MAPS^{TM} SIP with ED-137B Support

MAPS™ SIP supports VoIP implementation as per ED-137B of EUROCAE (European Organization for Civil Aviation Equipment) standard.

Following are the features (as per ED-137B spec) supported in MAPS™ SIP

- Simulates both **Controller Working Position** and **Radio Media Gateway System**.

- RTP Extended Header

    Supports RTP header extension format as per extended header type 0x167 (WG67). Both audio RTP and R2S packet will carry this 8 byte extended header. PTT and Squelch fields are set properly to signal voice activity in uplink or downlink. PTT-id assigned by remote end will be reflected in extended header.

- R2S-KeepAlive packets

    Supports generation of R2S-KeepAlive packets at every R2S-KeepAlive Period during idle period of call. PTT and Squelch fields are reset properly to signal silence (idle period) in uplink and downlink respectively.

- Supports additional SDP parameters
    - R2S-KeepAlivePeriod: Maximum time (or frame interval) between each R2S-keep Alive packet. integer, in milliseconds.
    - R2S-KeepAliveMultiplier: Number of Keep Alive packets in error or not received by endpoint before Time Out of the session
    - PTT-Id: PTT identity (value from 000001 to max. number of possible RTP streams, e.g.111111=63) assigned to each user agent by GRS endpoint in 200OK response to INVITE.
    - Rtphe: The Version of the used RTP HE (Header Extension).
    - Fid: Frequency identity.

- Supports Additional SIP headers 'Priority' and 'Subject' .
  Every INVITE contains these two headers.

    Priority :   normal   (Indicates SIP call priority)
    Subject :   radio   (Indicates SIP call type)

- IP Spoofing

    Supports IP address spoofing to generate each SIP call using different IP address from a single system.

For complete details on MAPS™ SIP, download http://www.gl.com/Brochures/Brochures/maps-sip-brochure.pdf

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Call from MAPS™ SIP acting as Controller Working Group to Radio Media Gateway

MAPS-SIP as CWP — Radio Media Gateway

INVITE →

← 100 Trying

← 200 OK

ACK →

Call Established

Two Way RTP Session ↔

R2S Packet Tx at every 200ms — R2S Keep Alive Packets PTT OFF, SQ OFF →

← R2S Keep Alive Packets PTT OFF, SQ OFF — **R2S Packet Tx at every 200ms**

Audio Transmission (PTT Enabled) — RTP Audio Packets PTT ON, SQ OFF →

R2S Packet Tx at every 200ms — R2S Keep Alive Packets PTT OFF, SQ OFF →

← RTP Audio Packets PTT OFF, SQ ON — **Audio Transmission (Squelch Enabled)**

← R2S Keep Alive Packets PTT OFF, SQ OFF — **R2S Packet Tx at every 200ms**