Windows Azure Storage is the distributed storage system of Microsoft. Microsoft use WAS to supply service for Bing, Xbox as well as the MySpace.

According to the Figure 1, the WAS consists of Storage Stamps and the Location Service. In every Storage Stamps, there are Stream Layer, Partition Layer and Front-End Layer. Besides this, there are two Replication Engines: Intra-Stamp and Inter-Stamp engines. This is a very useful design, the Inter Replication can supply the geographic redundancy also called Disaster Recovery; on the other hand the Intra Replication can handle the hardware failures in the same rack or the same system. This means there are dual protection for the data in the WAS.

Let us go back to the GDC project, right now our experiments is based on the different data center which is geographic separately, this is actually the key point of the Intra Replication. We can also use the Inter Replication to cover the hardware failures.

We need load balance in the GDC project as well, so the Location Service is a doable choice for our load balance, because this Read Load-Balancing is not only for balancing the work load, redundancy, but also for fast accessing.