

AZURE STORAGE BASICS



WHAT IS AZURE STORAGE

MICROSOFT AZURE STORAGE IS A MICROSOFT-MANAGED CLOUD SERVICE THAT PROVIDES STORAGE THAT IS HIGHLY AVAILABLE, SECURE, DURABLE, SCALABLE, AND REDUNDANT. AZURE STORAGE CONSISTS OF BLOB STORAGE, FILE STORAGE, AND QUEUE STORAGE.



LET'S SEE EQUIVALENT STORAGE OPTIONS IN AWS

Azure Storage Services



Blob

Unstructured
object data
Object storage



Amazon
SimpleDB



Table

Structured
datasets
NoSQL key-
value store
Fast access



Amazon
SQS



Queue

Reliable
messaging
Workflow
processing



Amazon EFS



File

SMB file shares
REST API

LET'S SEE EQUIVALENT STORAGE OPTIONS IN AWS

Blob Types



Page

Optimized for random writes



Amazon S3



Block

Optimized for object streaming
Unstructured data



Append

Optimized for append operations
Logging

Storage Replication Considerations

LRS

- Most cost-effective option
- Premium storage uses this model exclusively

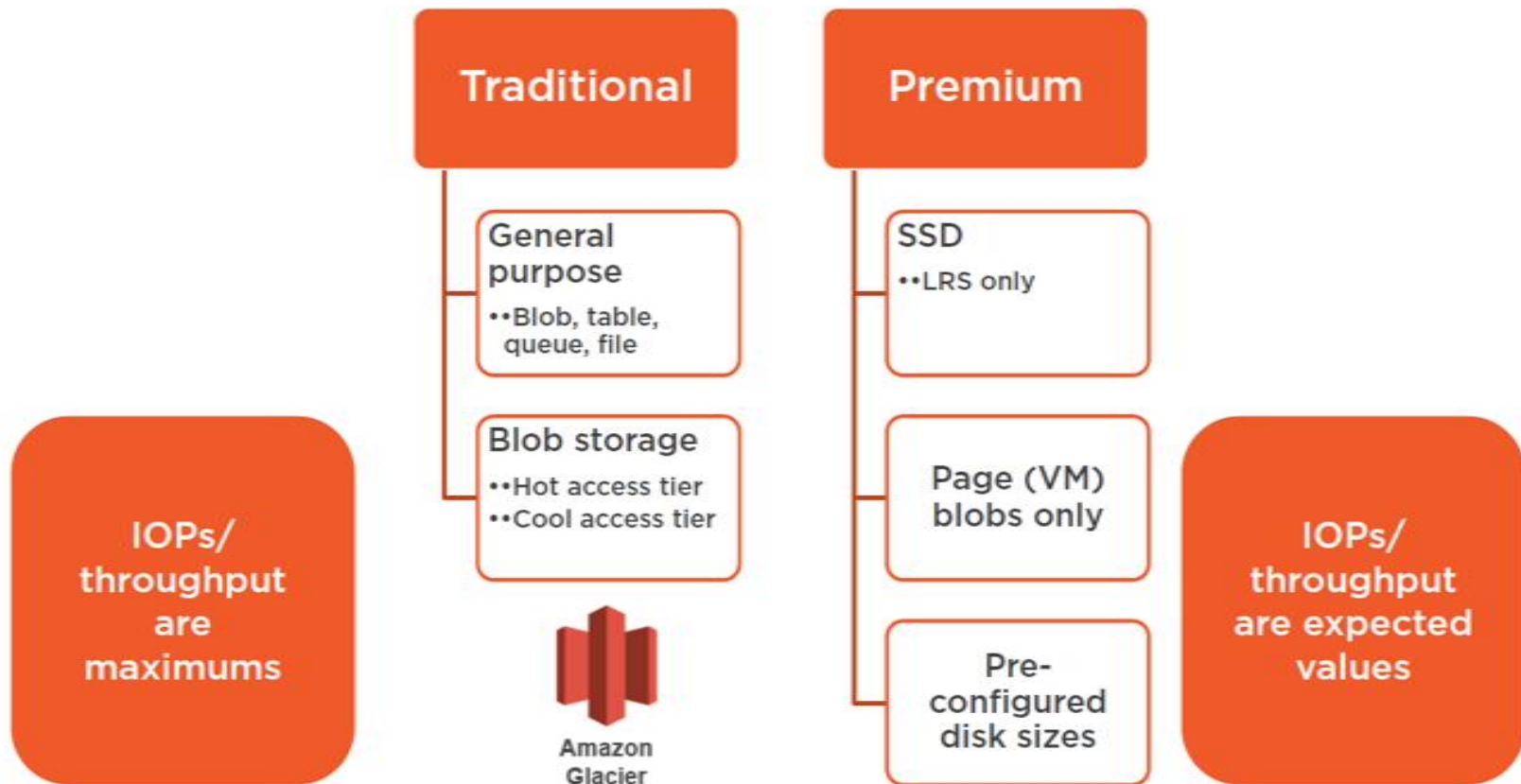
ZRS

- Block blobs only
- Must be specified during storage account creation

GRS, RA-GRS

- Microsoft determines the secondary region based on pre-determined pairings

Storage Account Types



Demo



Create storage account

Azure Storage Explorer

CREATING STORAGE ACCOUNT AND USING STORAGE EXPLORER

<https://docs.microsoft.com/en-us/azure/storage/common/storage-quickstart-create-account?toc=%2Fazure%2Fstorage%2Fblobs%2Ftoc.json&tabs=portal>

<https://docs.microsoft.com/en-us/azure/vs-azure-tools-storage-manage-with-storage-explorer>

Durability

Long-term data protection in which stored data does not suffer degradation or loss



Availability

System uptime; the storage system is operational and can deliver data upon request



Scalability

The ability for storage to accommodate growth

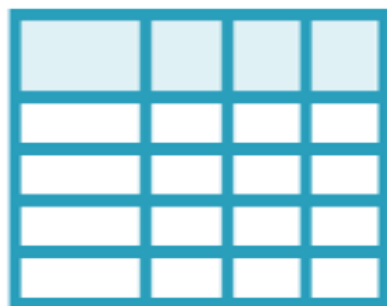


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File

Legacy support
SMB file shares
REST API

Storage Replication Options

Locally redundant storage (LRS)

- 3 copies of your data within the same datacenter (region)
- Protects data against hardware failure

Zone-redundant storage (ZRS)

- 3 copies across 2 to 3 facilities, sometimes across 2 regions
- Protects data within a single region

Geo-redundant storage (GRS)

- 3 copies in primary region, 3 copies in secondary region
- Protects data across regions

Read-access geo-redundant storage (RA-GRS)

- Read-only access to the secondary region data

Azure Storage Pricing - Factors



Region

Account type

Storage capacity

Replication
scheme

Storage
transactions

Data egress