

**Technical Specification Group, Radio Access Network  
Meeting #5, Korea, 6 - 8 October 1999**

***TSGR#5(99)521***

SOURCE: Chairman, ITU-T WP3/11 (Raj Pandya)

TITLE: Review assessment of the WCDMA Radio Interface;  
Radio Technology Independent Parts

TO: 3GPP

COPY: ITU-R TG8/1

APPROVAL: WP3/11 Rapporteurs and JQG Meetings (Ottawa, September 08-17, 1999)

FOR: Information

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ITU-T SG11 would like to express its sincere appreciation for making the WCDMA specifications available at such short notice, and for providing experts to introduce/explain the documents.

ITU-T SG11 and ITU-R TG8/1 work closely together in order to ensure that the radio and network aspects are properly aligned, and lead to efficient interworking and interoperation between different IMT-2000 family member systems.

The letter from SG11 Chairman requesting your cooperation for making the draft specifications available to this Ottawa meeting indicated the following as the primary purpose for the request:

“as a responsible body for signaling requirements and protocol, and also as Lead Study Group within ITU-T on network aspects of IMT-2000, ITU-T SG 11 would like to have a prior knowledge on and an opportunity to assess the contents of the specifications, some of which may fall within the competence of ITU-T, so that in our November-December 1999 SG 11 Plenary Meeting, we may be able to come to a conclusion as to the approval

of the contents of ITU-R Recommendation IMT.RSPC that will take the form of references to 3GPPs' specifications, and may include portions which fall within our competence.”

Since the time available at the Ottawa meeting of WP3/11 Rapporteurs and the JQGs was limited, the comments are based on a very brief review of the documents which in most cases were detailed technical specifications running into hundreds of pages. The basic guidelines used for the assessment of these documents were that:

- (a) only radio technology independent aspects were to be considered,
- (b) the effort was to be focussed on those specifications which are likely to be referenced in ITU-R Recommendation IMT.RSPC
- (c) the draft specification, in general, is in line with the service features and capabilities for IMT-2000 as captured in ITU-T Recommendations (e.g., Q.1701, Q.1711, Q.1721, Q.1731-2), and
- (d) the draft specification, in general, is consistent with the future directions of IMT-2000 in terms of future services and capabilities.

The attached review comments are not intended to be binding as ITU-T IMT-2000 Requirements. Its purpose is to provide feedback to your protocol specification activity. However, SG11 believes that the comments are within the context of the ITU-T IMT-2000 requirements and therefore, SG11 found it useful to highlight these requirements for your consideration.

Based on this assessment and further discussions and approval at the next SG11 meeting (Geneva, November 22 - December 10, 1999), SG11 will work closely with ITU-R to ensure that the IMT-RSPC Recommendation adequately covers the radio technology independent aspects of IMT-2000 radio interface.

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## **REVIEW ASSESSMENT OF THE WCDMA RADIO INTERFACE**

ITU-T SG11 has reviewed the submitted WCDMA Radio Interface specifications. SG11 reviewed the following documents:

25.301: 3rd Generation Partnership Project (3GPP);  
Technical Specification Group (TSG) RAN;  
Working Group 2 (WG2);  
Radio Interface Protocol Architecture

25.321: 3rd Generation Partnership Project (3GPP);  
Technical Specification Group (TSG) RAN;  
Working Group 2 (WG2);  
MAC protocol specification

25.322: 3rd Generation Partnership Project (3GPP);  
Technical Specification Group (TSG) RAN;  
Working Group 2 (WG2);  
RLC Protocol Specification  
(3G TS 25.322 version 1.1.0)

23.011: 3rd Generation Partnership Project;  
Technical Specification Group Core Network (CN);  
Technical Realization of Supplementary Services ,  
(TS 23.011 version 3.0.0)

23.108: 3rd Generation Partnership Project;  
Technical Specification Group Core Network (CN);  
Mobile radio interface layer 3 specification,  
Core Network Protocols - Stage 2  
(TS 23.108 version 3.0.0)

23.110: 3rd Generation Partnership Project;  
Technical Specification Group Core Network;  
UMTS Access Stratum  
(3G TS 23.110 version 3.0.0)

23.022: 3rd Generation Partnership Project;  
Technical Specification Group Core Network;  
Functions related to Mobile Station (MS) in idle mode and group receive mode  
(3G TS 23.022 version 3.1.0)

23.060: 3rd Generation Partnership Project;  
Technical Specification Group Core Network;

Digital cellular telecommunications system (Phase 2+);  
General Packet Radio Service (GPRS);  
Service description; Stage 2  
(3G TS 23.060 version 3.0.0)

23.108: 3rd Generation Partnership Project;  
Technical Specification Group Core Network (CN);  
Mobile radio interface layer 3 specification,  
Core Network Protocols - Stage 2  
(TS 23.108 version 3.0.0)

24.007: 3rd Generation Partnership Project;  
Technical Specification Group Core Network;  
Mobile radio interface signaling layer 3;  
General aspects  
(3G TS 24.007 version 3.0.0)

24.008: 3rd Generation Partnership Project;  
Universal Mobile Telecommunications System;  
Mobile radio interface layer 3 specification,  
Core Network Protocols - Stage 3  
(TS 24.008 version 3.0.0)

24.010: 3rd Generation Partnership Project;  
Technical Specification Group Core Network;  
Mobile radio interface layer 3  
Supplementary services specification;  
General aspects  
(3G TS 24.010 version 3.0.0)

24.080: 3rd Generation Partnership Project;  
Technical Specification Group Core Network;  
Mobile radio interface layer 3  
supplementary services specification;  
Formats and coding  
(3G TS 24.080 version 3.0.0)

ITU-T SG11 believes that the submitted WCDMA radio interface specifications covers the essential functionality described in the ITU-T (draft) Recommendations Q.1701, Q.1711, Q.1721 and Q.1731.2.

The next part of the document describes detailed comments addressed to specific specifications.

23.011: 3rd Generation Partnership Project;  
Technical Realization of Supplementary Services,

*This document described the technical realization of supplementary services, it was noted that the methodology for handling standardized supplementary services was inherited, without change from the 2nd generation GSM system and was Q.931 based. In view of this, it was concluded that it was very unlikely that there would be any significant problem in interworking within the IMT-2000 environment. There will be differences in protocol but these were considered too detailed for a review of this nature.*

23.060: 3rd Generation Partnership Project;  
General Packet Radio Service (GPRS);  
Service description; Stage 2

*This document provided an overview of the GPRS Phase 1 service description, it was noted that for Phase 1 of GPRS there would be no Supplementary Service support however for Phase 2 of GPRS a limited number of standard Supplementary Services such as call forwarding would be supported. Given the limited information available it was assumed that the support of such services would not impact IMT-2000.*