

HOTSPOT NETWORK DESIGN USING MICROTIC ROUTERS FOR ONLINE LEARNING DURING THE COVID-19 PANDEMIC

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ESSENCE

The development of computer networks leads to the use of technology without wires or wireless. This technology is the standard in the world of information. Various aspects of human life are in dire need of information, both for education and entertainment and so on. To obtain this information, the public, especially students from various educational levels, currently want a fast, or in other words instant, method, which is not limited by the space and time in which the information source is located. Currently, there are many internet service providers popping up in various regions, one of which is the sale of internet vouchers which are in great demand among students today. Where students need a fast source of information to meet their needs, such as lectures, school assignments, or to open their horizons to the outside world because they consider the need for the internet to be important, especially during the covid-19 pandemic. This study aims to design a hotspot network using a microtic router for online learning during the covid-19 pandemic as a new innovation that is applied to the belimbing complex, jalan mangga II, Padang city. This type of research is a design by applying the waterfall research method, by carrying out several stages, namely needs analysis, system design, implementation, system testing and maintenance. The research was tested in 2 stages, namely validation tests by experts and QoS (Quality of Service) testing. Overall validation of the network system by the validator is valid. Network testing using QoS (Quality of Service) testing got very good Delay (Latency) results, very good Packet Loss, very good Throughput, and good Jitter. The results of this study indicate that the design of a hotspot network using a microtic router for online learning during the covid-19 pandemic is valid and practical to be applied as an alternative for communication during learning.

Keywords : Network, Router, Microtic, Hotspot, QoS.