



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 Media Gateways / Servers, Soft-switches, Service 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 circuit and packet switching architectures.

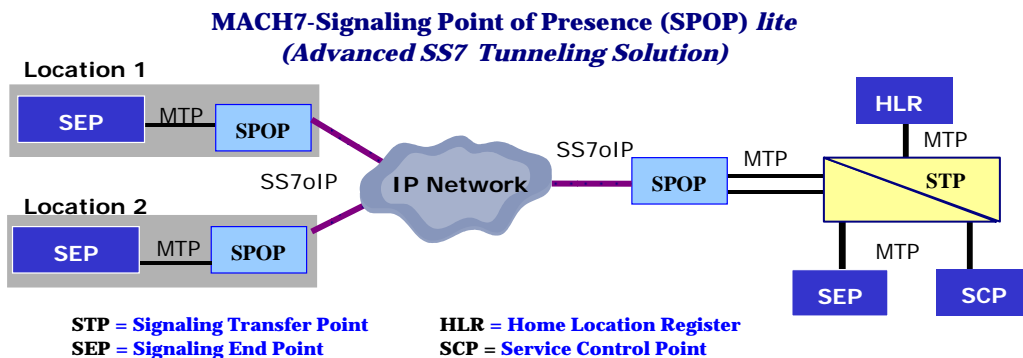
Service providers looking to transition their circuit-switched SS7 signaling to a packet-based IP network are often faced with challenges beyond just the choice of an alternate signaling network. The MACH7-SPOP, (Signaling Point of Presence) provides reliable, efficient transport of SS7 messages over IP networks, replacing expensive dedicated SS7 circuits with the more cost-effective IP networks.

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, next generation customer premise and enterprise 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), Local Number Portability (LNP) 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 telecom operators 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 networks, nodes and revenue streams.

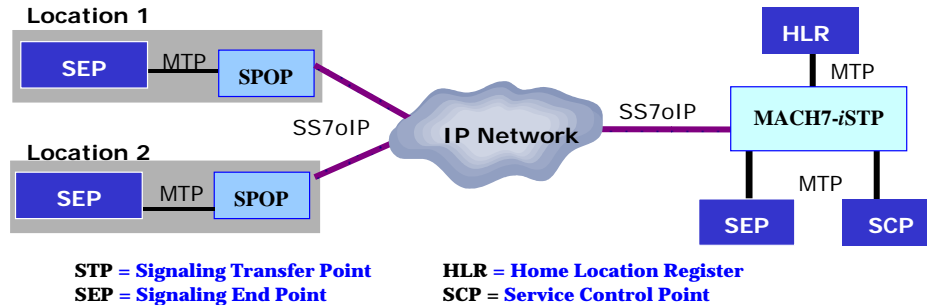


Benefits

- Significantly reduce transport costs as it multiplexes and off-loads heavy use SS7 traffic cost-effectively over IP; Short Message Service (SMS) directly to a SEP such as a MSC, HLR, SCP or SMSC
- Supports remote switch deployment in locations where SS7 cannot be provided cost-effectively.
- Back-hauls long distance (LD) SS7 signaling traffic from national and international networks.
- Replaces A-Links for SEPs while consolidating traffic and reducing STP ports.
- Supports next generation customer premise or enterprise equipment, e.g. In-Building Wireless Systems to connect to SS7 networks.
- Telco-grade reliability while delivering the convenience of remote location deployments.

MACH7-SPOP

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



Key Features

- **Open Architecture**

MACH7-SPOP uses existing SIGTRAN standards to reliably inter-work SS7 and IP. Recent and ongoing work in industry bodies (e.g., IETF) are making IP networks as robust for signaling as traditional SS7 networks.

- **Multiple SS7 Variants**

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

- **Capacity**

Can support up to 16 SS7 links with 56/64 Kbps bandwidth. Channelized 48/56/64 kbps J1/T1/E1 interfaces are supported. One SPOP can inter-connect up to 16 SPOPs at remote locations.

- **OAM&P Interfaces**

The Platform offers a comprehensive Systems Management interface, which includes: Command Line Interface, and Web Browser based Graphical User Interface. Enables remote secure access for provisioning and maintenance.

- **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.

- **Network Transparency**

With the growth in the number of telecom operators, together with the distributed nature of entity provisioning in IP networks, it is necessary to conserve precious and limited 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 reconfigured when adding these units.

- **Reducing Expenses, Increasing Revenues**

MACH7-SPOP provides seamless interoperability with existing network elements. It 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 frees up those leased lines which can be used for revenue-driven voice traffic; it efficiently minimizes connectivity issues with advanced network engineering, which increases the capability to provide revenue-generating, value-added services.

- **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 solutions for the Next Generation Converged Network, delivering open systems software and hardware. The teleSys portfolio of products supports industry standards and all prevalent protocols in Next Generation telecommunication networks.