

## Abstract

Speedy using ADSL technology which need cable network that are ready to use. Beside the network, continuously controlling and maintenance also needed to keep the quality of service. Controlling can be done by analysing speedy network performance continuously.

This time, the company had a simple and manual analysis so that has high risk for human error. To face this problem, we can build a supporting application which will process the criteria weighting function and calculate the value of Q, MTTI, MTTR, GAUL and access speed to get the network performance level using Fuzzy AHP method. Problem definition marginally covered criteria definition, speedy network performance analysis, supporting application building, and application analysis.

Using Fuzzy AHP method to do the criteria weighting actually so precise for this system because each criteria and sub-criteria give a different effect to speedy network performance.

Based on the testing, this system give the accurate equal to 83.76 % where this accurate value is given by comparing sistem result with quota usage. Based on user testing, this testing give assessment that this application is competent to replace the old system.

**Key words:** speedy network, performance analysis, criteria weighting, performance level, Fuzzy AHP