

ABSTRACT

The construction of Network Transmission Towers or commonly known as towers continues to grow rapidly from year to year, due to competition from each cellular network service provider to meet the needs of each customer, including in the Kuningan area, West Java. Which makes the number of towers devoted to service providers increase and it pollutes the view, takes up a lot of land, and also high construction costs, therefore PT. Mitratel as Tower Provider offers a co-location method in which one tower can be used by more than one service provider so that the number of existing towers in Kuningan can be reduced, and also the construction costs that must be spent by the service provider can be reduced. by rent. So the design and implementation of Fiber To The Tower (FTTT) was carried out for co-location towers.

The design of the network will begin through the Google Earth Pro software to find out the state of the starting point, namely the tower on Jl. Student Soldiers, Kuningan Regency kadugede, possible network paths, and the end point, namely the tower on Jl. Wage, kadugede, Kuningan Regency, then made an initial network design, and after that the next design will be made on autocad software, and after the design is implemented a network feasibility test will be carried out with PT. Mitratel on the network.

After carrying out the survey and data collection, it was found that the distance between the starting and ending points was around 3.5 km and it was indicated that they could be connected to several network path plans. When the Fiber To Tower (FTTT) network design has been completed and implemented, the expected output of the FTTT network is in accordance with the company's specifications and is able to connect the two towers and make the co-location tower system capable of running

Keywords: *Co-locating, Fiber To The Tower, Network Design.*