

ABSTRACT

This research analyzes the reliability of internet services on the GPON-based FTTH network in the Depok Automatic Telephone Central Area (WSTO). The main goal is to understand disruption patterns, repair times, and system availability to improve service quality. Data collected includes number of customers, type of failure, time to repair (TTR), and other reliability metrics. Analysis shows that the average network availability is above 99%, but there are significant variations in repair times, especially in mass disruptions (GAMAS) which drastically affect the repair duration. Physical faults predominate over logical faults, and preventive maintenance has proven important in reducing the frequency and impact of faults. Recommendations are provided to improve maintenance strategies through technician training and the use of advanced technology. This research provides valuable insights for optimizing the reliability and efficiency of FTTH network services in the future.