

Newsletter ARIB SEASON

Winter
January 2017

Event

CEATEC JAPAN 2016

CEATEC* JAPAN 2016, one of the most famous exhibitions of Advanced Technologies in Japan, was held at Makuhari Messe, Chiba prefecture from 4 to 7 October 2016. ARIB set up a booth in the “Social Area” and exhibited the ARIB activities.

(CEATEC* : Combined Exhibition of Advanced Technologies)

The theme of the 2016 year's CEATEC was "Connecting Society, Creating the Future", and an event planning and schedule setting had been carried out as the CPS / IoT Exhibition, in consideration of strong business exchange (Business Link) among the domestic and foreign executives, government officials and key engineers. Total of 648 companies and organizations had taken part in the CEATEC.



ARIB booth in CEATEC JAPAN 2016

In the ARIB booth, following contents were exhibited and introduced.

- (1) Overview of ARIB
- (2) ARIB's research, development and international cooperation activities
- (3) Technologies and systems which won the 27th Radio Achievement Award



Exhibition of the 27th Radio Achievement Award winning technologies

In addition, the questionnaires were carried out for more than 600 people who visited the ARIB booth with interest, and benefits to become a member of ARIB were explained to the people who belonged to non-member companies or organizations, by using the brochures of ARIB and other documents.

On 4 October, a seminar entitled "Trends of the new technology standardization in communications and broadcasting fields" was held in the CEATEC venue. The lecture was carried out by Mr. Ken Sugawara, director of Planning and International Affairs Department of ARIB, attended by more than 80 participants.



ARIB seminar in CEATEC JAPAN 2016

The Workshop on the Fifth Generation Mobile Communications Systems (5G) - 2016








The third annual workshop to discuss the advancement of research towards the realization of the 5th generation mobile communications system (5G) was held. Presentations were given on activities, both in Japan and abroad, working towards the realization of 5G as well as the demands and expectations for the use of 5G in the industrial world, which is expected to benefit greatly from 5G.





In addition, a panel discussion was held, where opinions were exchanged about new mobile services that would be introduced to the world using 5G systems from the year 2020.

Sponsor	Ministry of Internal Affairs and Communications
Co-Sponsor	5GMF (Fifth Generation Mobile Communications Promotion Forum)
Date	Wednesday, 5 October 2016. 14:00~17:30
Location	Makuhari Messe International Convention Center (Chiba Prefecture), Convention Hall B
Number of Participants	About 600



The Workshop Hall

<p>Opening Remarks</p> <p>Jiro Akama, State Minister for Internal Affairs and Communications</p>	
<p>Keynote Address</p> <p>Prof. Susumu Yoshida, Chairman, 5G workshop organizing committee, Chairman, 5GMF</p>	
<p>Session 1 : Domestic and Overseas Towards the Implementation of 5G</p> <p>Presentations on the current situation of the 5G Systems Integrated Verification Trial being held by the 5GMF, looking towards the realization of 5G by 2020, followed by reports on activities towards the realization of 5G in China and South Korea</p>	
<p><u>Japan</u> (5GMF) Dr. Satoshi Suyama (Subleader, 5G Trial Promotion Group, 5GMF) Title : Integrated Verification Trial toward Actualization of 5G System Overview : Introducing concepts behind the integrated verification trial, potential participants, schedule, trial items, and trial scenarios</p>	
<p><u>China</u> Dr. Wen Tong (Huawei) Title : 5G Trial Activities in China Overview : Overview and Results of Step 1 of the 5G Trial and the objective, requirements, and schedule of Step 2 5G Trial held by China.</p>	
<p><u>South Korea</u> Dr. Seongkwan Kim (kt) Title : KT 5G Plan; Recent Activities and Future Plan Overview : The needs and details about 5G, the technology, and the results of trials in South Korea, introduction of proposed major features, introducing activities towards the realization of a 5G ecosystem</p>	
<p>Session 2 : Cooperation with industries in uses of 5G</p>	
<p><u>Mr. Gota Iwanami</u> (Chairman, Service and Application Committee, 5GMF) Title : Application Development for 5G Mobile Communications Overview : Expectations for 5G from an application developers' perspective, considerations for applications in the 5G era, utilization image of wireless services in the near future</p>	
<p><u>Mr. Hideaki Sukanuma</u> (Toyota) Title : The latest Trends in Connected Cars and Expectations for 5G Overview : Introduction of the history of ITS services and examples of their implementation activities towards the realization of automated drive, connecting cars and local communities, expectations for 5G and other communications technologies</p>	

<p>Mr. Eiji Kuwabara (Sohgo Security Services) Title : Security service evolving with high technology Overview : Connections between uses of security systems and high technology, expectations of diversifying and expanding services with 5G</p>	
<p>Mr. Junya Inoue (The Tokyo Organising Committee of the Olympic and Paralympic Games) Title : Expectations for 5G in Tokyo 2020 Overview : Expectations for 5G in light of the Rio Olympics and the vision for the Tokyo Olympic and Paralympic Games</p>	
<p>Panel Discussion</p> <p>The Panel Discussion was moderated by Strategy and Planning Committee Deputy Chairman Mr. Takehiro Nakamura and included, in addition to the day's presenters, 5GMF Technical Committee chairman Prof. Seiichi Sampei of Osaka University. The panelists exchanged opinions on issues including verification trials needed to realize 5G, cooperation with industries outside the telecommunications field, and how to raise the public's interest in 5G.</p>	
<ul style="list-style-type: none"> ◆This year's panelist exchanged opinions on gaining participation of business and industrial sectors on issues related to 5G uses as well as user guides ◆As Korea, China and Japan will be holding Olympics beginning in the next 2 years, there was discussion about cooperation between the nations. Additionally, ideas were provided on how to share information from the participation nations, especially the information on the spectrum and decisions on technical issues in which cooperation is important and necessary. ◆As for businesses that will use 5G, technology based appeals won't drive its use, instead it will be issues 5G will solve and the understand of value that only 5G systems can create. Additionally, there was discussion on how to cooperate on the testing and discussion needed to implement these uses. ◆Prof. Sampei, 5G Technical Committee chairman, pointed out that what was needed for the age of 5G was not just increasing information distribution, but further research into new approaches into the technology and business models as well as how the management of the system will be distributed. 	
	
<p>Mr. Takehiro Nakamura (5GMF) Moderator</p>	<p>Members of the Panel Discussion</p>

The 25th ITU-R WP5D Meeting

The 25th ITU-R WP5D Meeting was held as below.

1. Overview of the meeting

Schedule	From 5 to 13, October 2016
Venue	ITU headquarters (Geneva , Switzerland)
Participants	About 235 people from 40 countries (38 organizations)
Participants from Japan	19 people (including 3 people from ARIB) headed by Ms. Yamauchi (Deputy Director of Land Mobile Communications Division, MIC)



The 25th ITU-R WP5D Meeting

2. Main results

- (1) Discussion about the new report of ITU-R M. [IMT-2020.TECH PERF REQ], which specifies the radio interface requirements of IMT-2020 (5G), had been carried out, and the preliminary draft new report was created. It is scheduled to finalize the report including target values for each technical requirement etc. at the next meeting.
- (2) Investigation about the new report of ITU-R M.[IMT-2020.SUBMISSION], which specifies the proposed method on the radio interface of IMT-2020, and ITU-R M.[IMT-2020.EVAL], which specifies the evaluation method on the radio interface of IMT-2020, had been carried out, and the update of working documents were made. With respect to ITU-R M.[IMT-2020.EVAL], 5 Test Environments were agreed finally, and modifications such as integration of Extention module proposed by Japan etc. were made.

- (3) With regard to WRC-19 agenda item 1.13 on the new frequency of IMT, study for spectrum needs and sharing parameters had been carried out, and draft liaison statement to Task Group 5/1 was updated. It will be finalized at the next meeting, and sent to Task Group 5/1 meeting to be held in May next year.
- (4) With respect to Recommendation ITU-R M.1457 related to the detail of IMT-2000 radio interface, creation of revised draft incorporating the hyperlink information from each transposing organization was completed, and it was submitted to SG5 to seek for adoption.
- (5) Creation of draft revision of the recommendation M.2070 and M.2071 related to unnecessary radiation of base station and mobile station of IMT-Advanced had been completed, and it was submitted to SG5 to seek for adoption.
- (6) Creation of draft new Recommendation ITU-R M.[IMT.MODEL], related to IMT system model for sharing and compatibility studies between IMT and other systems, had been completed, and it was submitted to SG5 to seek for adoption.
- (7) Creation of draft revision of the Report ITU-R M.2291 related to the use of IMT for broadband PPDR applications had been completed, and it was submitted to SG5 to seek for adoption.
- (8) It was agreed to hold a workshop related to the proposal of the IMT-2020 during the 28th meeting (October 2017).

3. Next meeting schedule

The next 26th meeting is scheduled to be held in Geneva on 14 to 22 February 2017.







The 7th Study Group Meeting on Private wireless communication
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The Study Group on Private wireless communication was established on April 2015 in order to provide a place to investigate technologies and usage trends of the private wireless communication both domestically and internationally, and study the enhancement of Private wireless communication.

On 6 October 2016, the 7th study group meeting was held with 85 participants

In the meeting, 6 presentations (speakers and titles are described below) and exchange of opinions were carried out under the 3 themes of "the latest measure trend", "the current state of private wireless communication" and "advancement of private wireless communication".

■Speaker and Title of each presentation

	Speaker	Title
(1)	 <p>Mr. Hideki Baba Deputy Director of MIC</p>	Trends in 5GHz band wireless LAN
(2)	 <p>Mr. Yutaka Gotsuu Fire and Disaster Management Agency of MIC</p>	Guidance on the maintenance of disaster information transmission means
(3)	 <p>Mr. Hisato Nakamura Japan Broadcasting Corporation</p>	Overview of the contact wireless communication system for the broadcasting business
(4)	 <p>Mr. Kiyoshi Shimokoshi Nokia Solutions and Networks Japan Corp.</p>	Advancement of private wireless communication by PS-LTE
(5)	 <p>Dr. Yasunori Oowada National Institute of Information and Communications Technology</p>	Private wireless network system (Nerve Net)
(6)	 <p>Prof. Hiroshi Harada Kyoto University</p>	Research and development of private wireless communication system for ultra-big data creation



The 7th Study Group Meeting on Private wireless communication

The 23th ITS World Congress 2016 in Melbourne

The 23th ITS World Congress was held in mid-October in Melbourne, Australia where the historic buildings and culture were still remaining, and had won the number 1 prize of "most liveable city in the world" many times. It is the second largest city in Australia (population is about 5.2million).

1. Overview of the Congress (Preliminary Announcement by the Conference organizer)

Schedule	From 10 to 14, October 2016
Venue	The Melbourne Convention and Exhibition Centre (MCEC) (Melbourne, Australia)
Theme	"ITS - Enhancing Liveable Cities and Communities"
Participants	11,496 people
Number of sessions	236 sessions
Number of demonstrations (Number of experience persons)	14 (3,618 persons)



Opening ceremony of Japan Pavilion

Center of the back row is Mr. Fusaki Matsui
(Senior Managing Director of ARIB)



**Flinders Street railway station
(Completed in 1854)**

(It has been certified to the historic building)

During the last year's ITS World Congress, the ARIB standard STD-T109 (700MHz band Intelligent Transport Systems) had been recommended as ITU-R M.2084 and officially issued. This year, not only the "ITS connect" of Japan, the ARIB STD-T109 compliant safe driving support system of two-wheeled vehicles was exhibited in Taiwan booth. Effort toward the easy and low cost deployment, such as specialization to the two-wheeled vehicles, which had become a foot of common people in Taiwan, and utilization of a smart phone as the display unit, was very interesting.



Safe driving system for two-wheel vehicles
(Connected with car by Bluetooth)

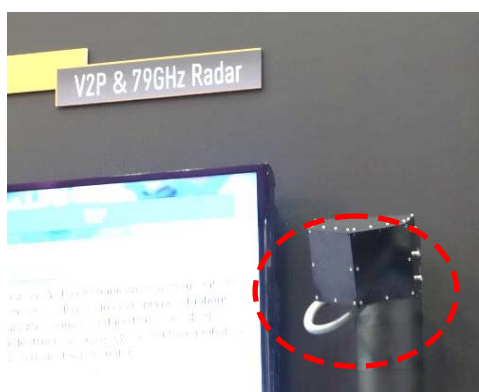


Demonstration Car of Automated Driving
exhibited by BOSCH

At the Executive session (ES09) and Special Interest Session (SIS35), in which Mr. Nakamura (Director of New Generation Mobile Communications Office, MIC) and Mr. Satake (Chief of New Generation Mobile Communications Office, MIC) participated, Japan's ITS was introduced, and it grabbed much attention.

In addition, 79GHz band Radar, the band width of which had been expanded at WRC-15, was exhibited by Panasonic. It was reduced in size than previous year's model, and practical deployment seemed to be realized in near future.

ITS Info-communications Forum of Japan, which secretariat was served by ARIB, exhibited the activity introduction panel in the JAPAN pavilion.



79GHz band Radar
exhibited by Panasonic



JAPAN Pavilion (left)
and
Exhibition panel of
ITS Info-communications Forum (right)

The next 24th ITS World Congress 2017 is scheduled to be held in Montreal, Canada from 29 October to 2 November 2017.

The 2nd Global 5G Event in Italy

"The 2nd Global 5G Event" was held in Rome, Italy from 9 to 10 November 2016. The Event is co-hosted by the world's 5G promotion organizations [5G-PPP (Europe), IMT-2020 (5G) Promotion Group (China), the 5th Generation Mobile Communications Promotion Forum (5GMF) (Japan), 5G Forum (South Korea), 5G Americas (USA)], and held twice a year.

This time, the main host was 5G-PPP, and presentations and panel discussions were carried out under the theme of "Enabling the 5G Ecosystem". At the two-day event, 340 experts had participated from government officials, telecom operators, manufacturers, universities and research institutions.

At the opening of the Event, welcome address was given from Mr. Antonello Giacomelli (Under-secretary of the Minister of Economic Development, with the mandate for Communications of Italy). In the address, Italy's conditions on research and development of services that make use of 5G's features and expectation for them were introduced. It was also introduced that Italy was the chair country of the next G7 information and communications ministerial meeting.

After the welcome address, two opening sessions ("5G policy perspective" and "Industry perspectives from the 5G") were held with government officials and 5G promotion organization officials on the stage. Then the 4 sessions of following titles were held, and presentations and lively discussions were carried out in each session.

- (1) Designing the flexible 5G system architecture
- (2) Towards globally harmonized spectrum for 5G
- (3) 5G air interface and radio resource management
- (4) 5G network management & software networks

From Japan, Mr. Yuji Nakamura (Director of the New-Generation Mobile Communications Office, Ministry of Internal Affairs and Communications) made a



The 2nd Global 5G Event

presentation as the government representative, and 5 members of 5GMF [Mr. Takehiro Nakamura (Acting Chairman of Strategy & Planning Committee (NTT Docomo)), Mr. Akira Matsunaga (Acting Chair of Technical Committee (KDDI)), Mr. Takaharu Nakamura (Acting Chair of Technical Committee (Fujitsu)), Dr. Takashi Shimizu (Representative of Network Architecture Committee (NTT)), Dr. Kohei Satoh (Secretary General of 5GMF (ARIB))] also made a presentation as a moderator or a presenter in each session.

In addition to the sessions, the exhibition hall had been set up next to the event venue, and mainly 5G-PPP project, total of 24 organizations had exhibited the achievements and demonstrations. From 5GMF, "White Paper" and activities of 5GMF were introduced using the display and pamphlets.

At the closing, it was declared from Dr. Kohei Satoh that "the 3rd Global 5G Event" would be held in cooperation with Wireless Technology Park (WTP) at May 2017 in Tokyo.



**Declaration of the next Global 5G Event
by Dr. Kohei Satoh
(Secretary General of 5GMF (ARIB))**

The 9th Japan–Philippines JWG Meeting in the Philippines

The 9th Japan–Philippines Joint Working Group Meeting was held in Manila, the Philippines on November 10, 2016. The Japanese delegation consisted of Ministry of Internal Affairs and Communications (MIC), Embassy of Japan in the Philippines, the DiBEG secretariat and a DiBEG expert, together with a couple of consultants. The Philippine side consisted of the National Telecommunications Commission (NTC), Department of Information and Communications Technology (DICT), etc.

Since the Philippines decided to adopt ISDB-T, both governments have been holding Joint Working Group Meetings several times a year to discuss necessary measures for the ISDB-T implementation in the Philippines, and ARIB/DiBEG has been participating in

these meetings to extend support from technical aspects.

NTC explained to the Japanese delegation that they have almost completed the Philippine nationwide channel planning, with the support and cooperation from Japan; that NTC would eventually grant broadcast license to those broadcasters; that DICT would announce the digital migration plan some time in February, 2017; and that they are studying the requests from some of the receiver manufacturers for modification regarding the specifications on EWBS (Emergency Warning Broadcast System) included in the receiver specifications effectuated in April, 2016, etc. Taking this opportunity, ARIB/DiBEG made a presentation and demonstration on the EWBS-related technology.

At the end of the Joint Working Group Meeting, Mr. G. Cordoba, NTC Commissioner, expressed his high appreciation to Mr. H. Ito, JICA Expert, for his dedication to the ISDB-T implementation in the entire Philippines, upon fulfilment of his 2-year mission as of the end of November, 2016.



Atmosphere of Meeting



Presentation of Tribute

Meeting with President of SET, Brazil

On November 14, 2016 Mr. Olímpio José Franco, President of SET (Sociedade Brasileira de Engenharia de Televisão), Brazil, visited the head office of ARIB in Tokyo.

ARIB/DiBEG has been internationally promoting ISDB-T, the Japanese digital terrestrial broadcast TV standard; and has been in close contact and collaboration with Brazil, who decided to adopt ISDB-T in 2006. This time, taking the opportunity that Mr. Franco visited Japan to attend the Inter BEE 2016, a meeting was set up between him and the people of ARIB/DiBEG member companies to exchange views and opinions on digital TV, as last year, where some people from the Ministry of Internal Affairs and Communications (MIC) joined as observers.

At the meeting, based on the request from Mr. Franco, there was mainly exchange of views and opinions on the next generation broadcasting technologies. The Japanese side presented the latest status of 4K/8K broadcasting. In the meantime Mr. Franco explained that Brazil would start its domestic study and analysis of the reallocation of UHF spectrum for broadcasting, that they are in need of proposing new, concrete contents of next generation of terrestrial digital broadcasting in the coming few years, that they are keenly interested in the progress of 4K/8K broadcasting in Japan, that the UHDTV Forum was established in Brazil this year participated by broadcasters, receiver manufacturers, etc. to study the next generation broadcasting, that they are eager to continue the study based on the Japanese standard, that they started study of the possibility of adopting HDR into the existing 2K broadcasting as one of the immediate solutions to tackle, etc.

At the closing of the meeting, all the participants agreed that the Japan–Brazil relationship should better be stronger to promote digital television, and that deepen partnership between ARIB/DiBEG and SET.



DiBEG welcomed Mr. O. Franco, President of SET

Participation in the Inter BEE 2016

The Inter BEE (International Broadcast Equipment Exhibition) 2016 was held from 16 to 18 November 2016 at the Makuhari Messe in Japan, where ARIB/DiBEG participated in the exhibition for promotional activities on ISDB-T. This was the 3rd time of participation for ARIB/DiBEG.

The Inter BEE was its 52nd, with the largest number of exhibitors of 1,090, including 593 foreign companies/institutions from 34 countries. At the exhibition hall, with the start of the 4K/8K trial broadcasting from August, there were more exhibits and displays of the related equipment and technologies than last year, also introducing IP transmission of 4K/8K materials.

At the ARIB/DiBEG booth we introduced the latest status of standardization activities in broadcasting as well as our international promotion of ISDB-T by DiBEG, by providing exhibit panels and brochures.

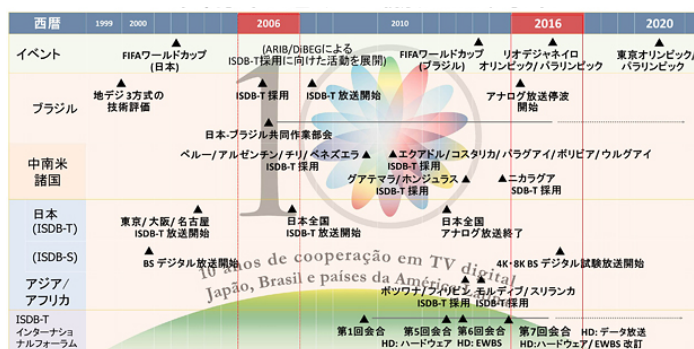


Overview of the ARIB/DiBEG Booth



Brochures handed out at the Booth

Since it is the 10th anniversary this year that Brazil adopted ISDB-T as its national digital TV standard, we showed the 10-year history of international promotional activities of ISDB-T, together with video commemorating the 10th year.



10-year history of international promotional activities of ISDB-T



Video commemorating the 10th year

Also at the booth we demonstrated the trial unit of EWBS (Emergency Warning Broadcast System) receiving module, to contribute to further promotion of EWBS among the ISDB-T adopting countries. Many of the people dropping by at our booth showed strong interests in the concept of the EWBS receiving module.



"Demonstration of EWBS receiving module"

The Superimpose in the test stream in the monitor on the right is selected and scrolled in the LED display on the left.



Visit of Mr. Olimpio Franco, President of SET, Brazil

The 10th Regional WiMAX Promotion Association Symposium

Regional WiMAX Promotion Association held its 10th Symposium in Tokyo on 17 November 2016 under the joint sponsorship of ARIB.

In response to the revision of Radio Law in October 2014 in Japan, regional BWA is currently in a state where operators of "transition from existing WiMAX method to advanced method" and "new entrant with advanced licensing" are standing little by little nationwide.

At the Symposium, about 120 people had participated, and lively question-and-answer sessions were carried out, and in the exhibition corner, regional BWA terminal, IP notice broadcasting, network camera, slim speaker for crime prevention, etc. were exhibited.



Greeting from Prof. Yasuhiko Yasuda at the Symposium
(Advisor of Regional WiMAX Promotion Association (Waseda University))



Exhibition corner at the Symposium

The program of the Symposium was as follows.

	Speaker		Title
(1)		Mr. Takahiro Tanaka Deputy Director of Land Mobile Communications Division, MIC	The situation surrounding regional BWA
(2)		Mr. Naoto Itoh Chairman of Regional WiMAX Promotion Council	Report of each subcommittee
(3)		Mr. Kinnya Tamura Chairman of Wireless Utilization Committee, Japan Cable and Telecommunications Association	Efforts of regional BWA
(4)		Mr. Kenji Suehiro Vice president of CAN (Cable Networks AKITA)	Status of Business entry
(5)		Mr. Koji Matsuda Chief Director of Hanshin Cable Engineering	Description of the core operator
(6)		Mr. Naoya Akiyama Manager of Huawei Japan	Efforts towards wireless systems and future plan
(7)		Mr. Yuichi Kohrida Section Chief of TOA Corporation	Introduction of applications utilizing regional BWA

The 5th Japan–Botswana JWG Meeting in Botswana

On November 24th the 5th Japan–Botswana Joint Working Group Meeting was held in Gaborone, Botswana. The meeting took place at the headquarters of the Department of Broadcasting Services (DBS), where the representatives from DBS, Ministry of Transport and Communications (MTC) and Botswana Communications Regulatory Authority (BOCRA) welcomed the Japanese delegation from the Embassy of Japan in Botswana, Ministry of Internal Affairs and Communications (MIC), Japan International Cooperation Agency (JICA), ARIB secretariat and some of the Japanese companies.

Botswana announced the adoption of ISDB-T in February, 2013, which was the first announcement in the African region. In order to study various challenges to the ISDB-T implementation in Botswana, both countries take turns at holding the Joint Working Group meeting annually. DiBEG under ARIB has also been joining the meetings to support the implementation from the technical and engineering viewpoints.



Joint Working Group Meeting in Gaborone, Botswana

At the meeting this time, based on the subjects of interests by the Botswana side, the Japanese delegation offered information on the ASO (Analog Switch-Off) process, on the subsidy policies on STB (Set-top Box) distribution to low income families, etc. And some of the Japanese companies showed and demonstrated prototype ISDB-T receiver products such as an STB, a tuner for smartphones and tuners for mobile reception, by actually receiving the Botswana TV program on the air. During this meeting it was made clear that the Japanese government would continue its support for the Botswana implementation planning for ASO, while the Japanese companies present there announced their intention to undertake manufacturing of STB products in case Botswana government decides to take up a subsidy policy on STB distribution for low income families.

The Botswana side explained that the national broadcaster has already started digital terrestrial TV broadcasting, that they would soon grant digital TV broadcasting licenses to private broadcasters after studying the licensing conditions, that many of the Botswana households are enjoying satellite TV broadcasting services, that they are tackling to enrich local program content to increase the number of households watching digital terrestrial TV, that there are limited number of digital TV receiver manufacturers due to the relatively small size of its population, and that they would expect support from Japan on the distribution of STB products.

The next meeting is expected to be held in February, 2017 in Japan; and bilateral representatives would communicate with each other for the details.

General Meeting and 20th Anniversary Event of XGP Forum

XGP Forum evolved from PHS MoU Group which was founded as a non-profitable organization in 1996. Its mission is to standardize specifications and promote services of PHS which is a TDD narrow bandwidth microcell system. XGP emerged as the next generation of PHS in 2007.

In the morning of 29 November 2016, the 2016 annual general meeting of XGP Forum was held at STAR GATE HOTEL Kansai Airport in Osaka Prefecture, Japan.

Also this time, as the 20th anniversary event of XGP Forum's founding, related workshop, Forum and Events described below were held in the same HOTEL.

- The 17th GTI Workshop hosted by Global TD-LTE Initiative (GTI)
- TDD Forum 2016 co-hosted by XGP Forum, GTI and TDIA (Telecommunication Development Industry Alliance of China)
- XGP Forum 20th Anniversary Ceremony hosted by XGP Forum
- TDD Demo Tour hosted by XGP Forum

	AM	PM	Night
Day1 Nov 28 (Mon)	GTI Workshop Day 1 9:00-18:00 6F RICC HALL		-
Day2 Nov 29 (Tue)	GTI Workshop Day 2 9:00-12:00 6F RICC HALL	TDD Forum 2016 14:00-18:00 6F RICC HALL	XGP Forum 20th Anniversary Ceremony 18:30-21:00 4F OOTORI
	XGP Forum General Meeting (Internal meeting) 10:00-11:30 6F AQUAMARINE ROOM		
Day3 Nov 30 (Wed)	TDD Demo Tour 9:00-17:00		-

Program

40 people from 17 companies (organizations) participated in the XGP Forum Annual General Meeting, and the chairman, vice chairman and other executives were elected first. As a result, Chairman Yoich Maeda (CEO & SVP. of TTC) and Vice Chairman Fusaki Matsui (Senior Managing Director of ARIB) were both reelected, and Mr. Osamu Uemura was elected as the successor to former vice chairman of Mr. Hiroshi Ishihara and Mr. Sam Endy.

Thereafter, Mr. Yoichi Maeda chaired the opening declaration, and all the agendas were unanimously approved.



The 2016 annual general meeting of XGP Forum

After the discussion on the agendas, lectures from 2 persons described below were carried out as special presentations.

- "Huawei eLTE-IoT Solution" from Mr. Zhang Wurong, Huawei Technologies
- "Baicells General Introduction" from Mr. Bai Wei, Baicells Technologies

In the TDD Forum 2016, 105 people participated. Including Mr. Keiichiro Seki (Director-General of Kinki Bureau of Telecommunications, Ministry of Internal Affairs and Communications) and Mr. Wu Hequan (Chinese Academy of Engineering), 17 lecturers representing research and standardization organizations of Japan and China, telecommunications carriers all over the world and communication equipment vendors carried out speeches and presentations. The content of the presentation was largely related to the latest trend of TD-LTE and the direction of migration to 5G.



Lecturers at the TDD Forum 2016

In the XGP Forum 20th Anniversary Ceremony, 100 people participated. After the guest greetings from Mr. Keiichiro Seki and Mr. Junji Tokunaga (Senior Vice President of SoftBank Corp.), MOU signing ceremony for strengthening the relationship between XGP Forum and TDIA, speeches from Mr. Zhang Xinsheng (Vice President of China Institute of Communications) and Mr. Yoichi Maeda were carried out followed by "Kagami Biraki" and toast. After that, everyone started a conversation.

In the middle of the Ceremony, attraction of Daikagura acrobatics (Japanese ball-juggling performance) was performed.

At the end, Mr. Shoichi Sugiura, former secretary general of XGP Forum, who had been suddenly deceased in July 2016, was mourned, and Mr. Yoshinori Chika, technical advisor of XGP Forum gave a closing remarks.



MOU signing ceremony



Japanese style "Kagami Biraki"

In the TDD Demo Tour, 52 people participated. They rode in the minibus separately and moved to Osaka City where they experienced the data throughput of 2.5 GHz band and 3.5 GHz band, and performance of Massive MIMO which had been commercialized for the first time in the world.



Inside the minibus



Under the Massive MIMO compatible antenna

ISDB-T Broadcasting Technology Seminar in Sri Lanka

The ISDB-T Broadcasting Technology Seminar was held in Colombo, Sri Lanka on Thursday December 1st, 2016 at the Ramada Colombo Hotel, organized by the Ministry of Internal Affairs and Communications of Japan (MIC). Approximately 70 people participated in the Seminar.

The Democratic Socialist Republic of Sri Lanka announced the adoption of ISDB-T in 2014, and Sri Lanka Rupavahini Corporation (SLRC) is now continuing its trial broadcasting as the national TV broadcaster. In order to contribute to the smooth implementation of ISDB-T in Sri Lanka, the ISDB-T Broadcasting Technology Seminar was set up by MIC toward the people in the government and the broadcasting industry, and ARIB/DiBEG dispatched its experts to support the event.

The seminar started with the welcome speech by Mr. H. Ogawa, Director for Digital Broadcasting Technology of MIC, followed by Dr. M. Sugawara, Chairman of DiBEG, explaining the outline of ISDB-T and the activities of DiBEG. 6 experts from DiBEG member companies each made presentation on transmission, reception, studio equipment, datacasting and EWBS (Emergency Warning Broadcast System), together with the explanation of the latest status of migration to digital TV in Sri Lanka by the JICA survey team. Mr. H. Ogawa of MIC introduced the experiences in the digital TV implementation in Japan and Brazil; and Mr. K. Murayama of NHK followed with the explanation of the latest R&D status on the next generation digital terrestrial television.

At the Q&A session there was a question about any difficulties in the ASO (Analog Switch-Off) in Japan; and the MIC representative responded that the public awareness and PR activities to replace the receivers were major challenges they met during the transition. Also there was a question as to the relationship between the current digital terrestrial TV and the 4K/8K broadcasting. The answer was that the 4K/8K trial broadcasting is going on in Japan via satellite as one of the new broadcast services; and the possibility of terrestrial 4K/8K broadcast is to be studied with the results of the on-going R&D activities.



Seminar Hall during the ISDB-T Broadcasting Technology Seminar

At the seminar hall, actual reception of the trial ISDB-T broadcast signal by a flat panel display, exhibit of the set-top box with multiple language application, miniature ISDB-T tuner for smart phones, and the EWBS receiving module were introduced to the Seminar participants.



Japanese delegation

oneM2M TP26 meeting in Kobe

The 26th TP (Technical Plenary) meeting of oneM2M, a global standardization organization of M2M (Machine to Machine), was held in Kobe, organized by ARIB and the Telecommunication Technology Committee (TTC).

Schedule	From 5 to 9, December 2016
Venue	Kobe International Conference Center (Kobe, Japan)
Organizer	ARIB / The Telecommunication Technology Committee (TTC)
Participants	95 people
Participants from Japan	30 people [NTT, KDDI, Fujitsu, Hitachi, NEC, Panasonic, NTT DOCOMO, Qualcomm Japan, Anritsu, TOYO, JAIST, ARIB, TTC]

OUTLINE :

The TP meeting of oneM2M had been held in Europe, North America and Asia. This time, the meeting was held in Japan co-hosted by ARIB and TTC that participated from Japan as major standardization organizations of oneM2M.

At the opening on 5 December, Mr. Fusaki Matsui, Senior Managing Director of ARIB, made a welcome speech on behalf of ARIB and TTC.

At the TP meeting held on 5, 7 and 9 December, the deliberations of each WG were taken into account and the following contents were reported, deliberated and approved.

- Revision of schedule for the next release (Release 3)
- Summary report of Interop # 3 (29 November – 2 December) held previous week
- Report that approval of using ETSI STF (Special Task Forces) would be done related to the program development fee for Conformance test
- Results of reelection of the chairman / vice chairman of WG 1, WG 2 and WG 6
- New WI (Working Item) and modification of existing WI



**Welcome speech by Mr. Fusaki Matsui
(Senior Managing Director of ARIB)**



Technical Plenary meeting

APT Training Course 2016 in ARIB
"Actions for Next and New Generation Mobile Communication Systems"

APT (Asia-Pacific Telecommunity) training course "Actions for Next and New Generation Mobile Communication Systems" (co-organized by Ministry of Internal Affairs and Communications (MIC) and YRP R&D Promotion Association, supported by ARIB) was held from 7 to 14 December 2016, with 11 trainees from the governments of the Asia-Pacific region of 11 countries (Bangladesh, Bhutan, Cambodia, China, Maldives, Myanmar, Nepal, Pakistan, Sri Lanka, Tonga, Vietnam).

In this training course, lectures from ARIB and country report presentation from each of the trainees were conducted on 7 and 8 December in ARIB office.



11 trainees from the government of the Asia-Pacific region

On the afternoon of 7 December, following the lectures by telecommunications carriers and manufacturers, lectures of “Standardization System of ARIB” from Mr. Ken Sugawara (Director of Planning and International Affairs Department of ARIB), “Recent Activity Status on Standardization of 5G” from Dr. Kohei Satoh (Executive Manager on Standardization of ARIB) and “International Trend of ITS Telecommunication Systems” from Mr. Satoshi Oyama (Senior Researcher of ARIB) were carried out followed by question and answer sessions.

On the afternoon of 8 December, in addition to officials of YRP R&D Promotion Association and ARIB, 9 people from 6 ARIB member company were participated, and presentation about the outline of the each country’s Telecommunications Administration, frequency allocation status, regulations and policies related to mobile communications, latest trends on mobile communication technologies and services and so on was carried

out from each of the trainees as a country report, followed by question and answer session.

In fact, there are differences in progress depending on the environment of each country, the transition from 3G to 4G is beginning or progressing, and in some countries, it seems that plans and initiatives for introducing 5G are starting. In any country, it clearly appeared that mobile communication is becoming popular as a main communication means beyond fixed communication, and its growth is continuing.



Country report presentation

The Electromagnetic Compatibility Conference Symposium

“The Electromagnetic Compatibility Conference Symposium – Aiming at the creation of proper environment for radio use in a medical institution” was held on 12 December 2016 at the Meiji-Kinenkan hall co-organized by Electromagnetic Compatibility Conference Japan (EMCC) and Ministry of Internal Affairs and Communications (MIC). The symposium was supported by Ministry of Health, Labor and Welfare, Japan Municipal Hospital Association, Japan Medical Association, Association of Japanese Healthcare Corporations, Japanese Association of Psychiatric Hospitals, Japan Hospital Association, All Japan Hospital Association, Japan Electronics and Information Technology Industries Association (JEITA), as well as ARIB.

About 300 people including MIC Minister Sanae Takaichi attended the symposium, and actively exchanged ideas based on “Guidance for the safe and secure radio wave use in medical institution”. The guidance was compiled by “Telecommunications Promotion Committee in medical institutions” (headed by Takashi KANOU, a professor at the Saitama Medical University), and published by EMCC on 4 April 2016. The committee was highly appreciated for its work and awarded by the MIC Minister on 1 June 2016, at the celebration of “Radio Day”. The symposium was held for the purpose of promoting the Guidance and in commemoration of 30 years of EMCC.



Symposium



MIC Minister Takaichi addressing at the closing of the Symposium

<p align="center">Monthly seminars on radio wave use</p>

No.144	14 October 2016
Title	Radio policy of Japan towards the 2020s - Overview of the Radio Policy 2020 Council Report -
Speaker	Mr. Syuhei Syoji Senior Planning Officer of Radio Policy Division, Radio Department, Telecommunication Bureau, MIC
Summary	The seminar covered the contents of the Radio Policy 2020 Council Report and movement after publication of the Report, such as current status of the radio wave use, promotion measures of wireless service towards 2020 and the direction of the review of the institution according to the radio waves.
Extra	1 November 2016
Title	Opening 95-475 GHz to Commercial Use: Technical and Policy Challenges
Speaker	Dr. Michael Marcus Former Associate Chief for Technology, Office of Engineering & Technology, FCC
Summary	The seminar covered the situation and challenges of radio wave use, direction of the frequency sharing, etc. in the frequency band of more than 95GHz.
No.145	4 November 2016
Title	Activities on 5G and Beyond in Europe
Speaker	Dr. Hendrik Berndt Former Chief Technology Officer & Chief Science Officer and Senior Vice President of DOCOMO's Communications Laboratories in Europe.
Summary	The seminar covered the result of the "Survey of Research and Development Trends of 5G in Europe" which had been entrusted by ARIB with emphasis on the trends and preparation status of demonstration experiment.

No.146	25 November 2016
Title	Towards the standardization and practical application of 4K・8K satellite broadcasting
Speaker	Mr. Masayuki Takada The Association for Promotion of Advanced Broadcasting Services (A-PAB)
Summary	The seminar covered the flow of 4K・8K satellite broadcasting standardization, features of 4K・8K, overview of standard and challenges for practical use.
No.147	20 December 2016
Title	Prospects of Space Communications Business in a Turbulent World
Speaker	Dr. Scott Pace Director of the Space Policy Institute, The Elliot School of International Affairs, The George Washington University
Summary	<p>The seminar covered the following themes as well as the space communication business in the turbulent world.</p> <ul style="list-style-type: none"> (1) How will the US space policy and space communication policy change under the next US new administration (2) The role of space communication in security (3) Future development of US space communications business (4) The role of the government required for the development of the space communications business (5) Advice to Japan's space communications business <p>* This seminar was co-organized by Japan GPS Council (JGPSC) and ARIB.</p>

Standards

1. Newly established Standards at Standard Assembly on 9 December 2016

None

2. Revised or abolished Standards at Standard Assembly on 9 December 2016

(1) Telecommunications field

STD Number	Standard Name	Version
STD-T63	IMT-2000 DS-CDMA and TDD-CDMA System	Ver.12.20
STD-T94	OFDMA Broadband Mobile Wireless Access System (WiMAX applied in Japan)	Ver.3.4
STD-T104	LTE-Advanced System	Ver.4.20
STD-T116	DIGITAL MOBILE TELECOMMUNICATION SYSTEM FOR LOCAL GOVERNMENT (SCPC/4FSK)	Ver.1.1

(2) Broadcasting field

STD Number	Standard Name	Version
STD-B32	VIDEO CODING, AUDIO CODING, AND MULTIPLEXING SPECIFICATIONS FOR DIGITAL BROADCASTING	Ver.3.9
STD-B63	RECEIVER FOR ADVANCED WIDE BAND DIGITAL SATELLITE BROADCASTING	Ver.1.6



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