

Source: TSG-SA WG4
Title: Work Item Description: Codec Work to Support Speech Recognition Framework for Automated Voice Services
Document for: Approval
Agenda Item: 7.4.3

TSG-SA WG 4 (Codec) meeting #24
Redmond, USA, 11-15 Nov 2002

S4-020687
Agenda Item: 14

Work Item Description

Title:

Codec Work to Support Speech Recognition Framework for Automated Voice Services

1 3GPP Work Area

| | |
|---|--------------|
| | Radio Access |
| X | Core Network |
| X | Services |

2 Linked work items

Speech Recognition Framework for Automated Voice Services; Stage 1 (SA1)
Stage 2 of Speech Recognition Framework for Automated Voice Services (SA2)
SDP protocols extension to include Speech Enabled Services based on Speech Recognition Framework (CN1)

3 Justification

This work is to support the codec aspects for speech enabled services as specified in the requirements coming from SA1 in TS 22.243 v.6.0.0 "Speech Recognition Framework for Automated Voice Services; Stage 1"

4 Objective

Will review and recommend codec(s) to support Speech Enabled Services and include these in its specifications. To include these within the stage 3 specifications.

A 3GPP speech recognition framework enables the use of conventional codecs (e.g. AMR) or DSR optimized codecs to distribute in the network the speech engines that process speech input or generate speech output. It includes:

- Default uplink and downlink codec specifications.
- A stack of speech recognition protocols to support:
 - Establishment of uplink and downlink sessions, along with codec negotiation
 - Transport of speech recognition payload (uplink) with conversational QoS
 - Support of transport (also at conversational QoS) of meta-information required for the deployment of speech recognition applications between the terminal and speech engines (meta-information may include terminal events and settings, audio sub-system events, parameters and settings, etc.).

SA4 will recommend a codec to be supported by default to deploy services that rely on the 3GPP speech recognition framework. Potential codecs to be considered are existing 3GPP speech codecs (e.g. AMR, AMR-WB) or DSR optimized codecs.

This will be for packet switched network configurations and both UTRAN and GERAN will be considered.

5 Service Aspects

N/A.

6 MMI-Aspects

N/A

7 Charging Aspects

N/A

8 Security Aspects

N/A

9 Impacts

| Affects: | USIM | ME | AN | CN | Others |
|-------------------|-------------|-----------|-----------|-----------|---------------|
| Yes | | x | | | |
| No | x | | | | |
| Don't know | | | X | x | x |

| New specifications | | | | | | |
|----------------------------------|---------------------|--------------------------------------------------------------------------------------|----------------------|---------------------------------------------|-------------------------|--------------------------------------------------------------------|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| 26.XXX | Codec specification | SA4 | | SA#19 March2003 | SA#20 June 2003 | Optional if needed (could be reference to existing standard) |
| | | | | | | |
| Affected existing specifications | | | | | | |
| Spec No. | CR | Subject | | Approved at plenary# | | Comments |
| TS 26.235 | | Packet Switched Conversational Multimedia Applications; Default Codecs | | SA#20 9-12 June 2003 | | To be submitted as CR at SA#20 9-12 June 2003 |
| TS 26.236 | | Packet Switched Conversational Multimedia Applications; Transport Protocols | | SA#20 9-12 June 2003 | | To be submitted as CR at SA#20 9-12 June 2003 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

11 Work item rapporteur

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12 Work item leadership

TSG SA4

13 Supporting Companies

T-Mobile, Hutchison3G, Orange, Alcatel, Motorola, France Telecom, ST
Microelectronics

14 Classification of the WI (if known)

| | |
|---|----------------------------|
| | Feature (go to 14a) |
| x | Building Block (go to 14b) |
| | Work Task (go to 14c) |

14a The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

Speech Recognition Framework for Automated Voice Services; stage 1

14c The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)