

ABSTRACT

The main goal of web server maintenance is to prevent downtime and ensure optimal information delivery. Therefore, failover clustering is used to overcome web server failures when accessed by many clients simultaneously. Failover clustering will automatically move servers that are experiencing problems to servers that are on standby to replace and take over the tasks of servers that have failed. Tests were carried out to obtain availability values with 5 scenarios and QoS parameters using 5 variations of the number of requests, namely 500, 1000, 1500, 2000, 2500 requests at a rate of 100 requests per second. Availability value is affected by MTBF and MTTR or influenced by the amount of uptime and recovery duration when a failure occurs with the acquisition of 99.91% availability in scenario 1, 98.53% in scenario 2, 99.86% in scenario 3, 99.25% in scenario 4, and 100% in scenario 5. In 2000 the throughput test request gets the best result of 7508 Kbps. There is a packet loss of 500 orders of 15.72% which is in the "medium" category. Packet loss with a number of requests 1000, 1500, 2000 and 2500 shows the category "Very Good" because packet loss is 0%. The average value of the delay test on all requests falls into the "very good" and good category. The average value of jitter testing gets results showing the "Good" category. CPU usage will increase based on the number of requests. The average CPU usage value of all requests is 74.22%. All QoS categories are based on TIPHON standards.

Keywords: *Failover, High availability, Haproxy, Web Server.*