

SOURCE: A.S. Popov Odessa National Academy of Telecommunications, Ukraine
TITLE: Draft new Question (merger of Questions 25/2 and 26/2): Migration from existing networks to next generation networks for developing countries: technical, economic, regulatory and policy aspects

UKR-ONA/27/1 Objective(s): 2

1 Introduction

The Plenipotentiary Conference of the International Telecommunication Union, in Annex 2 to Decision 5 (Rev. Guadalajara, 2010), agreed on the need to identify and eliminate possible cases of duplication (functions, activities, workshops, seminars), and on the centralization of financial and administrative tasks.

It is thus appropriate to look for ways and means of minimizing the costs of ITU's operations as a whole and those of the Telecommunication Development Sector in particular. One of the ways of addressing this issue is to improve the structure of the Questions examined by the ITU Development Sector study groups.

The ITU Development Sector currently has two study groups, each being responsible for the examination of nine Questions. However, some of those Questions consider similar issues, or the same issue from different angles.

Obviously, such a large number of Questions makes it impossible to conduct sufficiently thorough and high-quality research, while at the same time necessitating an excessive number of rapporteur group meetings.

Combining a number of Questions would, on the one hand, lead to a more comprehensive examination of the issues, thereby enhancing the quality and effectiveness of the study groups, and, on the other hand, help to minimize costs for the ITU Development Sector while also reducing the cost for Member States and Development Sector Members of organizing their representation in the study groups and rapporteur groups.

2 Proposal

We propose revising Question 26/2 (Migration from existing networks to next generation networks for developing countries: technical, regulatory and policy aspects) by combining it with Question 25/2 (Access technology for broadband telecommunications including IMT, for developing countries).

We propose that the new combined Question be entitled "Migration from existing networks to next generation networks for developing countries: technical, economic, regulatory and policy aspects".

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3 Reasoning

Both Questions focus on the study of technological advances in the telecommunication sector which facilitate the transition to next-generation networks for developing countries. The structure of the Questions involves the study of the benefits of migration to next-generation networks for developing countries, as well as the legal and regulatory aspects (including with respect to the financing of universal services).

Draft new Question 26/2 (merger of Questions 25/2 and 26/2): Migration from existing networks to next-generation networks for developing countries: technical, economic, regulatory and policy aspects

1 Statement of the situation

Developing countries suffer from insufficient access to broadband. This new access mode to the network paves the way for the generalization of new services and revenues. It fosters the development and generalization of packet-based NGN offering convergence of voice, data and video services.

Of particular importance for developing countries are human capacity factors (NGN architectures are viewed as very complex and need more explanation), economic factors (cost of this new infrastructure both at access and core is seen as high with respect to the expected returns), and application development factors (without new applications broadband access and NGN take-off will not materialize). Keeping in view the importance of the subject, the Question should also focus on access issues and competition as well as interconnection issues of NGN.

ITU-D can play an important role in assisting Member States and Sector Members in developing countries with guidelines for migration to NGN, taking into consideration that the standardization of core and access technologies and NGN is embedded as a priority in the strategic plan of ITU-T.

One aspect of this work is ensuring that developing countries have information on the various technologies that enable wired and wireless access to broadband communications for terrestrial and satellite telecommunication systems, including International Mobile Telecommunications (IMT).

2 Question for study

2.1 Examination of NGN technologies and insight into deployments of broadband access and NGN core technologies, what it really does and what are the principles and methodologies for migration planning, taking into account in particular evolution of existing core networks into NGN.

2.2 Examination of issues related to the subject area of the Question: change in number and location of interconnection points; which services should be regulated; overall framework for wholesale billing, etc.

2.3 Methodologies for migration planning, taking into account in particular the transition from existing core networks to NGNs.

2.4 Examination of wired and wireless broadband access technologies and future trends in that area.

2.5 Identifying methodologies for migration planning and implementation of broadband wired and wireless technologies, taking into account existing networks as appropriate.

2.6 Considering trends in broadband access technologies: deployment, services offered and regulatory considerations.

2.7 Identifying ways and means of introducing IMT using terrestrial communication links and satellites.

2.8 Identifying key elements to be studied in order to facilitate the possible deployment of systems integrating satellite and terrestrial components of IMT.

3 Expected output

3.1 In the next ITU-D study period, 2014-2017, studies of various issues related to migration from existing networks to next-generation networks are to be reported, and among others the description of the technical, legislative and regulatory framework that would be needed to implement appropriate interconnection arrangements for new generation networks. The economic impacts of implementing these interconnection arrangements are also to be reported.

3.2 A matrix of different broadband access technologies, both wired and wireless, terrestrial and satellite, with yearly updates.

3.3 Analysis of the factors influencing the effective deployment of broadband access core technologies.

3.4 A set of guidelines on broadband access deployment that could be delivered inter alia through training seminars.

3.5 A handbook on IMT deployment in developing countries

3.6 Draft Recommendation(s), as appropriate and if justified.

4 Timing

4.1 A mid-term report is expected by 2016.

4.2 A final report is expected by 2017.

5 Proposers

There was consensus at WTDC-10, held in Hyderabad, that the issue of the migration from existing networks to next-generation networks is of extreme importance to all countries, particularly developing countries, and needs to be continued as a revised Question in the next study period 2010-2014 with a view to highlighting the impact of NGNs on this issue.

In 2014, the A.S. Popov Odessa National Academy of Telecommunications (Ukraine) supplemented the proposal with the relevant provisions of Question 25/2, the proposers of which are the Arab States and the United States.

6 Sources of input

6.1 Practical experience of countries that have introduced competition and successfully addressed the interconnection issue.

6.2 Contributions from Member States and Sector Members.

6.3 Interviews, existing reports and surveys, material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups.

6.4 Results of technical progress made in the relevant ITU-R and ITU-T study groups, in particular the work of Study Group 5 Working Parties 5D (Question 77) and 5A and Study Group 4

Working Parties 4A, 4B and 4C, as well as in ITU-T, in particular Study Group 15 (Question 1) and 13 (Question 15).

6.5 ITU publications on broadband access and IMT.

7 Target audience

a) Target audience

Target audience	Developed countries	Developing countries ¹
Telecommunication policy-makers	Interested.	Highly interested because of lack of experience.
Telecommunication regulators	Interested and have experience of different models.	Highly interested. Some countries have immediate need for information.
Service providers/operators	New entrants, regardless of size, extremely interested.	New entrants, regardless of size, extremely interested.
Manufacturers	Highly interested. This will promote infrastructure development.	Highly interested. This will promote infrastructure development.

b) Proposed methods for the implementation of the results

The output of the study (report and guidelines) would be distributed as the output results of the ITU-D study groups. Given the importance of the issue, however, BDT could also conduct regional seminars and meetings, perhaps in conjunction with regional telecommunication organizations, to disseminate the results of the study on the Question. The results should be transmitted to the ITU-D Global Symposium for Regulators held annually, when the theme relates to interconnection. The results should be published by ITU for wider distribution.

8 Proposed methods of handling the Question

Within Study Group 2.

9 Coordination

9.1 Because the issue of interconnection and access is related to other issues being studied by ITU, coordination will be required not only within the ITU-D study groups and programmes but also with the study groups of the other ITU Sectors.

9.2 Regional organizations (such as CITEC, ATU and APT) would also be required to be involved so that issues related to interconnection and access are coordinated and duplication of efforts minimized.

10 Other relevant information

As may become apparent within the life of this Question.

¹ This includes least developed countries (LDCs), small island developing states (SIDS), landlocked developing countries (LLDCs) and countries with economies in transition.