ABSTRACT

NGN (Next Generation Network) is a global and future network based on IP. NGN have an ability to integrate and connect two different network, packet and circuit. But, realize a NGN world is not easy. Different addressing system between packet and circuit network is become a barrier. Packet which uses IP for addressing, have different concept and principle with circuit which used e-164 number from ITU-T. Another problem is there are multiservice in telecommunication network. It causes each user will get multi ID.

A good solution is offered, by using ENUM (Electronic Number Mapping). The principle of this technology is to mapping traditional number to internet address, like VoIP number, email, or HTTP. Finally, packet network and circuit can connect each other. For user who has many ID doesn't worry anymore, because 1 ENUM number can be used for multiservice.

Network which built is consists of 1 ENUM server, 3 VoIP servers, and a gateway to PSTN. PDD analysis are used to compare an ENUM call and non-ENUM call. PDD PC-phone to PC-phone is 0.544778 and PC-phone to PSTN is 3.37511 are not cross the line, it can be concluded that ENUM network is implemented well.

Key word : NGN, ENUM, VoIP