ABSTRACT

With the growing wireless services, CDMA telecom operators offering at least two main services, which is voice and data services. From these two services, different traffic data generated by different pattern.

In this final project have aims to analyze the voice and internet data traffic related to bandwidth occupancy between base station and base station controller (Abis interface). Traffic data is represented by the two services area, office and residential which located in Central Surabaya area, which observed on the busy hour.

Generally, the data which collected are 1x erlang traffic and internet/DO traffic, the percentage of successful calls (call success rate) of 1x and DO calls, number of blocking caused by abis bandwidth, Abis available bandwidth and throughput that occurs between the base stations and base station controller. The data which have been obtained then to be analyzed the number of call blocking due to abis bandwidth. Further analysis using regression is applied to determine relation between traffic and throughput in residential and offices area. Using the time series analysis, it can be used to forecast Abis bandwidth based on throughput forecasting.

In the results showed that traffic in the offices area tend to have voice and internet/DO traffic larger than residential area. The data show, the highest traffic in the residential for 1x is 63.23 erlang, DO traffic is 35.22 erlang, with the throughput of 12.71 Mbps. Traffic in the offices indicate traffic for 1x is 80.12 erlang, DO traffic is 45.21 erlang and throughput reached 13.11 Mbps. As for the highest occupancy Abis of the base station in residential is 77.58%, while the highest occupancy Abis of the base stations in an office area reached 80.02%.

Keyword: Traffic, throughput, Abis bandwidth
Halaman ini sengaja dikosongkan