ABSTRACT

The growing demand for internet access in the modern era highlights the importance of developing Base Transceiver Station (BTS) infrastructure to ensure equitable internet service distribution across Indonesia. With a 1.31% increase in internet users in 2024, the demand for telecommunication networks is expected to rise significantly. Consequently, it is crucial for Indosat, as a telecommunications service provider in Indonesia, to effectively monitor the performance of its sites and outlets, which serve as service distribution channels, to ensure optimal service quality for users. This study developed a site/outlet performance monitoring application utilizing the Visualization Analysis & Design (VAD) method. The application is designed to present site and outlet performance data visually and integrate it with maps, making it easier for Indosat to analyze and make decisions. Testing results indicated that the application successfully achieved its intended goals with an average effectiveness rate of 96.4%. Although most features functioned well, some improvements are needed in synchronizing map and table data. Further development is expected to optimize system performance, particularly in managing large data volumes, to ensure more efficient and responsive operations.

Keyword : BTS, Visualization Analysis & Design, Indosat, Effectiveness Testing