Azure storage account

- An Azure storage account is a secure account that gives you access to services in Azure Storage. Your storage account provides the unique namespace for your storage resources.
- A storage account name should be unique across all existing storage account names in Azure

Types of Storage accounts

Azure Storage provides three types of storage accounts. Each type supports different features and has its own pricing model.

Storage account type	Supported services	Supported performance tiers	Supported access tiers	Replication options	Deployment model	Encryption
General-purpose V2	Blob, File, Queue, Table, and Disk	Standard, Premium	Hot, Cool, Archive	LRS, ZRS, GRS, RA-GRS	Resource Manager	Encrypted
General-purpose V1	Blob, File, Queue, Table, and Disk	Standard, Premium	N/A	LRS, GRS, RA-GRS	Resource Manager, Classic	Encrypted
Blob storage	Blob (block blobs and append blobs only)	Standard	Hot, Cool, Archive	LRS, GRS, RA-GRS	Resource Manager	Encrypted

Types of performance tiers

- **Standard performance** tiers are backed by magnetic drives and provides low cost per GB. They are best for applications that are best for bulk storage or infrequently accessed data

- **Premium storage performance** are backed by solid state drives and offers consistency and low latency performance. They can only be used with Azure virtual machine disks, and are best for I/O intensive workload such as databases.

Storage account access tiers

Azure storage offers different storage tiers which allow you to store Blob object data in the most cost-effective manner

Premium storage (preview) provides high performance hardware for data that is accessed frequently.

Hot storage: is optimized for storing data that is accessed frequently.

Cool storage is optimized for storing data that is infrequently accessed and stored for at least 30 days.

Archive storage is optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements (on the order of hours).

Azure storage replication

Azure Storage replication copies your data so that it is protected from planned and unplanned events ranging from transient hardware failures, network or power outages, massive natural disasters, and so on.

Scenario	LRS	ZRS	GRS	RA-GRS
Node unavailability within a data center	Yes	Yes	Yes	Yes
An entire data center (zonal or non-zonal) becomes unavailable	No	Yes	Yes	Yes
A region-wide outage	No	No	Yes	Yes
Read access to your data (in a remote, geo-replicated region) in the event of region-wide unavailability	No	No	No	Yes
Designed to provide __ durability of objects over a given year	at least 99.999999999% (11 9's)	at least 99.9999999999% (12 9's)	at least 99.99999999999999% (16 9's)	at least 99.99999999999999% (16 9's)
Supported storage account types	GPv2, GPv1, Blob	GPv2	GPv2, GPv1, Blob	GPv2, GPv1, Blob
Availability SLA for read requests	At least 99.9% (99% for cool access tier)	At least 99.9% (99% for cool access tier)	At least 99.9% (99% for cool access tier)	At least 99.99% (99.9% for Cool Access Tier)
Availability SLA for write requests	At least 99.9% (99% for cool access tier)	At least 99.9% (99% for cool access tier)	At least 99.9% (99% for cool access tier)	At least 99.9% (99% for cool access tier)

Storage account endpoints

Every object that you store in Azure Storage has an address that includes your unique account name. The combination of the account name and the Azure Storage service endpoint forms the endpoints for your storage account.

For example, if your general-purpose storage account is named mystorageaccount, then the default endpoints for that account are:

- Blob storage: http://mystorageaccount.blob.core.windows.net
- Table storage: http://mystorageaccount.table.core.windows.net
- Queue storage: http://mystorageaccount.queue.core.windows.net
- Azure Files: http://mystorageaccount.file.core.windows.net