

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

NP-010529

Source: Ericsson, Nokia, Siemens, Vodafone
**Title: WID for Introduction of AMR-WB speech service in 3GPP
Standards Release 5**
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

X	Radio Access	
X	Core Network	
X	Services	

2 Linked work items

SA4

GERAN

~~Search to be conducted and linked WI list added.~~

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 narrowband 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 and SA 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 be 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 need 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

~~Legal~~ Lawful interception requirements [need to be studied in SA3](#).

9 Impacts

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

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 Characteristics Capability IE and supported codecs list	
24.228		Call flows for the IMS		TSG-CN #15		
24.228		SDP profile		TSG-CN #15		
26.103		AMR-WB in codec list			Addition of AMR-WB coding, for Nc interface & lu interface protocols	
23.153		Introduction of AMR-WB for TrFO		TSG-CN #15	AMR-WB service interactions	
28.062		Introduction of AMR-WB for TFO			TFO protocol updates	
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)