Project	**IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>**
Title	**Proposed Inputs to IEEE 802.18 on IMT-Advanced Requirements (Edited 8F/TEMP/575-E)**
Date Submitted	**2007-09-17**
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Re:	Call for Contributions: Proposed Contribution to IEEE 802.18 on IMT-Advanced Requirements, 8/25/2007
Abstract	For discussion and approval by IEEE 802.16 Working Group and forward to IEEE 802.18 TAG for consideration
Purpose	To help IEEE 802.16 Working Group to develop a contribution to IEEE 802.18 TAG on IMT-Advanced requirements.
Notice	*This document does not represent the agreed views of the IEEE 802.16 Working Group or any of its subgroups*. It represents only the views of the participants listed in the "Source(s)" field above. It is offered as a basis for discussion. It is not binding on the contributor(s), who reserve(s) the right to add, amend or withdraw material contained herein.
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INTERNATIONAL TELECOMMUNICATION UNION

RADIOCOMMUNICATION STUDY GROUPS
22ND MEETING OF WORKING PARTY 8F
KYOTO, 23-31 MAY 2007

Document 8F/TEMP/575-E
30 May 2007
English only

SWG Radio Aspects

ANNEXES 6, 7 AND 8

Technology-related matters

Attached to this document are text elements from SWG Radio Aspects on technological matters addressed in Annexes 6, 7 and 8.

Text elements from SWG Radio Aspects on Technological matters for Annex 6

Y.Y Technology-related Submission Details for IMT-Advanced Candidate Radio Interface Technologies (RIT)

The RIT has to be described in a detailed form to get an overview and an understanding of the architecture, protocol structure, and functionalities of the technical approach. The following table describes the technical parameters needed to ~~characterise~~characterize the proposal. Proponents should add any supplemental information, as required, for a better assessment of their proposal.

Radio Interface Technology Description Template

y.y.1	Multiple ~~a~~Access ~~m~~Methods
y.y.2	Modulation ~~s~~Schemes
y.y.3	Error ~~c~~Control ~~c~~Coding ~~s~~Schemes Error Control Mechanisms
y.y.4	Physical, -logical, and transport channel structure and multiplexing
y.y.5	Frame Structure Physical Resource Blocks (Sub-Channelization and Permutation)
y.y.6	Spectrum Capabilities Duplex Methods (Paired and unpaired operation) Flexible Spectrum Use Spectrum Sharing Channel ~~b~~Bandwidth ~~s~~Scalability Supported RF Bands
y.y.7	Support of Advanced/Multiple Antenna ~~Capabilities~~ Schemes
y.y.8	Link Adaptation and Power Control
y.y.9	RF ~~channel parameters~~ Requirements Out of Band Emissions
y.y.10	~~[~~Scheduling algorithm~~]~~ (A baseline scheduling algorithm such as proportional fair (PF) must be defined for the mandatory traffic mixes; e.g., full-buffer data and VoIP,for consistent evaluation of the proposals)
y.y.11	Radio Interface Architecture and Protocol Stack and Packet Framing
y.y.12	Positioning (Support of Location-Based Service)
y.y.13	Support of Multicast and Broadcast Service
y.y.14	QoS Support and Management
y.y.15	Security Aspects Privacy and Authentication Aspects
y.y.16	Network ~~t~~Topology and Reference Model Support of Multi-hop Relays
y.y.17	Mobility ~~m~~Management and ~~RRM~~Radio Resource Management Mobility ~~m~~Management Radio Resource Management Inter-RAT Mobility[/Interworking] and Handover Intra-RAT Mobility and Handover Reporting, Measurements, and Provisioning Support Connection/Session Management Network Entry/Re-entry Cell Selection and Reselection Dynamic Load Control and Multi-carrier Support Multi-Radio Coexistence Base Station Coordination

y.y.18	Interference ~~m~~Mitigation within ~~r~~Radio ~~i~~Interface
y.y.19	Synchronization
y.y.20	Power ~~e~~Efficiency
y.y.21	Control Channel Structure
y.y.22	Layer 1 and Layer 2 Overhead Estimation
y.y.23	Measurement and Reporting

Text elements from SWG Radio Aspects for Annex 7
z.z Technological matters
The following is the list of criteria and attributes to be used in the evaluations of candidate RITs.

Criteria and attributes for candidate RITs

Index	Criteria and attributes	Proponents' comments	Evaluators' comments	Related attributes in Annex 6
Minimum Parameters				
z.z.1	Cell spectral efficiency			
z.z.2	Peak data rate			
z.z.3	Cell edge user throughput			
z.z.4	Latency Control plane latency Transport delay (Data/User plane latency) QoS			
z.z.5	Mobility			
z.z.6	Handover Handover Support Handover Interruption Time			
Other parameters for evaluation				
z.z.7	VoIP Capacity			
z.z.8	[Technology complexity]			
z.z.9	Cell Coverage			
z.z.10	c~~C~~cdf of user throughput			
z.z.11	QoS [Editor's note: consideration should be given to including the 4 classes from M.1079 and reference to ITU-T Y.1541]			
z.z.12	Capacity considerations/ Supported user density			

Text elements from SWG Radio Aspects on technological matters for Annex 8

[Note: this technology-related ITU-R documents list should be updated upon finalisation of the Circular Letter.]

Relevant Recommendations, Reports and documents for Annex 8 (Technology)

Recommendation ITU-R M.1036 –	Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications-2000 (IMT-2000) in the bands 806-960 MHz, 1 710-2 025 MHz, 2 110-2 200 MHz and 2 500-2 690 MHz.
Recommendation ITU-R M.1768 –	Methodology for calculation of spectrum requirements for the future development of the terrestrial component of IMT-2000 and systems beyond IMT-2000.
Report ITU-R M.2074 –	Radio aspects for the terrestrial component of IMT-2000 and systems beyond IMT-2000.
Report ITU-R M.2078 –	Spectrum requirements for the future development of IMT-2000 and IMT-Advanced.
Report ITU-R M.2079 –	Technical and operational information for identifying spectrum for the terrestrial component of future development of IMT-2000 and IMT-Advanced.

Report/Recommendation ITU-R M.[IMT.SHARING CANDI].