

ABSTRAK

Hafidhah Nuharani
Teknik Elektro

ANALISIS PERBANDINGAN QUALITY OF SERVICE (QOS) LAYANAN 4G OLEH OPERATOR SELULER DI WILAYAH CILEGON

Cilegon merupakan kota yang disebut juga sebagai kota industry, sehingga diperlukannya kualitas internet terutama layanan 4G yang baik. *Quality Of Service* (QOS) adalah pengukuran tentang kualitas dari jaringan internet yang memiliki parameter yaitu bandwidth, packet loss, throughput, delay dan jitter. Penelitian dilakukan terhadap lima operator yaitu XL, Simpati, Im3, Tri dan Smartfren. Pengujian dilakukan di lima lokasi titik berbeda dan tiga waktu yang berbeda menggunakan *software wireshark* dan *axcence nettools*. Hasil pengujian yang dilakukan didapatkan nilai QOS tertinggi adalah operator XL yang memiliki nilai *delay* 143,83 ms, *jitter* 31,68 ms, *Throughput* 279537,2 Bps, *packet loss* 0,061% dan nilai *bandwidth* 40.343.381 Bps. Sedangkan nilai QOS terendah ditempati oleh operator Tri dengan nilai *delay* 177,05 ms, *jitter* 90,91 ms, *throughput* 95774,38 Bps, *packet loss* 8,075% dengan nilai *bandwidth* 38.916.195 Bps.

Kata Kunci: Layanan 4G, QOS, 5 Operator, Software Wireshark, software Axcence NetTools

ABSTRACT

Hafidhah Nuharani
Electrical Engineering

ANALYSIS OF CILEGON 4G QUALITY OF SERVICE CELLULAR OPERATORS IN COMPARISON

Cilegon is a city that is also known as city of industry, so that the need for quality of service, especially Internet 4G baaik. Quality Of Service (QOS) is a measurement of the quality of the Internet network that has the parameters of bandwidth, packet loss, thoughput, delay and jitter. Research carried out on five operators, namely XL, sympathy, IM3, Tri and Smartfren. Tests carried out at five different point locations and three different times using wireshark and axcence NetTools software. Results of testing conducted found the highest QOS value is operator XL which has a value of 143.83 ms delay, jitter 31.68 ms, Throughput 279,537.2 Bps, 0.061% packet loss and bandwidth value40,343,381 Bps. While the value of the lowest QOS occupied by Tri operators with value 177.05 ms delay, jitter 90.91 ms, 95774.38 bps throughput, packet loss 8.075% with a value of 38,916,195 bandwidth Bps,

Keywords: 4G service, QOS, 5 Operators Wireshark software, software Axcence NetTools