



RTP-BRICKS

BY NETBRICKS

INTRODUCTION

NETBRICKS *RTP-BRICKS* is a scalable and portable stack implementing the 'Real-time Transport Protocol' (RTP) and its QoS companion protocol 'Real-time Control Protocol' (RTCP) for Next-Generation applications.

RTP is the IETF protocol used by VoIP systems for streaming Audio and Video packets across an IP network. RTP typically uses the UDP transport layer to transmit real-time data over unicast or multicast IP networks but it can also be used over reliable TCP/SCTP transport layer for unicast networks.

RTP-BRICKS is fully compliant with the most recent standards:

- RFC 3550: RTP A Transport Protocol for Real Time Applications
- RFC 3711: The Secure Real-time Transport Protocol – *future release*

and compatible with RFC 3551 to support any third-party audio and video codecs/profiles.

RTP-BRICKS use a customizable architecture and can be linked to the application with a message-based or function-based interface. *RTP-BRICKS* is designed to interface UDP, TCP or SCTP through BSD like Sockets. An integrated Jitter buffer management protects the application against IP network impairments such as out of order packets, lost packets and jitter.

Interfaces to most of commercial RTOS are provided: Linux, VxWorks, Solaris, PSOS, OSE and Windows...

RTP-BRICKS can be combined seamlessly with other Netbricks signaling stacks: MEGACO-Bricks, MGCP-Bricks, SIP-Bricks, 3G-H.324M-Bricks, T.38 IAF-Bricks,...

RTP-BRICKS is addressed to the OEM market. Netbricks can develop any custom product based on *RTP-BRICKS* technology according to Customer's specifications.

RTP-BRICKS FEATURES

RTP-BRICKS includes the following features:

- q **Integrated generation of RTP & RTCP packets**
- q **Integrated Jitter buffer management**
- q **SSRC generation and collision detection**
- q **CSRC support to list all the contributing sources**
- q **Support for RTP Mixers**
- q **Support for IPV4 & IPV6**
- q **Dynamic payload type support**
- q **Support for any third-party Audio and Video codecs/profiles**
- q **Network Performance Statistics**
- q **Portable architecture**
- q **Support for Multi-thread and Multi-process application**
- q **Procedural or message-based API**
- q **Suitable for low-footprint terminals and high-performance servers**

RTP-BRICKS SOFTWARE ARCHITECTURE

- q **SYSTEM MANAGEMENT : SM**
- q **TCP/UDP/SCTP:** used through BSD sockets adaptation layer (non-blocking mode). SCTP-Bricks layer can be provided by Netbricks if required.
- q **RTP :** RTP & RTCP for Voice and Video over IP applications

RTP BRICKS SOFTWARE ARCHITECTURE

