

# Azure Storage Options

## Naming

Storage Account names must be globally unique. The suggestion is to start the name with "cu" to help ensure uniqueness.

## Types

In addition to all of the service offerings, storage within Azure has six different redundancy/replication options to choose from :

### **LRS - Locally Redundant Storage**

- Three copies of your data, all within the same Availability Zone
- At least 11 9's

### **ZRS - Zone-Redundant Storage**

- Three copies of your data, all within the same Availability Zone, replicated to two other Availability Zones
- At least 12 9's

### **GRS/RA-GRS - Geo-Redundant Storage**

- Three copies of your data, all within the same Availability Zone, replicated to another Availability Zone in the paired region
- At least 16 9's

### **GZRS/RA-GZRS - Geo-Zone-Redundant Storage**

- Three copies of your data, all within the same Availability Zone, replicated to two other Availability Zones, all replicated to the paired region
- At least 16 9's

Within the two Geo Redundant options you can choose Read Access (RA) or not. By default, the redundant copy is not able to be read until Microsoft fails over to the paired region. Choosing "Read Access" allows you to read your data at any time.

This table is a good one :

Scenario	Locally redundant storage	Geo-redundant storage	Read Access geo-redundant storage	Zone-redundent storage	Geo Zone Redundant Storage	Read Access Geo Zone Redundant Storage
Node unavailability within a data center	Yes					
An entire data center (zonal or non-zonal) becomes unavailable	No	Yes (failover is required)		Yes	Yes	
A region-wide outage	No	Yes (failover is required)		No	Yes (failover is required)	
Read access to your data (in a remote, geo-replicated region) in the event of region-wide unavailability	No	No	Yes	No	No	Yes
Designed to provide X% durability of objects over a given year	at least 11 9's	at least 16 9's		at least 12 9's	at least 16 9's	
Supported storage account types	GPv2, GPv1, Blob			GPv2		
Availability SLA for read requests	At least 99.9% (99% for Cool Access Tier)		At least 99.99% (99.9% 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)					

Documentation :

- <https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>