**Peningkatan Jaringan RT/RW Net dengan Fiber Optik dan Pemanfaatan
Load Balancing dengan Metode Equal Cost Multi Path**

*Improvement of RT/RW Net with Optical Fiber and Utilization of Load Balancing
with Equal Cost Multi Path Method*

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ABSTRACT

Even though telecommunications technology has developed, nowadays access to technology, especially the internet, is still difficult to obtain in certain areas such as rural areas, the current internet network still covers urban areas and it is also relatively expensive to have an internet network. Building a cheap internet network is a solution for the needs of internet access in the community, cheap internet access which is commonly called RT/RW Net. RT / RW Net is a concept where several computers in a housing or block can be interconnected and can share data and information. Building a RT/RW Net network must provide the best internet connection quality. The number of RT/RW Net internet users that tends to increase is usually not supported by an increase inadequate bandwidth. As a result, there will be many problems regarding internet access speed for users which makes the service inaccessible. So that the workload on 1 network on the server increases rapidly so that the server can become overloaded in a short time or overload. Therefore, a solution arises to use two ISP(Internet Service Provider) and make Mikrotik a load balancer with the ECMP method, it is hoped that Mikrotik can optimize the distribution of bandwidth for each client who wants to access the internet. The mechanism is that Mikrotik will mark packets that want to access the internet, then equalize the load on the two ISPs so that the application of load balancing can run without changing the existing network, and make connections run more optimally if there is an increase in network traffic due to a balanced distribution of connection lanes.

Key words : RT/RW Net,Mikrotik,Load Balancing