

## **ABSTRACT**

Now, PSTN technology at a preliminary stage of transition to NGN; a network that have pocket basic (IP) with a multiple broadband ability, and it serve the quality guarantee (QoS). In the implementation, NGN need support from access network that have a wide band (broadband). At PT Telkom, most of the access network use copper network. And in the first design, it is for narrow band service that called voice. Optical Access Network (OAN) is an optic fiber access network that added on copper access network to increase the ability, and it's called broadband access network. But, look at the condition, for now, not for all of the copper access can be increased their ability to be broadband access network.

On this Final Project, measurement with Toolgrade, tools with a web basic used to determine which network can be used to broadband service on OAN. This tool can measure the attenuation, bandwidth, loop length, capacitive balance, and longitude balance.

Measurement's result show that 64,83% from 600 user connected on RG STO Dago fulfill the rules to use broadband service or R2BB (Ready to Broadband).

Keyword: OAN, BAMS, R2BB