

Liaison Report from ARIB BWA Subcommittee

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References:

IEEE L802.16-07/006 http://wirelessman.org/liaison/docs/L80216-07_006.pdf

IEEE L802.16-07/010 http://wirelessman.org/liaison/docs/L80216-07_010.pdf

Purpose:

To provide an update on ARIB's standards development regarding WiMAX and Japan 2.5 GHz spectrum allocation with MIC's license decision

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Further information is located at <<http://standards.ieee.org/board/pat/pat-material.html>> and <<http://standards.ieee.org/board/pat>>.

Overview of ARIB

◆ Establishment:

- A public service corporation in the private sector chartered by the Minister of Posts and Telecommunications on May 15, 1995

◆ Members:

- 275 members (as of January 7, 2008), including telecom operators, broadcasters, manufacturers, etc.

◆ Key Roles:

- Investigation, R&D and consultation of utilization of radio waves
- Establishment of technical standards for radio systems
- Promote realization and popularization of new radio systems
- International cooperation in standards development

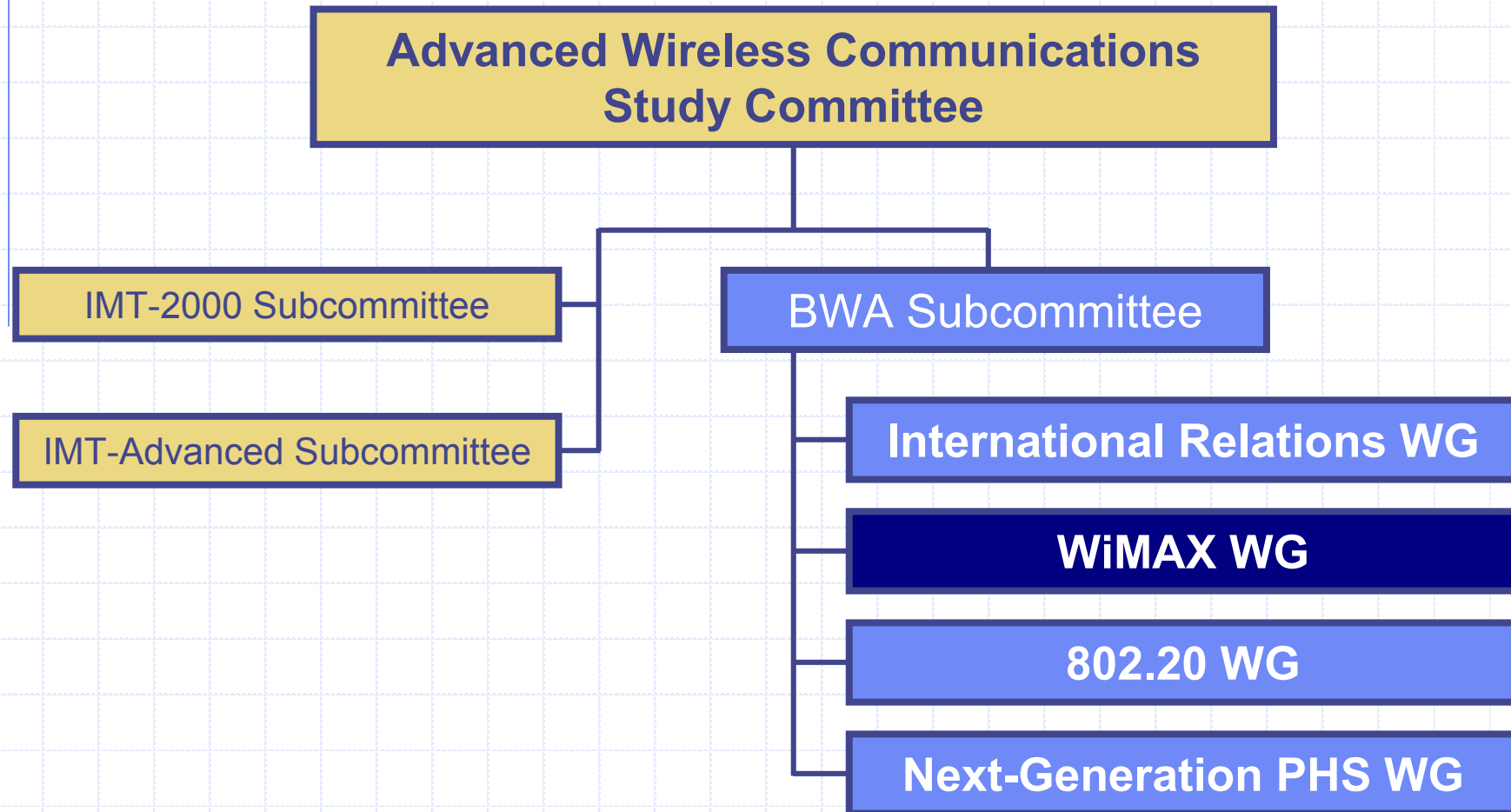
MIC 2.5 GHz BWA Committee

- ◆ MIC (Ministry of Internal Affairs and Communications) established the 2.5 GHz BWA Committee under the Telecommunications Council in February 2006 to define technical requirements for 2.5 GHz BWA systems
- ◆ Telecommunications Council submitted two technical reports in December 2006 and April 2007 prepared by the 2.5 GHz BWA Committee. The first one is for the mobile service while the second one is for the FWA service with high antenna gain. MIC issued relevant radio regulations and licensing policies for these services in August 2007
- ◆ There are four TDD systems described in the relevant regulation:
 - Mobile WiMAX, 802.20 (MBTDD-Wideband, MBTDD-625k MC), and Next-Generation PHS

Overview of ARIB BWA Subcommittee

- ◆ BWA Subcommittee was established in April 2006 under Advanced Wireless Communications Study Committee in ARIB
- ◆ Scope of Work
 - To study technologies on BWA systems and standardize their technical specifications as ARIB Standards
 - For the time being, target systems are BWA systems to be operated in the 2.5 GHz band, whose technical requirements were approved in the MIC Telecommunications Council in December 2006 and April 2007
- ◆ Technologies under Study
 - Mobile WiMAX (based on IEEE 802.16-2004 Standard amended by 802.16e-2005)
 - MBTDD-Wideband (based on IEEE 802.20 Draft)
 - MBTDD-625k MC (based on IEEE 802.20 Draft)
 - Next-Generation PHS (based on PHS MoU Group Standard)

Organization of ARIB BWA Subcommittee



WiMAX WG under BWA Subcommittee

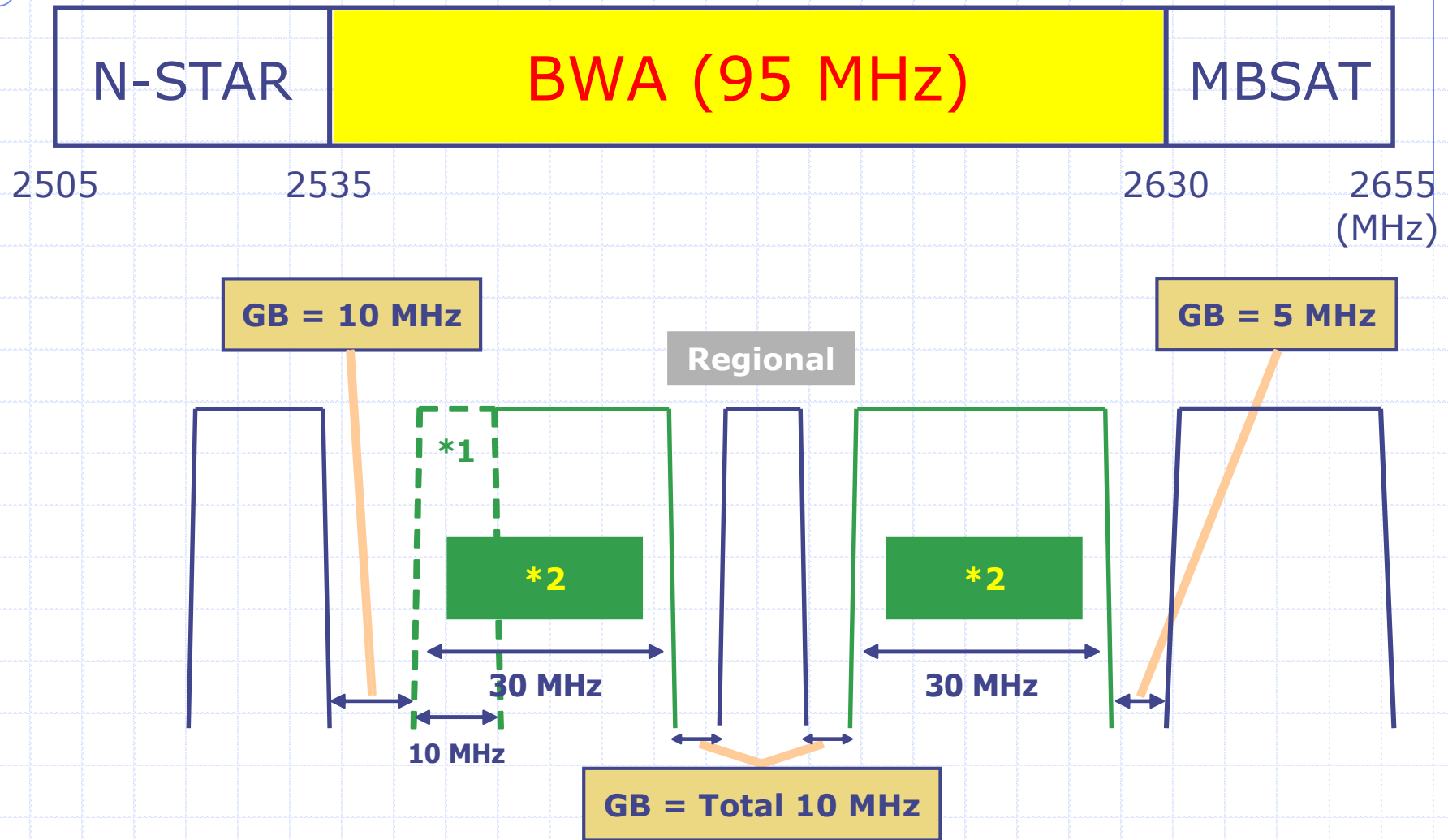
- ◆ To develop the ARIB technical standard for Japan 2.5 GHz WiMAX
- ◆ Liaison with the WiMAX Forum® established and letter on reproduction of the WiMAX Forum documents signed
- ◆ The ARIB Standard for WiMAX “**ARIB STD-T94 Ver 1.0: OFDMA Broadband Mobile Wireless Access System (WiMAX™ applied in Japan)**” approved in December 2007
- ◆ This ARIB STD-T94 Ver 1.0 include:
 - Chapter 1: General Descriptions
 - Chapter 2: System Overview
 - Chapter 3: Technical Requirements for WiMAX System
 - Chapter 4: System Profile
 - Chapter 5: Network Architecture
 - Chapter 6: Measurement Methods
 - Attachments 1, 2: List of Essential Industrial Property Rights (selection of options 1, 2)
 - Attachment 3: WiMAX Forum Mobile System Profile
 - Attachment 4: WiMAX End-to-End Network Systems Architecture

Harmonization with IEEE 802.16 Standards

- ◆ The BWA Subcommittee is developing technical standards (ARIB Standards) for 2.5 GHz BWA services in Japan
- ◆ It is intended that such ARIB Standards should be as much compatible with internationally recognized standards as possible
- ◆ WiMAX Forum Mobile System Profile and WiMAX End-to-End Network Systems Architecture developed by the WiMAX Forum are reproduced as is in the ARIB Standard STD-T94
- ◆ The Mobile WiMAX System Profile refers to the IEEE 802.16 Standards
- ◆ Consequently, the ARIB standard STD-T94 “indirectly” refers to IEEE 802.16 Standards



Japan 2.5 GHz Spectrum Allocation



- *1 2545-2555 MHz: limited operation until December 31, 2014
- *2 Next-Generation PHS and WiMAX systems are assigned respectively (MIC's decision on December 21, 2007)