ABSTRACT

To support all IP network, it takes some migration steps, one of the step is migration from circuit switching to new swithcing technique that known as softswitch. All IP network cannot instantly replace legacy telecommunication network. Step by step must be done.

First step is done by replacing Class 4 switch with softswitch. With deployment of softswitch two network will occur, that is IP network as backbone network and PSTN as access network.

Interworking scheme need to explain signaling process between IP network and legacy PSTN. Softswitch have made interworking process posible with the deployment of SIP-T mechanism (Session Initiation Protocol for Telephones).

With SIP-T mechanism mapping from ISUP (ISDN User Part) to SIP (Session Initiation Protocol) can be done. ISUP messages must be encapsulated and translated to SIP so that information from PSTN can be received at the IP network.

Call scenario and state diagram is use to analyze interworking process. Call setup time may vary, with procotol transport UDP and SCTP.

Keywords : SIP, SIP-T, interworking, interoperability, PSTN, SS7.