

## ABSTRACT

For full computation service surely its need investment by physical computer. In the fact, volume of a computation tended to increase, because of that adding invest on hardware server is needed. But now, the utilization of a hardware server undeveloped maximally and it will be increase the operational cost, maintenance and etc. To make the utility of hardware server work maximal can use cloud computing. This cloud computing make possible to using the utility that not use can be use for several another virtual servers.

On the large storage of Cloud Computing possibility of error and failure become bigger because many data that have save and process. It make disk performance decrease. One of way to increase the performance of disk is RAID. RAID is abbreviation of Redundant Array of Independent Disk or Redundant Array of Inexpensive Disk.

Using RAID in data storage Infrastructure as a Service in Cloud Computing can increase the performance of disk. RAID 0 is better than others. The increasing of RAID 0 on read velocity is 11.13% if compare without RAID (sdb). The increasing of RAID 0 on write velocity is 23.53% if compare without RAID. IOPS value of RAID 0 increase 74.80% before use by instance and 80.84% after use by instance.

*Keywords: IaaS, Cloud Computing, RAID, performance, disk, IOPS*