## H.323 Protocol Stack for Next Generation Networks

## Product overview

The ITU-T H.323 standard, which was originally developed for video conferencing using non-guaranteed quality of service LANs, has emerged as a standard for voice/video communication over the Internet.

The core components of the CoH.323 system are:

- Call Signaling Protocol (Q.931) for establishing and maintaining an end to end call
- Video Conference/ Audio Telephony Call Control Protocol (H.245)
- RAS Network Management Protocol (Registration, Admission and Status)
- Real-time Transport Protocol (RTP) / Real-time Transport Control Protocol (RTCP) for packetization and synchronization of audio/ video data
- Audio Codecs (G.711, G.728, G.729, G.729A and G.723.1)
- Video Codecs (H.261 and H.263)

The RTP/RTCP and Network Interface modules that are included in this product need to be modified and maintained by the user for a particular target platform. The CoH.323 stack, with its modular design and well-defined APIs, allows software developers to use third party RTP/RTCP or Network Interface modules along with this product. All the modules in this product have been implemented to facilitate portability, reliability and maintainability.

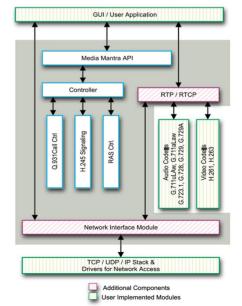
## **Product features**

- Call setup, maintenance and call tear down as per H.323/H.225.0 (Version 2).
- Support for RAS signaling (for bandwidth allocation, admission and address translation with Gatekeeper).
- Multimedia call control as per H.245 (version 3) (including dynamic mode changes).
- RTP/ RTCP as per ITU-T H.323/ H.225 (Version 2).
- Network congestion monitoring and quality of service maintenance as specified in RTCP.
- FastStart or FastConnect.
- Q.931 tunneling.
- Supplementary services: call forwarding and call transfer (H.450.1, H.450.2, H.450.3).
- Real time fax support.

- · In-built ASN libraries.
- Location Request Table (LRT).
- Real time message logging.
- Support for audio codecs (G.711, G723.1, G.728, G.729, G.729A) and video codecs (H.263 & H.261).
- Support for centralized conferencing
- · Support for audio silence suppression
- Dynamic audio-video mode switching
- Portability. Easily portable across various operating systems and platforms.
- Encapsulated call model that provides a simple API interface to the user, thereby enabling the user to bypass the complexity of the H.323 protocol.
- Jitter handling and statistics available in RTP / RTCP module.
- · Overlapped sending procedures during call setup
- Support for DTMF using H.245 procedures for user input indication
- The stack can be used to build H323 terminals and gateways, due to the versatility of the higher level API.

## Software Architecture of CoH.323 Stack

CoH.323 is the Software Development Kit (SDK), which consists of an implementation of CoH.323 protocol stack and related documents. The software architecture of CoH.323 is illustrated in the flowchart.





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