MACH7-SPOP

"Reliable SS7-over-IP Signaling Transport"

Overview

The growing popularity of Internet Protocol in telecom networks has brought about the need to interoperate existing infrastructure with, or build, new IP-based next generation solutions. New challenges evolve around connecting IP based Services, Databases and other Next Generation signaling applications with legacy circuit switched signaling networks. This requirement to interconnect different network applications demands inter-working multi-protocol solutions that interweave divergent signaling architectures.
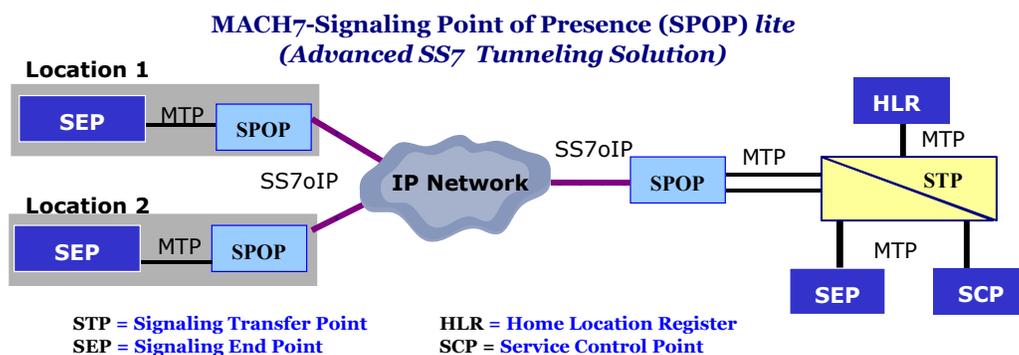
Service providers looking to transition their circuit-switched SS7 signaling to a packet-based IP network are often faced with challenges beyond just the choice of an alternate signaling network. The MACH7-SPOP, (Signaling Point of Presence) provides reliable, efficient transport of SS7 messages over IP networks, replacing expensive dedicated SS7 circuits with more cost-effective IP connections.

Applications

The SPOP allows carriers to reduce signaling transport costs for deployed SS7-based equipment, as well as allow installation of new equipment in the network to do so via IP, even if it supports only SS7. Using the MACH7-SPOP, remotely deployed next generation equipment can also have immediate access to SS7 signaling and IN services.

The MACH7-SPOP cost-effectively off-loads signaling traffic over Internet Protocol (IP) networks, for revenue generating applications such as Long Distance (LD) signaling traffic, Short Message Service (SMS), Roaming etc. with compact and operationally transparent device in small footprint.

The SPOP links multiple STPs, SSPs or SCPs that are geographically dispersed throughout the network. This produces very significant savings in network transmission costs for SS7 signaling systems, while preserving SS7 at the end points. Designed to save the leasing or provisioning costs associated with dedicated long haul SS7 links, MACH7-SPOP enables a gradual transition to IP networks by supplementing MTP based transport cost-effectively with little or no risk to existing revenue streams, nodes and networks.

MACH7-Signaling Point of Presence (SPOP) *lite*
(Advanced SS7 Tunneling Solution)

STP = Signaling Transfer Point   HLR = Home Location Register
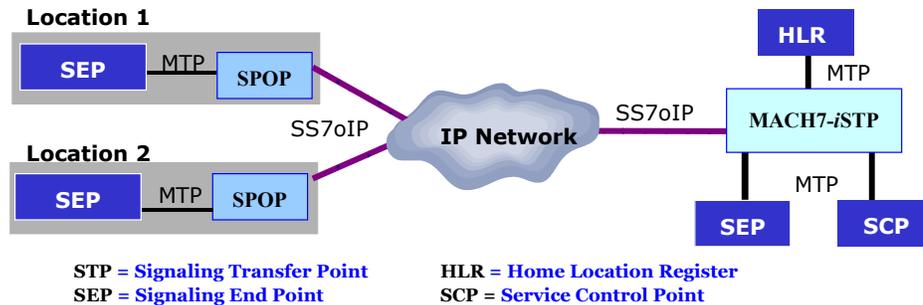SEP = Signaling End Point   SCP = Service Control Point

Benefits

- Significantly reduce transport costs as it multiplexes and off-loads heavy use SS7 traffic cost-effectively over IP
- Supports remote switch deployment where SS7 cannot be provided cost-effectively
- Back-hauls long distance (LD) SS7 signaling traffic in international networks
- Replaces A-Links for SEPs while consolidating traffic and reducing STP ports
- Telco-grade reliability with the convenience of remote location deployments.

MACH7-SPOP

MACH7-Signaling Point of Presence (SPOP) *elite*
(Advanced SS7 backhaul Solution)

STP = Signaling Transfer Point
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Key Features

- ### REDUCING EXPENSES, INCREASING REVENUES

MACH7-SPOP is capable of switching the voice traffic to/from media gateways using in-built add-drop multiplexing capability, while providing transport solution for signaling traffic only. It enables optimal reduction in operational expenses by multiplexing and migrating signaling traffic from expensive, dedicated leased lines to the cost-effective IP network. In the process, it efficiently minimizes connectivity issues with advanced network engineering, which increases the capability to provide revenue-generating, value-added services.

- ### RELIABLE SIGNALING TRANSPORT

The unique feature of the MACH7-SPOP is its ability to deliver reliable transport of SS7 signaling over networks conforming to stringent signaling delay requirements. This carrier-proven ability to operate in a delay-prone environment, such as satellite networks, sets the MACH7-SPOP device apart from similar solutions.

- ### MULTIPLE SS7 VARIANTS

The MACH7-SPOP conforms to the functions and message protocols as described in ANSI, ITU-T and country specific SS7 variants. SIGTRAN interface conforms to IETF's standards.

- ### CAPACITY

Can support up to 16 SS7 links with 56/64 Kbps bandwidth. Both channelized and un-channelized interfaces are supported.

- ### OAM&P INTERFACES

The platform offers a comprehensive secured management interface, which includes both Command Line Interface, and Web Browser based Graphical User Interface.

- ### NETWORK TRANSPARENCY

With the growth in number of telecom operators, together with the distributed nature of entity provisioning in IP networks, it is necessary to conserve SS7 point codes used for addressing the network elements. The teleSys MACH7-SPOP device does not require a point code, nor do networks need to be re-configured when adding these units.

- ### CARRIER PROVEN

teleSys' MACH7-SPOP solution is a mature, carrier-proven, cost-effective network solution. It has been also deployed over satellite communication.

teleSys Software, Inc.

teleSys is the premier provider of advanced Telecommunications solutions for the next generation LTE Signaling Networks, providing open systems hardware and software.