Abstract

The GSM technology has lower data rate around 9.6kbps. Also, it proves expensive for bursty traffic utilization. Therefore to enhance the data capacity of GSM and mitigate some of its limitations, mobile technology using general packet radio service (GPRS) has been developed. GPRS adds packet-switched capabilities to existing GSM and TDMA.
Implementation of GB Interface using Internet Protocol

networks. The circuit-switched technology has a long and successful history but it is inefficient for short data transactions and always-on service. The packet switched technology has grown in importance with the rise of the Internet and Internet protocol (IP). The Gb interface carries the GPRS traffic and signalling between the GSM radio network (BSS) and the GPRS network. Frame Relay based network services is used for this interface. However because of congestion problem and the lower throughput, this interface has been implemented using internet protocol called as the Gb over IP. This paper discusses the basic architecture of GPRS, pooling concept and the implementation of the Gb interface using internet protocol. After implementation the data rate increases to few mbps. This can be achieved through increased capacity utilization, network-level redundancy, efficient mobility and simplified O&M.

Reference

- Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Overall description of the GPRS radio interface; Stage 2 (3GPP TS 03.64 version 8.9.0 Release 1999).

Index Terms

Computer Science Information Technology

Key words

GPRS IP Gb over IP