ABSTRACT

A company always uses IT infrastructure to support the activities of business units in the company. Internet, wifi and servers are terms that are attached to companies in various industries. The use of IT infrastructure is often not carried out optimally, this is due to a lack of knowledge or information and a negligent attitude towards how to manage IT infrastructure properly and correctly. In this final project, analysis and optimization of the company PT.X is carried out to improve the quality of the existing IT infrastructure services at the company. The method used in this research is the Network Development Life Cycle (NDCL) method, up to the monitoring stage. Drop connections still often occur in the PT.X office so that they interfere with existing operational activities, after conducting in-depth analysis and experiments, starting from changing channels, changing the operating system of the access point, making scheduled restarts on the access point, to changing access points. It turns out that the main cause of the problem lies in the configuration conditions that are not optimal and the access points used in the company are not in accordance with the needs of existing users. With the root of the problem known, the configuration was immediately corrected from previously using the auto channel to channel 1,6,11 on the 2.4 GHz network and changing channel 36 on each existing floor to 149,153, 157 and 161 on each floor on the 5GHz network. Changes of accesspoints are also carried out on every existing floor (a total of four floors) , this is due to the specifications and user accommodation of the Netgear R7000P that are not in accordance with the needs of the PT.X company. The access point used is Unifi AC 6 Lite, after the changes were implemented on the wireless network from PT.X, now the wireless network service is stable and reliable.

Keywords: Infrastructure, NDLC, Technology, Industry, Optimization, Access Point, Wireless Network