ABSTRACTION

The current era of globalization which is accompanied by the development of industry 4.0 where internet networks are needed to support human activities, it is not uncommon for the internet to experience various disturbances, both in terms of devices and from security. One way to test network quality is to perform a QOS (Quality Of Service) analysis. In addition to testing network stability using QOS, data transmission security needs to be implemented to ensure data safety from unauthorized parties. One way to secure data on a network is to implement a Virtual Private Network (VPN) which can make a network private and secure using a public network or the internet. This is the basis for conducting research at the BRIN Pustekbang by simulating and analyzing QOS (Quality Of Service) with the addition of data security using VPN OVPN using the GNS3 network simulator application with Hardware In The Loop Simulations technique which is a simulation involving several external hardware as a supporter.

Keywords: Internet network, QOS (Quality of Service), OPENVPN, Pustekbang BRIN.