



REPORT

Of ITU Regional Workshop on *National Strategies of Digital Transformation* Issyk Kul, Kyrgyz Republic, 28-29 August 2018

The Regional Workshop on National Strategies of Digital Transformation organized by the ITU Telecommunication Development Bureau in cooperation with the State Committee of Information Technologies and Communications of the Kyrgyz Republic was held in the Bayet settlement on the Issyk Kul Lake (Kyrgyz Republic) from 28 to 29 August 2018.

The workshop was preceded by a joint meeting of the Commission on International Cooperation Coordination (CICC) of the Regional Commonwealth in the field of Communications (RCC) and the Working Group on the Work with ITU under the CICC. The meeting discussed the issues of RCC Communication Administrations' preparation for the ITU Plenipotentiary 2018 (Dubai, UAD, 29 October – 12 November). The entire team of the ITU Regional Office for CIS took part in the RCC meeting.

The workshop was attended by **90 participants** from **12 countries**, including **8 CIS countries** (Republic of Azerbaijan, Republic of Belarus, Republic of Kazakhstan, Kyrgyz Republic, Russian Federation, Republic of Tajikistan, Republic of Uzbekistan), as well as from the United States of America, Georgia, India, Lithuania, and Ukraine. The workshop participants represented communication administrations, telecommunication companies, scientific and research institutions, ICT-specialized universities, as well as the RCC, World Bank, and supranational companies, such as RIPE NCC and NEC Corporation. The International Telecommunication Union was represented by the team of the Regional Office for CIS Region.



The workshop was conducted in Russian and English with simultaneous interpretation.

Within the framework of the opening ceremony, greetings were delivered by: Mr. Bakyt Sharshembiyev, Chair, State Committee of Information Technologies and Communications of the

Kyrgyz Republic; Mr. Kirill Oparin, Head, Regional Office for CIS Region; Mr. Nurudin Mukhitdinov, Director General, RCC Executive Committee; Juan Navas-Sabater, Lead ICT Specialist, World Bank.

Bakyt Sharshembiyev noted the importance of the digital transformation for all countries of the region and, in particular, for the Kyrgyz Republic, which has launched significant projects, such as Taza Koom and Digital CASA.

Kirill Oparin thanked the Communication Administration of the Kyrgyz Republic for the invitation to conduct the workshop on Issyk Kul and noted the importance of digital transformation for the majority of countries of the CIS region and briefly introduced the issues to be considered at the workshop.

Nurudin Mukhitdinov expressed gratitude to the host for the excellent choice of the venue for the ITU workshop and the RCC meeting, highlighted topicality of the event, and the good practice to conduct ITU events in conjunction with RCC meetings, and wished to the event every success.

The workshop continued two days and was split into four sessions dedicated to following topics: Strategies and programs for the development of the digital economy; Creating an enabling environment for digital transformation; E-government infrastructure and services; Security and trust in the use of ICT. In total, **26 presentations** were delivered at the workshop.

The workshop on digital transformation was included in the operation plan for 2018 at the proposal of the Communication Administration of the Kyrgyz Republic, which is one of participating countries of the Digital CASA project, along with other countries of Central and South Asia: Republic Uzbekistan, Republic Tajikistan, Turkmenistan, Afghanistan, and Pakistan. The project is being implemented with the financial support of the World Bank and aimed at the improvement of broadband access. The workshop on Issyk Kul became a platform for sharing experiences in the field of digital transformation, at which speakers from the Kyrgyz Republic and other countries participating in Digital CASA project presented different aspects of the project implementation.

Within the framework of **Session 1**, dedicated to digital transformation strategies and programmes, moderated by **Ms. Natalia Chernogubova**, Acting Head, ICT and e-Services Policy Department, State Communication Agency of Information Technologies and Communications (**Kyrgyz Republic**), Juan Navas-Sabater, Lead ICT Specialist, World Bank presented participation of the World Bank in the implementation of the Digital CASA project. In particular, Juan Navas-Sabater highlighted the favourable terms of the financing the project by the World Bank: half of the amount of 50 million dollar allocated to the Kyrgyz Republic is a grant. Juan Navas-Sabater also noted that digital transformation is impossible without development of digital skills in the population.

H.E. Mr. Shahzad Gul Aryobee, Minister of Communication and Information Technologies of the Islamic Republic of **Afghanistan** noted, that implementation of the Digital CASA project should result in connection of Afghanistan to the neighboring countries: Republic of Uzbekistan, Republic of Tajikistan, Turkmenistan, Iran, Pakistan. According to Mr. Gul Aryobee, the main objective of the Afghanistan Ministry, is currently creation of a special network, which is to unite all governmental institutions for data exchange. Also, a project in the field of IoT will be implemented in Afghanistan by 2020, which will enable the country to control water and electricity consumption. When replying the questions, Mr. Gul Aryobee said that the Communication Administration of Afghanistan is looking for technological solutions on the foreign experiences, in particular cooperates with the Communication Administration of Azerbaijan.

Mr. Eshmambet Amatov, Deputy Chair, State Committee of Communications and Information Technologies (SCITC) of the **Kyrgyz Republic**, presented activities of the Committee aimed at digital transformation, in particular at elaboration of the national strategy of sustainable development of the Kyrgyz Republic

for 2018-2040. According to Mr. Amatov, one of the Digital CASA project components is creation of data processing centre in Kyrgyz Republic, which has unique conditions for it, including relief and climate enabling the country to produce cheap electrical energy.

Ms. Natalia Chernogubova, Acting Head, ICT and e-Services Policy Department, SCITC of **Kyrgyz Republic** presented ICT projects of the SCITC, such as the national infrastructure of spatial data, e-system of fiscalization of trade operations accounting, safe city component of the smart city project, e-payment etc.

When presenting the project on Digital Central Asia – South Asia – Kyrgyz Republic, financed by the World Bank, **Mr. Dastan Dogoev**, Director, Digital CASA Project Implementation Unit, SCITC KR/ Advisor on Digital Transformation to the President of the **Kyrgyz Republic** noted the significance of development of digital skills, specialist training, forming of digital leaders.

Within the framework of Session 1, **Mr. Nurudin Mukhitdinov**, Director General, **RCC** Executive Committee briefly presented the RCC contribution to the process of digital transformation of the region and proposed to consider the difference of the digital transformation models in different countries, which is obvious from the current names of the ICT Ministries, and possibility of elaboration of a unique model.

Mr. Oleksandr Serbin, Business Development Director, Huawei (**Ukraine**), presented activities of the company aimed at analysis of about 50 indicators of digital economy development, classifying the countries as beginners, leaders, and developing in accordance with Transglobal Connectivity Index. Mr. Serbin noted the importance of creation of mobile broadband infrastructure, increase of investments into digital economies, and launch of state programmes, requiring Internet access and therefore fostering its development.

When presenting the role of statistical measurement in formulating national programs of digital transformation, Mr. **Arseny Plossky**, Deputy Head of Laboratory, FSUE NIIR, **Russia**, highlighted bridging of digital divide as the most important objective, noting that digital divide increases in proportion to ICT development, which is usually started with big settlements, as well as development of digital skills. Mr. Plossky also told of composing a set of key indicators to be used to fix correct ICT development objectives in the context of the projects implemented in Russia: *Information Society (2011-2020)* and *Digital Economy of the Russian Federation*.

Within the framework of Session 1, **10 presentations** were delivered. A group photograph was taken during the coffee break.

Within the framework of **Session 2**, dedicated to creating an enabling environment for digital transformation, which was moderated by **Farid Nakhli**, Programme Officer, ITU Regional Office for CIS Region, **8 presentations** were delivered.

Dr. Mohammad Najib Azizi, Chairman, **Afghanistan** Telecom Regulatory Authority (ATRA) presented modern regulatory approaches to creation of enabling environment for digital transformation, noting that 5th regulation generation is a joint, non-discriminatory regulation, which meets the demand in independent regulation.

Mr. Irakli Kashibadze, CEO, FutureLab, **Georgia** presented development of startups in Georgia. In particular, he noted good results of the government reforms, which contributed to reduction of unemployment and brain drain, and the role of the World Bank in the development of startups in Georgia. According to Mr. Kashibadze, the Innovation Council was created in Georgia in 2017, and nowadays 25 innovation labs function in the country.

Mr. Temir Kazybai, Coordinator on Legal Aspects, Project Digital presented great work on improvement of regulatory and legal framework for implementation of Digital CASA-Kyrgyz Republic and Open Data projects. Mr. Kazybai noted significant political support of the projects by the Government. According to **Aida Shersheyeva**, Project Coordinator, the project is aimed at piloting certain regulatory aspects.

Ms. Galina Kucheryavaya, Legal Director, GR and Regulatory, Sky Mobile, **Kyrgyz Republic** presented activities of her company aimed at the development of digital economy and highlighted as one of its aspects the increase of digital literacy of the population. Ms. Kucheryavaya characterized Kyrgyz Republic as a country with a high entrepreneurial mentality, where national characteristics of the population are very contributing to digital progress.

Dr. Vadym Kaptur, Vice Rector on Scientific Work, A.S.Popov Odessa National Academy of Telecommunication, **Ukraine** presented the model of IT University as an element of triple spiral in digital transformation through the example of the Academy and experience of the Academy in organization of the scientific work (including provision of telecommunication services, research using the demand setup data of the network commercial segment, projects in the field of IT education), which the Academy is ready to share with other universities of the region.

Mr. Anatol Neumiarzhytski, Head, IT Department, Belpost, **Republic of Belarus**, presented principles of elaboration of a national digital economy development strategy, highlighting key factors, which influence broadband development and the methodology of calculation of the ICT development index annually published by the ITU.

Ms. Aida Sharsheeva, Project Manager, Digital CASA-Kyrgyz Republic/ECAPDEV presented measures aimed at development on digital skills of Kyrgyz population and to be implemented on the basis of regional centre of digital competences. Ms. Sharsheeva noted, that with some underrun in competitiveness, e-government, net-ready, and global ICT index ratings, the Kyrgyz Republic keeps up in the World Economic Summit group human capital rating.

The topic of digital skills development was continued by Mr. **Altynbek Ismailov**, Director, High Technologies Park, **Kyrgyz Republic**, who presented the Park activities within the framework of a high technology Digital CASA project, aimed at fostering education for digital economy development. A network connecting specialized universities and using potential of the Academy of Science is planned to be creating within the framework of the project.

One more presentation dedicated to Digital CASA project was delivered by **Ms. Tatiana Shahin**, Coordinator on Strategic Communications, Project Digital CASA **Kyrgyz Republic**, which covered the role of communications in the process of digital transformation, communication strategy objectives, communication steps and mechanisms, as well as indicators of the project communication component.

Within the framework of **Session 3**, dedicated to E-government infrastructure and services and moderated by **Mr. Dastan Dogoev**, Director, Digital CASA Project Implementation Unit, SCITC KR, Advisor on Digital Transformation to the President of the **Kyrgyz Republic**, **5 presentations** were delivered.

Ms. Olga Patriyevskaya, Head, e-Government Department, Saint Petersburg Information Analysis Center, **Russia** presented experience in public service digitalization in Saint Petersburg. In particular Ms. Patriyevskaya told of the regional system of interinstitutional interaction of Saint Petersburg, interinstitutional automated information system to provide state and municipal e-services, under which a service portal and mobile applications have been elaborated, as well as of the integrated

specialized data storage. Ms. Petriyevskaya also presented the work of the information system providing information in the field of health, education, and exhibition activities, and replied to the questions relating to Data Processing Centre, e-signature confirmation, etc.

The experiences in the implementation of digital services in the Kyrgyz Republic were presented by **Ms. Natalia Chernogubova**, Acting Head, ICT and e-Services Policy Department, State Communication Agency of Information Technologies and Communications (**Kyrgyz Republic**), who in particular told of improvement of the existing regulatory and legal framework, functions of the public service portal, and motivating Kyrgyz citizens to use e-services.

Mr. Erbolot Asanov, Technical Coordinator on Digital Infrastructure, Digital CASA – Kyrgyz Republic project (**Kyrgyz Republic**) presented objectives, challenges, and key indicators of the project implementation. Mr. Asanov noted that thanks to implementation of the project, even minor communication providers, who do not possess own fiber-optic communication lines, will be able to provide services to the population based just on indefeasible right of use (IRU). This will result in emerging of alternative Internet sources and decrease of prices, so broadband penetration will reach 65%.

Mr. Evgeni Zhukovin, Technical Coordinator on Digital Platforms Development, Digital CASA – Kyrgyz Republic project (**Kyrgyz Republic**) presented the project subcomponents: regional data processing centres, digital platforms and intelligent solutions implemented under the project. According to Mr. Zhukovin, one of the project objectives is creation of a G-Cloud and opening of a Data Processing Centre in the Kyrgyz Republic, which has all necessary conditions for it: good geographic location, water power resources to produce cheap power, and young labor power (67% of the population is below the age of 24 years).

Ms. Elina Sakaraeva, Project Manager, Open Data Action Plan, **Mr. Anton Kan**, Technical Coordinator, Digital CASA – Kyrgyz Republic project (**Kyrgyz Republic**) presented the project on Open Data, which is implemented by the State Committee of Information Technologies and Communications of the Kyrgyz Republic. The Open Data platform will be integrated into the portal of state services within the framework of the Digital CASA project. The project will finance modernization of open data. The data will be updated automatically to avoid human factor.

5 presentations were delivered within the framework of Session 4, dedicated to the issues of Security and trust in the use of ICT, which was moderated by **Dr. Vadym Kaptur**, Vice Rector on Scientific Work, A.S.Popov Odessa National Academy of Telecommunication, **Ukraine**.

Mr. Ghareeb Saad, Head of R&D, Anomali company (**United States of America**) presented cyber threat landscape and showed, based on examples and figures, that due to complication of both software and criminal structures, national security hinges on cybersecurity. Responding to questions of the participants regarding possible solution, Mr. Saad noted importance of strengthening exchange of information between the government and private companies, improvement of legal environment, creation of a kind of education system contributing to raising awareness in the field of safe use of ICT.

Ms. Galina Kucheryavaya, Legal Director, GR and Regulatory, Sky Mobile (**Kyrgyz Republic**) delivered a presentation dedicated to the issue of personal data protection. Ms. Kucheryavaya noted the difference between security and privacy and told of the development of the personal data protection legal framework in the Kyrgyz Republic, specific of the use of the GDPR in regard to European companies working in the Kyrgyz Republic and covered the issue of personal data storage.

Ms. Bibigul Abdylidaeva, Senior Expert, Cybersecurity Department, SCITC (**Kyrgyz Republic**) presented measures aimed at elaboration of cybersecurity policy in the country to enable sustainable social and economic development and forming of a consolidated noetic space. Within the framework of the

strategy, the Communication Administration in cooperation with the Ministry of Education will create an authorized body to deal with cybersecurity issues, which will have an executive analytical centre, cyber laboratory, cyber incident response group, and a cybersecurity training centre.

Mr. Romualdas Lečickis, Business Development Director NRD CS (**Lithuania**), referring to importance of national cybersecurity as a basis of the country credibility, presented activities of his company aimed at creation of national CIRTs, elaboration of a national cybersecurity strategy, and a methodology to develop a critical infrastructure security framework.

Dr. Vadym Kaptur, Vice Rector on Scientific Work, A.S.Popov Odessa National Academy of Telecommunication (**Ukraine**) announced elaboration, under one of the WTDC-17 regional initiatives, of the improved online training course of safe use of the Internet (the previous version was elaborated within the framework of the regional initiative of the completed four-year period), noting the necessity to consider moral and legal, technical and economic aspects, when blocking so-called unfavorable Internet content.

Upon completion of the workshop, a roundtable was held dedicated to key success factors for countries in the era of digitization. When summing up the results of the workshop, the roundtable participants noted:

- Topicality of cybersecurity issues;
- Importance of the events, such as the workshop on Issyk Kul, as a platform to share information and experiences in the field of cybersecurity;
- Importance of Internet access as one of the inalienable human rights and necessity to build 4G networks and bridging of digital divide;
- Importance of human capacity building and development of digital skills;
- Importance of increasing responsibility of the cybersecurity staff to make them meticulous about the steps of cybercriminals;
- Importance of insuring demand for new digital services, but with due regard to social and economic efficiency;
- Necessity, in the light of creation of national e-governments in different countries, to elaborate principles and standards of access to information and standardization of national systems to enable them to exchange information at the both, business and government level;
- Necessity to efficiently use the digital infrastructure being created with due regard to production of innovations and competitive growth of enterprises;
- Key role of CIRTs in response to cyber incidents and importance of regional cooperation in the field of cybersecurity.

When closing the workshop, **Mr. Eshmambet Amatov**, Deputy Chair, State Committee of Communications and Information Technologies (SCITC) of the **Kyrgyz Republic**, noted the complexity of event topic and thanked the workshop speakers for the interesting presentations and the ITU for cooperation.

Farid Nakhli, Programme Officer, ITU Regional Office for CIS Region expressed gratitude to the host, noting the good level of the cooperation between the ITU and the Communication Administration of Kyrgyz Republic. When addressing to the workshop participants, Mr. Nakhli highlighted topicality of cybersecurity issues, evidenced by a wave of creation of CIRTs, and invited all participants to attend the regional cybersecurity training, which is to take place in Baku.