

RTP Payload for AMR-WB+ audio codec

`draft-ietf-avt-rtp-amrwbplus-01.txt`

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IPR notice

- Nokia believes there is an unpublished Nokia patent application that may be relevant to this draft
- See
<http://www.ietf.org/ietf/IPR/nokia-ipr-draft-ietf-avt-rtp-amrwbplus-01.txt>
<http://www.ietf.org/ietf/IPR/NOKIA>

Changes since IETF#59

- Two new draft versions, currently 2nd working group version
- Changes in the AMR-WB+ codec (in 3GPP)
- Changes in the payload format
- Editorial changes

Changes in the AMR-WB+ codec

- The codec still includes
 - AMR-WB modes (bit-rates in range 6.6...23.85 kbit/s)
 - Extension modes introduced earlier 14m, 18s, 24m 24s at 16/24kHz
- Codec operates on 2048-sample super-frames
 - Decomposed into 4 equal size transport frames
- New extension modes are combination of 3 components
 - Core mode
 - Stereo extension mode
 - Internal sampling frequency

Changes in the payload format

- RTP timestamp rate changed from 96 kHz to 72 kHz
- Robust-sorting and CRC features & payload header removed
- Two modes of operation: basic mode and interleaved mode
- Revised format for Table of Contents (ToC) entries to accommodate additional modes and features
 - Mode index field extended from 4 bits to 7 bits
 - Transport frame index added
 - Internal sampling frequency index added
 - Optional timestamp offset field for interleaved mode added
- Interleaving scheme changed to a more flexible one
 - Timestamp offset fields to specify time offset between frames in the payload
 - MIME parameters to specify maximum size of an interleaving buffer and the minimum buffering delay to ensure correct decoding

New MIME parameters

- Interleaving
 - Presence indicates that interleaved mode shall be used
 - The value indicates maximum number of frames allowed in the interleaving buffer
- Int-delay
 - The minimum media time (as timestamp ticks) required in the de-interleaving buffer for correct decoding
- NOTE that the following MIME parameters have been removed
 - Robust-sorting
 - Crc

3GPP TSG SA WG4 news

- AMR-WB+ is one of the (two) recommended codecs for 3GPP packet switched streaming (PSS) services
- AMR-WB+ is also expected to be one of the (two) recommended codecs for multimedia messaging (MMS) services
 - This will be discussed/decided by TSG SA WG4 in August 16-20
 - Final decision/approval by TSG SA plenary in September
- AMR-WB+ technical specifications ready to be released immediately after TSG SA approval
- Note also that the current 3GPP Release 6 schedule is September 04

Next steps

- 3GPP TSG SA (WG4) follow-up
 - Finalize the draft once the 3GPP specifications are available
- Your feedback
 - Questions?
 - Comments?
 - Suggestions?