

TSG-SA WG 1 (Services) meeting #12
Helsinki, Finland, 7-11 May 2001

TSG S1 (01) 0529
Agenda Item: 11.2

Title: Response LS on Voice Bearer Interworking

Source: TSG-SA1

To: TSG-SA2

Cc: TSG-SA4, TSG-T, GSMA SerG

Attachments: S1-010304

Contact Person:

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SA1 would like to thank SA2 on their liaison statement on “Voice Bearer Interworking”.

As a long-term objective, SA1 believes that it is desirable that the IM Subsystem support the capability to do voice bearer interworking with any IP endpoint in order to provide maximum flexibility in service offerings. However, SA1 also agrees that voice bearer interworking between the IM Subsystem and any IP endpoint that utilizes any arbitrary transcoder or any arbitrary codec could be an unbounded problem and, therefore, is beyond the scope of Release 5.

Consequently, SA1 proposes the following guidelines for voice bearer interworking between the IM Subsystem and any IP endpoint¹:

1. For Release 5, SA4 should identify a minimum mandatory set of codecs (e.g. AMR) for the voice bearer services that will be controlled by the IM subsystem.
2. For Release 5, voice bearer interworking should be supported for any IP endpoint which supports at least one of the minimum set of codecs defined by 3GPP.
3. Voice bearer interworking with the PSTN for basic voice calls is required for Release 5.
4. Transcoding with any IP endpoints that support the PSTN codecs but do not support any of the minimum set of codecs defined by 3GPP should be supported in Release 5.
5. Transcoding with any IP endpoints that do not support the PSTN codecs and do not support any of the minimum set of codecs defined by 3GPP is **not** required for Release 5.



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¹ Support of optimized voice in GERAN requires the RAN to have knowledge of the codec being utilized and therefore has to be a codec that has been identified by 3GPP in the minimum set of codecs.

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3GPP TSG-SA Working Group 2 Meeting #16
January 22-26, 2001
Los Angeles, CA

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TSGS2#16 S2-010349

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6 **Source:** Lucent Technologies*

7 **Title:** Proposed LS on voice bearer interworking

8 **To:** TSG-S1

*Contact: Thomas Towle
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10 TSG-SA2 would like to seek the guidance of TSG-SA1 regarding the need to support voice bearer
11 interworking with IP endpoints outside of the IM Subsystem that do not support the AMR codec. For Release
12 5 we are addressing procedures that will support interworking without transcoding, and procedures for
13 interworking with transcoding for the PSTN. The procedures necessary to support the inclusion of arbitrary
14 transcoders, supporting interworking with various other codecs, are felt to be beyond what can be addressed
15 in the Release 5 time frame.

16 It may be expected that many other SIP endpoint terminals will be available on IP networks in the future.
17 These terminals would not be expected to adopt the UMTS codec standards. To support communication with
18 such endpoints it is necessary to place a transcoder in the bearer path. Negotiating for a common coding
19 may be a complex process depending on the number of possible codings that may be encountered. SA2
20 would like SA1 to give guidance regarding the types of codings with which the IM Subsystem should support
21 interworking in the time frame beyond R5.