



MACH7-HA

“High Available Signaling Platform”

Overview

The MACH7-HA (**MACH7 High Available**) is a high available platform for network equipment providers, application developers, system integrators and service providers. The platform's open system architecture offers benefits to companies deploying new network-based applications, including “24x7” operations, cost-effective open platforms, major signaling protocols in the wireline, wireless and next generation VoIP networks with 99.9999% (6 nines) availability.

Applications

teleSys’ customers around the globe are using MACH7-HA for developing and deploying wide range of applications and enhanced services in wireline, wireless and next-generation VoIP networks.

For Traditional PSTN and Wireless Networks: Mobile Switching Center (MSC), Service Switching Point (SSP), Service Control Point (SCP), Signaling Transfer Point (STP), Home Location Register (HLR), and others.

For Voice-over-IP (VoIP) networks: Soft Switches, Signaling Gateway, Media Servers, Application Servers etc.

For 3G Wireless Network : Converged Services Gateway, Home Subscriber Servers (HSS), and others.

It also hosts enhanced applications like Voice Mail, Local Number Portability, Prepaid Calling, E911, Unified Messaging, Location-based services, Color Ring Back Tone, Presence Application, Instant Messaging and others.

Protocol Layers

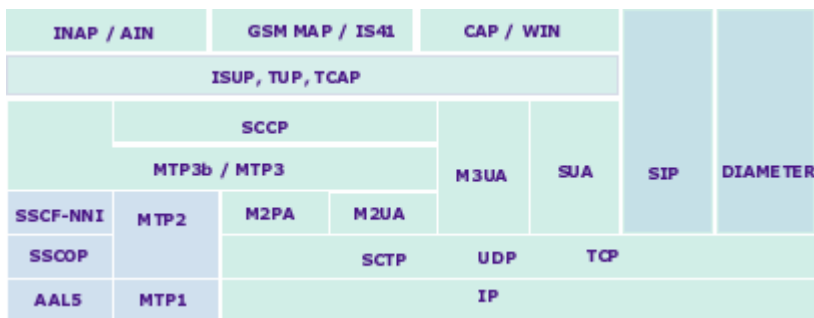
MACH7-HA’s unique advantages provide the ideal platform for developers to rapidly develop and deploy services in traditional, Next Generation IP and Converged networks. It supports all network signaling requirements for those applications providing services for:

SS7 Signaling : Basic MTP, SCCP, ISUP, TCAP protocols along with the higher layers INAP, AIN, MAP (GSM, IS41), CAP and WIN capabilities as per ANSI, ITU-T, ETSI, NTT/TTC Japan, China and other country standards.

SIGTRAN Signaling : M3UA, SUA, M2PA, M2UA over SCTP conforming to IETF’s latest RFC standards for SS7 over IP (SS7oIP) signaling.

SIP Signaling : Next Generation SIP signaling along with SDP and multiple SIP extensions like REFER, INFO, PRACK, SUBSCRIBE-NOTIFY and more.

DIAMETER : As per IETF and 3GPP standards with support for Cx (CSCF-HSS) and Sh (AS-HSS) interface.



Benefits

- Increased revenue due to reduced downtime with six nines (99.9999%) availability.
- Accelerated time-to-market due to open architecture implementation.
- Open and flexible interface for operations and network management.
- Easy-to-use APIs for enhanced services and applications.
- Service portability due to open system architecture.
- Complete interoperability between networks due to standards-based protocol implementation.

MACH7-HA

teleSys Advantages

High-Availability

MACH7-HA incorporates teleSys's cutting-edge technology for distributed high-availability. This platform-independent architecture allows processing of traffic via all available signaling interfaces connected to the platform. MACH7-HA load balances the traffic across relevant protocol layers on multiple physical computers in the system; software runs as "In-Service/Active" on these servers. The daemon running on the application servers makes the protocol software look as though it is local to the application, while facilitating communication of the messages sent to and from the protocol layers. The Platform appears as a single node in the network with its All-Active redundant architecture.

With the MACH7-HA, traffic can flow over available resources in the network and will be instantaneously re-routed in the event of an outage, thus guarantees no Single Point of Failure and complete redundancy.

Scalability

The scalable architecture enables users to minimize their initial deployment costs while supporting incremental growth as demand increases. With the increase in service demand and signaling capacity in the network, the transaction capacity and throughput can be increased with the incorporation of additional modules and interfaces.

Performance

The MACH7-HA provides solutions for all performance needs. With carrier proven throughput and performance, it supports signaling requirements from small applications with low calls / transactions per second requirements to large network equipment with high breakthrough transactions per second requirements.

Programming Interface

Comprehensive suite of C/C++ based application programming interfaces (APIs) for user applications across multiple operating environments enables seamless integration of client applications. This easy-to-use advanced environment allows developers and integrators to focus on the development and integration of services, resulting in faster deployment times with low training and maintenance costs.

OAM&P

The Platform offers a comprehensive Systems Management interface, which includes: Command Line Interface, Web Browser based Graphical User Interface and SNMP Interface to the network management system. It also provides performance and statistics data which allows for the engineering of architectural and solution requirements based on network demands.

Open Architecture

MACH7-HA hosted on open architected off-the-shelf hardware running Solaris (SPARC) or Linux operating environment supports multiple physical connection options for LSL or ATM-HSL interface for the SS7 network, as well as 10/100 or Gigabit Ethernet for SIP, SIGTRAN and DIAMETER protocols; providing a scalable and flexible architecture for applications that require services from telecom network.

Carrier Grade

MACH7-HA has been specifically developed to deal with the most stringent requirements of telecom networks. MACH7-HA has been extensively tested and benchmarked at several carrier deployments globally and provides a clear competitive advantage to its customers.

Future Proof

Because of the flexible, modular and open architected solution, MACH-HA provides OEM customers with the capability to support new network elements as new technologies and new network topologies emerge. Thus enables easy migration of client applications, to any evolving networks in future.

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.