

Source: Siemens AG¹
Title: Support of MIME subelements for audio and video
Document for: Discussion
Agenda Item: _____

1. Outline and Proposal

During the T2 MMS (Multimedia Messaging Service) adHoc in Lund, Sweden, 22.-24. FEB 2000, MPEG-4 visual simple profile level 1 and AMR/EFR using TS 26.101 (Annex A) format was included as possible non-mandatory formats for video and audio [4]. MMS allows to include different media objects by using the MIME (Multipurpose Internet Mail Extension) technology. In detail the format is defined by the subtype of the appropriate MIME element [5].

S4 has already specified within in its 3G-324M specification

- AMR/EFR using TS 26.101 (Annex A) format [1] as mandatory audio codec format and
- MPEG-4 visual simple profile level 1 [2,3] as optional but useful video codec.

Currently there are no particular MIME subtypes for these two codecs/formats. Therefore the general purpose MIME subtype application/bit-stream has to be used.

In order to guarantee a unique mapping and to promote these two codecs/formats Siemens proposes to register the appropriate subtypes at IANA. Siemens also asks the S4 experts to actively support the registration process at IANA.

2. Technical Specification

IANA requires particular specification for registration process that include file type extension, parameter settings, ect. Therefore this section outlines the proposal for the required parameters:

(All open parameters are marked by “?” and have to be filled before submission)

AMR/EFR using TS 26.101 (Annex A) format

MIME media type name:	audio
MIME subtype name:	vnd.3GPPTS26101
Required parameters:	?
Optional parameters:	?
Encoding considerations:	audio samples are arranged in octet formats, defined by 3GPP TS 26.101 Annex A.
Security considerations:	none
Interoperability considerations:	audio format covers the audio codecs AMR, EFR
Public specifications:	3GPP TS 26.101 and its Annex A
Additional information:	

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Magic number: ?
File extension: AEF
Macintosh file type code: ?
Object identifier or OID: ?

Additional comments:

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Intended usage: COMMON
Author / Change controller: Bernhard Wimmer, Siemens AG

MPEG-4 visual simple profile level 1

MIME media type name: video
MIME subtype name: vnd.mpeg4-visualsimpleprofile-level1
Required parameters: ?
Optional parameters: ?
Encoding considerations: ?

Security considerations: none

Interoperability considerations: format is interoperable with "raw" MPEG-4 visual simple profile level 1

Public specifications: ISO/IEC 14496-1 (1999): Information Technology - Generic Coding of Audio-Visual Objects - Part 1: Systems.
ISO/IEC 14496-2 (1999): Information Technology - Generic Coding of Audio-Visual Objects - Part 2: Visual

Additional information:

Magic number: ?
File extension: M4V
Macintosh file type code: ?
Object identifier or OID: ?

Additional comments:

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Intended usage: COMMON
Author / Change controller: Bernhard Wimmer, Siemens AG

References

- [1] 3G TS 26.101 (V3.0.0): "Mandatory Speech Codec speech processing functions"; AMR Speech Codec Frame Structure

- [2] ISO/IEC 14496-1 (1999): Information Technology - Generic Coding of Audio-Visual Objects - Part 1: Systems.
 - [3] ISO/IEC 14496-2 (1999): Information Technology - Generic Coding of Audio-Visual Objects - Part 2: Visual
 - [4] 3G TS 23.140 Multimedia Messaging Service (MMS), Functional description; Stage 2
 - [5] Related MIME documents: RFC 2045, RFC 2046, RFC 2047, RFC 2048
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