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|  | ASIA-PACIFIC TELECOMMUNITY | **Document:**  **PRF-20/OUT-02** |
| **20th APT Policy and Regulatory Forum (PRF-20)** |
| 20-22 October 2020, Virtual Meeting | 27 January 2021 |

Secretary General

*(Draft)* **SUMMARY RECORD OF THE**

**20TH APT POLICY AND REGULATORY FORUM**

1. INTRODUCTION

The 20th APT Policy and Regulatory Forum (PRF-20) was held from 20 to 22 October 2020 as a Virtual Meeting.

The meeting was attended by 121 participants from APT Members, Associate Members, Affiliate Members, International Organization, other organizations and the APT Secretariat. Document PRF-20/ADM-03 contains the list of participants of the meeting.

1. OPENING SESSION *(Tuesday, 20 October 2020, 10:00 – 10:30 hrs.,UTC+7)*
   1. **Welcome Remarks by Ms. Areewan Haorangsi, Secretary General, APT**

Ms. Areewan Haorangsi, Secretary General, APT, welcomed all delegates to the Forum. She mentioned that PRF-20 was originally planned to be held in Cambodia but due to the COVID-19 pandemic it had been decided to organize the forum as a virtual meeting. She expressed her grateful appreciation to Cambodia for the kind offer to host the PRF-20. She informed the meeting that since PRF-20 was being held virtually, the chairmanship of PRF would remain with the existing chairman according to the Working Methods of PRF. She expressed her sincere gratitude to the government of Bhutan for supporting Mr. Wangay Dorji to continue serving as the Chairman of PRF. Then, she highlighted the topics of discussion during PRF-20. She also mentioned that PRF-20 was the first time to organize PRF as a virtual meeting, so it is necessary for the PRF to revisit the Working Methods to include this new modality.

The full text of her address is provided in Document: PRF-20/INP-01.

* 1. **Opening Remarks by Mr. Wangay Dorji, Chairman of PRF**

Mr. Wangay Dorji, Chairman of PRF, delivered his remarks. He thanked all delegates for attending the virtual PRF-20. He commended APT Secretariat in trying to organize the meeting virtually. He mentioned that COVID-19 provided opportunities for all Member countries to test, experience, and take advantage of a virtual conversation, and it also provided good opportunity to see how best ICT could shape not only in time of peace but also in time of disaster and emergency. He was confident that though the meeting was conducted virtually, it would give a good experience the Members. He mentioned that the agenda was comprehensive and inclusive programme which would benefit to Members. He urged all Members to take the opportunity to make good use of this opportunity. He wished everyone a good participation.

1. SESSION 1 - PLENARY*(Tuesday, 20 October 2020, 10:45 – 11:15 hrs*. *UTC+7)*
   1. **Adoption of Agenda *(Document: PRF-20/ADM-01)***

Mr. Wangay Dorji, Chairman of PRF, invited APT Secretariat to introduce the document. APT Secretariat briefly introduced the Provisional Agenda of the Meeting. Chairman sought comments on the document. As there was no comment, the Agenda was adopted.

* 1. **Outcomes of the 43rd Session of the Management Committee of the APT relevant to PRF *(Document: PRF-20/INP-03)***

APT Secretariat presented the outcomes of the 43rd Session of the Management Committee of the APT (MC-43) relevant to PRF. He highlighted that MC-43 adopted the report of the PRF and approved the holding of PRF-20 in 2020. He also explained the actions to be taken by PRF relevant to the Strategic Plan of the APT for 2018-2020.

The meeting noted the outcomes of the MC-43 relevant to the work of PRF.

* 1. **Implementation Status of the Strategic Plan of the APT for 2018-2020 *(Document: PRF-20/INP-04)***

APT Secretariat presented the document on the Implementation Status of the Strategic Plan of the APT for 2018-2020. The document included the attachment, which was the report on the implementation of the Strategic Plan of the APT for 2018-2020 by all APT Work Programmes including ADF during 2018 and 2019 that had been submitted to the MC-43. After PRF-20, APT Secretariat would compile activities during the PRF-20 to update the report and submit the report to the next session of the Management Committee of the APT.

The meeting noted implementation status of the Strategic Plan of the APT for 2018-2020.

* 1. **Working Methods of PRF *(Document: PRF-20/INP-05)***

APT Secretariat presented the revised Working Methods of the PRF. He mentioned that the main change was to capture the status of having online meeting, which had not been mentioned in the current Working Methods. He also presented some editorial changes proposed in this revision. He requested Members to provide their comments to APT Secretariat via email. Secretariat would compile all comments and would present at the last session of the Plenary before adoption.

* 1. **Updates on Sub-regional Issues on Policy and Regulations *(Document: PRF-20/INP-18, PRF-20/INP-19, PRF-20/INP-20, PRF-20/INP-26)***

Chairman mentioned that given that the duration of the PRF-20 was shorten, there would be no presentation of the updates. However, he asked APT Secretariat to provide information regarding the updates of sub-regional issues on policy and regulations.

APT Secretariat informed the meeting that the Vice-Chairmen of PRF had provided updates on Sub-regional on policy and regulation from Southeast Asia, South Asia, East Asia, and Pacific sub-region as in Documents: PRF-20/INP-18, PRF-20/INP-19, PRF-20/INP-20, and PRF-20/INP-26, respectively. He encouraged all participants to go through the document for more information.

1. SESSION 2 – ROUNDTABLE on lesson learned from covid-19 and policy and regulatory measures for post-covid-19 *(Tuesday, 20 October 2020, 11:15 – 12:30 hrs., UTC+7)*

Moderator: Mr. Wangay Dorji, Chairman of PRF

* 1. **Response to COVID-19 with ICT *(Document: PRF-20/INP-25)***

Mr. Sang-hun Lee, Chief/Director General, Korea Post Information Center, Ministry of Science and ICT, Republic of Korea presented the document. He first introduced the COVID-19 situation in Korea which the number of cases per day had reached a peak on 29 February 2020. His presentation then covered issues on usage of ICT in publicly distributed mask info service, epidemiological investigation support system, support for remote learning/working, ICT infrastructure emergency response. He also presented the case of Korea Post on COVID-19 response strategy including preventive measures to prepare for potential COVID-19 infection, response system according to social distancing levels, and response manual for diverse emergency COVID-19 situations. In his conclusion, COVID-19 was a big threat to all humanity and ICT was an effective tool to fight against pandemic. With ICT and international collaboration, it was hoped to overcome the pandemic soon.

* 1. **Lessons Learned by Singapore**

Mr. Leong Keng Thai, Director General (International Affairs), Infocomm Media Development Authority, Singapore verbally presented the lessons learned from COVID-19 by Singapore. In his presentation, the first lesson was that digitalization was imperative and it had revolutionized the way people live, work, and socialize in a matter of months, and those changes were likely to stay forever even after the pandemic. He mentioned that Singapore had setup the SG Digital Office where they deployed digital ambassadors all over the country to help businesses adopt e-payment and other digital solutions. The second lesson was that digital inclusion and digital readiness must be part of the cornerstone of every digital agenda. He then explained various initiatives to help the elderly and low-income families. The third lesson was on the continual investment in infrastructure and training. The robust telecommunication infrastructure was the backbone of the digital economy, and the workforce to operate infrastructure optimally need to receive essential training and gain necessary expertise. The fourth lesson was the strengthen international cooperation. It needed to help one another in sharing knowhow in co-developing solution to emerge from the pandemic safely together. He mentioned that COVID-19 had offered important opportunity to be in a much more digitalized world after the pandemic therefore we should seize the opportunity and use digital tools to start to rebuild and reshape our societies and economies.

* 1. **Lesson Learned from COVID-19 and Policy and Regulatory Measures for Post-COVID-19 *(Document: PRF-20/INP-27)***

Mrs. Piyanuch Wuttisorn, Inspector General, Ministry of Digital Economy and Society, Thailand presented the document. She first showed the overall COVID-19 situation in Thailand. She then shared the lessons learned from COVID-19 including combating misinformation by the Anti-Fake News Center Thailand, the real-time COVID-19 tracking, and the important of collaboration among public, private, and people. Her presentation then discussed policy and regulatory measures for post-COVID-19. She mentioned that the digital Thailand policy was still valid with 6 strategies but need to be revised and adjusted. She mentioned that it was needed to increase awareness and make use of Net Pracharat Project. She also shared that there was a Royal Decree on Teleconference that allow meetings and shareholder meetings and voting to take place entirely via electronic means. The last part of the presentation shared how digital technology has become a part of new normal including Thai Chana Platform, and effective use of digital technology and innovation.

* 1. **Panel Discussion**

Moderator asked Mr. Lee regarding the privacy leaking with the application developed by Rep. of Korea government and the measures taken by the government to ensure the privacy of information was maintained. Mr. Lee replied that it was a critical question for everyone who had to investigate the traces of the contact because of high possibility of violating the privacy of individual. The Korean government was very keen not to violate this private data and privacy. Some measures were that the gathered personal data stored in a safest way with encryption, and only could be checked by investigators who had special permission for investigating of contact. The accurate name or information which could reveal specific individual should not be shared. All data collected would be deleted when the level of pandemic was significantly down.

Malaysia also asked Mr. Lee regarding regulatory framework which govern the possible use of financial services data for track and traces, and challenges to arrive with regulatory consensus and how it was overcome.

Mr. Lee replied that the questions also raised by human right groups and civic groups with regard to extensive data collection done by government including financial data and credit card use. The combination of these data could be critical to protect privacy of individual. There was specific law which limit the usage of data collected from the people that try to keep balance between privacy and data collection.

Moderator asked Mrs. Piyanuch regarding the combating misinformation whether it had something to do with censorship and what was the decision-making process to judge misinformation in the misinformation center. Mrs. Piyanuch replied that Thailand had computer laws which had a procedure to take out any content broadcasted with the intention to deceit. For misinformation, the Anti-Fake News Center was used to deal with such information by verifying and indicating whether such information was accurate or not.

APT Secretariat congratulated Mr. Leong on the work of Digital Clinic of Singapore. He asked whether Singapore could provide more details on Digital Clinic to APT Members as part of APT Publication or APT Report. Mr. Leong replied that the project was part of digital inclusion program which started 2 years ago focusing largely on the elderly to teach them how to use mobile phone so that they could connect with their children and participate in the digital economy. COVID-19 had made it necessary to push this in a more aggressive way. He mentioned that Singapore could provide more information through the APT Secretariat for more details on this and other programs.

Moderator summarized some key takeaways as follows:

* COVID-19 provided opportunity to make ourselves more resilient in terms of building robust digital infrastructure.
* One of the most important things that needs to be looked into was how we shape the policy and regulation in order to facilitate building reliable and suitable digital system.
* There was a requirement to come up with a strong collaboration in the region to fight not only against the COVID-19 but also to make things better for the citizen.
* What was very important towards the end of the day? Whether it was COVID-19 or any other pandemic which would strike. The most important thing for the ICT sector was how we support the government and end users. And how do we come up with better system to ensure that the life of the people were made easy?
* Another important thing needs to be taken into consideration was an important of making digital services accessible, available, at an affordable price.

Moderator thanked all panelists for their comprehensive presentations.

1. SESSION 3 – BUSINESS DIALOGUE: INDUSTRY CONTRIBUTIONS IN COPING WITH COVID-19 AND POLICY AND REGULATORY CONSIDERATIONS FOR POST-COVID-19 ERA *(Tuesday, 20 October 2020, 12:45 – 14:00 hrs., UTC+7)*

Moderator: Mr. Ilyas Ahmed, Chief Executive, Communications Authority of Maldives

* 1. **Industry Contribution to cope with COVID-19 pandemic *(Document: PRF-20/INP-21)***

Mr. Foong Chee Kheong , Group Head of Regulatory Affairs, Axiata, presented the document. He first introduced the COVID-19 impact on mobile operations (short-term) in terms of consumer behavior and challenges to the network. He then shared Axiata Group-Wide CSR initiatives in response to COVID-19. Finally he talked about a medium to long-term outlook on investments in telecommunications infrastructure where more investments were needed to meet increased consumer expectations and national aspiration, broadband connectivity was key enabler for digitalization of economics and societies, and regulatory enablers and bold action by policy makers were urgently needed.

* 1. **COVID-19 Industry Experience and Thinking Beyond *(Document: PRF-20/INP-22)***

Mr. Guillaume Mascot, Head of Government Relation APJ, Nokia presented the document. He first introduced that it was critical for people to be connected and connectivity demands had never been more unpredictable than in these unprecedented times. He then shared COVID-19 impact on operators with five observations and questions. The presentation then talked about tracking patients and monitoring population movement using mobile phone data, temporary liberalization of spectrum to ease congestion and boost capacity, soaring demand for connectivity, adapting investment and delayed, defining new normal where players get into position in a world that’s changed forever, rapid response plan to cope with the global pandemic, and key recommendations.

* 1. **Industry Contribution to cope with COVID-19 pandemic *(Document: PRF-20/INP-23)***

Mr. Tom Varghese, Head of Connectivity and Access Policy, APAC, Facebook presented the document. He mentioned that Facebook leadership started dedicating resources, new initiatives and shifting overall focus of the company to COVID-19 since February 2020 and maintained the four approaches to how it responds to the pandemic. He then shared Facebook activities in launching COVID-19 information center on Facebook, reducing misinformation and harmful content, supporting global health organizations with free ads and more, and investing in small businesses. He then talked about three big trends: Digital transformation is no longer a choice; Increasing demand for connectivity everywhere; and We are moving to a world where we all have to be online.

* 1. **Industry contributions in coping with COVID-19 *(Document: PRF-20/INP-24)***

Mrs. Barbara Navarro, Head of Google Cloud, Government Affairs and Public Policy, Asia Pacific, Google presented the document. She briefly introduced an overview of what Google had done and was still doing. She mentioned that Google had launched over 200 new products, features and initiatives and was contributing over $1B in resources to help their users, clients, and partners during the pandemic. The presentation then covered Google efforts which fell in three categories i.e., Inform – Providing Trusted Information, Support – Helping people adapt to a changing world, and Recover – Contributing to recovery efforts. Finally, her presentation concluded with some policy and regulatory considerations.

* 1. **Discussion**

Moderator asked Axiata how the COVID-19 pandemic has changed consumer demand and expectations in terms of communications networks. Axiata replied that, in terms of coverage and speed, customer had various expectations and it was a challenge for operator to optimize the network to meet those expectation. He mentioned that there were still gaps in terms of connectivity even though there had been a lot of investments. He said it needed to be able to lean on of policy maker to make it flexible for operators in terms of spectrum, permit fees, etc. because ultimately the public need good broadband connectivity.

Moderator asked Facebook that as the demand for access to high-speed internet services was growing across the region in the wake of COVID-19, what type of technologies and business models that it saw playing a larger role in the years ahead. Facebook replied that there were 2 big shifts that were ongoing in connectivity, one was on the technology side where the future lay more on disaggregated, open technologies, and the second was on the business model which was shifted from a competition based approach to a collaboration based approach.

Moderator asked Google what types of policies are critical to help companies be agile, yet to be able to provide adequate protections for their customers. Google replied that to be able to develop innovative environment and at the same time be able to protect customers, citizens, businesses, users, it need to have an environment where security and privacy was a priority but be able to do it in a way that give space to companies and users to manage with transparency. It was about having a regulation where companies need to give transparency to users, and the users have the option to decide. She also highlighted some issues on cross-border data flow in a save way and how to open the door for self-regulation.

Republic of Korea made some comments regarding the status of digital divide in Korea and the need of new policy to raise the level of the people who left behind so that they can access to the network but it requires a lot of financial supports. He asked if there was any way of Public Private Partnership which could improve the situation where digital divide require a lot of money, and how could government sector and private could cooperate to reduce digital divide. Axiata commented that there was a real risk that we were creating another digital divide between the low-income households for example children in low-income households did not have enough devices to do online learning. He mentioned that Smartphone price was becoming cheaper. The only thing was to make sure that the supply chain for these phones to get into each country should have low import duties, and no barrier that stop the affordable device to come into the country. Facebook also added that one of the biggest the gap was the people who lived in the area with 4G coverage but still didn’t use the service because they felt that the contents available were not relevant to them, either it was a language barrier or skill and literacy barrier. Facebook could help develop content that would help train people in using digital tools which was core competence of Facebook, and it had partnered with mobile operators in many countries.

Moderator thanked all panelists for their presentations.

1. SESSION 4 – ONLINE WELL-BEING AND SAFETY *(Wednesday, 21 October 2020, 10:30 – 11:45 hrs., UTC+7)*

Moderator: Mr. Rajnesh Singh, Managing Director, Internet Society Asia Limited,

* 1. **Tackling Disinformation on Digital Platforms in Australia *(Document: PRF-20/INP-06)***

Ms. Kelly Mudford, Manager, Disinformation Taskforce, ACMA, Australia presented the document. The presentation covered the work that had been done in Australia around tackling disinformation on Digital Platforms in Australia, the background of the work relevant to Digital Platforms Inquiry, the Recommendations, and government response to the Inquiry. It also talked about some of the events that had influenced their approach such as Australian bushfire season, COVID-19 pandemic, and platform responses, as well as other influences on their approach. It also discussed on key positions on what the code should look like, the top-level code model that had been put in place, the way forward.

* 1. **COVID-19 and Personal Data Protection Case of Korea *(Document: PRF-20/INP-07 (Rev.1))***

Dr. Hayun Kang, Executive Director, International Cooperation Research Division, Korea Information Society Development Institute (KISDI) presented the document. The presentation started with a brief introduction of Korean COVID-19 Management Model. It then discussed the type of technologies that was used for contact tracing and legal basis for those uses. The presentation also addressed Personal Data Protection issues that had role while dealing with the COVID-19 pandemic, and what the government had done to address those issues. In conclusion, these policies were successful only when transparency and objectivity were observed and this could only be done successfully through proper implementation of the privacy guidelines by the responsible government agencies.

* 1. **Online Well-being and Safety *(Document: PRF-20/ INP-09)***

Ms. Chris Perera, Senior Director, AT&T, Hong Kong SAR, China presented the document. She first introduced the 2 critical players i.e. Industry and Policymakers and what their roles were in empowering consumers. Her presentation then talked about initiative that AT&T had been doing to make sure that their customers and societies were safe, and empower digital safety as well as well-being. These initiatives included AT&T ScreenReady community resource, StopBulling: Speak Up initiative, and Cyber Aware website. The presentation also discussed the need for consistent privacy protections.

* 1. **Discussion**

Thailand asked Ms. Kelly Mudford regarding the code of conduct for digital platform, if the user found to be distributing false information and disinformation on the platform, how was the digital platform expected to react to the request from the user. Australia replied that the platforms should develop policy and procedures that deals with user complaint. In terms of the Code, Australian Regulator had no role in relation to handling complaints or in terms of taking down contents. There was also further discussion regarding the reason behind for the issuance of Code of Conduct for that.

Indonesia asked Ms. Kelly Mudford regarding tackling disinformation whether there were any penalties or remedies to the parties that had intention to spread the harmful disinformation. Australia replied that the Code the industry was proposing was the self-regulatory Code and the regulator had no power in relation to the content and it was rather monitoring role than specific sanction.

Moderator asked Ms. Chris Perera regarding the issue of harmonization across countries and the problem for multinational operators that had to face different regulatory requirements and how the operator had to deal with that. AT&T replied that it tried to work with different governments to make sure that, where possible, there was a harmonized approach. It tried to engage and provided input as much as possible.

Philippines mentioned that due to COVID-19 pandemic, many people shifted to online means of communication which created a different kind of a creeping pandemic of online sexual abuse and exploitation of children, and she asked about the best practices, policies or any information an any technology that would filter or block harmful content for children that could be installed by telecommunication or internet service providers. Ms. Perera commented that AT&T had some initiatives on this such as AT&T ScreenReady community resource, Cyber Aware website. There were also some applications that AT&T provides on their networks and they could be contacted for further information. Ms. Kelly Mudford mentioned that Australia had done some works in terms of educating parents and children, and worked with websites and platforms around these contents, and they could also be contacted to connect to relevant agencies who worked on the issue.

Moderator asked Dr. Hayun Kan regarding the consent around the contact tracing that the government had put in place and how the situation in Korea was. She replied that Korean public had been cooperative in following government policy guidelines and one of the reasons could be the government’s very swift and rapid responses to any type of public concern over the general policy that had been put in place.

Moderator thanked all panelists for their presentations.

1. SESSION 5 – NEW CONTEXT IN CONNECTIVITY *(Wednesday, 21 October 2020, 12:00 – 13:15 hrs., UTC+7)*

Moderator: Mrs. Tharalika Livera, Vice-Chairman of PRF

* 1. **Connectivity : Challenge and Opportunity *(Document: PRF-20/INP-10)***

Ms. Ke Wang, Deputy Chief Engineer, Industry and Planning Research Institute, China Academy presented the document. Her presentation covered consideration on Broadband strategy, Universal service: Rural Connectivity, and Emergency Telecommunicaiton. The presentation first talked about the 13th Five Year Plan in Information and Communication of China, China’s new four big inventions, broadband in China and technology evolution. It then talked about different stage of universal service in China. Finally it talked about the importance of emergency telecommunication, emergency telecommunication’s framework, emergency telecommunication technology innovation, and contribution of ICT to the fight against the COVID-19 pandemic.

* 1. **New Context in Connectivity *(Document: PRF-20/INP-11)***

Mr. Manish Kasliwal, VP & Chief Business Development Officer, C&SE Asia, ATC Asia Pacific Pte. Ltd, Singapore presented the document. He first briefly introduced the American Tower company which had presence in 20 countries across the globe. The presentation then discussed how COVID-19 was worsening old industry concerns, and challenges and issues in providing connectivity during the crisis. It then talked about how the Tower industry works, different TowerCo models, TowerCo Model benefits, how ATC as an independent TowerCo had helped to close the digital gap footprint, and finally concluded with policy recommendations.

* 1. **Meaningful Connectivity *(Document: PRF-20/INP-12)***

Ms. Eleanor Sarpong, Deputy Director and Mr. Teddy Woodhouse, Research Manager, Alliance for Affordable Internet, Web Foundation presented the document. The presentation first talked about how A4AI work in member countries, the global investments needed to achieve universal access, investments by regions and income groups, and advocate for affordable and meaningful access. The presentation then talked about how we measure internet access today, how we can do better, what meaningful connectivity is, and how we can use this target. It further discussed why we need a new definition, aspects of internet access, dimensions of meaningful connectivity, measuring dimensions of meaningful connectivity, what the goal is, and what the next step is.

* 1. **Discussion**

Thailand mentioned that towers for 5G required fast rollout and very dynamic resource management especially when they were shared by multiple operators, on the contrary the traditional telecom towers business was comparatively very passive. Then it asked how differently American Tower managed the 2 businesses, and how different in terms of support and encouragement the government and regulator could provide to promote the tower sharing. Mr. Manish Kasliwal replied that 4G would not die soon and 5G was some years away although the deployment or pilot project was started. ATC ensured that they were providing infrastructure to the operators, and the infrastructure was being shared by multiple operators. It wanted to offer very fast rollout of the technology and fast rollout of the sites.

Palau asked Web Foundation on what the basic requirements for them were to accept and help certain countries and asked if they were working with any Pacific Islands countries. Ms. Eleanor Sarpong replied that they currently work actively in coalition in Bangladesh and some relationship in Myanmar and expanding their footprints and the colleague in Fiji was exploring for partnership in the Pacific. One of the key aspects for them was the commitment and willingness of the governments to be able to undertake policy and regulatory reform.

Moderators thanked all panelists for their presentation.

1. SESSION 6 – UPDATE ON 5G DEPLOYMENT *(Thursday, 22 October 2020, 10:30 – 12:00 hrs., UTC+7)*

Moderator: Mr. Than Htun Aung, Deputy Director General, Posts and Telecommunications Department, Myanmar

* 1. **Promotion of Nationwide 5G and Local 5G *(Document: PRF-20/INP-13)***

Mr. Uni Shingo, Deputy Director, Land Mobile Communications Division, Radio Department, Telecommunications Bureau, MIC, Japan presented the document. The presentation covered topics on the roadmap for the realization of 5G, status on nationwide 5G, and promotion of local 5G. For launching commercial 5G services, variety of measures had been implemented including comprehensive field trials, participating in activities for international standardization, and assignment of spectrum for 5G. The presentation also talked about status of spectrum assignment for nationwide 5G and local 5G, outlook for 5G compatible models and area covers, concept of nationwide 5G service coverage, overview of local 5G, frequencies for local 5G and installation schedule, applicants with local 5G license application accepted, tax break system for promoting investment in 5G, and cybersecurity measures against supply chain risk.

* 1. **Spectrum for 5G & Regulation to help investment in this economic downturn *(Document: PRF-20/INP-14)***

Dr. Pratompong Srinuan, Senior Economic Expert, Office of the National Broadcasting and Telecommunications Commission, Thailand presented the document. He first introduced a brief overview of Thailand Mobile Landscape including auction of 3G, 4G and 5G bandwidth. He then talked about 5G performance, spectrum auction in 2020, 5G Roadmap for Thailand, 5G economic impact, 5G vs Industry adoption. The presentation also explained 5G use cases in health care, smart manufacturing, smart agriculture, and smart public service. Finally he discussed challenges for 5G and mentioned that 5G was a digital disruption and we need to change our mind to adopt digital disruption and government need to remove outdated regulations which be the obstacle rather than stimulus of the benefits. Government need also to promote the infrastructure and incentive to provide 5G infrastructure.

* 1. **Indonesia 5G Updates *(Document: PRF-20/INP-15)***

Mr. Wijanarko Joko Hastyo, Sub-coordinator of Land Mobile Service Spectrum Policy and Planning, Directorate General of Resources Management and Equipment of Posts and Informatics (DG SDPPI), Ministry of Communications and Informatics, Indonesia presented the document. He mentioned that the presentation would provide update in general because 5G was not yet implemented in Indonesia but still in the preparation for it. He first provided figures of Indonesia mobile market at a glance and introduced a report on 5G impact to Indonesia’s digital economy. He then talked about mobile broadband coverage in Indonesia, fiber optic penetration for backbone & backhaul, microwave link for backbone & backhaul, spectrum assignment for mobile broadband, Indonesia spectrum target & challenges. He further explained about Indonesia 5G Task Force, overview of Indonesia 5G trials, openRAN in Indonesia, regulatory update: The Omnibus Law, and auction plan of 2.3 GHz Band in 2020

* 1. **Spectrum : Mobile Evolution *(Document: PRF-20/INP-16)***

Mr. Cristian Gomez, Director, Spectrum Policy & Regulatory Affairs, Asia Pacific presented the document. He mentioned that 5G required Spectrum in 3 different Bands with 3 different ranges to support different applications. For massive IoT, Sub 1 GHz Spectrum was ideal. The 1-6 GHz Band provided compromise between capacity and coverage and provided great mix for enhanced mobile broadband as well as industrial type of application. The Band above 6 GHz was useful for ultrafast type of broadband. He then talked about the importance of contiguous spectrum, spectrum prices, licensing terms and conditions, some of the case studies, guard band studies, status of 5G licensing Mid-band and High-band in Asia-Pacific, deployment of digital dividend – Sub GHz spectrum. At the end, he showed the snapshot of WRC-23 IMT Agenda Items and spectrum Harmonization.

* 1. **5G Overview Update *(Document: PRF-20/INP-17)***

Mr. Michael Macdonald, Chief Digital Officer, Huawei Asia Pacific Region presented the document. The presentation covered insight into 5G in a global landscape and information on what Huawei was doing. For the first part, he first introduced the relevant 3GPP Releases including Rel.15, Rel.16 and Rel.17, the 5G large scale commercialization in 2020, key findings of 5G Smart Phone in 2020. He then talked about some 5G cases in South Korea and China, and some of the 5G use cases. The presentation also talked about how 5G took effect in fight against pandemic, and some of the 5G applications. For the second part, he provided quick update on where Huawei was in terms of revenue growth, operational achievement, and some of the solutions available.

* 1. **Discussion**

Moderator mentioned that in Myanmar it was not allowed to assign Spectrum to a particular technology for example 5G. The problem was that when they allocated the spectrum, and the operator has got further spectrum, they would deploy of 4G or 3G, and the problem was the spectrum efficiency. He then asked Mr. Wijanarko Joko Hastyo how Indonesia was thinking about resolving the issue, and asked Mr. Cristian Gomez for a though on this issue.

Mr. Wijanarko Joko Hastyo replied that it was the best way to give the operators to determine themselves which technologies would fit in some areas because Indonesia was a very large area, in some areas 4G technology might be better but other areas might not need 4G connection, so it was the best policy to give operators by themselves to determine which technologies were appropriate.

Mr. Cristian Gomez replied that technology neutrality means flexibility for implementation. The rational behind technology neutral license was to have flexibility. A license could last for 15-20 years or more, if the license was made specific to one technology then the question was what regulatory environment would be down the track to make those licenses to match technology of the time. Another aspect was that regulator should not be concerned about operator going backward to use older technologies because older technologies were more expensive to run. There was a natural incentive for operator to use the most efficient technology either in terms of power consumption, bandwidth, connection, etc.

Indonesia asked Japan on mechanism of licensing of telecom operator in Japan, whether it should have a particular frequency to operate the services, or they could lease to other operators that own it. He also asked that how Japan manage local 5G while they had 100 MHz bandwidth meanwhile having a lot of operators. He also asked Thailand similarly on the first question and asked the second question regarding interference when 700 MHz was used by both 4G and 5G operators.

Dr. Pratompong Srinuan replied that leasing spectrum was not an option for Thailand yet. However, they were considering that leasing spectrum might be necessary for 5G and had drafted amendment of the law so the leasing of spectrum might be available soon. Regarding the 4G and 5G for 700 MHz as shown in his slides, basically the spectrum auction was also technology neutral. Using the term 4G or 5G spectrum auctions were to make explanation simpler because the public may not be familiar with the band or other complicated wordings. It was a matter of winner to use any kind of technology. In terms of interference between 4G and 5G, there was no issue yet.

Mr. Uni Shingo replied that local 5G players in Japan can build 5G network within their own areas. When given license to 5G applicants, they checked prospective area coverage of 5G. After licensing, MIC required local 5G players to report operation of 5G and the MIC also checked them.

Sri Lanka mentioned that during the pandemic, technology supply chain got hampered and maybe vendor had wrapped up and started the production. She asked Huawei how the production of equipment at the moment was, and how they planned to support operators in their roll out.

Mr. Michael Macdonald replied that they had challenges especially the ones that were geared towards higher cost efficiency, the one that combined the low, the high, as well as the new bands into a single design. They always had some types of optimization required to meet certain country requirements in terms of the bands deployed. One of the biggest things of concern was the ecosystem. They needed to understand what bands could be deployed, what types of chipsets were made available for the device manufacturers. This was not a decision that was purely on one vendor, but it came down from a lot of collaborative thinking and a lot of discussions among which major operators were moving more quickly, which countries were moving more quickly. As a result it usually means first mover advantage would get a little more focus in terms of ecosystem partners and development simply because that was where the money was going.

Moderator asked GSMA and Huawei on what they would like to add to a long list of to do for policymakers in terms of facilitating of 5G roll out and 5G update.

Mr. Cristian Gomez added the importance of releasing the spectrum required in the correct bands particularly the mid-range spectrum. The second point was the releasing of 700 MHz. These 2 bands had to be on the top of agenda for every regulators in the region in order to move forward with better infrastructure for the next decade.

Mr. Michael Macdonald resonated the points made by GSMA. He added that the ecosystem was very important and played considerable role in terms of speed of deployment. There were certain bands from technology perspective or from the global idea that they would be more widely adopted and easier to free up globally. He strongly encouraged individual country to take that into account and not to spend too much time to customize bands for deployment because that would disrupt deployment cycle and slow things down. Another issue was the cost of the band. In summary, it was about making sure to use the bands that were widely deployed for ecosystem, and trying to make sure that those auctions were reasonable in terms of the price which would benefit to everyone.

Moderator thanked all panelists for their presentations.

1. SESSION 6 – PLENARY- WAY FORWARD AND CLOSING *(Thursday, 22 October 2020, 12:00 – 12:30 hrs., UTC+7)*
   1. **Adoption of Output Document *(Document: PRF-20/OUT-01)***

APT Secretariat presented the revised Working Methods taking into account the comment received from Indonesia about the old term of AWF which had been changed to AWG. Other revisions were the same as presented at the first session of the Plenary.

The meeting adopted the revised Working Methods of PRF, which was uploaded as Document: PRF-20/OUT-01. It would be submitted to the 44th Session of the Management Committee of the APT (MC-44) for consideration and approval.

* 1. **Way Forward**

APT Secretariat invited suggestion from APT members through Chairman to suggest future activities including thematic sessions for future PRF and any other suggestions.

APT Secretariat also added that PRF needed to discuss on setting up Rapporteur Group/Working Group, which had been proposed at PRF-19 in Bhutan. Due to pandemic situation, it was not able to discuss the issue. The next PRF could discuss the issue based on contributions from members on which topics they wished to setup. Secretariat would consult this issue with office bearers and members to setup such groups accordingly.

Chairman added that 5G was becoming an important subject for the Asia-Pacific and there might be a requirement to undertake a study on 5G deployment in the region, best practices, some of the challenges Members were facing, and see how best as a region we would be able to support each other in terms of 5G deployment.

Chairman suggested members to share their thought to APT Secretariat to compile all the suggestions and see what next best course of action could be taken.

* 1. **Date and Venue of PRF-21**

Secretary General mentioned that APT Secretariat had not received any proposal from Members. She mentioned that Members could consider this matter after the meeting and propose to APT Secretariat.

Chairman requested Members to consider hosting the next PRF and to inform APT Secretariat so that APT Secretariat could inform to members. He hoped that next PRF could be back to normal.

* 1. **Any other matters**

There was no other matter.

* 1. **Closing**

Ms. Areewan Haorangsi, Secretary General of APT, delivered closing remarks. She appreciated that there were a good number of participants at this PRF-20 and there were many colleagues from the Pacific. This was one of the benefits of the virtual meeting where opportunity to join the forum remotely was opened to all without leaving their stations. She mentioned that PRF-20 could not covered many topics due to COVID-19 and hoped that the PRF-21 could be a physical meeting in order to address more issues. She added that the benefits of the virtual meeting needed to be taken into account, and the Secretariat would make a good plan for future forum. She also thanked all moderators, speakers, and participants for making this PRF-20 another successful forum. She mentioned that she first attended PRF-10 in 2010 in Yogyakarta as a delegate and she was pleased to meet many old-time friends again at this meeting including the Chairman. She added that this PRF-20 would be the last PRF she attended as the Secretary General of the APT as her term would end on 8 February 2021. She thanked all participants for making this PRF successful and wished all of them stay safe.

Mr. Wangay Dorji, Chairman of PRF delivered his remarks. He mentioned that he was honored and privileged to chair the PRF for the second time. He thanked Secretary General for her leadership and making PRF-20 a success. He mentioned that even though this was her last PRF, but she might be able to contribute to the PRF in the future again towards the success of PRF. He thanked APT Secretariat for a job well done to organize a virtual meeting for PRF. He mentioned that even though PRF had short sessions, but they were comprehensive. He added that even though PRF was held virtually but it was a big success because it was able to bring a lot of participants from the region. He mentioned that PRF was like a family gathering where members could discuss issues candidly without difficulty. He requested Member countries to share feedback on topics of interests to APT Secretariat so that PRF-21 could have Rapporteur Group/Working Group assigned to conduct study on the subject. He expressed his heartfelt gratitude to all Member countries for giving him another term as Chairman of PRF.

He then declared the meeting closed.

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