Abstract

During the last few years, Ericsson has developed an emulator for the telephone system called CPP (Connectivity Packet Platform) with TietoEnator as a subcontractor. The emulator is called CPPemu and emulates the hardware used in the network nodes in CPP. This means that the same software that may be run on a node in a CPP network may be run on the emulated hardware in the emulator. TietoEnator would like to examine whether the emulator may be used for testing software instead of running tests using physical hardware. For this experiment, a particular event will be tested in the CPP emulator.

A fail-over procedure, which works in a physical CPP node, will be verified to work in the CPP emulator. A fail-over may be defined as

> *The failure and automatic replacement of part of a system such*
> *that the user does not notice the failure and is not affected by it.*
> *The part which has failed is replaced by a backup part.*

This experiment consisted of three majors steps, namely (i) configuring the emulator, (ii) creating a network by setting up a redundant network (one main link and one backup link) between two emulated nodes and finally (iii) testing the fail-over procedure. The fail-over was tested by generating and sending traffic through the network, triggering the fail-over by ejecting the board which is currently sending and receiving traffic and inspecting the log files to evaluate if the fail-over works as intended. The results of the experiment indicated that the system performed as expected.