**ARCHIVE S3 to GLACIER**

You can now use Amazon Glacier as a storage option for Amazon S3.

There are four aspects to this feature — storage, archiving, listing, and retrieval.

**Storage**First, you need to tell S3 which objects are to be archived to the new Glacier storage option, and under what conditions. You do this by setting up a lifecycle rule using the following elements:

* A prefix to specify which objects in the bucket are subject to the policy.
* A relative or absolute time specifier and a time period for transitioning objects to Glacier. The time periods are interpreted with respect to the object’s creation date. They can be relative (migrate items that are older than a certain number of days) or absolute (migrate items on a specific date)
* An object age at which the object will be deleted from S3.  This is measured from the original PUT of the object into the service, and the clock is not reset by a transition to Glacier.

**Archiving**Every day, S3 will evaluate the lifecycle policies for each of your buckets and will archive objects in Glacier as appropriate. After the object has been successfully archived using the Glacier storage option, the object’s data will be removed from S3 but its index entry will remain as-is. The S3 storage class of an object that has been archived in Glacier will be set to GLACIER.

**Listing**  
As with Amazon S3’s other storage options, all S3 objects that are stored using the Glacier option have an associated user-defined name. You can get a real-time list of all of your S3 object names, including those stored using the Glacier option, by using S3’s LIST API. If you list a bucket that contains objects that have been archived in Glacier, what will you see?

As I mentioned above, each S3 object has an associated storage class. There are three possible values:

* STANDARD – 99.999999999% durability. S3’s default storage option.
* RRS – 99.99% durability. S3’s Reduced Redundancy Storage option.
* GLACIER – 99.999999999% durability, object archived in Glacier option.

If you archive objects using the Glacier storage option, you must inspect the storage class of an object before you attempt to retrieve it. The customary GET request will work as expected if the object is stored in S3 Standard or Reduced Redundancy (RRS) storage. It will fail (with a 403 error) if the object is archived in Glacier. In this case, you must use the RESTORE operation (described below) to make your data available in S3.

**Retrieval**  
You use S3’s new RESTORE operation to access an object archived in Glacier. As part of the request, you need to specify a retention period in days. Restoring an object will generally take 3 to 5 hours. Your restored object will remain in both Glacier and S3’s Reduced Redundancy Storage (RRS) for the duration of the retention period. At the end of the retention period the object’s data will be removed from S3; the object will remain in Glacier