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| C:\Users\ponder\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\BDT-25th_anniversary_2017-Logo_411959-3_transparent.png | **World Telecommunication Development Conference 2017 (WTDC-17)**  **Buenos Aires, Argentina, 9-20 October 2017** | C:\Users\ponder\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\BDT-25th_anniversary_2017-Logo_411959-1_transparent.png |
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| PLENARY MEETING | | **Addendum 18 to Document WTDC-17/23-E** |
|  | | **4 September 2017** |
|  | | **Original: Russian** |
| ITU Member States, members of the Regional Commonwealth  in the field of Communications (RCC) | | |
| draft Revision to WTDC Resolution 43 - Assistance for implementing IMT – International Mobile Telecommunications | | |
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| **Priority area:**  Resolutions and Recommendations  **Summary:**  Considering the importance of deploying fifth-generation (IMT-2020) and next-generation networks, especially in developing countries, a number of areas of work are proposed following on from the progress achieved in ITU-R and ITU-T.  **Expected results:**  WTDC-17 is invited to consider and approve modifications to Resolution 43 (Rev. Dubai, 2014) in the form set out in the annex hereto.  **References:**  Resolution 43 (Rev. Dubai, 2014) | | |

**MOD** RCC/23A18/1

RESOLUTION 43 (Rev. BUENOS AIRES, 2017)

Assistance for implementing International Mobile Telecommunications (IMT) technologies and networks and next-generation networks[[1]](#footnote-1)1

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

*a)* Resolution 15 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference (WTDC), on applied research and transfer of technology;

*b)* Resolution 200 (Busan, 2014) of the Plenipotentiary Conference, on Connect 2020 Agenda for global telecommunication/information and communication technology development;

*c)* Resolution 59 (Rev. Buenos Aires, 2017) of this conference, on strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest;

*d)* Resolution ITU‑R 23-3 of the Radiocommunication Assembly (RA‑15), on extension of the international monitoring system to a worldwide scale;

*e)* Resolution ITU‑R 56-2 of RA-15, on naming for IMT;

*f)* Resolution ITU‑R 57-2 of RA-15, on principles for the process of development of IMT‑Advanced;

*g)* Resolution 238 (WRC‑15) of the World Radiocommunication Conference 2015 (WRC‑15) on [Studies on frequency-related matters for International Mobile Telecommunications identification including possible additional allocations to the mobile services on a primary basis in portion(s) of the frequency range between 24.25 and 86 GHz for the future development of International Mobile Telecommunications for 2020 and beyond](file:///C:\\Users\\turnbulk\\AppData\\Local\\Temp\\Temp1_R-REG-RR-2016-ZPF-E.zip\\RR2016-VolIII-eA5.pdf" \l "page=237);

*h)* Recommendation 207 (Rev.WRC‑15) of WRC‑15, on [Future IMT systems](file:///C:\\Users\\turnbulk\\AppData\\Local\\Temp\\Temp1_R-REG-RR-2016-ZPF-E.zip\\RR2016-VolIII-eA5.pdf" \l "page=547);

*i)* Resolution 92 (Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on enhancing the standardization activities in the ITU Telecommunication Standardization Sector related to non-radio aspects of international mobile telecommunications (IMT);

*j)* Resolution 93 (Hammamet, 2016) of WTSA, on interconnection of 4G, IMT-2020 networks and beyond,

taking into account

*a)* that, according to the communiqué of the chief technology officers (CTO) meeting which ITU‑T conducted in Budapest (October 2015), "*CTOs encouraged ITU‑T to initiate studies – including studies on accessibility, data formats, and control and management aspects – with the goal of enabling the global interoperability of such high-quality services, inviting contributions to these studies from operators and related industry experts as well as relevant SDOs*";

*b)* that, according to the summary report of the ITU Workshop on voice and video services interoperability over fixed-mobile hybrid environments, including IMT-Advanced (LTE) (December 2015, Geneva), "*further ITU standardization activities should focus on the deployment of signalling protocols for VoLTE interconnection, emergency calls on VoLTE-based networks and numbering issues*";

*c)* the work of ITU‑T Study Group 11 on a framework for interconnection of VoLTE/ViLTE-based networks, which aims to specify common requirements regarding the interconnection of VoLTE/ViLTE-based networks;

*d)* the results of activities of the Radiocommunication Sector to develop ITU-R Recommendations and reports on requirements for radio-frequency spectrum, frequency bands to be used, radio network architecture, and integration of terrestrial and satellite IMT systems and IMT radio interfaces;

*e)* that the development of standards relating to a framework for interconnection of VoLTE/ViLTE-based networks is one of the subjects of the established collaboration agreement between ITU‑T Study Group 11 and ETSI TC INT;

*f)* the successful work of the ITU‑T Focus Group on IMT-2020,

considering

*a)* the continuous need to promote IMT and next-generation networks throughout the world, and in particular in developing countries[[2]](#footnote-3)2;

*b)* that IMT systems have contributed to global economic and social development, and are intended to provide telecommunication services on a worldwide scale, regardless of location, network or terminal used;

*c)* that IMT-2020 will be utilized widely in the near future to build a user-centred information ecosystem, and it will make a positive and important contribution to the United Nations Sustainable Development Goals;

*d)* that ITU-R and ITU‑T are actively continuing their studies on standardization and development of mobile communication systems, overall network aspects of IMT and next-generation networks;

*e)* that the ITU‑T and ITU-R study groups have had, and continue to have, effective informal coordination via liaison activity with respect to the development of Recommendations relating to IMT and next-generation networks;

*f)* that ITU‑T in 2015 initiated the study of non-radio aspects of standardization for IMT for 2020 and beyond;

*g)* that Recommendation 207 (Rev. Geneva, 2015) of WRC, on the future development of IMT for 2020 and beyond, is foreseen to address the need for higher data rates, corresponding to user needs, as appropriate, than those of currently deployed IMT systems;

*h)* that Resolution 43 (Rev. Dubai, 2014) of WTDC acknowledged the continuous need to promote IMT throughout the world, and in particular in developing countries;

*i)* that the ITU‑R Handbook on Global Trends in International Mobile Telecommunications defines IMT and provides general guidance to relevant parties on issues related to the deployment of IMT systems and for the introduction of their IMT-2000 and IMT-Advanced networks;

*j)* that Study Group 1 of the ITU Telecommunication Development Sector (ITU‑D) is currently involved in activities closely coordinated with ITU‑T Study Groups 11 and 13 and ITU‑R Study Group 5 in order to identify the factors influencing the effective development of broadband, including IMT and next-generation networks, for developing countries;

*k)* that IMT systems are now being evolved to provide diverse usage scenarios and applications such as enhanced mobile broadband, massive machine-type communications and ultra‑reliable and low-latency communications, and a substantial number of countries have started implementing these;

*l)* that ITU‑T Study Group 13 initiated the study of non-radio aspects of IMT-2020 and next-generation networks through the establishment of the Focus Group on IMT-2020 (FG IMT-2020) which is mandated (1) to explore demonstrations or prototyping with other groups, notably the open-source community, (2) to enhance aspects of network softwarization and information-centric networking (ICN), (3) to refine and develop the IMT-2020 network architecture, (4) to study fixed-mobile convergence, (5) to study network slicing for the fronthaul/backhaul network, and (6) to define new traffic models and associated aspects of quality of service (QoS) and operations, administration and management applicable to IMT-2020 networks;

*m)* that many aspects of the research and development of designs for IMT and next-generation networks are linked to big data, cloud computing and fog computing;

*n)* the Guidelines on the smooth transition of existing mobile networks to IMT for the developing countries as adopted by Study Group 2 of the ITU Telecommunication Development Sector (ITU‑D)and Supplement 1 (Revision 1) of the Handbook on Deployment of IMT-2000 Systems;

*o)* the tremendous expansion in IMT networks, especially in the developing countries;

*p)* the increasing global reliance on the use of IMT technologies and next-generation networks to support the achievement of objectives related to key sectors, such as health, agriculture, banking, education, among other objectives, that is transforming the face of service delivery in these sectors across the globe and bringing economic development and improvement to such sectors;

*q)* the impact of IMT and next-generation networks on economic development and improvement of communication, social inclusion and economic activities in sectors such as agriculture, health, education and finance;

*r)* the very important role of IMT and next-generation networks in broadband services,

noting

*a)* the excellent work of the relevant ITU‑R and ITU‑T study groups in this regard;

*b)* the Handbook for deployment of IMT systems prepared jointly by the three Sectors and its supplement adopted by ITU-R and ITU-T;

*c)* the adoption by this conference of [Question 2/1],

recognizing

*a)* that deploying IMT in low frequency bands has benefited operators in providing service in wider areas, as well as enabling investment efficiency and competitive prices for wireless broadband services in developing countries;

*b)* that developing and developed countries should cooperate though exchanges of experts, the organization of seminars, specialized workshops and meetings relating to the deployment of IMT and next-generation networks;

*c)* that there are many issues to consider in deploying IMT and next-generation networks, such as suitable IMT technologies, frequency-band harmonization and strategic planning;

*d)* that ITU‑T Recommendations to address network architectures, roaming principles, numbering issues, charging and security mechanisms as well as interoperability and conformance testing for interconnection of IMT and next-generation networks and beyond shall be progressed as quickly as possible,

resolves

1 to include support for ITU research on the deployment of IMT and next-generation networks in developing countries in the Action Plan and the work plans of ITU study groups:

a) ITU‑R study groups: in the area of development of suitable technologies, a transition roadmap, frequency-band definition and harmonization and re‑planning of certain frequency bands to facilitate deployment, including those technologies currently used;

b) ITU‑T study groups: in the area of standardization of non-radio aspects of signalling, protocols and testing, QoS and customer assessment of services (QoE), network requirements and architecture, network softwarization, network slicing, network capability openness, network management and orchestration, fixed-mobile convergence and emerging network technology (such as ICN, etc.); peripheral and transit networks, security of networks and applications,

instructs the Director of the Telecommunication Development Bureau

in close collaboration with the Directors of the Radiocommunication Bureau (BR) and the Telecommunication Standardization Bureau (TSB), as well as the relevant regional telecommunication organizations:

1 to continue to involve Member States and telecommunication operators in activities to define and establish priorities with regard to problems pertaining to the deployment of IMT and next-generation networks, especially in developing countries;

2 to conduct conferences, seminars and workshops on the standard strategic, technical solutions and network applications for IMT (especially IMT-2020) and next-generation networks, taking into account specific national and regional characteristics and requirements;

3 to provide assistance to developing countries in their planning and optimization of spectrum usage for the medium to long term for the implementation of IMT, taking into account national and regional specificity and needs;

4 to continue encouraging and assisting developing countries to implement IMT systems and next-generation networks using the relevant ITU Recommendations and studies carried out by the ITU study groups, taking into account the need to protect existing services;

5 to devote particular attention to work on questions related to the technologies and the radiocommunication standards recommended by ITU, in order to meet their national requirements for the implementation of IMT in the short, medium and long term with a view to encouraging the use of harmonized spectrum and associated band plans and standards to achieve economies of scale;

6 to disseminate as widely as possible the above‑mentioned guidelines and amendments thereto, which are recommended to be used for the evolution of second-generation networks to IMT‑Advanced and next-generation IMT systems;

7 to provide assistance to administrations on the use and interpretation of ITU Recommendations relating to IMT and next-generation networks adopted by both ITU‑R and ITU‑T;

8 to conduct seminars, workshops or training on strategic planning for the transition from networks operated primarily in particular regions to IMT and next-generation networks, taking into account specific national and regional requirements and characteristics;

9 to promote the exchange of information among international organizations, donor countries and recipient countries on upgrading to and deploying IMT-Advanced/IMT‑2020 systems in certain frequency bands used by previous-generation IMT (particularly those operated below 2 GHz);

10 to provide expert advice on the creation of roadmaps for the evolution of IMT;

11 to recommend that administrations, when creating new-generation IMT systems, make extensive use of the results of research contained in the relevant ITU-R Recommendations and Reports (including Reports ITU‑R M.2078, ITU‑R M.2135, ITU‑R M.2176, ITU‑R M.2290, ITU‑R M.2375 and others), by making available a sufficient quantity of spectrum to enable the proper development of IMT networks, with the aim of expanding the provision of mobile-broadband services in an efficient manner;

12 to support projects and training on the use of IMT applications and next-generation networks in key sectors, including health, banking, education and public safety, among others, through strategic partnerships;

13 to take into account the results of the work under [Question 2/1] in relevant BDT programmes, that are components of the toolkit BDT uses when solicited by Member States and Sector Members in order to support their efforts to build broadband and deploy IMT networks,

invites ITU‑D Study Group 1

1 to take into account the contents of this updated resolution when conducting studies under [Question 2/1], and to maintain close cooperation in this matter with ITU‑R study groups (specifically, Study Groups 4 and 5) and ITU‑T Study Group 13;

2 to take into account the decisions of the 2015 and 2019 World Radiocommunication Conferences and of WTSA-16 and WTSA-20 when implementing this resolution,

encourages Member States

to provide all possible support for the implementation of this resolution and for the future work on studies relating to the relevant study Question.

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1. 1 The term "next-generation networks" refers to the convergence of mobile and fixed networks. [↑](#footnote-ref-1)
2. 2 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition. [↑](#footnote-ref-3)