

Software Defined Storage: Object Storage over Hadoop Platform

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Abstract : The purpose of this project is to develop an open source object storage system that is highly durable, scalable and reliable. There are two representative systems in cloud computing: Google and Amazon. Their storage systems for Google GFS and Amazon S3 provide high reliability, performance and stability. Our proposed system is highly inspired from Amazon S3. We are using Hadoop Distributed File System (HDFS) Java API to implement our system. We propose the architecture of object storage system based on Hadoop. We discuss the requirements of our system, what we expect from our system and what problems we may encounter. We also give detailed design proposal along with the abstract source code to implement it. The final goal of the system is to provide REST based access to our object storage system that exists on top of HDFS.

Keywords : Hadoop, HBase, object storage, REST

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