The MBWA PAR

Presentation at the Closing Meeting of the IEEE 802 Executive Committee

Mark Klerer

Chair- MBWA ECSG

15 November 2002

The MBWA PAR Scope

Develop a specification for the PHY and MAC layers of an air interface for interoperable packet-data mobile broadband wireless access systems that:

- operates in licensed frequency bands below 3.5 GHz,
- supports peak data rates per user in excess of 1 Mbps,
- supports vehicular mobility classes up to 250 Km/h,
- covers cell sizes commensurate with ubiquitous metropolitan-area networks, and
- targets spectral efficiencies, sustained user data rates and numbers of active users significantly higher than achieved by existing mobile systems.

MBWA Purpose

- Enable worldwide deployment of cost effective , spectrum efficient, always on and interoperable mobile broadband wireless access systems in order to address user needs for:
  - Mobile and ubiquitous Internet access
  - Transparent support of Internet applications
  - Access to enterprise intranet services
  - Transparent access to Infotainment and Location services

Broad Interest by the Mobile Wireless Industry

- Participation by Key Members of All Segments of the **Macro-Cellular Mobile** Wireless Industry

Service Provider Segment	Mobile Infrastructure Segment	Core Network Equipment Providers
DoCoMo	ArrayComm	Cisco
France Telecom	Flarion Technologies	Nokia
ETRI	Motorola	Nortel Networks
Nextel	Nokia	Samsung
Bell Mobility	Nortel Networks	
ITRI	Qualcomm	
	Samsung	
	Ericsson	
	Huawei	
	Siemens	

Broad Interest by the Mobile Wireless Industry

- Participation by Key Members of All Segments of the **Macro-Cellular Mobile** Wireless Industry

User Equipment Segment	Component Suppliers	End-User/Applications Community
Fujitsu	Analog Devices	Boeing
Motorola	Cirrus Logic	Lockheed Martin
Nokia	Intersil	Microsoft
Panasonic	Intel	Northrop Grumman
Qualcomm	Philips	Panasonic
Samsung Electronics	Texas Instruments	Sony
	Vocal Technologies	US Army
	Wavecom	Wachovia

MBWA Solution Characteristics

Characteristic	Value for 1.25 Mhz	Value for 5 Mhz
Mobility	up to 250 km/hr	
Sustained spectral efficiency	> 1 b/s/Hz/cell	
Peak user data rate (Downlink (DL))	> 1 Mbps	> 4Mbps
Peak user data rate (Uplink (UL))	> 300 Kbps	> 1.2 Mbps
Peak aggregate data rate per cell (DL)	> 4 Mbps	> 16 Mbps
Peak aggregate data rate per cell (UL)	> 800 Kbps	> 3.2 Mbps
Airlink MAC frame RTT	<10 ms	
Spectrum (Maximum operating frequency)	< 3.5 GHz	

MOTION to approve PAR

- The MBWA ECSG requests approval from the SEC to forward the Mobile Broadband Wireless Access PAR to NesCom

Motion to Continue ECSG

- The MBWA ECSG requests that the SEC approve continuation of the ECSG until approval of the Mobile Broadband Wireless Access PAR by NesCom

3GPP Partnership Agreement

Preamble

Standards organizations and other related bodies have agreed to co-operate for the production of a complete set of globally applicable Technical Specifications for a 3rd Generation Mobile System based on the evolved GSM core networks and the radio access technologies supported by 3GPP partners (i.e., UTRA both FDD and TDD modes).

The Project is entitled the "Third Generation Partnership Project" and may be known by the acronym "3GPP".

3GPP has been established for the preparation and maintenance of the above mentioned Technical Specifications, and is not a legal entity.

3GPP2 Partnership Agreement

Preamble

Standards organizations and other related bodies have agreed to co-operate for the production of a complete set of globally applicable Technical Specifications for a 3rd Generation Mobile System based on the evolving ANSI-41 core network and the radio access technologies supported by 3GPP2 partners.

The Project is entitled the "Third Generation Partnership Project 2" may be known by the acronym "3GPP2."

3GPP2 has been established for the preparation and maintenance of the specifications, and is not a legal entity and is non-profit making.