ABSTRACT

Number portability (NP) is an interesting technology that gives the ability to the customers to retain their phone number even if they move to another place, change the service they get or change the service provider, without impairment of quality, reliability,or convenience.

Local Number portability (LNP) is one of number portability technology that had been implemented in North American, mandated by *Federal Communication Commis*sion (FCC) in 1997. LNP is implementation of NP which is use *Location Routing Number* (LRN) method. LRN is used as an additional routing information beside of *Directory Number* (DN), which is used by the switch/exchange to route the call to the ke *recipient switch* (the switch where the ported number now located).

LNP really need CCS7/SS7 signaling system to exchange or to communicate two routing information above, *Directory Number* (DN) and *Location Routing Number* (LRN). There are three functional software block of CCS7 which have the important role to exchange these two routing information, it is *ISDN User Part* (ISUP), *Signaling Connection Control Part* (SCCP) dan *Transaction Capability Application Part* (TCAP). ISUP is needed for communication between exchange/switch to inform two routing information above. SCCP and TCAP is responsible for communication between *local Exchange* (LE) and *Number Portability DataBase*(NPDB) to get the LRN.

According to PT. Telkom's resources of *Inteligent Network* (IN) - CCS7 and LNP technology which is used IN - CCS7, then there are two implementation alternative for PT. Telkom if they want to implement LNP as a substance of thought. The first alternative is not to add SSP function at Local Exchange and the second alternative is to add SSP function at Local Exchange.