ABSTRACT

COMPARATIVE ANALYSIS
OF WIRELESS NETWORK PERFORMANCE USING
PAESSLER PRTG AND IPERF SOFTWARE
AT PT INDUSTRI TELEKOMUNIKASI INDONESIA
(PERSERO)

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Network performance is a crucial factor in the success of computer network systems. PT Industri Telekomunikasi Indonesia (Persero), with a focus on addressing system unavailability issues, aimed to effectively and consistently measure and deeply analyze network performance in terms of Quality of Service (QoS). The objective of this study is to compare PRTG and Iperf in conducting network performance analysis while considering parameters such as throughput, packet loss, delay, jitter, and their functionalities. The research methodology employed in this study is statistical analysis, involving the process of collecting, analyzing, and interpreting acquired data. Over a 7-day measurement period using the TIPHON standard, data from PRTG revealed a throughput of 2.231 Mb/s with a "Good" index, packet loss of 0.493% with an "Excellent" index, delay of 3.094 ms with an "Excellent" index, and jitter of 4.12 ms with a "Good" index. On the other hand, Iperf demonstrated a throughput of 3.841 Mb/s with an "Excellent" index, packet loss of 0.286% with an "Excellent" index, delay of 1.024 ms with an "Excellent" index, and jitter of 0.24 ms with a "Good" index. The comparative results based on 10 functionality measurement points indicate that PRTG holds a superior edge over Iperf. In conclusion, both applications possess the capability to conduct network measurements according to predetermined parameters. PRTG, however, is identified as having a higher advantage over Iperf. This study is anticipated to contribute significantly and provide valuable recommendations for the development and enhancement of network systems in the future.

Keywords: PRTG, Iperf, TIPHON, Quality of Service, comparative