

**ITTC International Seminar
“CONFORMANCE TESTING”**

Moscow, Russia

December 10-11, 2009

**The International Telecommunication
Testing Center Project
(ITTC)**

Denis Andreev

Rapporteur Q 10/11 (WP 4/11), ITU-T

Director of Technopark

Central Science Research

Telecommunication Institute (ZNIIS),

Moscow



ITTC International Seminar, Russia, Moscow-December 10-11, 2009

Joint ITU-D-ZNIIS Project (ITTC)

ITU-D Project number

CIS08-002

Project duration

01.01.2008 — 30.06.2011

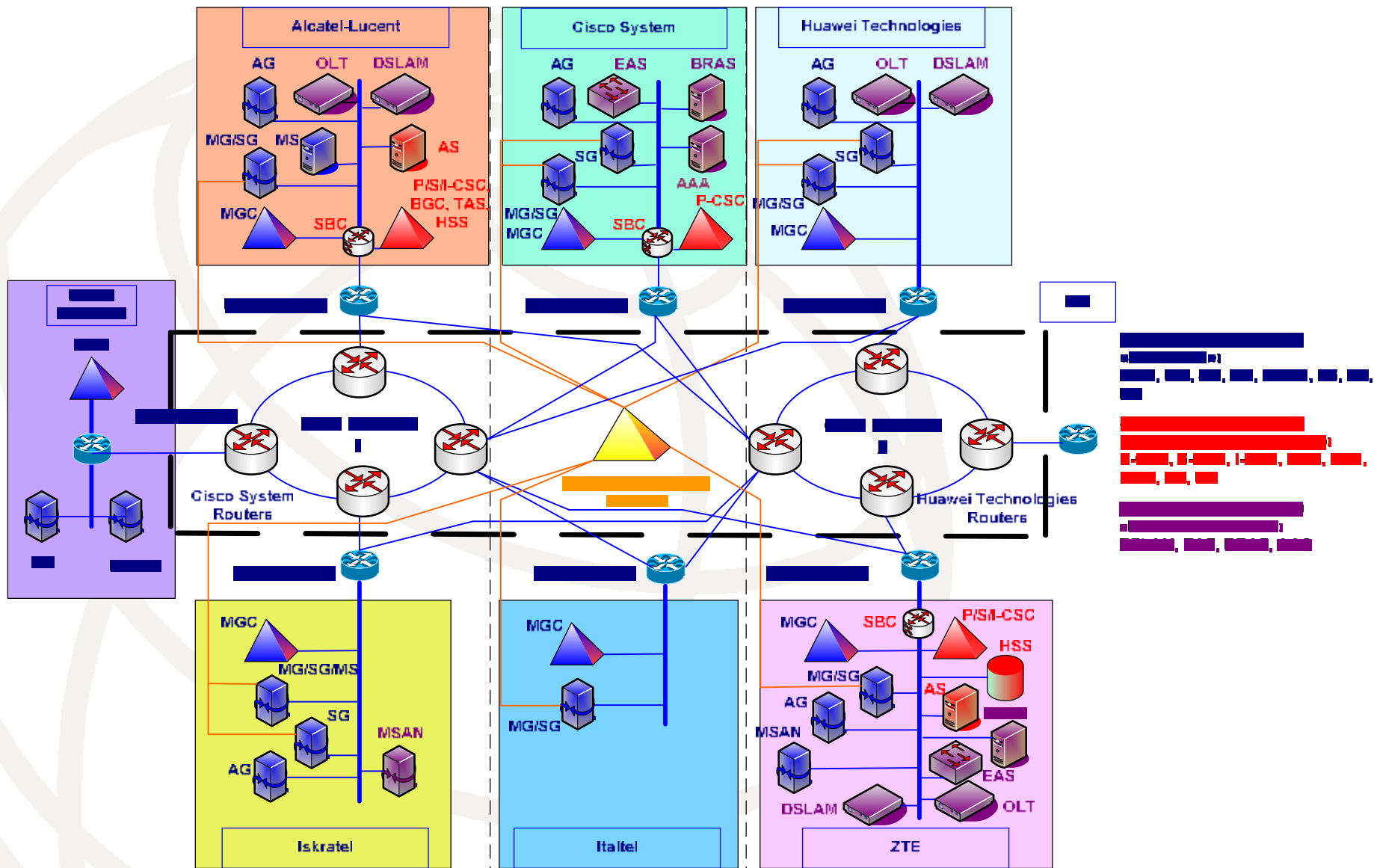
Purpose – to create an International Telecommunication Testing Centre (ITTC) for testing of new technologies, including NGN and to train telecom specialists from developing countries

ITTC first results

- 1. Model network created based on ITU-T Recommendation Q.3900**
- 2. International Training was carried out on System and Networks Solutions testing with participation of specialists from 10 CIS and Europe countries**
- 3. Testing methodologies were developed for System and Network solutions Softswitch, IMS, Wireline Broad Band Access**
- 4. Functional and Interworking testing of System and Network solutions were carried out for different vendors on the Model Network in accordance with developed methodologies and reports were created**
- 5. First version of Knowledge Database was developed, and now is being filling**

ITTC International Seminar, Russia, Moscow-December 10-11, 2009

ITTC practical Model network



ITTC International Seminar, Russia, Moscow-December 10-11, 2009

Planned Events for the project

- Ø International Workshop with overall results of conformance and interworking testing (**March 2010**)
- Ø Testing of QoS parameters for the equipment of different vendors on the Model Network and development of corresponding Reports (**July 2010**)
- Ø Development of training materials and carrying out of Training on «QoS testing» (**October 2010**)
- Ø International Workshop with overall results of QoS testing (**December 2010**)
- Ø Creation of Knowledge Centre (Knowledge Base) of ITTC based ITU-T Recommendation Q.3903 (**April 2011**)
- Ø International Workshop with overall results of ITTC project (**July 2011**)

ITTC International Seminar, Russia, Moscow-December 10-11, 2009

Significance of project results for Administrations of CIS

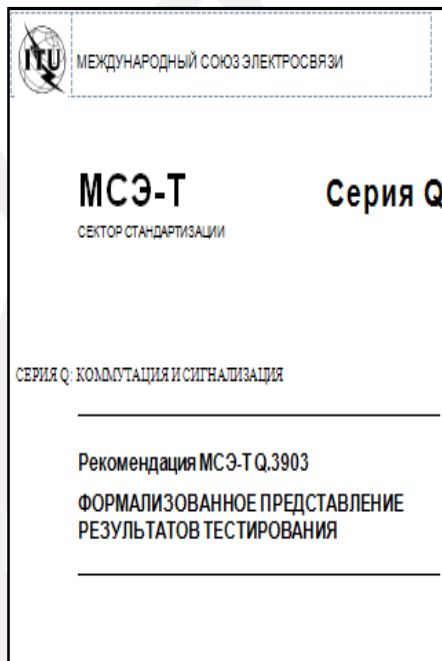
- Ø **Enhancement of specialists qualification from Administrations of CIS in the field of building of network based on System and Network solutions and performing of corresponding testing**
- Ø **Existence of entire methodological database for carrying out functional and interworking testing of NGN System and Network solutions plus conformance testing, QoS and services testing (implementation of WTSA-08 Resolution #76)**
- Ø **Reducing of operators CAPEX at building and modernization of networks of CIS Administration using results of equipment testing of different vendors on the Model Network in the scope of ITTC project**
- Ø **Optimization of planning processes and introduction of NGN technologies on the real network of CIS Administration (unification of revenue from network building of NGN networks in the CIS framework)**

ITTC International Seminar, Russia, Moscow-December 10-11, 2009



KNOWLEDGE DATABASE

©



ZNIIS

**Compliant to ITU-T
Recommendation Q.3903**
Formalization of testing results

ITTC International Seminar, Russia, Moscow-December 10-11, 2009

Virtual repository

- Possibility for creation of dedicated area with restricted access to Knowledge Database for storing of different information of Administrations and operators (methodologies, testing reports, network schemes, normative documents and etc.)
- Existence of virtual constructor of testing methodic, for development of these documents in the automatic mode using powerful set of libraries of tests of functionalities, conformance and interworking of different technical means, system and network solutions, protocols and services of NGN
- Collection and distribution of testing results in the worldwide mode

Virtual labs

On the preparation meeting for Council-09 on the questions of WTSA-08 Resolution #76 implementation, placed in Geneva (Switzerland) July 20-21 2009, Russian Administration delegation has contributed **initiative on creation of international virtual labs** based on Knowledge Database of ITTC project for carrying out of **remote trainings of specialists from developing countries** on the questions of building, development, standardization and testing of NGN

ITTC International Seminar, Russia, Moscow-December 10-11, 2009

Virtual Lab facilities

Virtual labs, providing the following functions:

- **access** of specialists from developing countries **to the equipment management systems**, installed on the ITTC Model Network through Knowledge Database website
- Performing of required **network configurations**
- **Remote testing** with further development of reports in the automatic mode
- Existence of **GUI** for Knowledge Database
- **Remote trainings** for specialists from developing countries on theoretical and practical skills of work with NGN equipment (**implementation of WTSA-08 Res.76**)

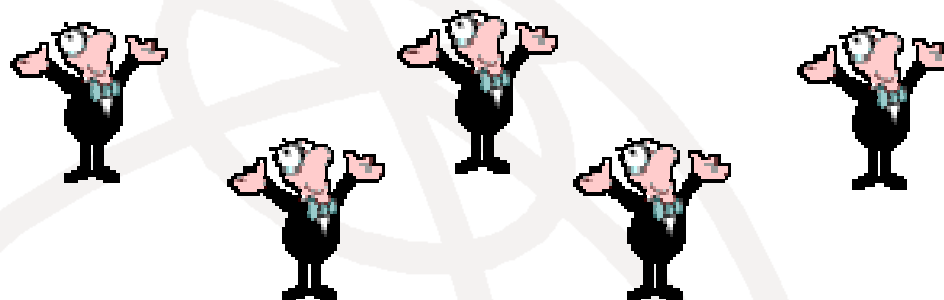
Resume on implementing ITTC activities

Reducing of digital gap by sharing experience of introduction and maintenance of new technologies, implemented on the operators networks from developed countries, on the worldwide telecommunication market

Using ITTC as the effective mean of gathering experience and consolidation of high-level specialists and experts in the field of introductions, testing, standardization and maintenance of new telecommunication technologies

Performance of regional initiatives and private initiative projects for network operators in part of development qualifying standards, which determine entire approaches and rules in part of introduction of new technologies on the operator networks

Thank you for attention



Denis Andreev

Rapporteur Q 10/11 (WP 4/11), ITU-T

Director of Technopark

**Central Science Research Telecommunication Institute
(ZNIIS), Moscow**

Tel: +7-495-368-8745

Fax: +7-495-368-9105

Email: andreevd@zniis.ru