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SS7 MTP3 Gateway Architecture
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Abstract

This Internet Draft defines an interworking architecture and function for providing seamless and transparent interworking between the SS7 newtork and and IP network at SS7 Level 3 (MTP - Message Transfer Part) for providing IP host-based MTP User Parts within an IP network. This architecture permits IP hosts performing an MTP User Part function to appears as though they are normal SEPs (Signalling End Points) or STPs (Signalling Transfer Points) withing the SS7 network, while acting normally within the IP domain. The gateway function described here is an SG (Signalling Gateway) interworking function which provides this capability at the boundary of the SS7 and IP networks. This specifiction is independent of IP transport, however candidates are UDP, TCP, RDP, RUDP, and SCTP.

1. Introduction

1.1. Scope

A need has been identified for providing seamless and transparent interworking between SS7 and IP networks for the purposes of placing application in the IP domain which service the SS7 domain. This would permit IP host applications whcih are located in the IP domain to provide services into an SS7 network as though they we a part of that SS7 network. The intention of this MTP3 Gateway Architecture is as follows:

- permit the application to only be concerned with IP related routing and tasks.
- Gateways) acting as SEPs (Signalling End Points) or STPs (Signalling Transfer Points) to remain conformant to SS7 specifications without compromising the IP network philosophy.

1.2. Terminology

Signalling Gateway (SG)

Signalling End Point (SEP)
> An SEP (Signalling End Point) is an SS7 SP (Signalling Point) which originates and terminates MTP (Message Transfer Part) User traffic.

Signalling Transfer Point (STP)
> An STP (Signalling Transfer Point) is an SS7 SP (Signalling Point) which can forward or relay SS7 MTP messages which are destined to an SS7 SP (Signalling Point) which is distant or remote from the point in question.

1.3. Abbreviations

SS7
> Signalling System No. 7

MTP
> Message Transfer Part

SCCP
> Signalling Connection Control Part

ISDN
> Integrated Services Digital Network

ISUP
> ISDN (Integrated Services Digital Network) User Part

1.4. M3GW Overview

1.4.1. M3GW Architecture

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