

ABSTRACT

Indosat PT. is one of telecommunication that has fixed wireless access license. StarOne is one of it's product that had been licensed. Starone is using CDMA 20001X technology that already classified on 3G network.

In demand of developing the StarOne network coverage, Indosat has build a new MGW at Tasikmalaya to cover east areas in West Java. Due to the areas infrastructure in Tasikmalaya has not supported the CDMA20001X network, so the connection routes that has been built has not support the actual reliability that already established in other areas. Beside of that, due to the elimination of interconnection monopoly causing every operators has its own interconnection that affect in the increasing of workload in switching devices.

This final task is analysing the Post Dial Delay by recording the CCS7 signalling messages, also signaling timming in MSCe. In measurement,it obtained that the ISUP messages traffic differences is affecting Post Dial Delay (PDD) results. At high traffic, which is in 0.0044 Erl,the Post Dial Delay (PPD) mean is 7.28 seconds. The differences in messages signalling flow is not affecting the Post Dial Delay (PDD) results, but it affect the processing delay in Bandung's GMSC up to 0.16 seconds. The differences in receive signal power affect the Post Dial Delay (PDD) results. Post Dial Delay (PDD) mean at 100dBm sampai -110dBm receive signal power is 10.07 seconds. The differences in StarOne that using Ring Back Tone (RBT) is affecting affect the Post Dial Delay (PDD) result up to 6.76 seconds. To optimize the performances of call setup process between StarOne Bandung's areas with StarOne Tasikmalaya's areas, it needs SS7 signalling link and voice link between Bandung's MGW and Tasikmalaya's MGW. It doesn't violate the rules that has already issued by the Department of Communication and Information.

Keywords: Post Dial Delay(PDD), CCS7, ISUP messages