

Table 10: Results of Testing for Jitter at 10 with Interval 5s

Interval (s)	Transfer (KBytes)	Bandwidth (Kbps)	Jitter (ms)
0-1	50.2	823	3.8
2-Jan	50.2	823	3.9
3-Feb	40.2	659	5.5
4-Mar	37.3	612	6.1
5-Apr	28.7	470	6.2

Mbps this is one reason for the instability internet connection at STIK Bina Husada.

## 5.2 QoS

**Throughput:** From the calculation of throughput of the server [www.binahusada.ac.id](http://www.binahusada.ac.id) through the Office LAN monitoring by figure 4.8 [binahusada.ac.id](http://binahusada.ac.id) throughput on the site, where parts of information in the form of throughput values obtained average value (average) at 11.37 Kbyte/sec, the value of throughput minimum sebesar 8 Kbyte/sec dan maximum sebesar 21.6 Kbyte/sec, although total packet sent is variaty. Server throughput calculation [www.facebook.com](http://www.facebook.com) monitoring via LAN Office by figure 4.6 throughput on the site [www.facebook.com](http://www.facebook.com), where part information throughput values obtained in the form of the mean value (average) of 6.85 Kbyte/sec, the value of the minimum throughput of 2.76 Kbyte/sec and a maximum of 18.1 Kbyte/sec, and the number of packets sent (sent) varies. While the results of the calculation server throughput [www.youtube.com](http://www.youtube.com) monitoring via LAN throughput Office by figure 4.7 on the site [www.youtube.com](http://www.youtube.com), where part information throughput values obtained in the form of the mean value (average) of 12.67 Kbyte/sec, the value of the minimum throughput of 2.61 kbytes/sec and a maximum of 50.8 Kbyte/sec, and the number of packets sent variates. Factors such as attenuation, interference and signal bandwidth management configuration affect the measurement results.

**Packet Loss and Delay:** According TIPHON version as used in the standardization of measurement delay value, the amount of delay can be classified as a category of Excellent latency if  $\leq 150$  ms, if 150 ms - 300 ms is good, if 300 ms- 450 ms is poor, and if  $\geq 450$  ms is unacceptable.

Based on the results of the measurement values Packet Delay and Loss in the server [youtube.com](http://youtube.com) with an average value of 211 ms delay with the average percentage of 16,26% packet loss, it can be concluded from these results the value of the delay in the category good and the category packet loss is poor. The results of measurements of Delay and Packet Loss value on the server [www.binahusada.ac.id](http://www.binahusada.ac.id) with an average value of 169 ms delay with the average percentage of packet loss amounted to 15.2%, from these results we can conclude the delay value in the category is good and category packet loss is poor, and the value of Delay and Packet Loss on [www.facebook.com](http://www.facebook.com) servers with an average value of 117 ms delay with