

**MOD****RESOLUTION 177 (REV. DUBAI, 2018)****Conformance and interoperability**

The Plenipotentiary Conference of the International Telecommunication Union (Dubai, 2018),

*recognizing*

- a) Resolution 197 (Busan, 2014) of the Plenipotentiary Conference, on facilitating the Internet of Things (IoT) to prepare for a globally connected world, and Resolution 200 (Busan, 2014) of the Plenipotentiary Conference, on the Connect 2020 Agenda for global telecommunication/information and communication technology (ICT) development;
- b) Resolution 76 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on studies related to conformance and interoperability (C&I) testing, assistance to developing countries<sup>1</sup>, and a possible future ITU Mark programme, Resolution 96 (Hammamet, 2016) of WTSA, on ITU Telecommunication Standardization Sector (ITU-T) studies for combating counterfeit telecommunication/ICT devices, and Resolution 98 (Hammamet, 2016) of WTSA, on enhancing the standardization of IoT and smart cities and communities for global development;
- c) Resolution 47 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference, on enhancement of knowledge and effective application of ITU recommendations in developing countries, including C&I testing of systems manufactured on the basis of ITU recommendations;
- d) Resolution ITU-R 62-1 (Rev. Geneva, 2015) of the Radiocommunication Assembly, on studies related to testing for conformance with ITU Radiocommunication Sector (ITU-R) recommendations and interoperability of radiocommunication equipment and systems;
- e) the progress reports made by the Directors of the ITU Bureaux to the ITU Council and to this conference,

*noting*

- a) the work carried out under Question 4/2 of the ITU Telecommunication Development Sector (ITU-D), on assistance to developing countries for implementing C&I programmes;

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<sup>1</sup> These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

- b) the work carried out by ITU-T Study Group 11 on C&I programmes, including on the Conformity Assessment Steering Committee (CASC), and on combating counterfeit ICTs;
- c) that several ITU-T study groups have already started pilot projects for conformity to ITU-T recommendations;
- d) that ITU-T has launched an informative and voluntary Product Conformity Database and is progressively populating it with details of ICT equipment having undergone testing for conformity to ITU-T recommendations;
- e) that an ITU C&I Portal website has been created and is continually updated;
- f) that C&I testing can facilitate the interoperability of certain emerging technologies such as IoT and International Mobile Telecommunications 2020 (IMT-2020);
- g) that CASC, in collaboration with other certification bodies (e.g. the International Electrotechnical Commission), is working on the establishment of a joint certification scheme for assessing ICT equipment for conformity with ITU-T recommendations,

*recognizing further*

- a) that C&I procedures are used to protect consumers and networks and to prevent radio equipment interference;
- b) that widespread C&I of telecommunication/ICT equipment and systems through seamless transfer of data and through the implementation of relevant programmes, policies and decisions can increase market opportunities and reliability and encourage global integration and trade;
- c) that technical training and institutional capacity building for testing and conformity are one of the essential tools for many ITU members to develop their own capacity and to promote global connectivity;
- d) that many ITU members may also benefit from using the conformity assessment that many existing regional and national standards bodies already provide for conformity assessment, through mechanisms of collaboration with such organizations;
- e) that existing international approaches to conformity assessment provide a robust and well-functioning infrastructure that is also being used by developing countries;
- f) that a decision concerning the implementation of an ITU Mark would be postponed until pillar 1 (conformity assessment) of the Action Plan has reached a more mature stage of development (Council-12);
- g) that micro, small and medium enterprises in ITU Member States contribute greatly to the economy, including the digital economy, both enabled by access to affordable and interoperable technologies;

*h)* that CASC has been set up for the purpose of developing a procedure for the recognition of ITU experts and elaborating detailed procedures for the implementation of a test laboratory recognition procedure in ITU-T,

*considering*

*a)* the Action Plan for the C&I Programme as updated at the 2013 session of the ITU Council, the pillars of which are 1) Conformity assessment, 2) Interoperability events, 3) Capacity building, and 4) Establishment of test centres and a C&I programme in developing countries;

*b)* that some countries, especially developing countries, have not yet acquired the capacity to test equipment and provide assurance to consumers in their countries;

*c)* that increased confidence in the conformity of telecommunication/ICT equipment to rules and standards in place promotes interoperability of equipment from different manufacturers, reduces interference among communication systems, and assists developing countries in choosing high-quality products;

*d)* the importance of C&I to businesses, including to small and medium enterprises (SMEs) and young developers, when designing, developing and marketing telecommunication/ICT equipment;

*e)* that, along with ITU-T recommendations, there are a number of specifications for C&I testing developed by other conformity assessment bodies and standards-development organizations (SDOs), forums and consortia;

*f)* that conformance testing alone does not guarantee interoperability of devices or detection of counterfeit devices, but provides assurance that the implementation of a standard conforms to the specified standard;

*g)* that the conformity assessment process, which includes certification, testing and inspection, can assist in combating counterfeit ICT devices, especially in developing countries;

*h)* that the costs of establishing laboratories for the implementation of conformity and interoperability programmes are high in developing countries, in terms of both capital and operating costs;

*i)* that conformity and interoperability laboratories require regular updates due to the rapid development of technologies, equipment and terminals,

*resolves*

1 to endorse the objectives of Resolution 76 (Rev. Hammamet, 2016), Resolution 62 (Rev. Geneva, 2015) and Resolution 47 (Rev. Buenos Aires, 2017), and the Action Plan for the C&I Programme reviewed by the Council at its 2014 session (Document C14/24(Rev.1));

2 that this programme of work continue to be implemented, including the informative pilot conformity database and its development into a fully functioning database, in consultation with each region, taking into consideration a) the outcome and effect that the pilot conformity database may have on Member States, Sector Members and stakeholders (e.g. other SDOs), b) the impact the database will have on bridging the standardization gap as relevant to each region, c) the potential liability issues for ITU and for Member States, Sector Members and stakeholders, and taking into account the results of regional ITU conformity and interoperability consultations;

3 to assist developing countries in establishing regional or subregional conformity and interoperability centres suitable to perform conformity and interoperability testing as appropriate and according to their needs and encourage cooperation with governmental and non-governmental, national and regional organizations and international conformity assessment bodies;

4 to facilitate cooperation between ITU, Member States, Sector Members and relevant entities to lower the cost of establishing conformity and interoperability assessment centres (such as the use of virtual laboratories for remote testing) at the national, subregional and regional levels, especially for developing countries,

*instructs the Director of the Telecommunication Standardization Bureau*

1 to continue consultations and assessment studies in all regions, taking into consideration the needs of each region, on implementation of the Action Plan endorsed by the Council, including, in collaboration with the Director of the Telecommunication Development Bureau (BDT), the recommendations on human capacity building and assistance in the establishment of test facilities in developing countries;

2 to continue to carry out pilot projects for conformity to ITU-T recommendations to increase the probability of interoperability in accordance with the Action Plan;

3 to enhance and improve standards-setting processes in order to improve interoperability through conformity;

4 to continuously update the Action Plan for the long-term implementation of this resolution;

5 to provide the Council with progress reports, including the results of studies, relating to the implementation of this resolution;

6 in cooperation with the Director of BDT, and based on the consultations in *instructs the Director of the Telecommunication Standardization Bureau* 1 above, to implement the Action Plan agreed by the Council at its 2012 session and revised by the Council at its 2013 session,

*instructs the Director of the Telecommunication Development Bureau, in close collaboration with the Director of the Telecommunication Standardization Bureau and the Director of the Radiocommunication Bureau*

- 1 to advance the implementation of Resolution 47 (Rev. Buenos Aires, 2017) and the relevant parts of the Action Plan, and to report to the Council;
- 2 to assist Member States in addressing their concerns with respect to non-compliant equipment;
- 3 to continue providing on-the-job capacity-building activities, in collaboration with recognized institutions and benefiting from the ITU Academy ecosystem, including activities related to preventing radiocommunication interference caused or received by ICT equipment;
- 4 under pillars 3 and 4 of the ITU C&I Programme:
  - a) to raise awareness of the applicability of C&I programmes to certain IoT applications; and
  - b) to provide capacity building on technical regulations and compliance testing to support developers, including SMEs and youth, as they design their telecommunication/ICT equipment, to enable them to access local, regional and global markets;
- 5 to use ITU seed money allocated for projects and encourage donor agencies to fund annual capacity-building and training programmes in testing centres adopted as ITU centres of excellence;
- 6 to assist developing countries in building their capacity and identifying regional and subregional ICT testing centres in developing countries as ITU centres of excellence, as appropriate, in collaboration with the other Bureaux, so as to be able to perform conformance testing and interoperability testing of equipment and systems, relevant to their needs, in accordance with the relevant recommendations, including the development or recognition of conformity assessment bodies, as appropriate;
- 7 to assist Member States in enhancing their capabilities for conformance assessment and testing in order to combat counterfeit devices and to provide experts for developing countries;
- 8 to promote collaboration with regional C&I bodies, especially with respect to technical conformance assessment,

*invites the Council*

- 1 to consider the reports of the Directors of the three Bureaux and to take all necessary measures so as to contribute to the achievement of the objectives of this resolution;
- 2 to report to the next plenipotentiary conference on the progress made with respect to this resolution;

3 to consider, after pillar 1 of the Action Plan has reached a more mature stage of development, the possible introduction of an ITU Mark, taking into account the technical, financial and legal implications;

4 to support the implementation of ITU's testing laboratories recognition procedure and make the list of recognized testing laboratories accessible for ITU members,

*invites the membership*

1 to populate the pilot conformity database with details of products tested to applicable ITU-T recommendations in accredited test laboratories (first, second or third party), or by accredited certification bodies, or according to procedures adopted by an SDO or forum qualified in accordance with Recommendation ITU-T A.5;

2 to participate in ITU-facilitated interoperability events and in the work of the ITU study groups related to conformity and interoperability issues;

3 to take an active role in building developing countries' capacity in conformity and interoperability testing, including on-the-job training, particularly as part of any supply contract for telecommunication equipment, services and systems to these countries;

4 to support the establishment of regional conformity testing facilities, or facilitate the use of existing laboratory infrastructures, particularly in developing countries;

5 to participate in ITU assessment studies to promote the establishment of harmonized conformity and interoperability frameworks in the regions,

*invites organizations qualified in accordance with Recommendation ITU-T A.5*

1 to participate in the ITU pilot conformity database activities and, sharing links on a mutual basis, to enrich its extent by referring to more recommendations and standards within a product, and to allow for more exposure of vendors' products and widen the portfolio of selection to the users;

2 to participate in developing countries' capacity-building programmes and activities facilitated by the Telecommunication Standardization Bureau (TSB) and BDT, in particular offering opportunities for developing-country experts – particularly from operators – to gain on-the-job experience,

*invites Member States*

1 to contribute to the implementation of this resolution;

2 to encourage national and regional testing entities to assist ITU in implementing this resolution;

3 to adopt conformity-assessment regimes and procedures based on applicable ITU-T recommendations, leading to better quality of service/quality of experience, and to higher probability of interoperability of equipment, services and systems;

4 to work together to combat counterfeit equipment using nationally and/or regionally established conformance assessment systems,

*further invites Member States*

to contribute to the next radiocommunication assembly in 2019 in order for it to consider and take appropriate actions as deemed necessary with respect to C&I.