

ABSTRACT

Based on the internet needs that are currently increasingly high, we need a qualified wireless network condition. Wireless network area coverage, which includes Wireless Local Area Network (WLAN). Wireless is a network that can exchange data without using cables but uses radio waves. In the development of a wireless network needed a capable infrastructure, namely devices that are able to manage and support the wireless network. The wireless network device used must be able to keep up with technological developments in accordance with its time, for the time being future technologies such as Wi-Fi 6 and 5G networks.

This research was made using the PPDIOO Life-Cycle Approach method in three initial stages, namely prepare, plan, and design. This methodology is suitable for network infrastructure optimization where in the design phase an analysis will be made to compare features, as well as other specifications on each of these devices. This comparison is done in order to know that the devices currently in use, whether they can survive in the long run, and are also capable of following technological developments, or should be improved for these devices.

The final result of this research is to produce recommendations for wireless network devices that can support wireless networks in accordance with the capacity needed and can follow the development of Wi-Fi 6 and 5G technology.

Keywords: *networks, wireless, network devices, PPDIOO*