Abstract

Maintaining the bandwidth across a data center to meet the service level agreement is a major challenge for network administrators. If the bandwidth is not scheduled according to application requirements, the applications will be executed with increased or decreased provisioning or moved to other data centers. Hence, we developed a bandwidth scheduling algorithm that operates according to application requirements and partitions the available bandwidth to accommodate the available traffic. We simulated this algorithm with the SimPy tool and found that the proposed algorithm performs better than the general allocation and partition schemes.

References

Fairly Scheduled Bandwidth for the Data Centre Traffic

Systems Design and Implementation; 1 April 2011; Boston, Massachusetts, USA: USENIX. pp. 22-22.


Index Terms

Computer Science  Wireless

Keywords

Data center, cloud computing, bandwidth reservation, resource sharing.