

ABSTRACT

SMKs Jakarta 1 are located at Jl. Peta Selatan No. 24 in Kalideres, West Jakarta, DKI Jakarta, is a private vocational high school. SMKs Jakarta 1 is a school that uses the internet network for all of its teaching and learning activities. When students return from class and during breaks, they frequently gather in the canteen. Because of the large number of students that gather in the canteen area to eat and do school projects, the school desires to provide the canteen area with a hotspot network capable of providing internet services to students while they are still in the canteen area. WDS (Wireless Distribution System) is a hotspot network system that use wireless technology (no wires) by deploying access points at strategic locations. WDS allows users to stay connected even when they relocate as long as they are inside the service area of the access point. The design method was used in this study's methodology. The Wireless Distribution System hotspot that was established managed to reach a distance of more than 25.22 meters, enabling the Hotspot network to reach up to the canteen area, but with an RSSI level of 77 dBm, which comes into the Not Good category. However, if the user is connected from a distance of 11 meters. The RSSI strength of the Hotspot Wireless Distribution System falls into the Very Good category.

Keywords : WDS, *Wireless Distribution System*, *Internet Hotspot*, *Mikrotik RB914-2nd*, *Roaming*