Encore's RTP with Jitter Buffer

RTP/RTCP

- RFC 3550 compliance
- In-built generation of timestamps
- Ready support for codecs G711ULAW, G711ALAW, G729AB and G723
- Supports separate codecs in both directions
- Dynamic codec selection
- Supports Comfort Noise payload
- Supports dynamic VAD enabling
- Supports separate packetization periods in both directions
- Supports packetization periods from 10 ms to 90 ms
- Supports RFC 2833 payload format for carrying DTMF events
- Integrated with adaptive Jitter Buffer (JB) to handle jitter up to 150ms
- API for dynamically changing JB from fixed to adaptive and vice-versa
- API for dynamically enabling / disabling RTCP support
- Multi-channel RTP Support
- Works with both blocking as well as non-blocking read calls
- Independent of underlying codec (encode / decode) implementation
- Support 3-party conferencing
- RTP and RTCP monitoring of individual RTP sessions
- Developed in C and makes use of an operating system abstraction layer in order to facilitate porting to different operating systems
- Tested with Network Simulator under various Network Conditions for Audio Quality
- Tested with various 3rd party software and hardware phones / ATAs

Jitter Buffer

- Adaptation based on real time calculations of network jitter and play out delay
- Adapts to optimum delay automatically
- Programmable buffering delay up to 150ms. This helps in keeping the packet losses to the desired level and ensures the delay due to the jitter buffer to be minimum
- Orders the out-of-sequence packets in the sequence
- Supports pro-active buffer reading thereby improving the performance
- Supports detection of packet loss
- Needs only selective information from RTP packet i.e. no need to provide full RTP packet
- Multi channel, reentrant implementation
- C callable APIs
- Simple APIs for easy integration (Init, Add, Get)
- Tested against the following network impairments
    - Latency (linear, uniform, normal distribution models)
    - Packet loss (fixed, random, bursty models)
    - Out of order packets

Availability

Now.

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