ABSTRAK

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Judul Laporan Skripsi	: ANALISIS KUALITAS JARINGAN INTERNET BERBASIS *WIRELESS* LAN DENGAN MENERAPKAN PARAMETER *QUALITY OF SERVICE* (QOS) MENGGUNAKAN APLIKASI *WIRESHARK*: STUDI KASUS PT. SOLID FINTEK INDONESIA
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Perkembangan teknologi informasi dan komunikasi di Indonesia telah meningkatkan efisiensi di berbagai sektor, termasuk di PT. Solid Fintek Indonesia. Untuk memastikan kualitas layanan internet yang andal, penelitian ini menggunakan aplikasi *Wireshark* untuk menganalisis kualitas jaringan internet berbasis *Wireless* LAN melalui parameter *Quality of Service* (QoS) seperti *throughput*, *delay*, *jitter*, dan *packet loss*. Selain itu, metode *Simple Queue* pada Mikrotik dengan Winbox diterapkan untuk mengatur alokasi *bandwidth*. Hasil analisis menunjukkan bahwa sebelum penerapan *Simple Queue*, nilai *throughput* rata-rata sebesar 2390 Kbps kategori "Sangat Bagus", *delay* rata-rata 4,13 ms kategori "Sangat Bagus", *jitter* rata-rata 4,13 ms kategori "Sangat Bagus", dan *packet loss* rata-rata 2,67% kategori "Sangat Bagus". Setelah penerapan *Simple Queue*, rata-rata *throughput* turun menjadi 1094 Kbps kategori "Cukup", namun *delay* dan *jitter* tetap dalam kategori "Sangat Bagus" dengan nilai rata-rata 8,4 ms, dan *packet loss* mengalami perbaikan signifikan dengan rata-rata 0,2% kategori "Sangat Bagus", menjadikan jaringan lebih andal dan konsisten.

Kata Kunci: *Simple Queue*, Manajemen *Bandwidth*, *Quality of Service*, Mikrotik, PT. Solid Fintek Indonesia

ABSTRACT

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Title Thesis	: ANALYSIS OF *WIRELESS* LAN-BASED INTERNET NETWORK QUALITY USING *QUALITY OF SERVICE* (QOS) PARAMETERS THROUGH *WIRESHARK* APPLICATION: A CASE STUDY OF PT. SOLID FINTEK INDONESIA
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The development of information and communication technology in Indonesia has improved efficiency across various sectors, including PT. Solid Fintek Indonesia. To ensure reliable internet service quality, this study utilizes Wireshark to analyze the quality of the Wireless LAN network through Quality of Service (QoS) parameters such as throughput, delay, jitter, and packet loss. Additionally, the Simple Queue method on Mikrotik using Winbox was implemented to manage bandwidth allocation. The analysis results show that before implementing Simple Queue, the average throughput was 2390 Kbps classified as "Very Good", the average delay was 4.13 ms classified as "Very Good", the average jitter was 4.13 ms classified as "Very Good", and the average packet loss was 2.67% classified as "Very Good". After implementing Simple Queue, the average throughput dropped to 1094 Kbps classified as "Fair", but the delay and jitter remained in the "Very Good" category with an average value of 8.4 ms, and packet loss improved significantly with an average of 0.2% classified as "Very Good", making the network more reliable and consistent.

Keywords: *Simple Queue, Management Bandwidth, Quality of Service, Mikrotik, PT. Solid Fintek Indonesia*