Microsoft Azure Developer: Develop Solutions with Blob Storage

UNDERSTANDING AZURE BLOB STORAGE

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Learn for the exam
AZ-204: Developing Solutions for Microsoft Azure

AZ-204 Exam Objectives

Develop solutions that use Blob Storage

Interact with data using the appropriate SDK

Set and retrieve properties and metadata

Implement data archiving and retention

Implement hot, cool, and archive storage

Move items in Blob Storage between storage accounts or containers

Course Structure

Understanding Azure Blob Storage

Interacting with Data Using the Azure SDK for .NET
Interact with data using the appropriate SDK

Setting and Retrieving Properties and Metadata
Set and retrieve properties and metadata

Implementing Data Archiving and Retention
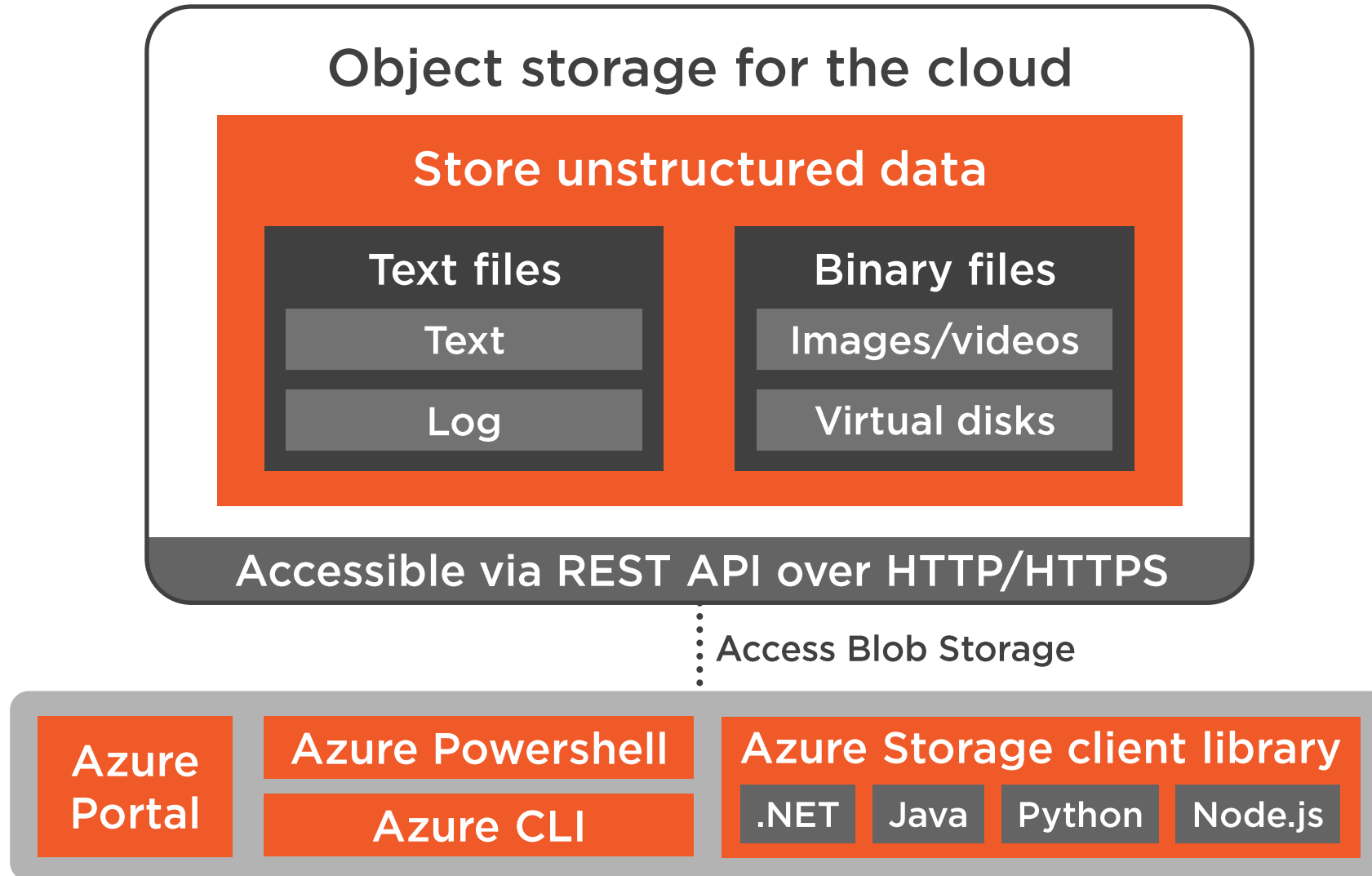Implement data archiving and retention
Implement hot, cool, and archive storage

Moving Items Between Storage Accounts and Containers
Move items in Blob storage between storage accounts or containers

Azure Blob Storage Overview

Object storage for the cloud

Store unstructured data

Text files
- Text
- Log

Binary files
- Images/videos
- Virtual disks

Accessible via REST API over HTTP/HTTPS

Access Blob Storage

Azure Portal

Azure Powershell

Azure CLI

Azure Storage client library
- .NET
- Java
- Python
- Node.js

Understand Storage Accounts, Containers, and Blobs
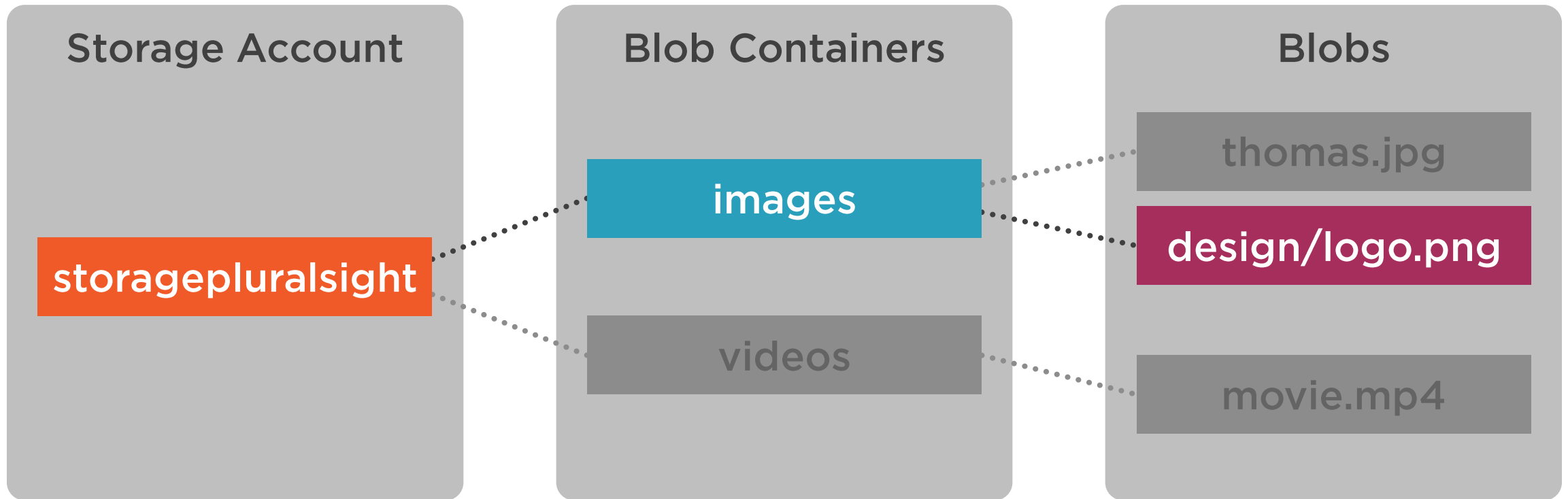
Storage Account

storagepluralsight

Name must be **unique** across all Azure Storage Accounts
- Must be between 3 and 24 characters long
- Must contain only lower-case letters and numbers

https://**storagepluralsight**.blob.core.windows.net

Understand Storage Accounts, Containers, and Blobs

Storage Account	Blob Containers	Blobs
storagepluralsight	images	thomas.jpg
		design/logo.png
	videos	movie.mp4

https://storagepluralsight.blob.core.windows.net/images/design/logo.png

https://storagepluralsight.blob.core.windows.net/images?comp=list

Demo

Create a Storage Account and upload blobs

```
az storage account create
    --name storagepluralsight01
    --resource-group pluralsight
    [--location westeurope]
    [--sku Standard_RAGRS]
    [--kind StorageV2]
```

Create a Storage Account

Use the Azure CLI

```powershell
New-AzStorageAccount
    -Name storagepluralsight01
    -ResourceGroupName pluralsight
    -Location westeurope
    -SkuName Standard_RAGRS
    [-Kind StorageV2]
```

Create a Storage Account

Use Azure Powershell

Authorize Requests to Blob Storage

Shared Key
(Storage Account Key)

Shared Access Signature
(SAS)

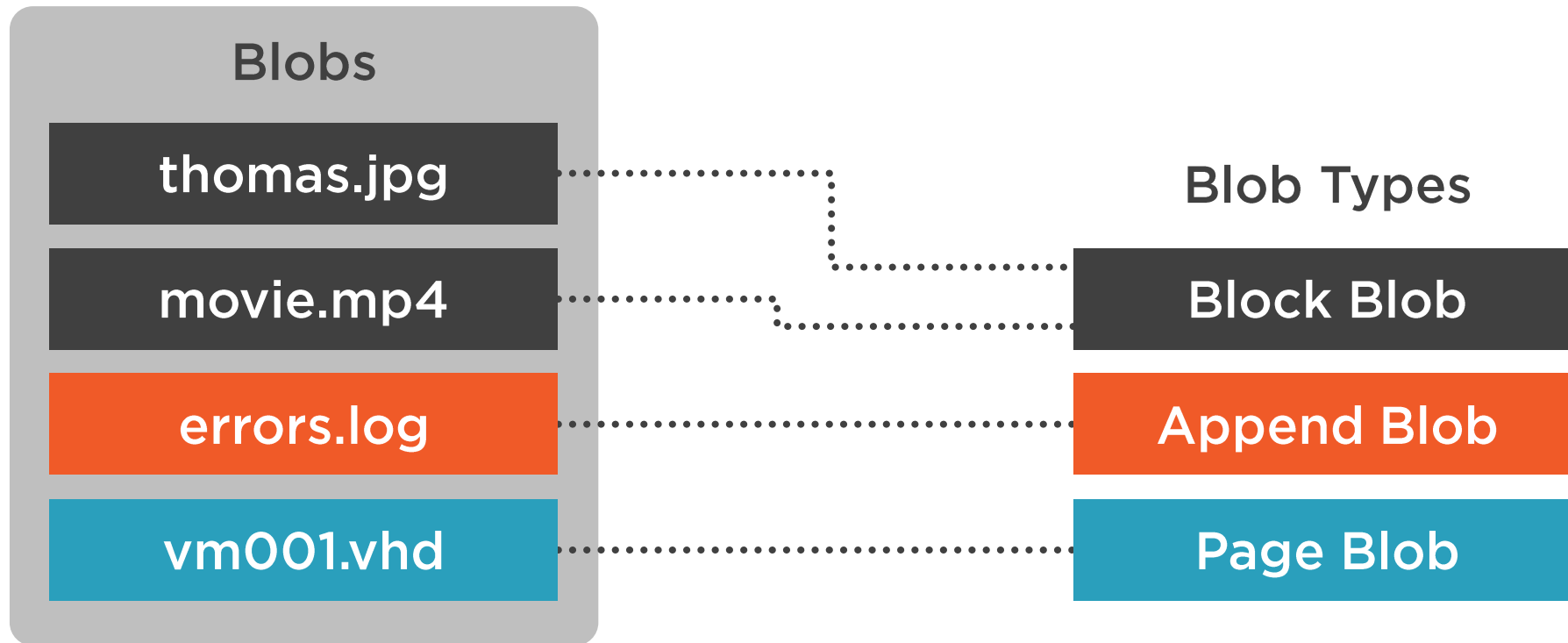**Azure Active Directory**

**Anonymous public
read access**

Demo

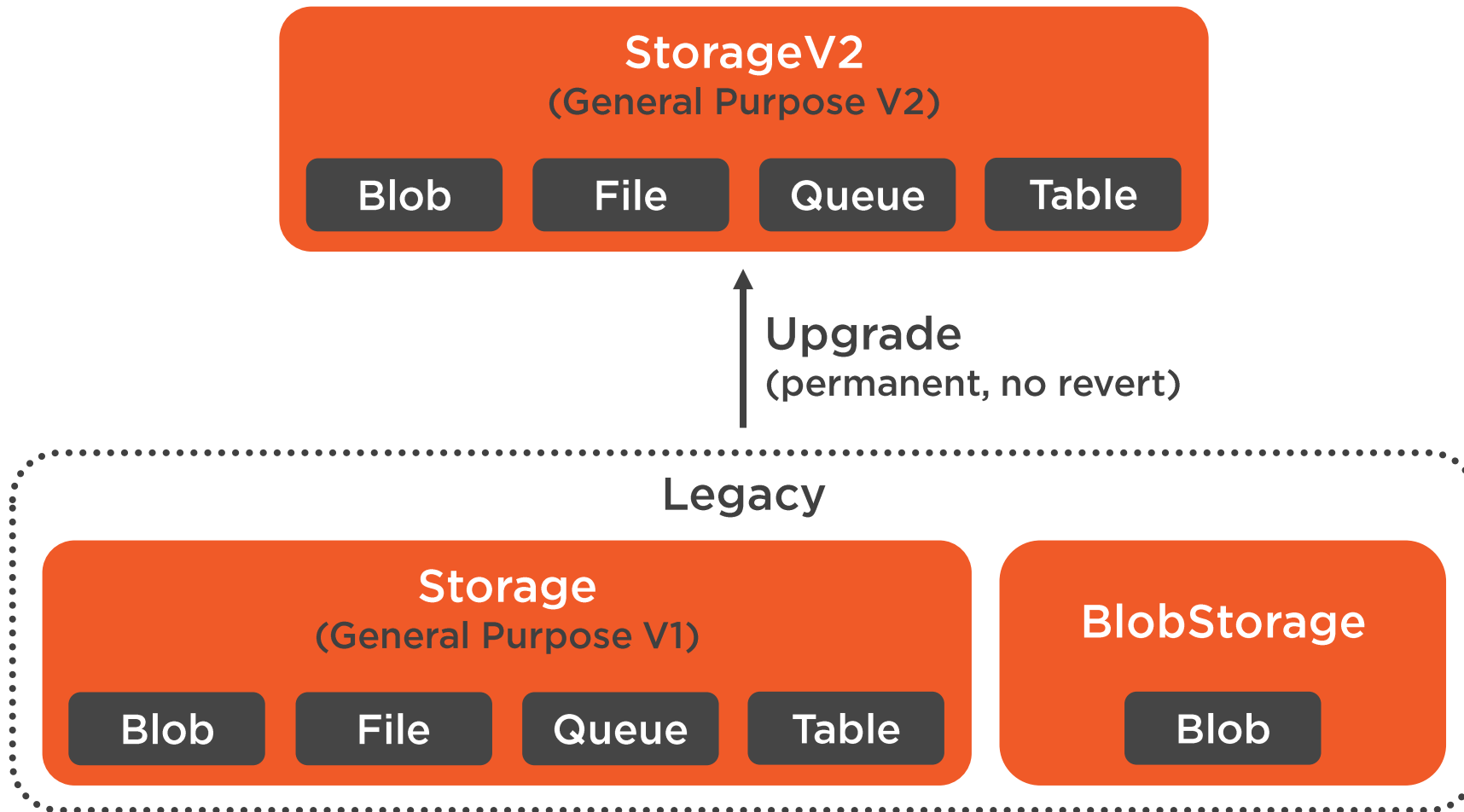**Authorize requests with a Shared Access Signature (SAS)**

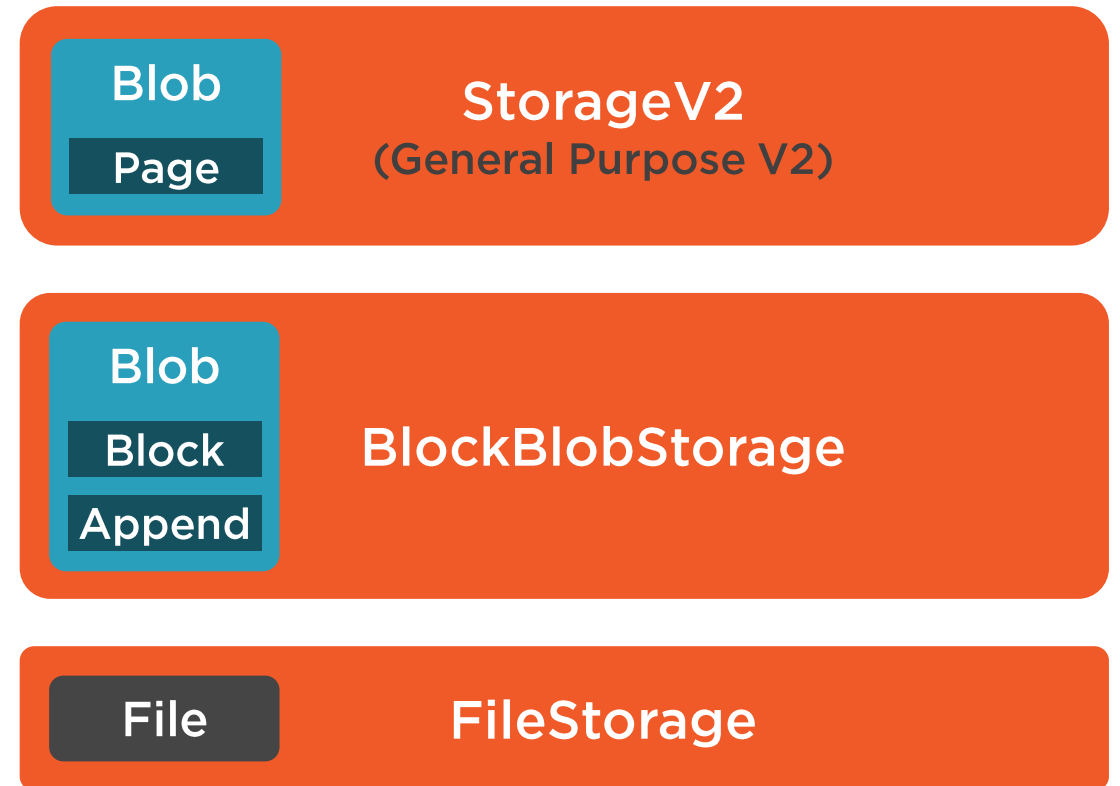**Configure anonymous public read access**

Know the Different Blob Types

Blobs

| thomas.jpg |
| movie.mp4 |
| errors.log |
| vm001.vhd |

Blob Types

| Block Blob |
| Append Blob |
| Page Blob |

Know the Storage Account Kinds

StorageV2
(General Purpose V2)

| Blob | File | Queue | Table |

↑ **Upgrade**
(permanent, no revert)

Legacy

Storage
(General Purpose V1)

| Blob | File | Queue | Table |

BlobStorage

| Blob |

Know the Storage Account Kinds

Standard performance
(Magnetic drives)

StorageV2
(General Purpose V2)

Blob

File   Queue   Table

Block

Append

Page

Premium performance
(Solid state drives)

StorageV2
(General Purpose V2)

Blob

Page

BlockBlobStorage

Blob

Block

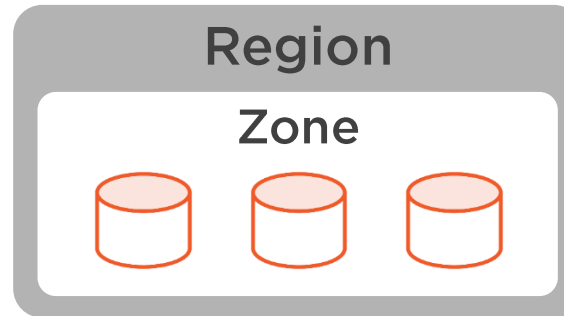Append

FileStorage

File

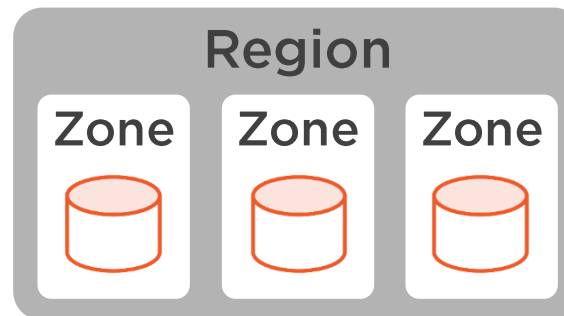Data at rest is encrypted with Storage Service Encryption

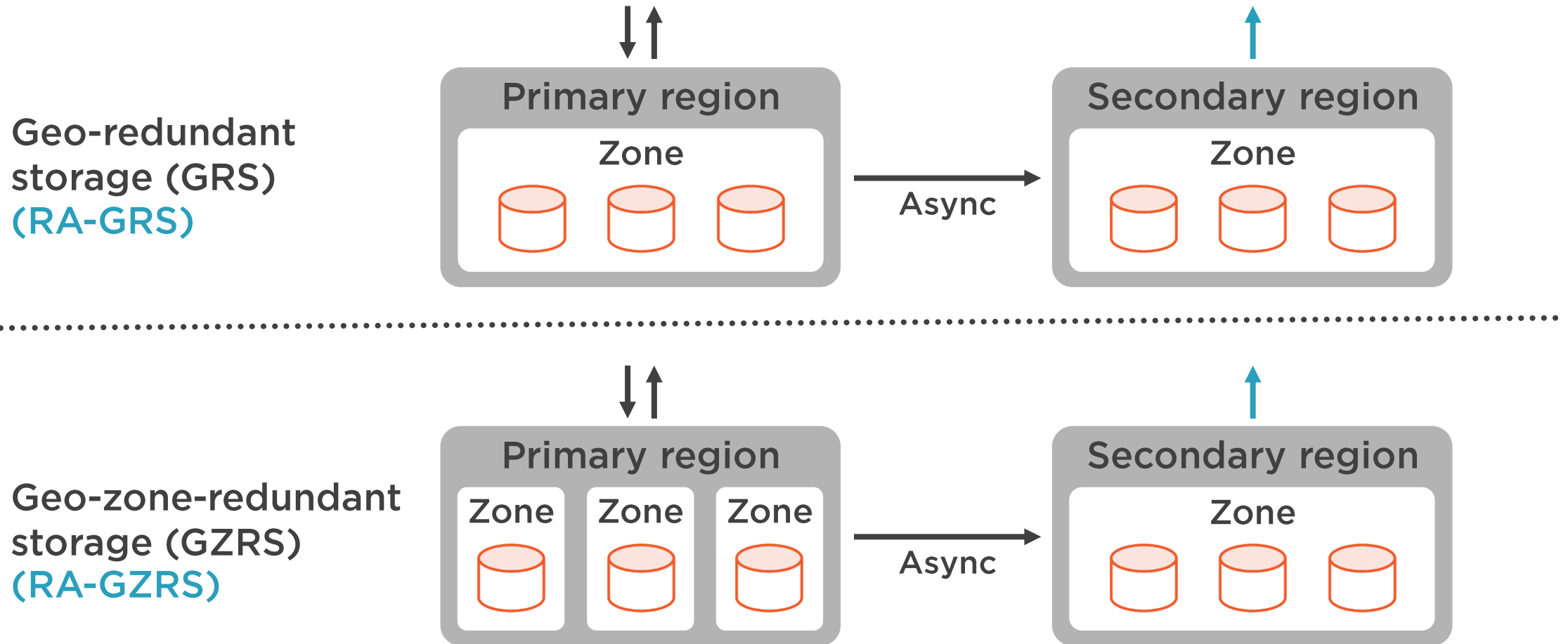# Choose a Replication Strategy

Locally redundant storage (LRS)
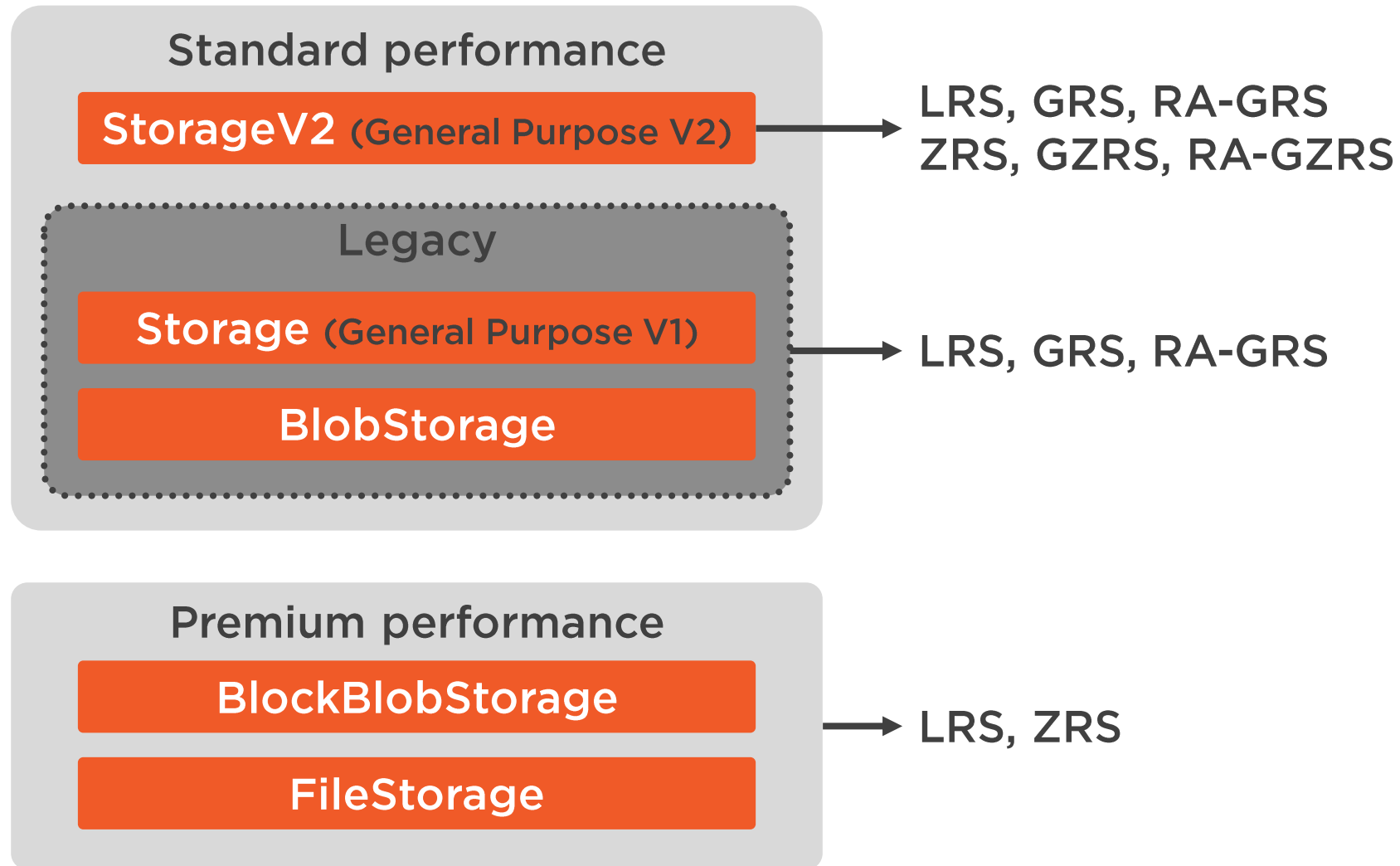
Zone-redundant storage (ZRS)

Not supported
in all regions

Choose a Replication Strategy

Geo-redundant storage (GRS) (RA-GRS)

Primary region — Zone → Async → Secondary region — Zone

Geo-zone-redundant storage (GZRS) (RA-GZRS)

Primary region — Zone | Zone | Zone → Async → Secondary region — Zone

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

Storage Accounts and Replication Strategies

Standard performance

StorageV2 (General Purpose V2) → LRS, GRS, RA-GRS
ZRS, GZRS, RA-GZRS

Legacy

Storage (General Purpose V1)

BlobStorage → LRS, GRS, RA-GRS

Premium performance

BlockBlobStorage

FileStorage → LRS, ZRS

Next Up

Interacting with Data Using the Azure SDK for .NET