

## Cloud Storage as a new Storage Class: QoS Characterization and Cost Analysis

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In the storage model adopted by WLCG, the quality of service for a storage capacity provided by an SRM-based service is described by the concept of Storage Class. In this context, two parameters are relevant: the Retention Policy and the Access Latency. With the advent of cloud-based resources, virtualized storage capabilities are available like the Amazon Simple Storage Service (Amazon S3). Amazon S3 is a simple Web services interface offering access to the same highly scalable, reliable, fast, inexpensive data storage infrastructure that Amazon uses to run its own global network of Web sites. In our previous work, we have described how Amazon S3 can be exposed via an SRM-based interface. In this paper, we discuss an extension of the definition of Storage Class to include billing aspects. Impact on the GLUE 2.0 information model are also investigated. Finally, we present a storage utilization model enabling to evaluate the potential costs of an AWS-S3 based storage system in Grid considering different integration strategies.

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