Microsoft Azure Administrator: Manage Storage Accounts

CREATING AND CONFIGURING AZURE STORAGE ACCOUNTS

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Course Coverage of Certification Objectives

Manage Storage Accounts

- Create and configure storage accounts
- Implement Azure storage replication
- Generate shared access signature
- Manage access keys
- Configure Azure AD Authentication for a storage account
- Configure network access to storage accounts

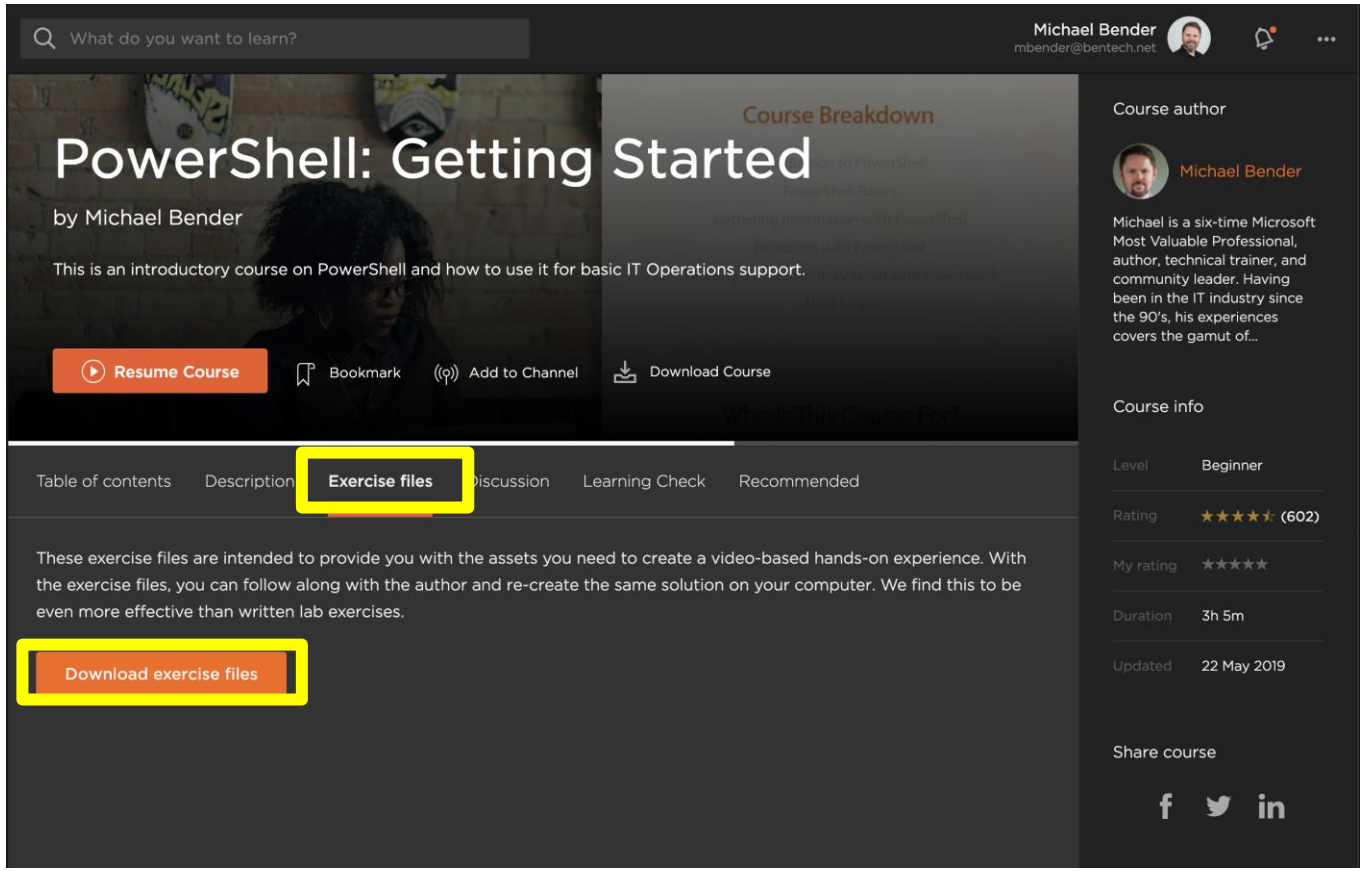
Full certification exam skills outline available at http://bit.ly/az104ms

Exercise Files

Slides

Code

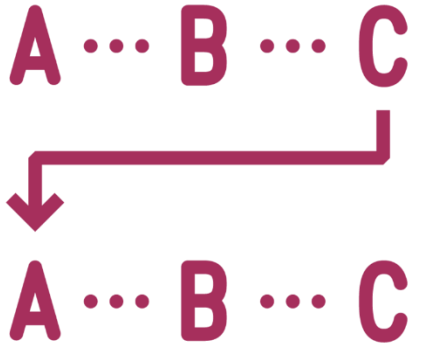
Links to Resources



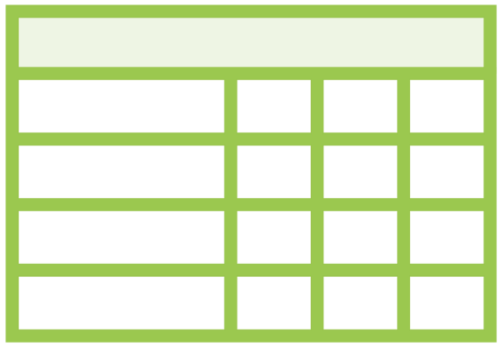
Azure Storage Data Objects

Blob

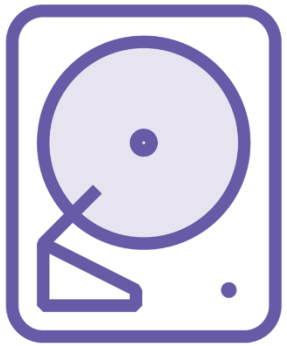
File



Queue



Table



Disk

https://bit.ly/2Gphepn

Azure Storage Accounts

Contains all Azure storage objects

Unique namespace access to storage resources

- https://stblobstorage001.blob.core.windows.net/demo/az-104-outline.pdf

Highly Available

Secure and Scalable

Type of Storage Accounts

General-purpose v2

General-purpose v1

BlockBlobStorage

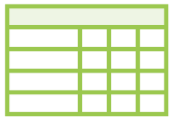
FileStorage

BlobStorage

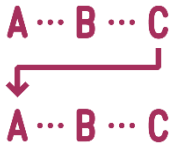
https://bit.ly/2EKQtLQ

Storage Account Endpoints

Azure Blob - https://saprodstorage001.blob.core.windows.net

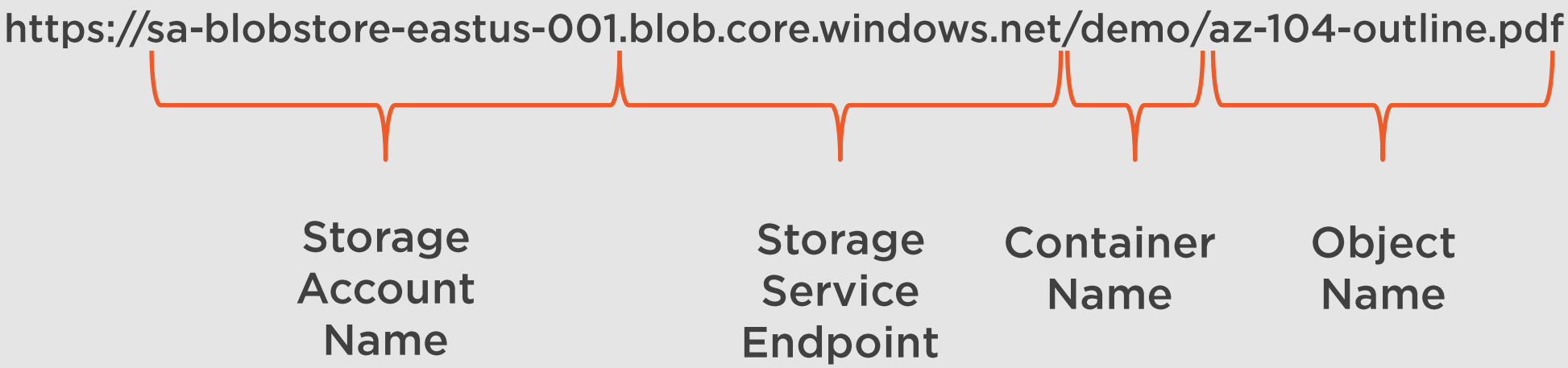


Azure Table - https://saprodstorage001.table.core.windows.net



Azure Queue - https://saprodstorage001.queue.core.windows.net

Azure File - https://saprodstorage001.file.core.windows.net



Azure Storage Endpoint for BlobStorage

Storage Account Performance and Access Tiers

Performance Tiers

Standard

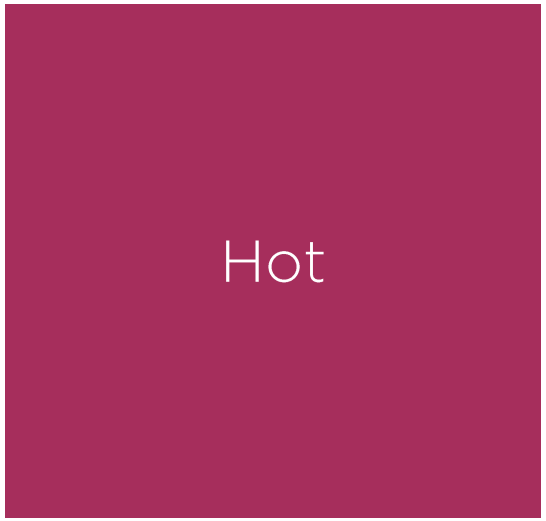
- All storage account types
- Backup and disaster recovery data
- Media

Premium

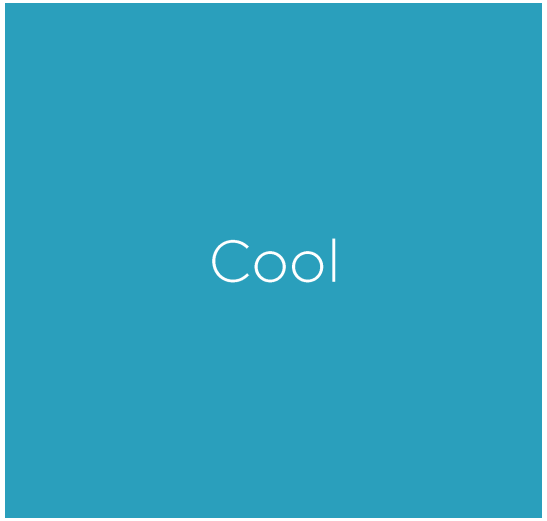
- Only available for BlockBlob Storage
- Interactive
- Analytics
- AI/ML

No conversion after Deployment!

Access Tiers



Highest storage cost
Lower access cost



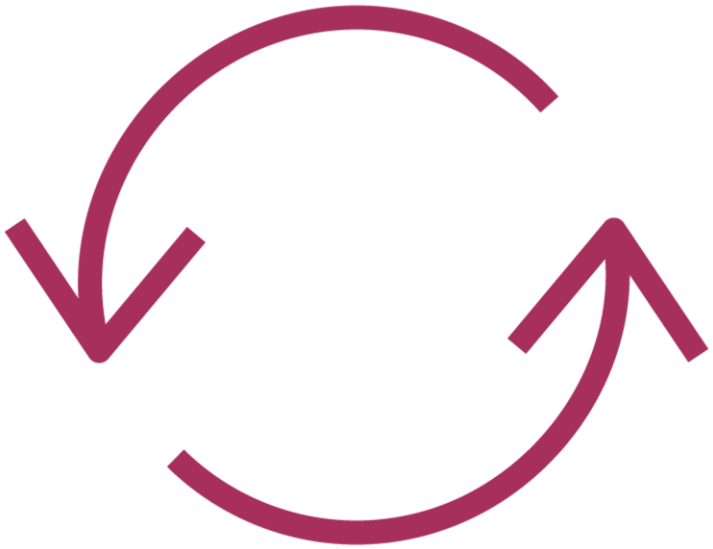
Lower storage cost
Higher access cost
30 day minimum

Lowest storage cost
Highest access cost
180 day minumum

Replication Options

- Local-Redundant storage (LRS)
- Zone-Redundant storage (ZRS)
- Geo-Redundant storage (GRS)
- Geo-Zone-Redundant Storage (GZRS)
- Read-Access Geo-Redundant Storage (RA-GRS)
- Read-Access Geo-Zone-Redundant Storage (RA-GZRS)

Replication



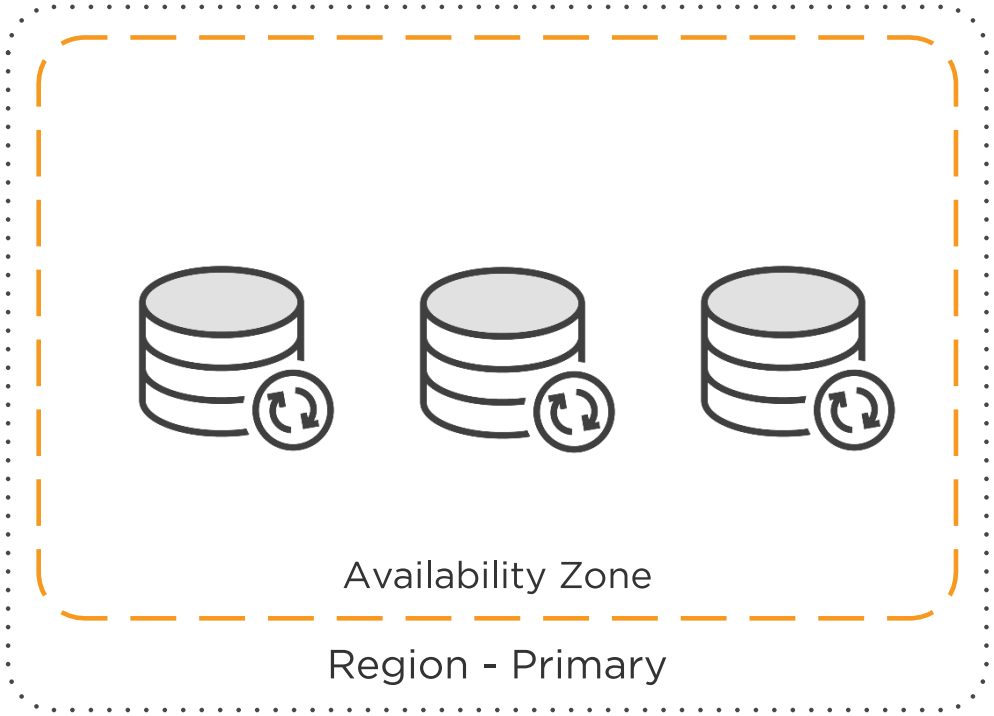
What if an Azure datacenter fails?

What if an Azure region fails?

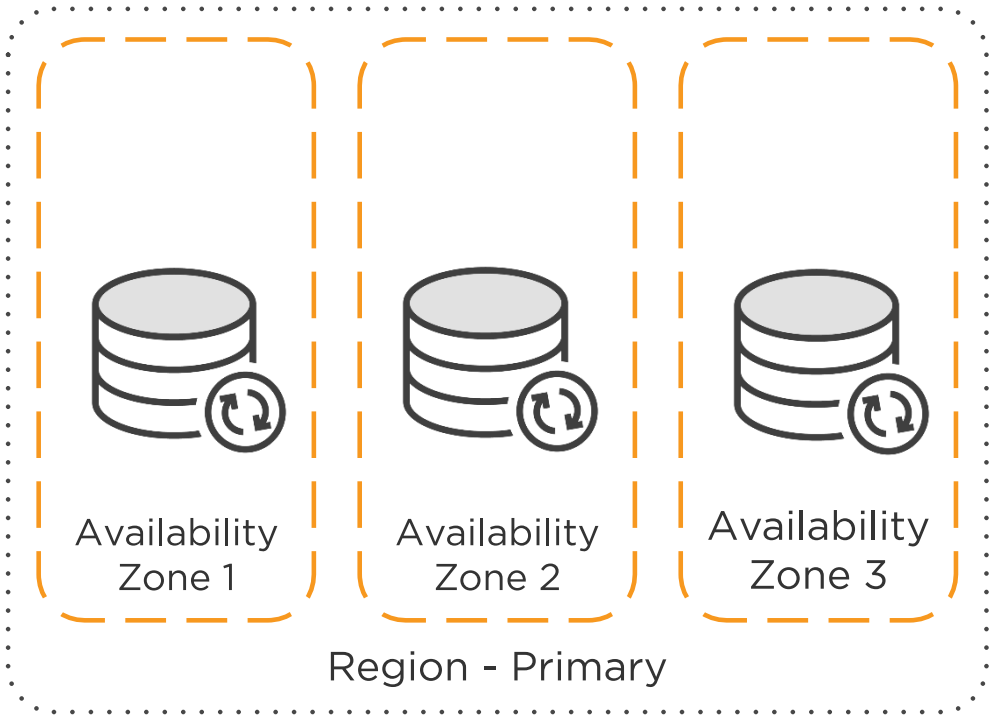
Do you need Read access?

Redundancy in a Primary Region

Local-Redundant Storage (LRS)

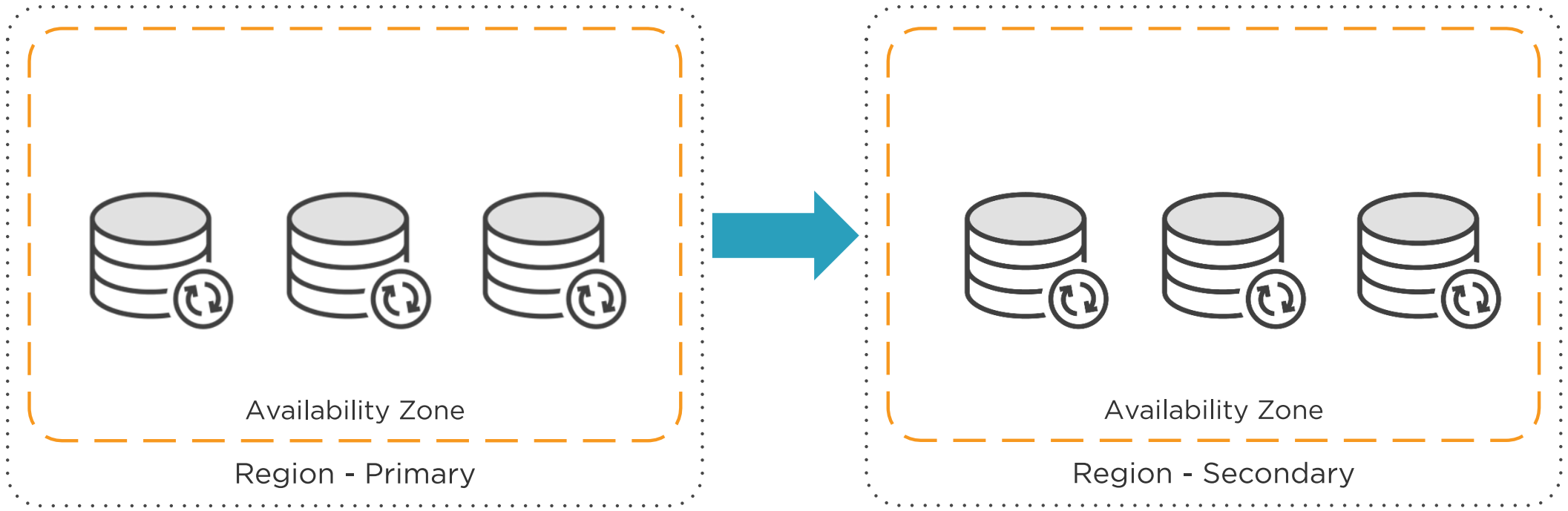


Zone-Redundant storage (ZRS)

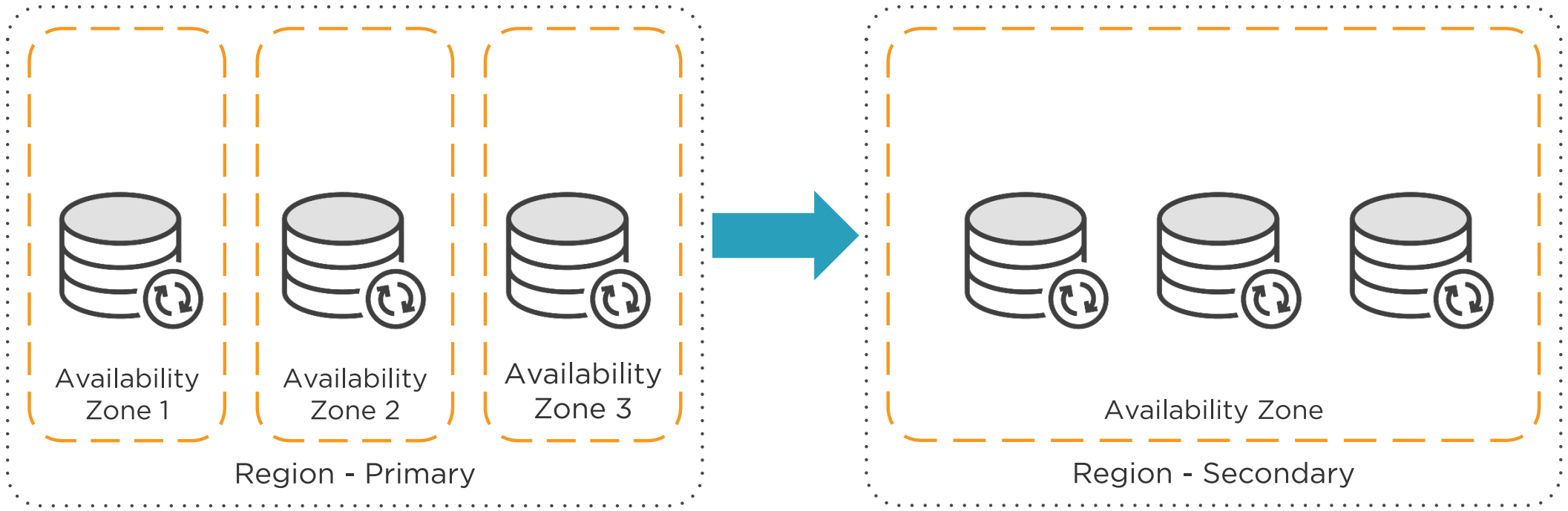


Redundancy in a Secondary Region

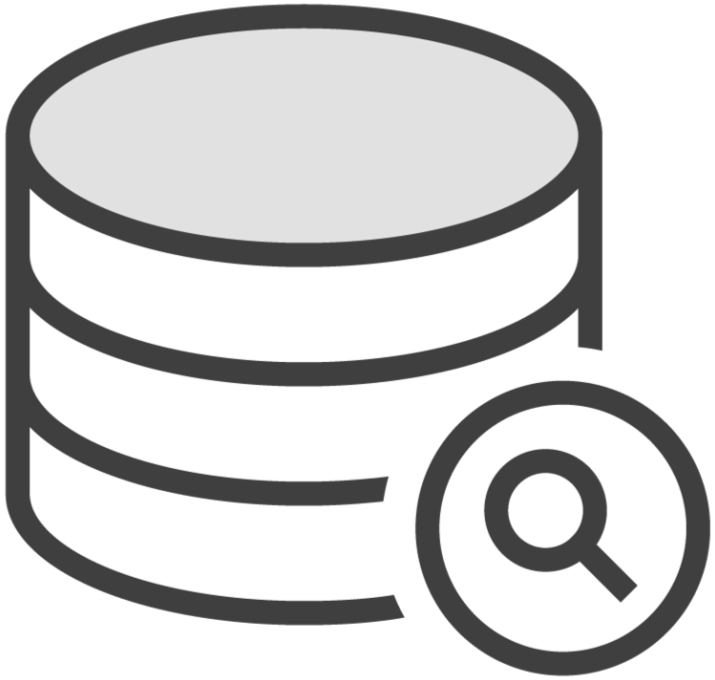
Geo-Redundant Storage (GRS)



Geo-Zone-Redundant Storage (GZRS)



Read Access in a Secondary Region



Read-Only without failover

Applications can use secondary storage

Available in Geo-redundant storage

- Read-Access Geo-Redundant Storage (RA-GRS)
- Read-Access Geo-Zone-Redundant Storage (RA-GZRS)

Append *-secondary* to storage account name

https://<StorageAcctName>-secondary.blob.core.windows.net

Azure Storage Durability and Availability Scenarios

Outage scenario	LRS	ZRS	GRS/ RA-GRS	GZRS/ RA-GZRS
Data center node becomes unavailable	Yes	Yes	Yes	Yes
Entire datacenter becomes unavailable	No	Yes	Yes	Yes
Primary region-wide outage	No	No	Yes	Yes
Read access in secondary region when primary is unavailable	No	No	Yes (with RA-GRS)	Yes (with RA-GZRS)

Referenced from Microsoft at https://bit.ly/2FeFav5

Demo

Creating a Storage Accounts

Demo

Configuring a Storage Account

Storage Account Supported Capabilities

	Data Objects	Performance Tiers	Access Tiers	Replication Options
General Purpose v2	Blob, File, Table, Disk, Queue, & Data Lake Gen2	Standard Premium (Disk Only)	Hot, Cool, Archive	LRS, GRS, RA-GRS, ZRS, GZRS (preview), RA-GZRS (preview)
General Purpose v1	Blob, File, Queue, Table, and Disk	Standard Premium (Disk Only)	N/A	LRS, GRS, RA-GRS
BlockBlobStorage	Blob (block blobs and append blobs)	Premium	N/A	LRS, ZRS
FileStorage	File Only	Premium	N/A	LRS, ZRS
BlobStorage	Blob (block blobs and append blobs)	Standard	Hot, Cool, Archive	LRS, GRS, RA-GRS

Referenced from Microsoft at http://bit.ly/azstraccts

Next Up

Configuring Access Control to Azure Storage Accounts