An Economical and SLO-guaranteed cloud storage service across multiple cloud service providers

Abstract:

It is important for cloud service brokers to provide a multi-cloud storage service to minimize their payment cost to cloud service providers (CSPs) while providing service level objective (SLO) guarantee to their customers. Many multi-cloud storage services have been proposed for payment cost minimization.

Existing system:

In spite of many previous research efforts devoted to minimizing the payment cost (or resource usage) or ensuring data retrieval SLOs in creating a cloud storage service, there are no previous works that fully utilize all the aforementioned pricing policies (such as resource reservation pricing and tiered pricing policies) or consider request rate variance for cost minimization and SLO guarantee. Also, most works aim to either minimize cost or provide SLO guarantee but not both.

Disadvantages:

1. Not fully utilized the pricing or cost policies
2. They have achieved either cost minimization or SLO Guarantee not both.

Proposed system:

We propose a multi-cloud Economical and SLO-guaranteed Storage Service (ES3) for brokers to automatically generate data allocation and resource reservation schedules for cost minimization and SLO guarantee. Main contributions of our system are

1. A coordinated data allocation and reservation method, which proactively helps to maximize reservation benefit in data allocation.
2. A GA-based data allocation adjustment method, which further adjusts the data allocation to reduce the variance of data.

3. Dynamic request redirection.

Advantages:

1. Maximized the data allocation reservation
2. Cost Minimization and SLO both are achieved at a time.

SYSTEM REQUIREMENTS

H/W System Configuration:-

- Processor - Pentium –III
- RAM - 256 MB (min)
- Hard Disk - 20 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

S/W System Configuration:-

- Application Server : Tomcat5.0/6.X
- Front End : HTML, Jsp
- Scripts : JavaScript.
- Server side Script : Java Server Pages.
- Database : MySQL 5.0
- Database Connectivity : JDBC