ITU Regional Workshop for CIS
"ITU Virtual Laboratory for Remote Tests of Equipment, New Technologies, and Services"

Moscow, Russian Federation, 10-12 November 2014

REPORT

The regional workshop for CIS "ITU Virtual Laboratory for Remote Tests of Equipment, New Technologies, and Services", organized by the ITU Telecommunication Development Bureau in cooperation with the Ministry of Telecom and Mass Communications of the Russian Federation and the Federal State Unitary Enterprise Central Science Research Telecommunication Institute (ZNIIS), Russian Federation, and with support of Treatface LLC and Digital Technologies Research and Production Enterprise CJSC, was held in Moscow, Russian Federation, from 10 to 12 November 2014.

The workshop was final stage of implementation of the CIS regional initiative approved by 2010 World Telecommunication Development Conference (WTDC-10, Hyderabad, India) on Establishment of an ITU virtual laboratory for the remote testing of equipment and of new technologies and services, kin the interests of achieving the aims of Resolution 76 (Johannesburg, 2008) of WTSA-08 and populating a unified ITU database. The workshop, which was held on the basis of the ZNIIS, the ITU partner in the regional initiative implementation, presented technological capacities of the virtual laboratory and provided a training for the CIS specialists on using the laboratory equipment.

In particular, the workshop presented the use of the ZNIIS model networks and provision of remote access to the measuring equipment, use of the measuring equipment for testing communication tools on the basis of IP protocol, metrological examination, and follow-up calibration on the basis of IP protocol, as well as testing using virtualization.

Also, the workshop presented the virtual laboratory common database created within the framework of the regional initiative implementation, which is designed for storage and dissemination of the results of the virtual laboratory activities, and the portal, which serves as system of remote access to the virtual laboratory resources through the Internet. The workshop also presented the results of the ITU activities in the field of conformance and interoperability testing and similar ITU projects and recommendations.

The workshop was attended by **47** representatives of communication administrations, telecommunication regulators and providers, higher education institutions, telecommunication equipment manufacturers, software developers, and other stakeholder of 6 ITU Member States (Republic of Kazakhstan, Kyrgyz Republic, Russian Federation, Republic of Tajikistan, Republic of Uzbekistan, and Romania), including **5 CIS countries**. The International Telecommunication Union was represented by Mr. Riccardo Passerini, ITU/BDT Focal Point for C&I Programme, Mr. Denis Andreev, C&I Programme Coordinator, JCA-CIT Secretariat, ITU/TSB, and Mr. Andrei Untila, Programme Officer, ITU Area Office for CIS.

Participants of the workshop

During the opening ceremony, the participants were welcomed by Mr. Vitaly Kreindelin, Deputy Head of Public Communication Service Division, Federal Communication Agency, Mr. Andrei Gryazev, Acting Director General of the ZNIIS, and Mr. Andrei Untila, Programme Officer of ITU Area Office for CIS.

Before the opening ceremony

Within the framework of the workshop, speakers from the ZNIIS, ITU, Rostelecom LLC and Treatface LLC delivered **26 presentations**. The workshop was conducted in Russian with simultaneous interpretation into English.

First day of the workshop (10 November 2014, Monday) consisted of 2 Sessions, covering: The Virtual Laboratory Infrastructure (6 presentations); Use of Measuring Equipment for Metrological Testing of Communication Tools, Validation of Communication Equipment Measurement Tools and Virtual Testing of Advanced Technologies; Metrological Examination and Follow-up Calibration of Communication Equipment; Tests using Virtualization (7 presentations).

Second day of the workshop (11 November 2014, Tuesday) consisted of 3 Session, covering: Use of Measuring Equipment for Testing Telephone Network Communication Tools; Metrological Testing and Validation of Communication Equipment Measurement Tools; Virtual Testing (5 presentations); Remote Testing of the Technologies of Data Communication through IP networks (3 presentations); Web Portal and Database of the Virtual Laboratory (3 presentations).

The process of the workshop

Third day of the workshop consisted of one session dedicated to Pilot Project on Testing MNP on Conformance to Q.suppl.4 ITU Recommendation (2 presentations) and a number of roundtables, where the participants presented reports on possible use of the ITU Virtual Laboratory equipment and cooperation with the ZNIIS. Also, the participants had an opportunity to practice working on the laboratory equipment to obtain basic skills.

The results of the workshop were presented by Mr. Denis Andreev, C&I Programme Coordinator, JCA-CIT Secretariat, ITU/TSB, and Mr. Andrei Untila, Programme Officer, ITU Area Office for CIS.

When summing up, the participants, in particular, noted the following:

1. The ZNIIS concluded the works on creation of the virtual laboratory for remote tests of new equipment, technologies, and services;
2. The laboratory can realize following types of remote tests:
   - Functional testing of equipment;
   - Testing of all-channel signaling system # 7;
   - Testing of signaling protocols VoIP;
   - Testing of quality of services (QoE) and performance index of communication network;
   - Testing of security system;

3. The ZNIIS will perform further support of the virtual laboratory and provide remote test services.
4. Access to the system of remote tests of equipment and communication services can be provided to all stakeholders.
5. Standardization of remote test service, as well as of mechanisms/protocols used for remote tests is a significant element of Testing as a Service (TAAS). The ZNIIS is invited to participate in the work of SG 11, Question 15/11.
6. Currently, IMS platforms are deployed everywhere by fixed-line and mobile communication providers. Standardization of requirements to SIP-IMS-profile-based equipment is an important task for communication providers.
7. The workshop participants are interested in elaboration of a set of standards and test specifications for SIP-IMS profile as an ITU-T recommendation.
8. The workshop participants are interested in creation of an alliance of communication providers for elaboration of coordinated decisions on use of ITU-T single standard of requirements to terminal equipment on the basis of SIP-IMS.
9. The ITU Area Office for CIS is recommended to present the question of creation of the alliance to the Board of the RCC CAs Heads.
10. Communication providers, the workshop participants are interested in cooperation in the field of ITU-T single standard of requirements to terminal equipment on the basis of SIP-IMS and in elaboration of standard requirements to terminal equipment and IMS platforms for admitting the equipment to the markets of the RCC countries.
11. The workshop participants are interested in initiation of ITU pilot projects on ITU-T SIP-IMS conformance tests.
12. The workshop participants are invited to contribute to the work of C&I (JCA-CIT) coordination group to continue discussion on standardization and testing SIP-IMS profile (26 November 2014).
13. It was decided to compose a region action plan on implementation and use of ITU-T requirements and test specifications of terminal stations and IMS platforms in the RCC countries.
14. The ZNIIS is interested in elaboration of test specifications for number portability systems (MNP) (Q.suppl.4) and initiation of a new ITU-T pilot project on testing MNP systems.
15. Taking into consideration the experience of RCC countries, the workshop participants highly appreciated the ITU activities in the field of measurement of the Internet access speed. A number of participants are willing to join the work after presenting their suggestions to SG 11.
16. The ZNIIS in interested in cooperation with ITU on the issues of fighting against counterfeit products.

Выводы и рекомендации Семинара

The workshop participants noted:

1) Essential contribution of the ZNIIS to implementation of the regional initiative on Establishment of an ITU virtual laboratory for the remote testing of equipment and of new technologies and services, kin the interests of achieving the aims of Resolution 76 (Johannesburg, 2008) of WTSA-08 and populating a unified ITU database;
2) Topicality of the workshop;

3) Practical significance of the presentations delivered and usability of the presented information for professional activities of the workshop participants;
4) Importance of the exchange of experiences and opinions during the workshop;
5) Necessity to continue the practice of regular ITU workshops on the issues of tests of equipment, new technologies, and services with involvement of experts and all stakeholders.

The workshop participants expressed sincere gratitude to the chairs of the sessions and the speakers, the ITU, the Ministry of Telecom and Mass Communications of the Russian Federation, the Federal Agency of Communications, as well as to the ZNIIS for the work done for creation of the virtual laboratory and excellent organization and conducting of the workshop.

The International Telecommunication Union, in its turn, would like to thank the ZNIIS for the fruitful cooperation in the implementation of the regional initiative and excellent organization of the workshop, as well as the workshop speakers and participants for the active participation.