ABSTRAK

Analisa Performansi *Access Point Outdoor* pada Layanan Wifi Id di Wifi

Corner

(Studi Kasus : Telkom Jawa Barat Garut)

Mobilisasi jaringan dan konektivitas pintar untuk umum pada era modern ini sangat diperlukan, lokasi nyaman dan mendukung merupakan hal yang diperhatikan selain dari besarnya *bandwidth* dan kekuatan sinyal. Project *install* @wifi.id pada 100.000 lokasi Wifi *Corner* (WiCo) sudah di implementasikan untuk mendukung program pemerintah dalam bidang ICT (*Information and Communication Technologies*), implementasi project WiCo ini tentunya harus memperhatikan *Quality Of Service* (QOS) sesuai standar yang telah ditetapkan oleh PT Telkom yang mengacu pada TIPHON. Parameter yang digunakan diantaranya *ping test, jitter, packet loss, bandwidth (upload and download)* serta pengukuran *coverage* frekuensi jaringan @wifi.id.

Dasar penelitian ini bertujuan untuk mengukur performansi *access point* yang digunakan oleh layanan wifi id demi solusi konektivitas pintar dan handal sesuai dengan parameter QoS yang mengacu pada TIPHON.

Hasil dari penelitian ini telah memenuhi standar yang telah ditetapkan TIPHON untuk perangkat *access point* dengan nilai *bandwidth sebesar* **10 Mbps** memiliki indeks *QoS* 4 (packet loss **0%**, ping test **7 ms**, jitter **1 ms**, throughput **777 bps**) yang berarti **Sangat Bagus**, kemudian dilanjut dengan *Bandwidth* **20 Mbps** (packet loss **0%**, ping test **7 ms**, jitter **4 ms**, throughput **642 bps**) memiliki indeks QoS 4 yang berarti **Sangat Bagus**, lalu dengan *Bandwidth* **50 Mbps** (packet loss **0%**, ping test **13 ms**, jitter **8 ms**, throughput **639 bps**) memiliki indeks QoS 4 yang berarti **Sangat Bagus** dan yang terakhir dengan *Bandwidth* **100 Mbps** (packet loss **0%**, ping test **17 ms**, jitter **3 ms**, throughput **1249 bps**) memiliki indeks QoS 4 yang berarti **Sangat Bagus.**

Kata kunci *:* Layanan Wifi Id , *Access Point Outdoor, Wifi Corner, ping test*, *jitter, packet loss, throughput,* dan *bandwidth*

ABSTRACT

Analysis of Outdoor Access Point Performance on Wifi Id Services at Wifi Corner

(Case Study : Telkom Jawa Barat Garut)

Network mobilization and smart connectivity for the public in this modern era is very necessary, convenient location and support is a matter of concern in addition to the amount of bandwidth and signal strength. The install @wifi.id project on 100,000 Wifi Corner (WiCo) locations has been implemented to support government programs in the field of ICT (Information and Communication Technologies), the implementation of this WiCo project must certainly pay attention to Quality Of Service (QOS) according to the standards set by PT Telkom refers to TIPHON. The parameters used are ping test, jitter, packet loss, bandwidth (upload and download) and measurement of network frequency coverage @wifi.id.

The basis of this study aims to measure the performance of the access point used by wifi ID services for smart and reliable connectivity solutions in accordance with the QoS parameters that refer to TIPHON.

The results of this study have met the standards set by TIPHON for device access points with a bandwidth value of **10 Mbps** have an index *QoS* 4 (packet loss **0%**, ping test **7 ms**, jitter **1 ms**, throughput **777 bps**) which means **Very Good**, then proceed with Bandwidth **20 Mbps** (packet loss **0%**, ping test **7 ms**, jitter **4 ms**, throughput **642 bps**) have an index QoS 4 which means **Very Good**, then with Bandwidth **50 Mbps** (packet loss **0%**, ping test **13 ms**, jitter **8 ms**, throughput **639 bps**) have an index QoS 4 which means **Very Good** and last with Bandwidth **100 Mbps** (packet loss **0%**, ping test **17 ms**, jitter **3 ms**, throughput **1249 bps**) have an index QoS 4 which means **Very Good**.

Keywords *:* Wifi Id Service, *Access Point Outdoor, Wifi Corner, ping test*, *jitter, packet loss, throughput,* and *bandwidth.*