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| APTlogogreen3 | ASIA-PACIFIC TELECOMMUNITY | **Document No.:** |
| **The 4th Meeting of the APT Preparatory Group for WTDC-21 (APT WTDC21-4)** | **APT WTDC21-4/**  **OUT-04 (Rev.2)** |
| 24 – 28 January 2022, Bangkok, Thailand (Hybrid) | 7 February 2022 |

Chair, WG1

PRELIMINARY APT COMMON PROPOSAL

**Modifications to WTDC Question 1/1, "** **Strategies and policies for the deployment of broadband in developing countries "**

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| **Priority area:** (Please mark “X” in front of the appropriate item)  \_\_\_ Declaration  \_X Thematic Priorities, Action Plan, Regional Initiatives and SG Questions  \_\_\_ Working Methods  \_\_\_ Resolutions and Recommendations  \_\_\_ Other proposals  **Summary:**  Considering the work of the ITU-D SG1 Question1/1 since the last WTDC-14, it is proposed to modify WTDC Question 1/1, according to the annex below.  **Expected results:**  APT Member administrations invite WTDC to examine the proposal and approve the changes to WTDC Question 1/1.  **References:**  WTDC Question 1/1, " Strategies and policies for the deployment of broadband in developing countries " (Rev. Buenos Aires, 2017) |

**PROPOSALS**

APT Member administrations propose to modify WTDC Question 1/1, according to the annex below.

**MOD**

**STUDY GROUP 1**

QUESTION 1/1

**Strategies and policies for the deployment of broadband in developing countries**[[1]](#footnote-1)1

1. **Statement of the situation or problem**

Broadband technologies are transforming fundamentally the way we live. Broadband infrastructure, applications and services offer important opportunities for boosting economic growth, enhancing communications, improving energy efficiency, safeguarding the planet and improving people’s lives.

Broadband access has had a significant impact on the world economy.

[[2]](#footnote-2)Rapid evolution and new business opportunities are driving rapid but uneven growth in digital technologies. [[3]](#footnote-3)According to ITU data, 2019 marked the first full year when more than half the world begun to participate in the global digital economy by logging onto the Internet. The latest ITU data show that some 49 per cent of the world’s population currently remain unconnected (ITU, 2020 estimates).

The COVID-19 Pandemic has also restated the importance of diverse ICTs in ensuring connectivity as is illustrated by insights shared on the Reg4Covid platform[[4]](#footnote-4).

Question 1/1 has to continue for the next study period, and the topics of interest are to be reflected in the next study period;

- Policies, strategies and regulatory aspects of broadband

- Broadband Access technologies

- Financing and investment aspects of broadband

- COVID-19 and other pandemics on broadband networks

- Digital Transformation/Infrastructure

- Co-deployment & sharing broadband infrastructure

- Strategies and policies for the deployment of broadband in developing countries.

1. **Question or issue for study**

**2.1. Continuing topics from previous study period**

a) Policies and regulations that promote increased high-speed, high-quality broadband network connectivity in developing countries.

b) Effective and efficient ways to fund increased broadband access for the unserved and underserved.

c) Ways to remove practical and regulatory barriers to broadband infrastructure deployment and investment, and best practices for improving cross-border connectivity and SIDS' connectivity challenges.

d) The regulatory and market conditions necessary to promote deployment of broadband networks and services, including, as appropriate, the establishment of asymmetric regulation for operators with significant market power (SMP), such as local loop unbundling, if required, for such SMP operators, and organizational options for national regulatory authorities resulting from convergence.

e) Promoting incentives and an enabling regulatory environment for the investments required to meet the growing demand for access to the Internet generally, and bandwidth and infrastructure requirements in particular, for delivering affordable broadband services to meet development needs, including consideration of public, private and public-private partnerships for investment.

f) Methods to implement affordable and sustainable broadband networks, including the transition from narrowband to high-speed, high-quality networks and interconnection and interoperability features.

g) Demand-side factors and practices to generate and increase the usage of ICT devices and services.

h) Factors influencing the effective deployment of wireline and wireless, including satellite, broadband access technologies, including backhaul considerations.

i) Methodologies for migration planning and implementation of broadband technologies, taking into account existing networks, as appropriate.

j) Trends in the various broadband access technologies and deployment and regulatory considerations.

k) National digital policies, strategies and plans which seek to ensure that broadband is available to as wide a community of users as possible.

l) Flexible, transparent approaches to promoting robust competition in the provision of network access .

m) Co-investment and the co-location and shared use of infrastructure, including through active infrastructure sharing.

n) Licensing approaches and business models for covering remote and rural areas that more effectively integrate the use of terrestrial, satellite, backhaul and submarine telecommunication infrastructure.

o) Holistic universal access and service strategies and financing mechanisms, including universal service funds, for both network expansion and connectivity for public institutions and the community, as well as demand stimulation measures, such as end-user subsidies.]

**2.2. New topics for this study period**

p) Analysis of trends in the data traffic, including investigation into whether the overall increase in data traffic prompted by the prevalent telework, e-education among others, will become new normal in the post-COVID world;

q) Strategies to enhance the QoS of the network with increased data traffic (in possible collaboration with Q6/1);

r) Analysis of the impact of the expected delay in the deployment of terrestrial and non-terrestrial advanced telecommunication infrastructures, caused by the COVID-19 pandemic, and the consequent economic downturn as well as technological alternatives complementary to the existing network to accommodate increased data traffic;

s) Policies and technological solutions to the aggravating digital divide mainly resulting from the postponement of advanced network deployment in rural and remote areas;

t) National digital policies, strategies, and plans which seek to accelerate the deployment of advanced networks along with the promotion of e-education, e-health, and telework after the COVID-19 pandemic.

1. **Expected output**

Reports, best-practice guidelines, workshops, case studies and recommendations, as appropriate, that take into account the issues for study and the following expected outputs:

a) Strategies/national experiences/guidelines to stimulate investment in broadband networks, including private, public and public-private partnerships, financing mechanisms, universal service funding mechanisms and other ways of bridging the digital divide.

b) National experiences to promote broadband network deployment through effective competition, public and private investment, inter-platform competition and public private partnerships, and identification of the range of alternative successful business arrangements that have been used to meet growing demand and other changes in the market.

c) Methods of broadband infrastructure deployment, including backhaul and backbone, and national experiences for improving cross-border connectivity and connectivity for SIDS.

d) Strategies/national experiences/guidelines to promote public-private partnerships for investment, and business models for the deployment of broadband networks, including policy and licensing approaches, financial incentives and frameworks to promote the deployment of broadband infrastructure to improve connectivity and access in the use of ICTs for all.

e) Guidelines for making the transition from narrowband to high-speed, high-quality broadband networks (including transition to IMT-2020 networks), taking into account interconnection and interoperability features.

f) Case studies associated with operational and technical issues of deploying broadband networks, including backhaul considerations.

g) Examples of removing practical and regulatory barriers to broadband infrastructure deployment.

h) Options for the deployment of broadband access networks in developing countries, based on ITU Radiocommunication Sector (ITU-R) and ITU Telecommunication Standardization Sector (ITU-T) Recommendations and relevant regulatory considerations.

i) National experiences for co-investment, co-location, local loop unbundling and infrastructure sharing to promote market entry, where appropriate.

j) Regulatory challenges and policies to leverage the rise of new technologies in the digital economy and society, including universal service funds, coverage requirements and alternative means of financing broadband access.

k) Overview of national experiences in the transition from IPv4 to IPv6.

l) Methods of consolidating and coordinating efforts to facilitate the transition to IPv6.

m) Analysis of the factors affecting the adoption of features of virtual network functions in telecommunication company environments.

n) Technical approaches and national experiences on virtual network functions and SDN to facilitate infrastructure roll-out in developing countries.

o) Study on national experiences in the establishment of Internet traffic exchange points at national, regional and international level.

1. **Timing**

Annual progress reports will be presented to Study Group 1 in 2022, 2023 and 2024. Deliverables could be sent for Study Group 1 for approval on readiness without waiting for the end of study period.

1. **Proposers/sponsors**
2. **Sources of input**

1) Results of related technical progress in relevant ITU-R and ITU-T study groups.

2) Contributions from Member States, Sector Members and Associates and from relevant ITU-R and ITU-T study groups, and other stakeholders.

3) Interviews, existing reports and surveys should also be used to gather data and information for the finalization of a comprehensive set of best-practice guidelines.

4) Material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups should also be used, in order to avoid duplication of work.

5) ITU publications, reports and Recommendations on broadband access technologies.

6) Relevant output and information from study Questions related to ICT applications.

7) Relevant inputs and information from BDT programmes related to broadband and the different broadband access technologies.

**7      Target audience**

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| **Target audience** | **Developed countries** | **Developing countries** |
| Telecom policy-makers | Yes | Yes |
| Telecom regulators | Yes | Yes |
| Service providers/operators | Yes | Yes |
| Manufacturers | Yes | Yes |
| Consumers/end users | Yes | Yes |
| Standards-development organizations, including consortia | Yes | Yes |

**a)**      **Target audience**

All national telecom policy -makers, regulators, service providers and operators, especially those in developing countries, as well as manufacturers of broadband technologies.

**b) Proposed methods for implementation of the results**

The results of the Question are to be distributed through ITU -D interim and final reports. This will provide a means for the audience to have periodic updates of the work carried out and to provide input and/or seek clarification/more information from ITU -D Study Group 1 should they need it.

**8 Proposed methods of handling the Question or issue**

**a)** **How?**

1. Within a study group:

– Question (over a multi-year study period) ☑

1. Within regular BDT activity (indicate which programmes, activities,   
   projects, etc., will be involved in the work of the study Question):

– Programmes ☑

– Projects ☑

– Expert consultants ☑

– Regional offices ☑

3) In other ways – describe (e.g. regional, within other   
organizationswith expertise, jointly with other organizations, etc.) □

**b)** **Why?**

The Question will be addressed within a study group over a four-year study period (with submission of interim results) and will be managed by a rapporteur group. This will enable Member States and Sector Members to contribute their experiences and lessons learned with respect to policy, regulatory and technical aspects of the migration from existing networks to broadband networks.

**9** **Coordination and collaboration**

The ITU-D study group dealing with this Question will need to coordinate with: relevant ITU-R and ITU-T study groups; the relevant outputs from other ITU-D Questions; relevant focal points in BDT and ITU regional offices; coordinators of relevant project activities in BDT; experts and experienced organizations in this field.

**10** **BDT programme link**

Links to BDT programmes aimed at fostering the development of telecommunication/ICT networks as well as relevant applications and services, including bridging the standardization gap.

**11** **Other relevant information**

As may become apparent within the life of the Question.

1. 1 These include the least developed countries, small island developing states, landlocked developing countries, countries with economies in transition and countries with specific needs. [↑](#footnote-ref-1)
2. ITU Statistics (<http://www.itu.int/ict/statistics>) [↑](#footnote-ref-2)
3. The State of Broadband 2019 Broadband as a Foundation for Sustainable Development, <https://www.itu.int/dms_pub/itu-s/opb/pol/S-POL-BROADBAND.20-2019-PDF-E.pdf> [↑](#footnote-ref-3)
4. <https://reg4covid.itu.int/?page_id=59> [↑](#footnote-ref-4)