3GPP TSG SA WG3 Security — S3#20 **S3-010453**

16 - 19 October, 2001

Sydney, Australia

3GPP TSG CN Plenary, Meeting #13 ***NP-010540***
Beijing, CHINA. 19th – 21st September 2001 ***[Rev.NP-010539]***

Title: **LS on the WID: AMR-WB Speech Service – Core Network Aspects**

Source: **TSG CN Plenary**

To: **TSG GERAN WG1; TSG RAN WG2; TSG RAN WG3; TSG SA WG1; TSG SA WG2; TSG SA WG3**

Cc: **TSG SA**

Contact Person:

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1. Overall Description:

TSG CN have approved the attached work item description (NP-010538) for the Core Network aspects of support of a wideband telephony service using the AMR-WB codec. We recognise that this building block work item has interactions with other building blocks under the feature level work item "Wideband telephony service – AMR"; we want to avoid the problems which will arise from duplication of work on one hand or omission of necessary work on the other hand.

We therefore request the WGs addressed in this liaison statement to review the attached work item, and to identify whether there are any changes required (in particular the deletion of unnecessary items or the addition of missing items).

Further, we have identified in the work item that other complementary work may be needed in WGs addressed in this liaison statement. Those WGs are requested to consider what work they need to do in order to produce a complete and consistent specification set for the wideband telephony service using the AMR-WB codec.

2. Actions:

To TSG GERAN WG1; TSG RAN WG3; TSG SA WG1; TSG SA WG2; TSG SA WG3.

ACTION 1: TSG CN asks TSG GERAN WG1, TSG RAN WG3, TSG SA WG1, TSG SA WG2 and TSG SA WG3 to review the attached work item description and advise TSG CN of any changes which they believe to be necessary.

ACTION 2: TSG CN asks TSG GERAN WG1, TSG RAN WG3, TSG SA WG1, TSG SA WG2 and TSG SA WG3 to review the attached work item description and consider whether complementary work items need to be created in their work areas.

3. Attachments:

NP-010538: Work Item Description: Introduction of AMR-WB speech service in 3GPP Standards Release 5 – Core Network Aspects.

3GPP TSG CN Plenary Meeting #13 **NP-010538**
Beijing, China, 19th –21st September 2001

Source:	**Ericsson, Nokia, Siemens, Vodafone**
Title:	**WID for Introduction of AMR-WB speech service in 3GPP Standards Release 5 – Core Network Aspects**
Agenda item:	**9.6**
Document for:	**APPROVAL**

WID over page.

Work Item Description

Title

Introduction of AMR-WB speech service in 3GPP Standards Release 5 – Core Network Aspects

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

Wideband telephony service – AMR: Codec issues (Unique ID 67)
Wideband telephony service – AMR: Implementation in UTRAN (Unique ID 893)
Wideband telephony service – AMR: Support of AMR-WB in GERAN(Unique ID 80)

3 Justification

Unlike narrow band codecs, the AMR-WB codec's 7kHz audio bandwidth reproduces a wide range of human speech frequencies and offers the opportunity for manufacturers and operators to introduce superior quality voice services. It has been demonstrated that the AMR-WB codec can also encode and decode music to acceptable listening standards thus allowing the codec to be used for other audio applications. Whilst TSG SA4 have completed much of the codec specification work, there are several critical core and access network inter-working aspects that must be specified.

This WI is initiated to co-ordinate the standardisation tasks within TSG CN required to provide a complete solution for the introduction of a mobile wideband speech service.

4 Objective

To complete the standardisation tasks within the affected working groups for 3GPP Release 5, specifically:

- End to end bandwidth support for AMR-WB;
- Codec selection and GSM-UTRAN interworking:
- TFO and TrFO signalling;
- AMR-WB and narrrowband interworking;
- Radio Access Bearer optimisation;
- Radio Access Bearer renegotiation (impact at least on 23.018)
- Interworking with fixed broadband networks;
- Tones and announcements;
- Billing, accounting and call detail record aspects;
- WB Conferencing and WB Voice Group calls;
- Adaptation of subscriber data in HLR/VLR;
- Legal interception.

The detailed AMR-WB time plan is documented in the 3GPP Work Plan.

Task	Planned Start	Planned Finish
Work Item Revision	Sep 2001	End Sep 2001
Work Item Approval		End Sep 2001
Drafting and discussion, updates of specifications	Oct 2001	Feb 2002
Submission to TSG CN for approval		CN #15 (Mar 2002)
Possible remaining corrections and clarifications		CN #16 (Jun 2002)

5 Service Aspects

The AMR wideband codec has been specified for use in GSM, GERAN and UTRAN. Stage 1 service requirements to complement existing AMR specifications may need to be defined.

Furthermore it needs to elaborated how charging shall be applied, i.e. subscription based or on a per call / per codec (change) /per ??? basis.

6 MMI-Aspects

User selection of wideband speech services and USIM subscription aspects needs to be studied in SA1.

7 Charging Aspects

Billing, accounting and call detail record aspects need to be studied in SA5 depending on the general charging requirements as specified by SA1..

8 Security Aspects

Lawful interception requirements need to be studied in SA3.

9 Impacts

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

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
24.008		DTAP codec type	TSG-CN #15	Possible impact if AMR-WB uses codepoints in Bearer Capability IE and supported codecs list
24.228		Call flows for the IMS	TSG-CN #15	
24.229		SDP profile	TSG-CN #15	
23.153		Introduction of AMR-WB for TrFO	TSG-CN #15	AMR-WB service interactions
23.018		Basic Call Handling	TSG-CN #15	AMR-WB call handling and MSC, HLR, VLR functional requirements

11 Work item rapporteurs

John Watson (Vodafone)

12 Work item leadership

CN WG4

13 Supporting Companies

Ericsson, Nokia, Siemens, Vodafone

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 Wideband telephony service – AMR (Unique ID 1625)

(one Work Item identified as a feature)

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

(one Work Item identified as a building block)