

ABSTRAK

Yuirisqi, Lucky. 2022. *Rancang Bangun Jaringan Internet ke Desa Tertinggal Menggunakan Point to Point dan Merancang Jaringan Hotspot RT/RW Net Menggunakan Mikrotik*, Skripsi. Tanjungpinang: Jurusan Teknik Informatika, Fakultas Teknik, Univeristas Maritim Raja Ali Haji. Pembimbing I: Ferdi Chahyadi, S.Kom., M.Cs. Pembimbing II: Nurul Hayaty, S.T., M.Cs.

Desa Ngal adalah sebuah desa yang terletak di pulau terpencil diwilayah Kabupaten Karimun, tepatnya di Kecamatan Ungar Provinsi Kepulauan Riau. Selama ini, jika masyarakat pulau Ngal membutuhkan internet harus terlebih dahulu datang ke kota menyeberangi pulau. Seperti bagi pemerintah desa yang sarat dengan laporannya, seperti Siskuedes, SID (Sistem Informasi Desa), dan lainnya. Jaringan internet berbasis *wireless point to point* dan *hotspot RT/RW Net* sangat dibutuhkan untuk menunjang sistem informasi desa yang lebih cepat tanpa pemerintah desa harus menyeberang pulau untuk mendapatkan internet, begitu juga dengan masyarakat desa yang sulit mendapatkan internet. Peneliti menggunakan metode pengembangan PPDIOO dikarenakan tahap – tahap yang ada pada metode PPDIOO seperti tahap *prepare, plan, design, implement, operate* dan *optimize* paling cocok digunakan pada penelitian ini. Dari beberapa tahapan yang sudah dilakukan sistem jaringan *wireless point to point* dan *hotspot RT/RW Net* yang diimplementasikan telah berhasil dijalankan dengan baik. Keseluruhan sistem *wireless* maupun *hotspot* dengan diuji coba melakukan pengujian *client/user* dimana perangkat *wireless, access point* dapat bekerja secara optimal, baik itu sinyal yang didapat oleh *client/user*.

Kata kunci: *Internet, Wireless, Point to Point, Hotspot, Voucher, QoS*

ABSTRACT

Yurisqi, Lucky. 2022. Design and Build Internet Networks to Disadvantaged Villages Using Point to Point and Designing RT/RW Net Hotspot Networks Using Mikrotik, Thesis. Tanjungpinang: Department of Informatics Engineering, Faculty of Engineering, Raja Ali Haji Maritime University. Advisor I: Ferdi Cahyadi, S.Kom., M.Cs. Co-Advisor II: Nurul Hayaty, S.T., M.Cs.

Ngal Village is a village located on a desert island in the Karimun Regency, precisely in Ungar District, Riau Islands Province. So far, if the people of the island of Ngal need the internet, they must first come to the city across the island. As for the village government which is full of reports, such as Siskuedes, SID (Village Information System), and others. Point-to-point wireless-based internet networks and RT/RW Net hotspots are needed to support a faster village information system without the village government having to cross the island to get internet, as well as rural communities who have difficulty getting internet. Researchers used the PPDIOO development method because the stages in the PPDIOO method such as the prepare, plan, design, implement, operate and optimize stages are most suitable for use in this study. From the several stages that have been carried out, the point to point wireless network system and RT/RW Net hotspots that have been implemented have been successfully implemented. All wireless systems and hotspots are tested by testing client/user where wireless devices, access points can work optimally, whether it's the signal obtained by the client/user.

Keywords: *Internet, Wireless, Point to Point, Hotspot, Voucher, QoS*