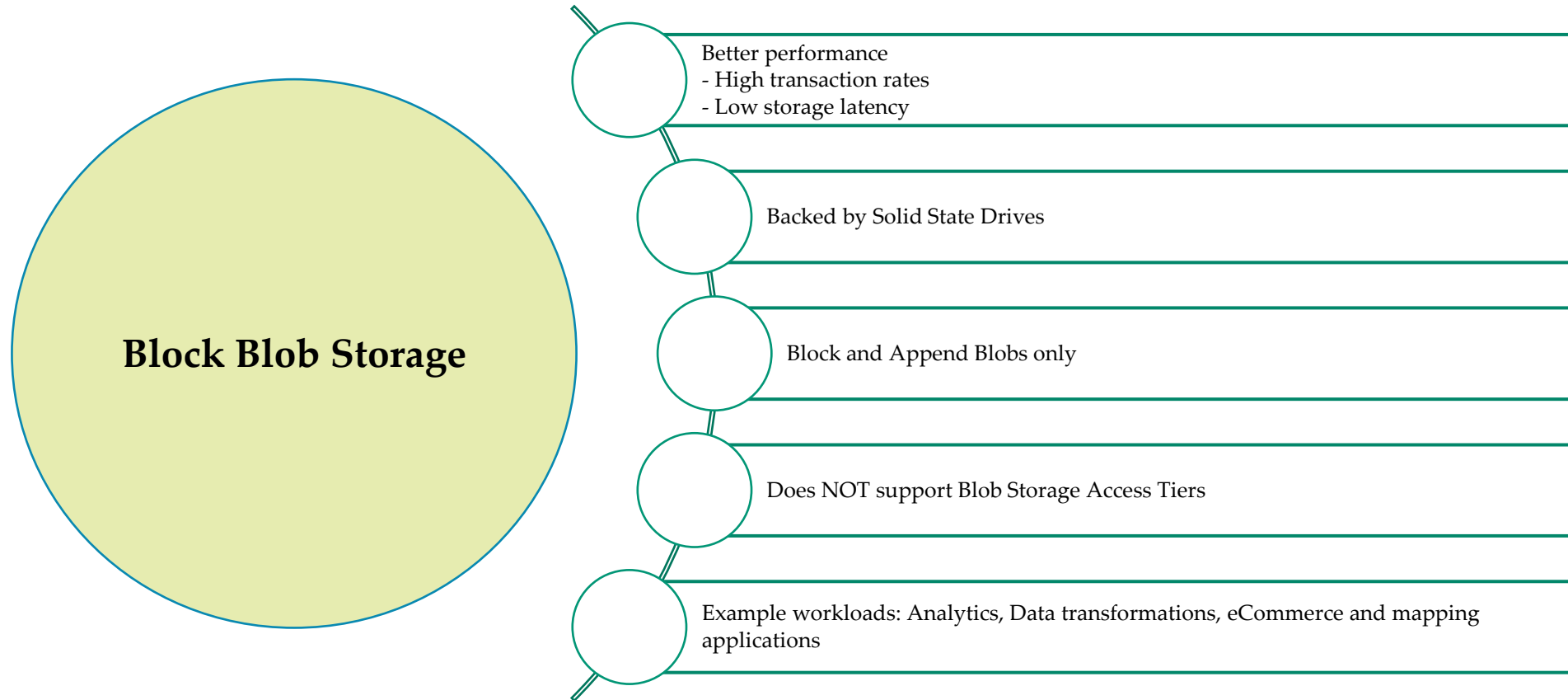
Azure Storage Account Type



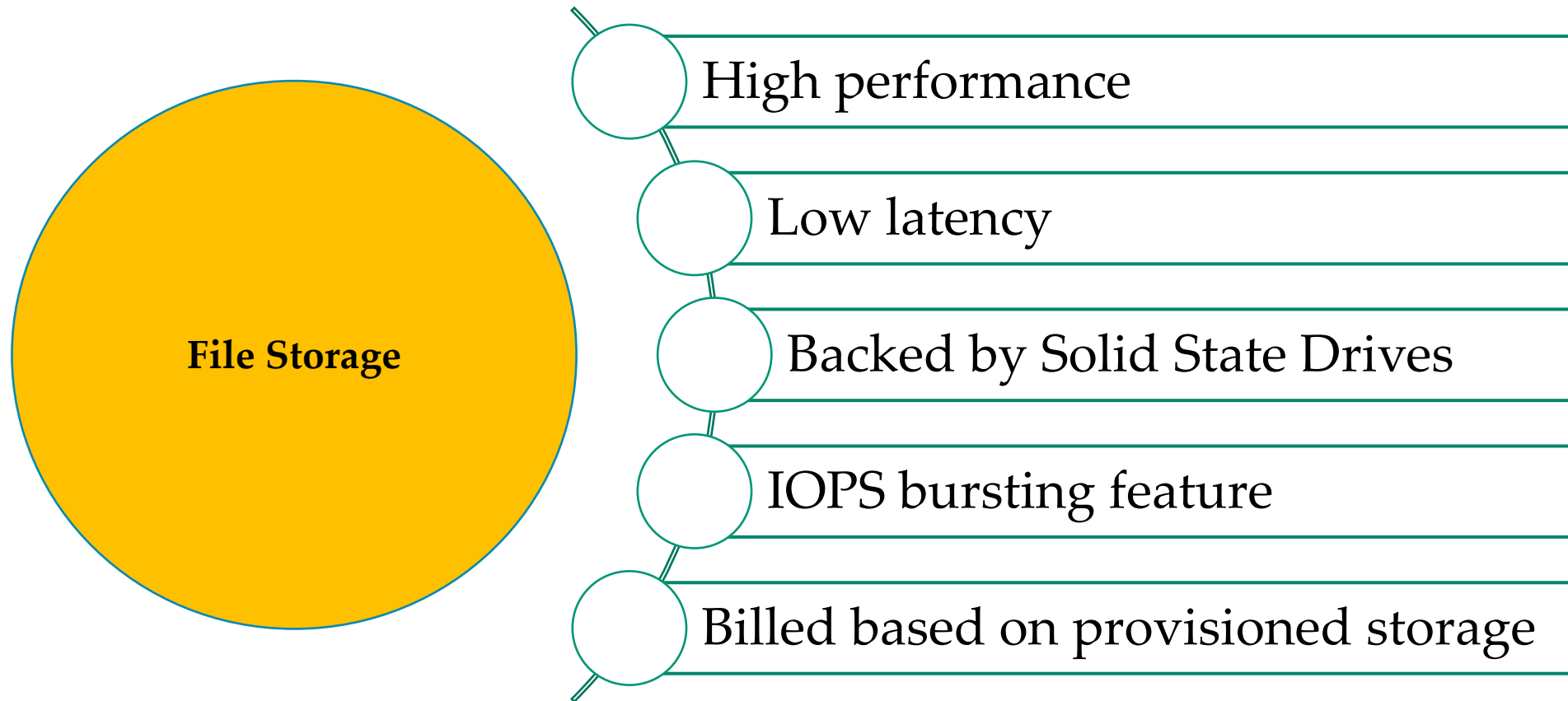
Azure Storage Account Type



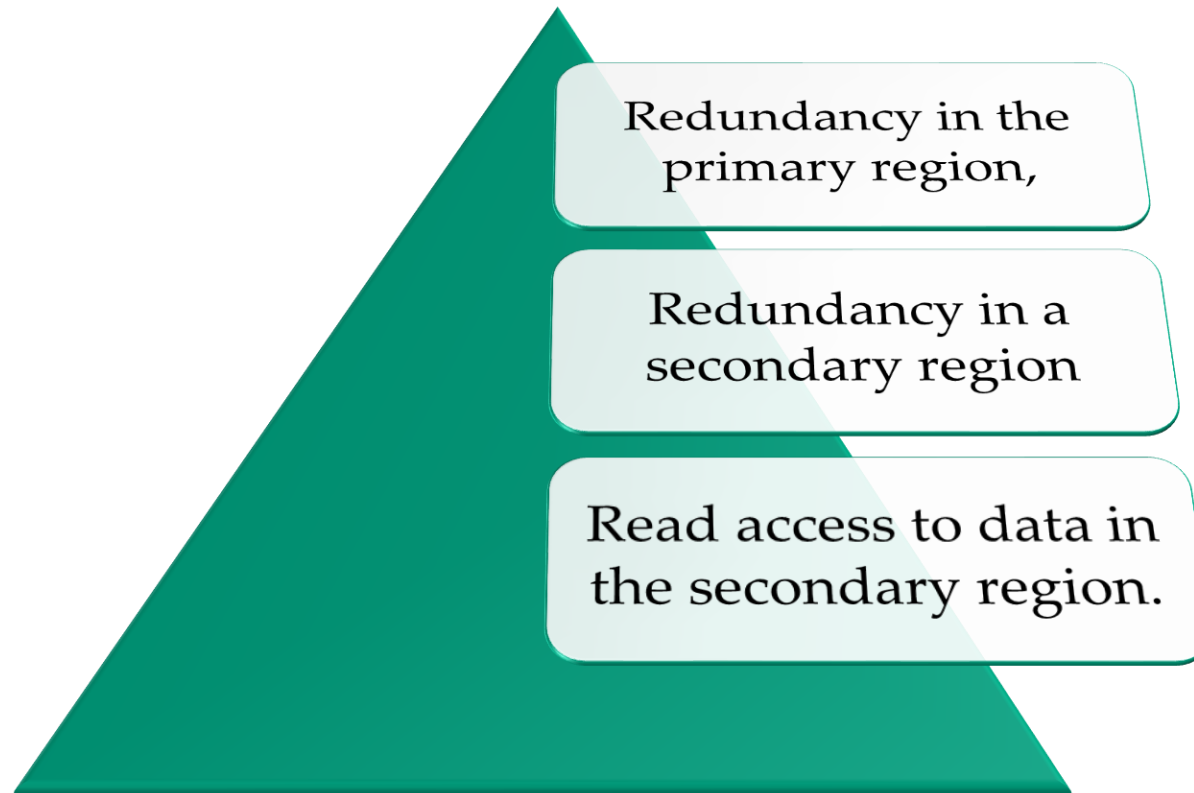
Azure Storage Account Type



Azure Storage Account Type

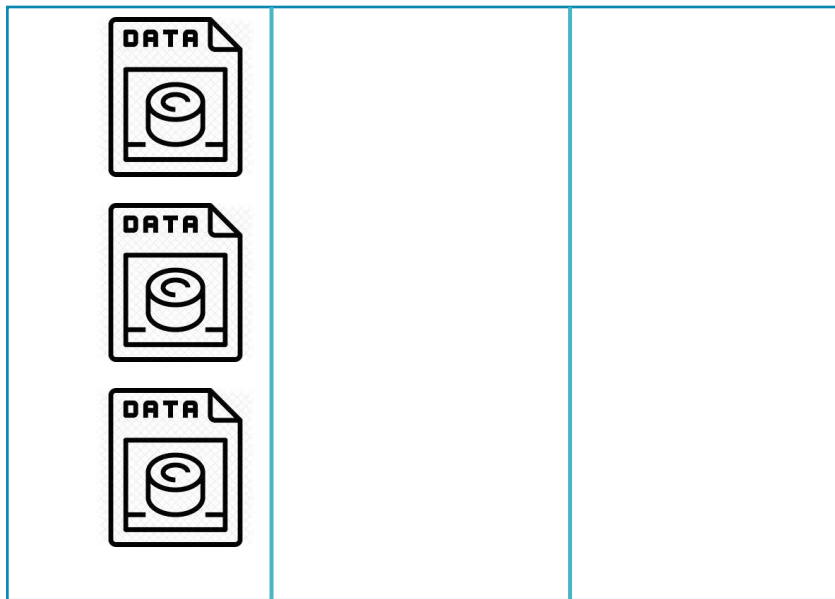


Three categories of replication options



Locally Redundant Storage (LRS)

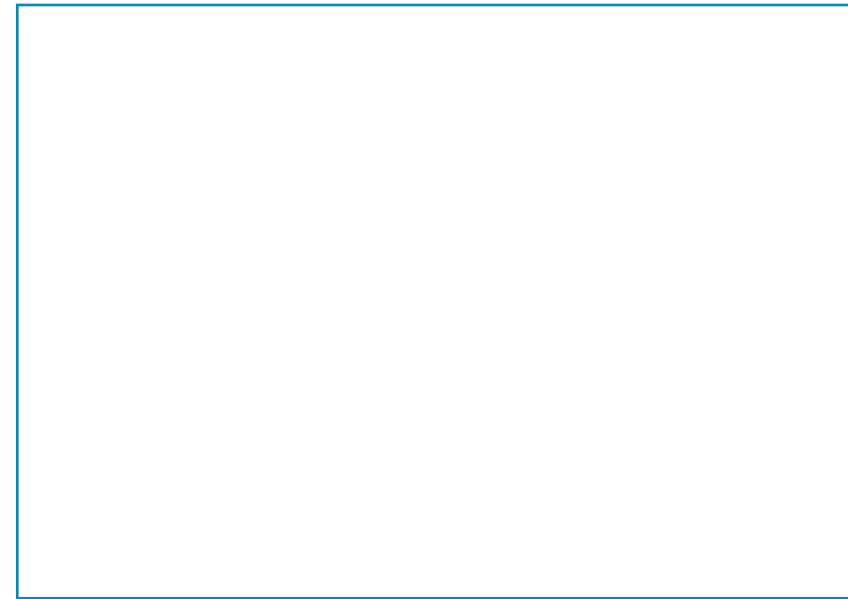
Region A



Storage Clusters

Each cluster is physically separate in what's called an availability zone, with its own separate utilities and networking.

Region B

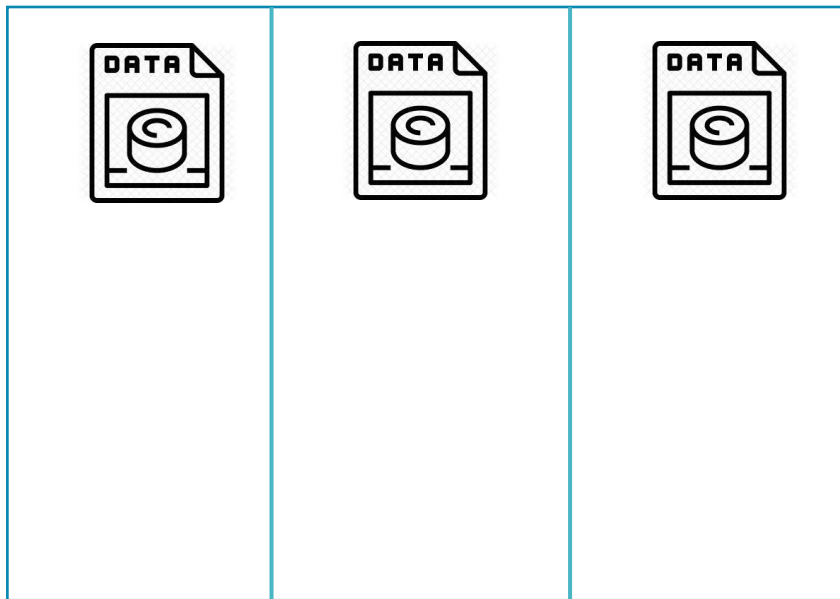


Region B

Hundreds of miles away from the primary region to prevent data loss in the event of a natural disaster.

Zone Redundant Storage (ZRS)

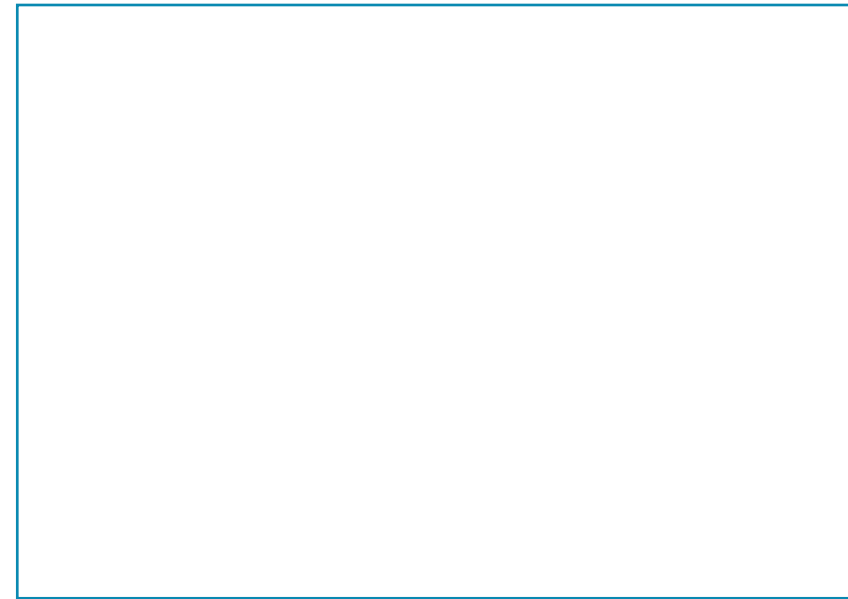
Region A



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Region B

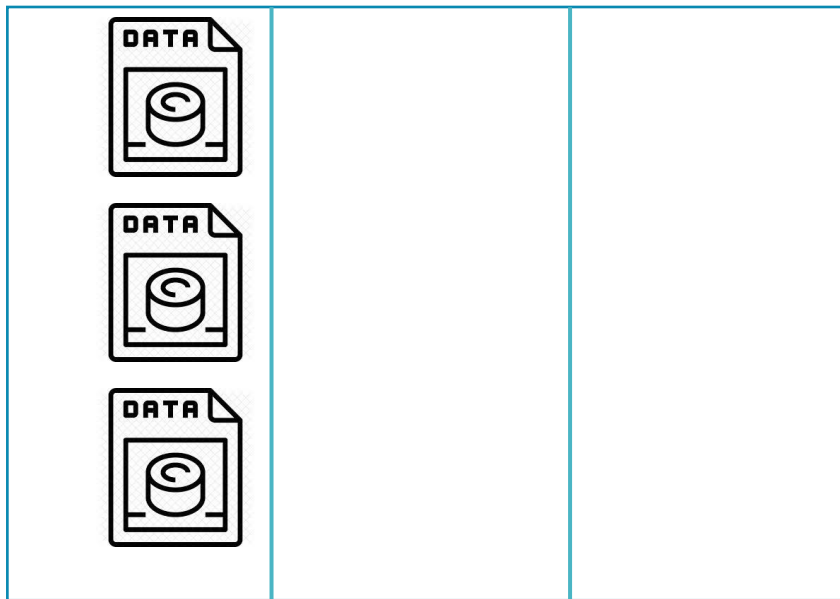


Region B

Hundreds of miles away from the primary region to prevent data loss in the event of a natural disaster.

Geo Redundant Storage (GRS)

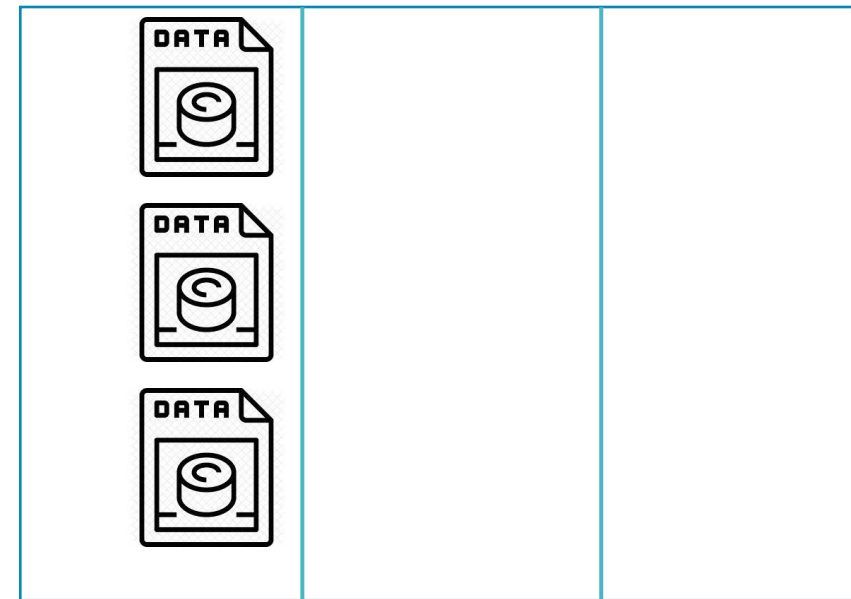
Region A



Storage Clusters

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Region B

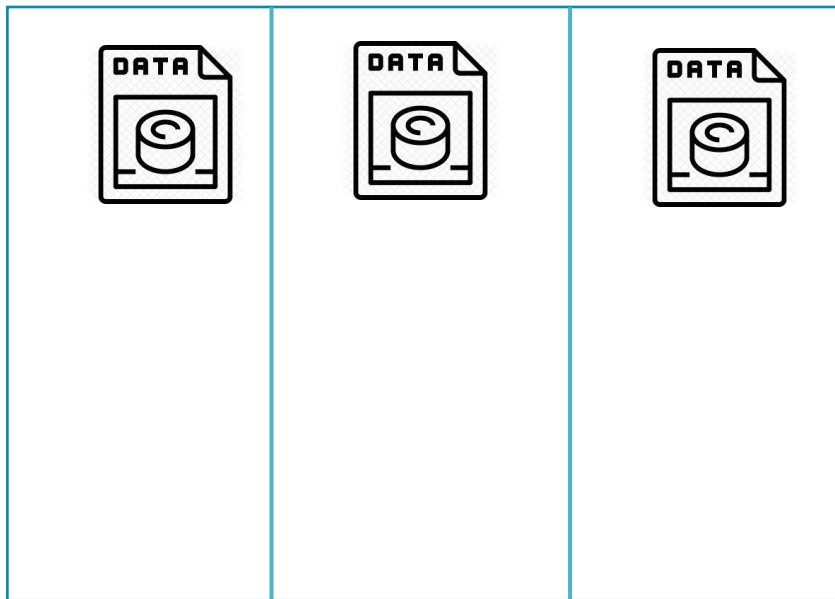


Region B

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Geo Zone Redundant Storage (GZRS)

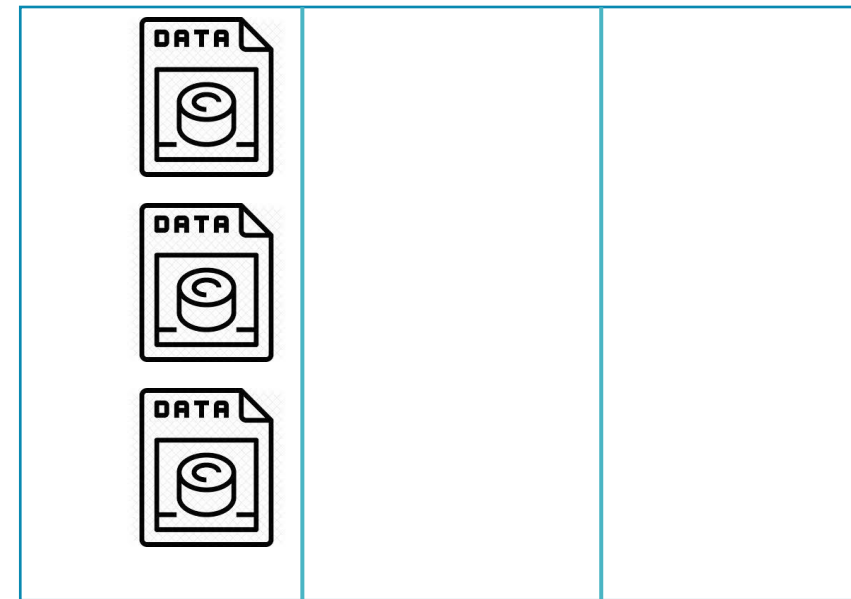
Region A



Storage Clusters

Each cluster is physically separate in what's called an availability zone, with its own separate utilities and networking.

Region B

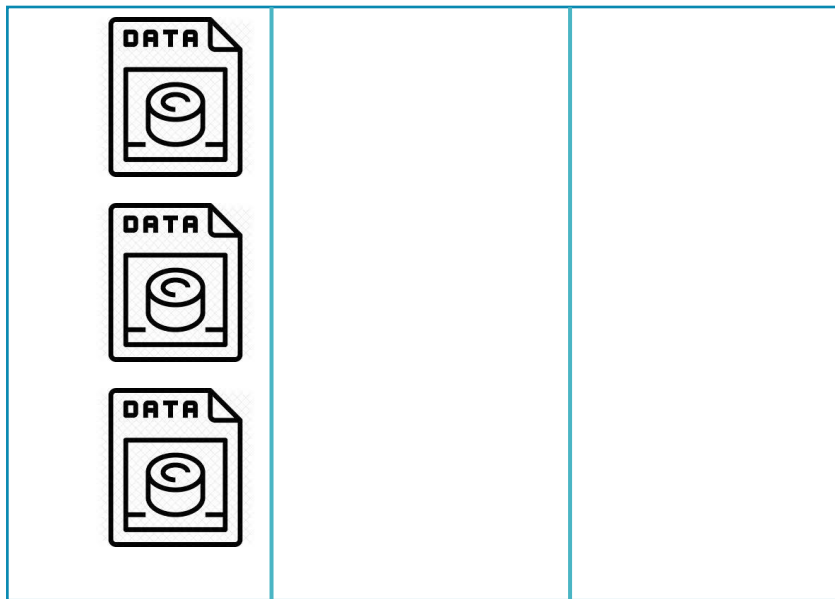


Region B

Hundreds of miles away from the primary region to prevent data loss in the event of a natural disaster.

Read access geo Redundant Storage (RA-GRS)

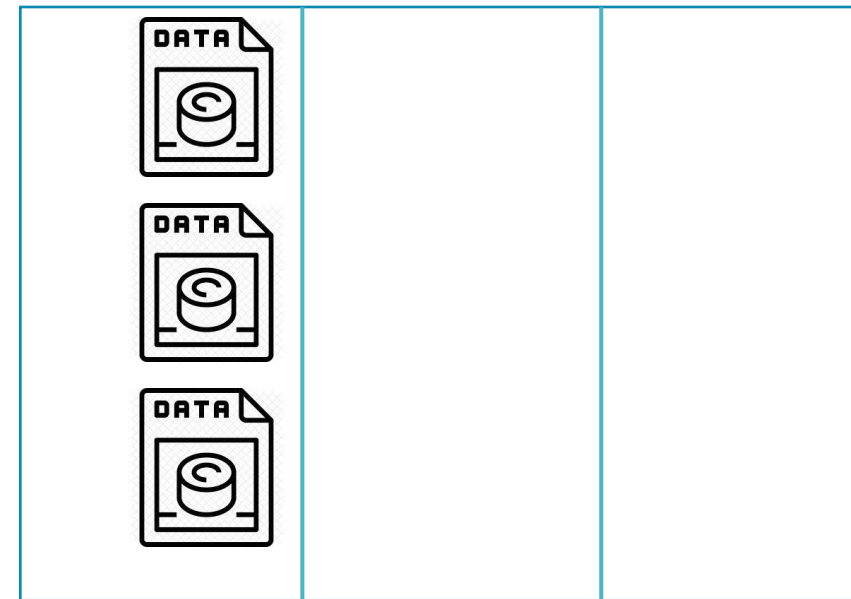
Region A



Storage Clusters

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Region B (Read)

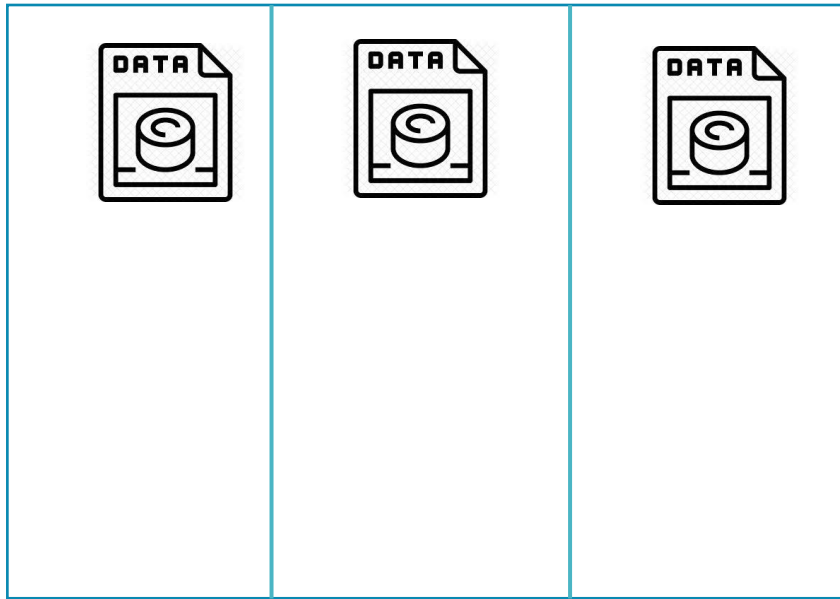


Region B

Hundreds of miles away from the primary region to prevent data loss in the event of a natural disaster.

Read access Geo Zone Redundant Storage (RA-GZRS)

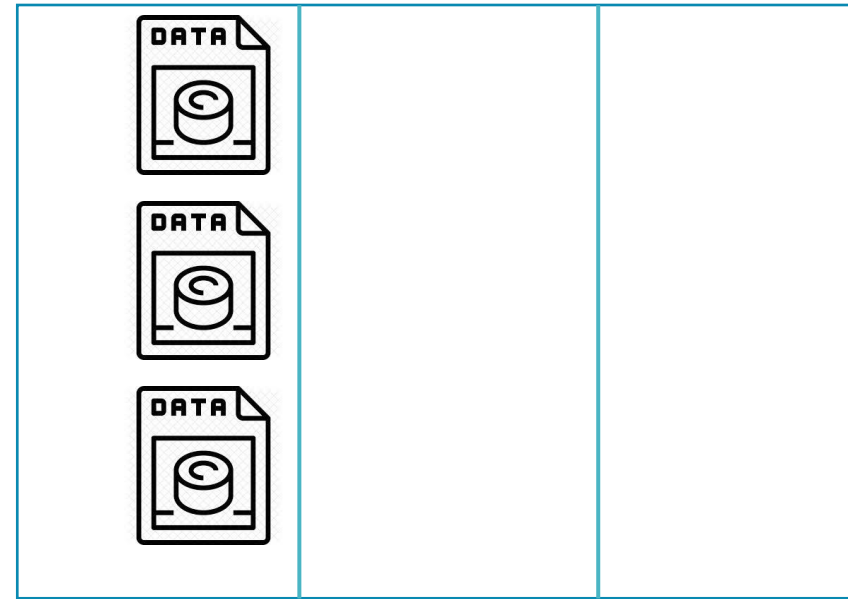
Region A



Storage Clusters

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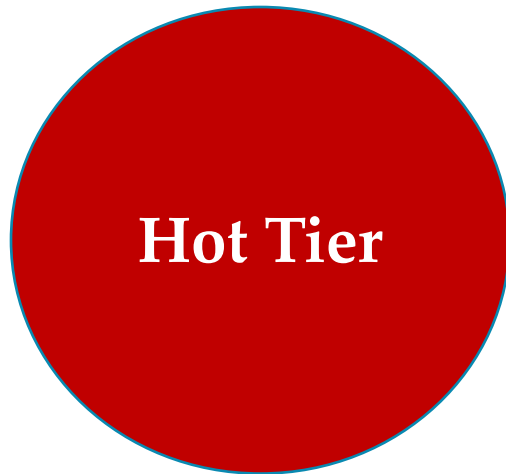
Region B (Read)



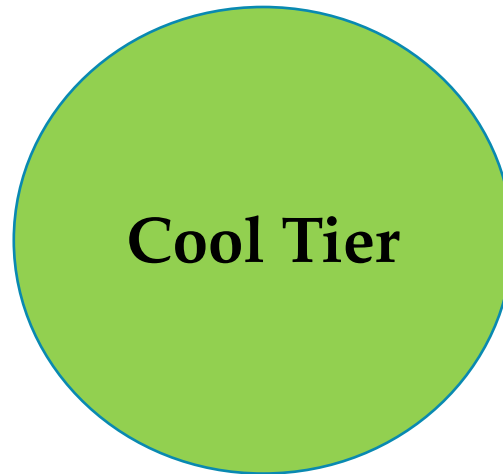
Region B

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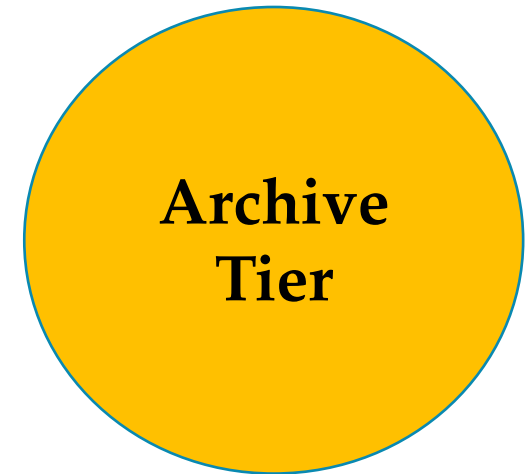
Blob Access Tiers



Highest storage cost
Lowest data access cost



Lowest storage cost
Higher data access cost



Lowest storage cost
Highest data retrieval cost
Data is offline

Azure Blob Storage Lifecycle Management

A large blue arrow pointing to the right, spanning the width of the diagram. The text "Azure Blob Storage Lifecycle Management" is written in white, sans-serif font inside the arrow.

Azure Blob Storage

- Designed for images and unstructured Data
 - Store Documents and access in browser
 - Database backup
 - Store audio and video files and stream them
 - Store data for analysis
 - Log files
- Scalability
- Cheapest way to store data in azure
- Simple design and easy to use
- HDFS and blob storage REST APIs

Microsoft Azure
Blob Storage



Blob Types

- **Block Blob**
 - Composed for Blocks
- **Append Blob**
 - Can only append blocks
 - Ideal for logs
- **Page Blob**
 - VM disks and databases
 - Frequent random read/write applications

Microsoft Azure
Blob Storage



Use cases

- Only basic storage is needed
- Data is unstructured
- Data that is older or not used as much
- Money is an issue

Microsoft Azure
Blob Storage



Advantages of Blob storage

- Extremely cheap
- Simple to setup
- No configuration
- Doesn't require powerful computing to manage

Microsoft Azure
Blob Storage



Limitations of Blob storage

- No Indexes
- No Search Tools
- Not optimized for performance
- You are responsible for replication and synchronization
- Requires external compute to process

Microsoft Azure
Blob Storage

