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**Interactive multimedia broadcasting –
new educational opportunities.**

Preamble

Digital broadcasting opens a number of additional applied applications of communication services. These applications, first of all, concern with the opportunity of creating interactive multimedia broadcasting. Broadcasting occupies broad bands in extremely scarce frequency band below 1 GHz. Organization of multiprogram broadcasting with implementation of synchronous networks postpones the problem of frequency deficiency for long time. For example, for residents of rural areas organization of at least 3-4 multiplexes not only solves the problem of broadcasting provision, but also gives the opportunity to offer additional internet and other services. I.e. rational use of appeared «digital dividend» not only significantly raises efficiency of spectrum usage, but also creates prerequisites for realization of very serious applied applications of telecommunication and ICT technologies in other spheres.

In many developing countries, especially in countries with mountainous terrain, serious problem is to create educational network in rural and difficult of access areas because of book deficiency, lack of qualified teachers etc.

And here is possible to use with maximum output not only common feature of telebroadcasting such as orientation to mass audience, but also such feature of digital broadcasting as interactivity, when pupils can actively participate in educational process, and multimedia, when users can apply to database for books, manuals, materials for advanced study of disciplines etc., and get them by broadcasting network for individual use.

Moreover, educational telebroadcasting can involve for content creation best teachers, best methods or use the content, created not only on local or national level, but also created in other countries.

In this report considered material on development of educational broadcasting in Kyrgyz Republic. Pilot project of ITU Telecommunication development sector on interactive multimedia broadcasting in countries with mountainous terrain, which is realized in the context of regional initiatives of Doha telecommunications development conference, underlies this material.

Project: Interactive Multimedia Digital Broadcasting Networks in the Kyrgyz Republic

Under the umbrella of the CIS Regional Initiatives project, the ITU in collaboration with the Government of Kyrgyz Republic intends to establish an Interactive Multimedia Digital Broadcasting Networks as pilot to be replicated in other CIS countries. The main objective of this pilot project is to assess the impact of an IMDB services including digital television, internet and other information society services within an identified area in Kyrgyz Republic



International Telecommunication Union



Government of Kyrgyz Republic



DIMTV Ltd.,
Digital Interactive Multimedia TV



Alippe.TV Educational television channel
project

OcOO DIMTV
Digital Interactive Multimedia TV

Secondary education in Kyrgyz Republic

2 070 schools

1 100 000 school pupils

96 000 graduates annually

1 computer per 25 pupils

Textbook provision shortage of 44%

Lack of teachers: 3 000





We want to develop the educational potential in Kyrgyz villages

Objective

Establish digital TV channel broadcasting in Kyrgyz targeted at school pupils studying at grades 1 to 11 with the main purpose of supplementing the traditional school education, covering the gaps of the current education system related to the insufficiency of school funding, lack of teaching equipment and instruments and methodological materials. Render assistance to school teachers.

Assist the creation of the core for the future growth of the human potential of the country.

Arouse interest of the school pupils for the knowledge using modern multimedia and computer technologies in education.

Supplementing the digital packet with the programs for the rest of family members as parents, elder brothers and sisters, and special programs for pre-schoolers.





Education Content

Concept of broadcasting of educational packet

Supplementing the standard school program. Assisting school teachers

TV classes touching upon all subjects for grades 1 to 11 of the common secondary school

Virtual classes for advanced study of particular subjects

Extracurricular subjects

On-air interactive classes and up-to-date multimedia technologies in education

Series of programs aimed at preparation for school, graduation final examinations and university entrance examinations

Broadcasting in Kyrgyz language

Absence of commercials and news



Equal access regardless of the place of residency

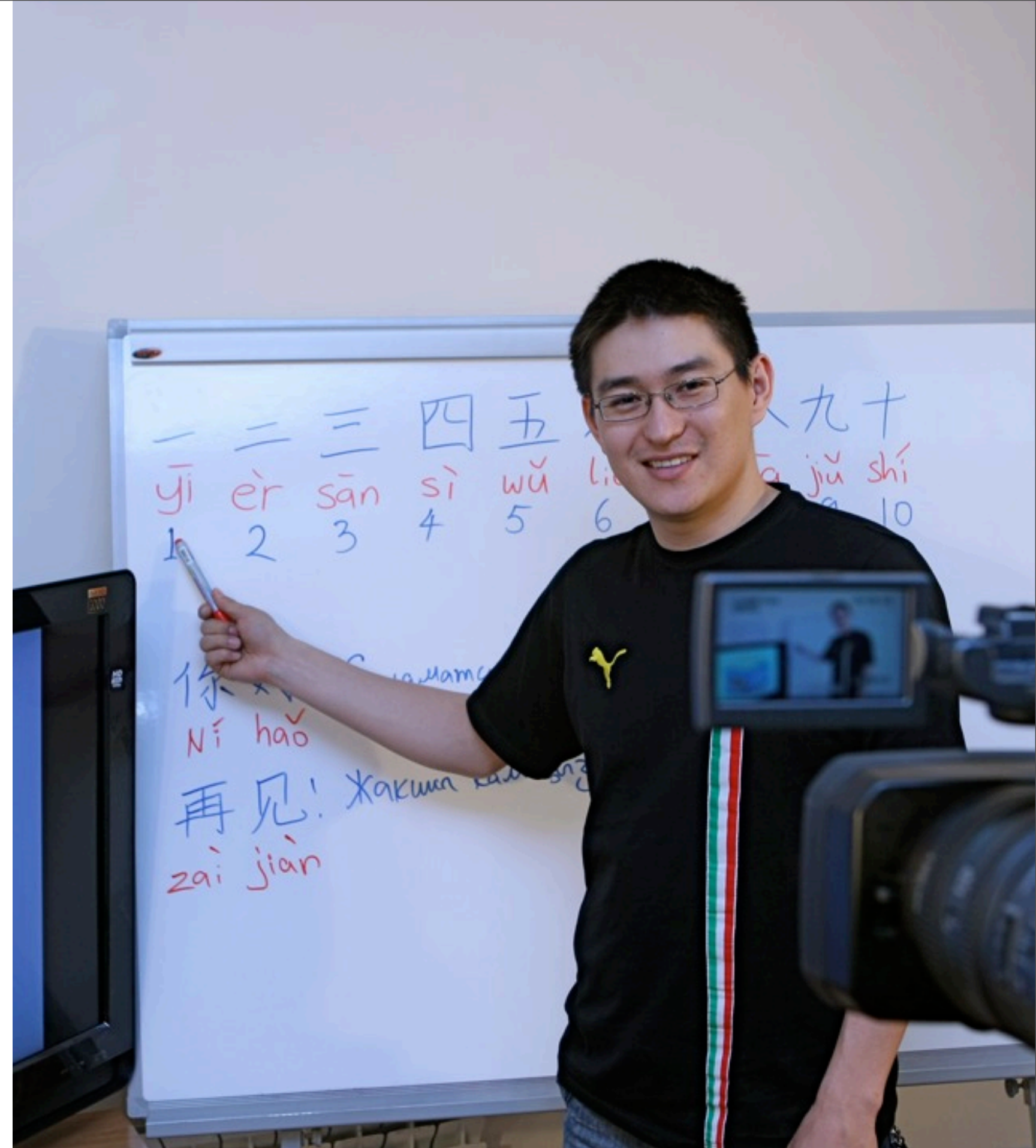
Opportunities of a teacher are not limited to one class. He/she can be viewed and heard by and taught from millions of people simultaneously

Assistants and multimedia means multiply the output effect manifold

Thereby, Alippe.TV is able to compensate the shortage of the qualified instructors in villages and supplement the informational resources of those who used to work without visual aids and specific equipment and instruments.

Local rayon studios will handle practical classes and quizzes. For example teacher announces some problem and pupils provide live answers on-air. Live answer on air?! Isn't it a great motivation for the pupils?

Highly qualified teacher can gather in his in-depth learning class children from all corners of the country without even going out of the office premises.



Program Compiling

School curriculum as a core

Supplementing standard teaching curriculum

Interesting subjects not included in the curriculum

Announcements of coming school events

Programs allow pupils to get prepared for coming lessons well in advance.

For example, in order to avoid restless reading of novels of Chingiz Aitmatov in November within 3 days without a getting a sleep, one can watch to the master of literary reading every day for 15 minutes on TV starting from September, so that by the designated date to be familiar with the work. Professional voice of the reader and thoroughly selected novel fragments can facilitate to the development of the right taste and good ear of children and arouse interest for reading amongst pupils.



Involvement of professionals in the classes

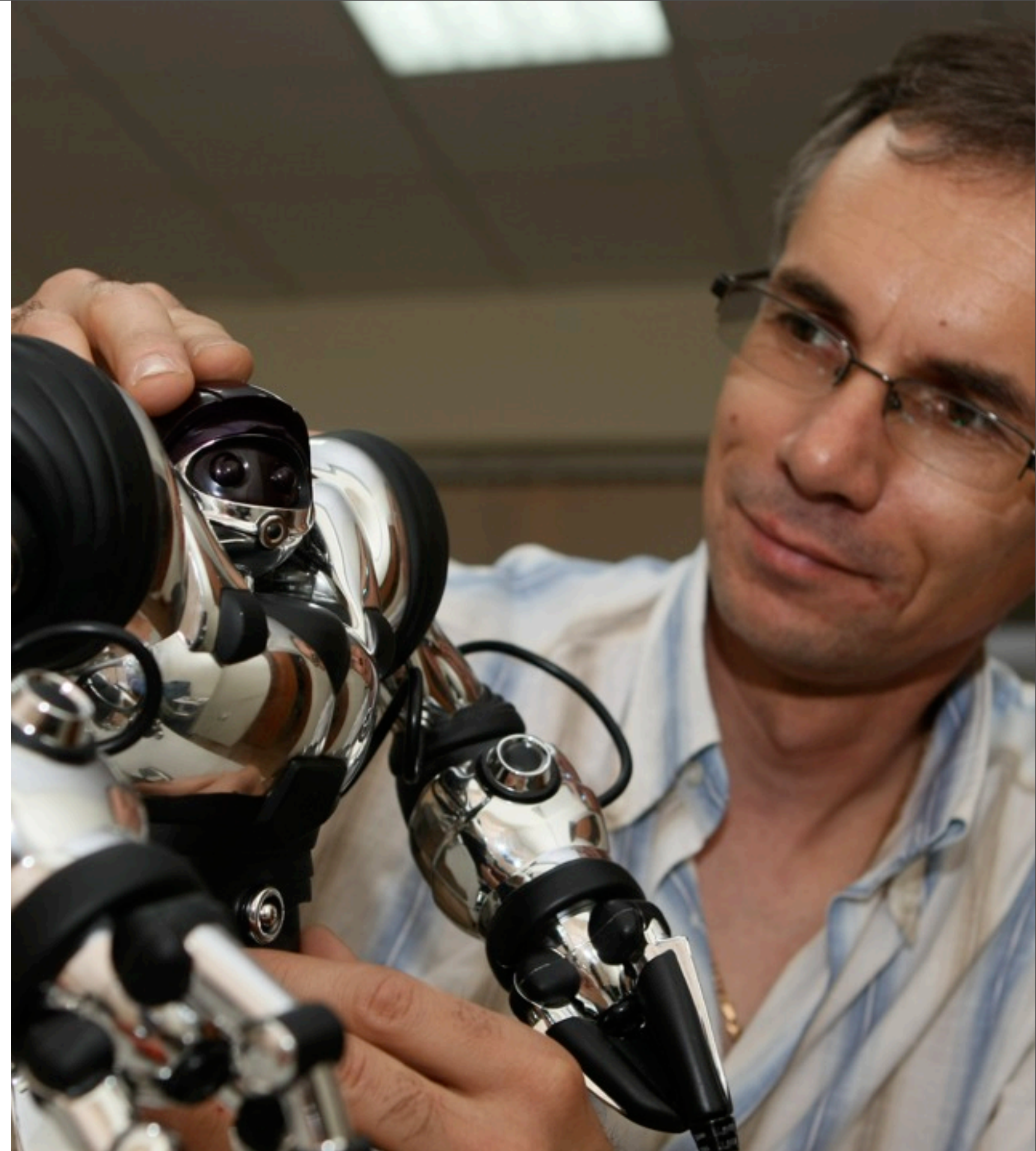
Let a wise man say a word...

Let a stranger tell about the dust of the roads...

Let a potter sculpt a bowl...

Involvement of famous people as guest speakers in TV classes who achieved prominent results in their professional career could facilitate the high interest of school children to a specific subject. Classes will be interesting and be based on practical experience of heroes.

School pupils are able to communicate with TV hosts on air. Later on, in case of high interest to a topic, we can arrange special professional virtual class.



Application of the latest technologies

Internet

Flash animation

3D modelling

Education with application of modern IT means can open new horizons for school pupils in education, not boring and monotonous as today, but creative, appealing and interesting.

Pupils, teachers and parents can find new opportunities and be motivated to develop on personal level.

Resting upon the achievements of today children can confidently enter into the day of tomorrow.



Alippe.TV for gifted children

Trip to Anchor - city lost in jungle

A pupil - the winner of the competition between experts on history of ancient civilisations, will have an opportunity to visit Cambodia with one of his parents and the operator.

A movie will be made during the trip with the winner being a presenter.

Besides the excellent knowledge, a pupil must have a talent of a presenter and work hard on his voice.

The trip is fully covered by Alippe.TV





Additional content

Series: Here is my native home

Series of programs about the nature and outstanding people, our contemporaries living together with us

Programs will be produced by the local rayon studios and be dedicated to animals and plants, their peculiarities and roles in the local ecosystem. Stories about the animals and plants recorded in the red book will develop the sense of importance of surrounding environment and saving it among children.

Interviews with interesting persons, who were born and brought up in those villages, used to run along the streets, attended schools, fell in love as the children of today would shorten the “generation gap” between children and parents.



Series: Want to know everything!

Series of programs targeted at developing the knowledge in different fields and skills to solve various practical tasks

Viewers ask any kind of questions to hosts via post mail, SMS or on-air.

Later on, in further programs hosts answers to the questions. But they not only provide mere answer, but also tell about how they found out this information. For example, they can write a link to an Internet web-site (viewers tend to be motivated to use IT resources in their everyday lives), show an interview with an expert, quote a source from the book, or demonstrate video or photo materials.

Some answers can be evidenced by the demonstration experiments.



Series: I want to become a pilot,

If someone teaches me how

To fill the tank with fuel,

To start on the propeller.

Engine, take me to the sky,

So that birds could sing. (V.Mayakovsky)

Series of programs aimed at assisting children in choosing a profession. Interviews and stories about the routine of people, their personal lives, various professional incidents and importance of in-depth study of particular subjects, possessing of particular physical and personal properties.

Interviews with college students who are getting ready to obtain this profession, daily routine of college teachers and students.



Series: How it's made...

Dubbed programs from Discovery Channel

Series of programs about how various machines and devices are made, technologies behind the production processes, construction of huge buildings, bridges, communications and roads. How toothpaste or PC is made? How do planes fly and how do ships sail?

How thermos is made? How bread is made or sugar refined? Questions to all of these questions are provided in an interesting manner on “How It's Made” series of programs.

Additional plots shot at the enterprises of our country and the people working for them.

Programs targeted at enriching the knowledge in a popular manner, arouse interest to creativity, experimenting and contemplating.



Series: The more we get together

The more we get together, together, together,

The more we get together, the friendlier we'll be...

Series of programs which will be produced by the initiative pupils groups. Children would introduce themselves, tell about their hobbies and what is important for them.

Thereby, channel assists in uniting children and facilitates their comprehension of the fact, that our country is big and there are lots of interesting and different people living in it.

Programs cultivate tolerance, respect to others regardless of their gender, ethnicity, religion and wealth.



Series: Parents' meeting

Becoming a father is quite easy. However, being a father is difficult. (Wilhelm Busch)

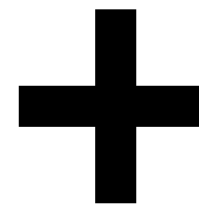
Virtual parents' meeting with the participation of teachers, doctors, psychologists and parents. On-air live program, problematic issues and acute discussions. Issues concerning the upbringing of children, personal experience, hygiene, family planning, human values, traditions and biases.



Alippe.TV

Is:

All the subjects of the secondary education;
Coverage of the whole territory of Kyrgyz Republic
Innovations in education;
Civil initiatives;
Advanced partnership of the government and the
business



Alippe.TV

and more:

7 foreign language :

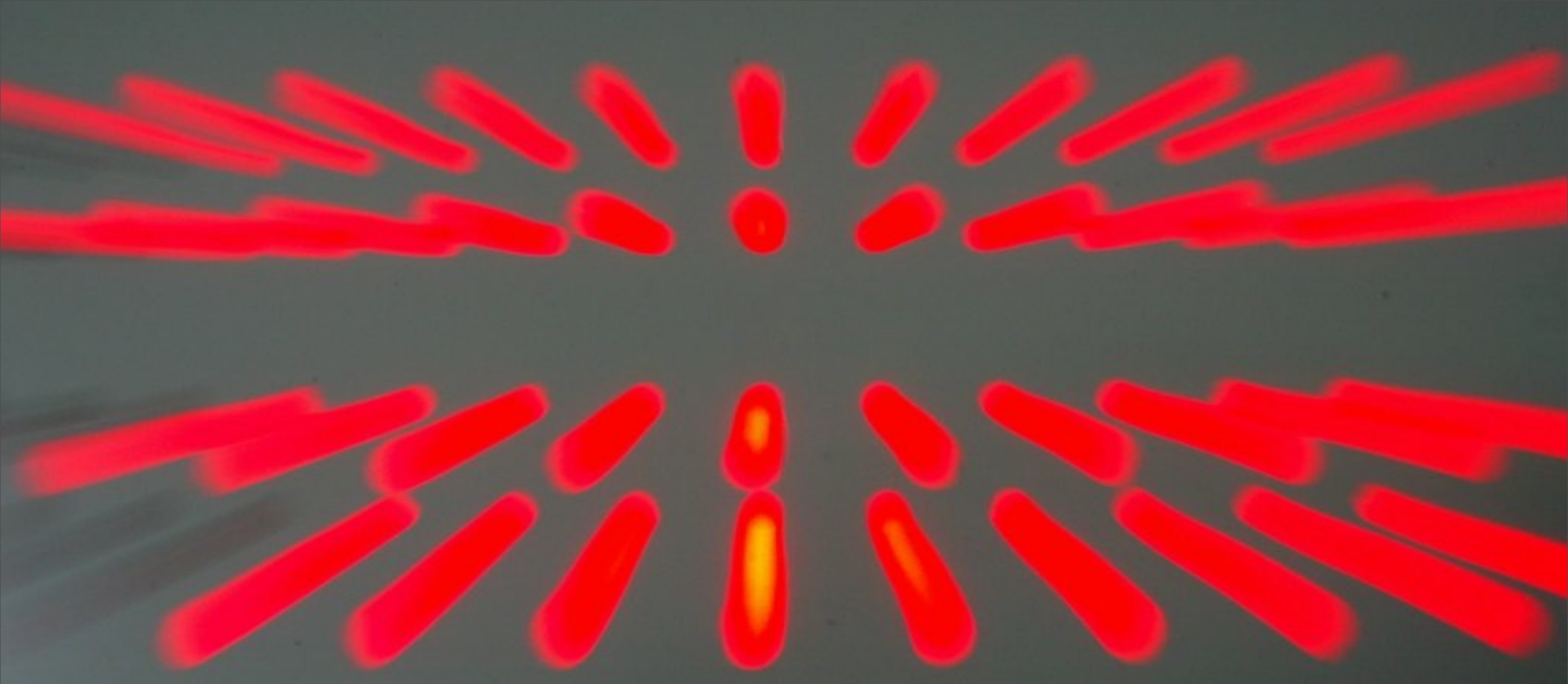
Russian, English, German, French, China, Japan, Arabic, Turkish

Deep teaching in:

Mathematic, Physic, Chemistry, Music, Drawing

Additional:

Preparations for the 1 grade, graduation exams, choosing future professions



Technical Solution

Broadcasting

Technology: digital terrestrial television broadcasting

Frequency: UHF

Compression: MPEG4

Terminal equipment: TV antenna, DVB-T receiver and TV set

Subscription fee: maximum 400 som monthly depending on the packet type

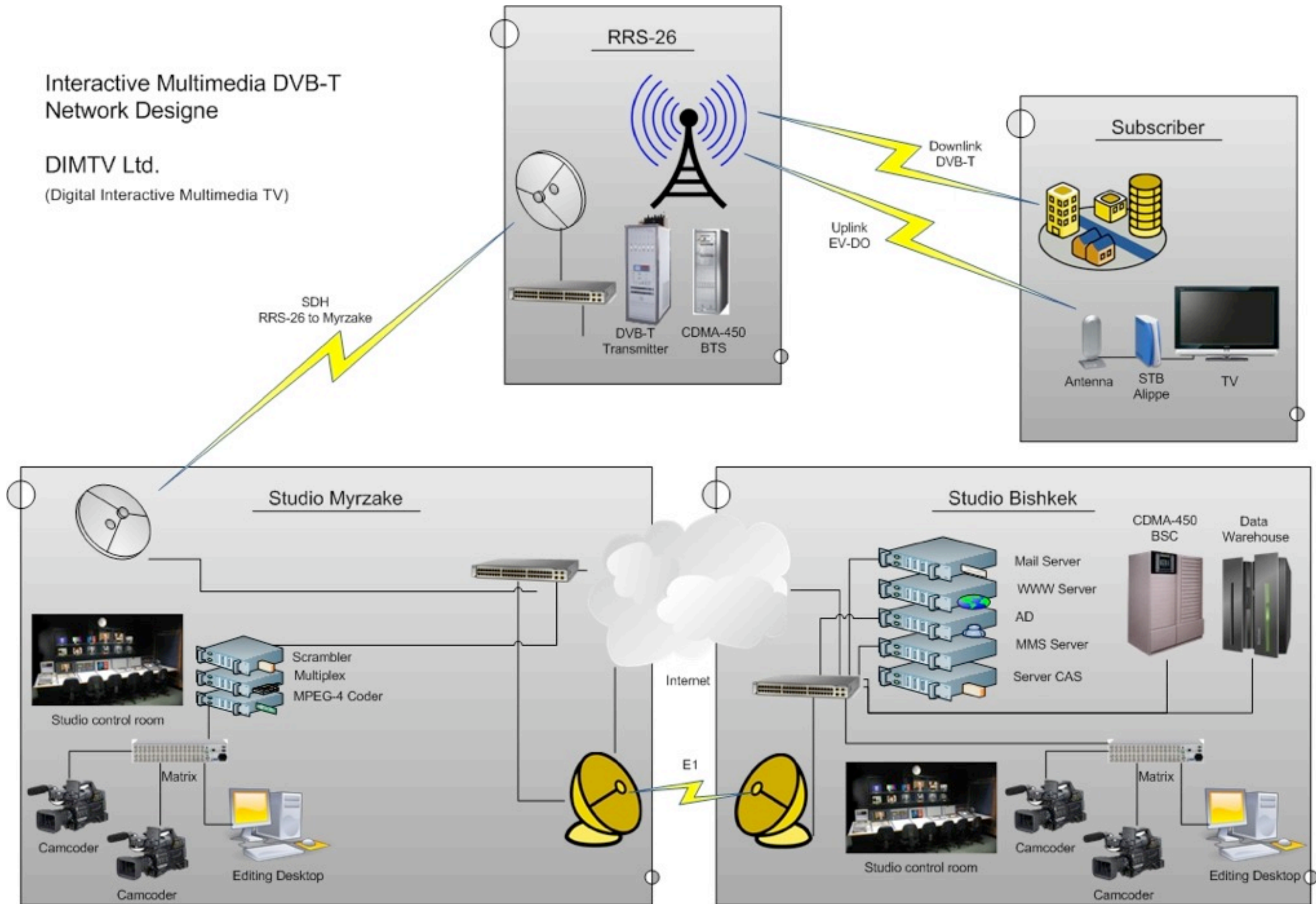
In the future: internal network for data transmission between schools for information exchange purposes

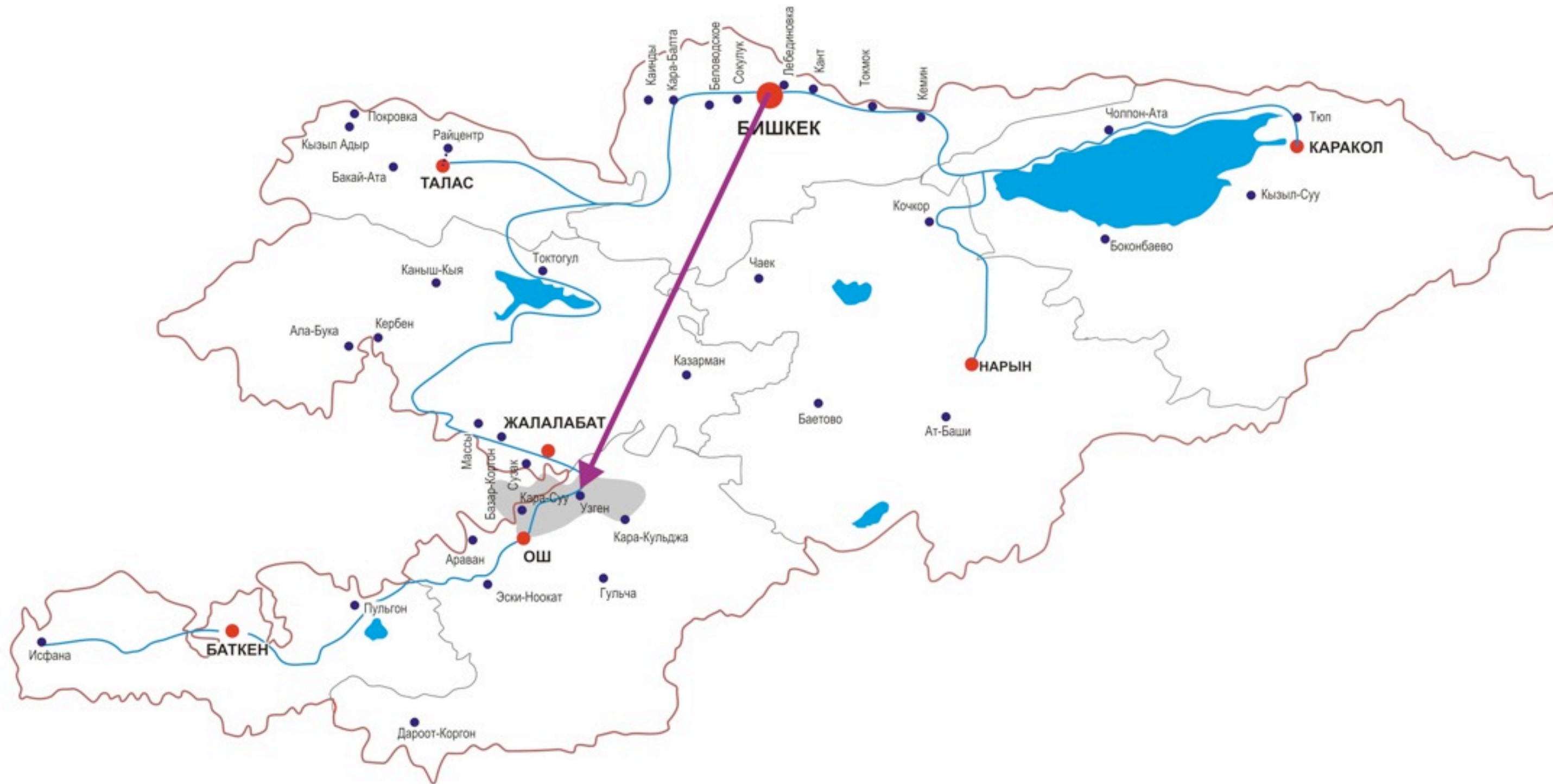
In the future: high-speed Internet access through the digital TV network



Interactive Multimedia DVB-T Network Design

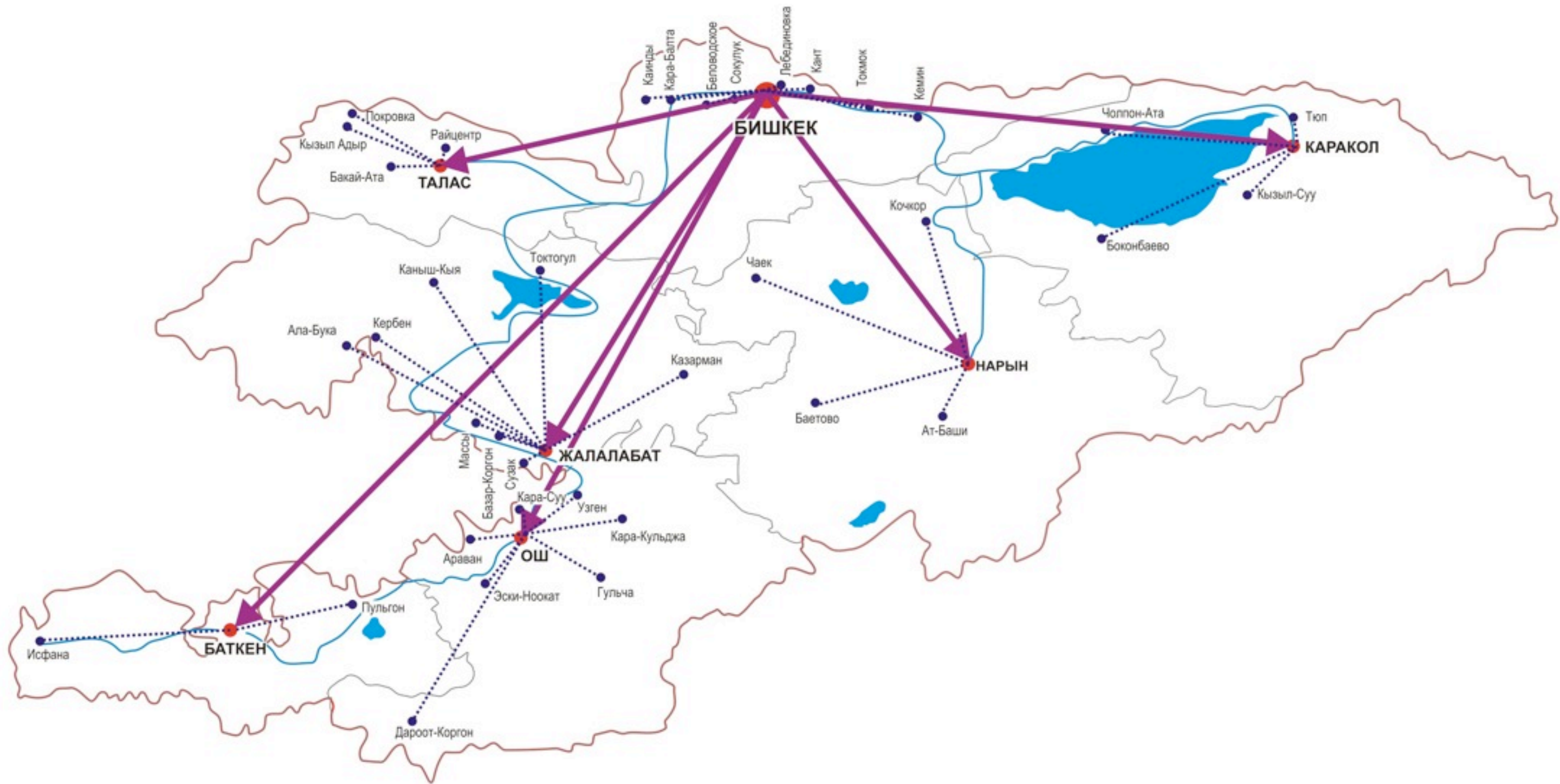
DIMTV Ltd.
(Digital Interactive Multimedia TV)





Pilot broadcasting in Uzgen rayon, Osh oblast

2009



Future network. Central studio in Bishkek
and regional studios

2010 - 2012



A Person doesn't choose where to be born

However the government must provide the same opportunity for all the citizens independently of residence, ethnicity or sex

Resume. Benefits for everyone:

Citizens

- I. Access to the qualified education independently of residence

Government

- I. Effective reforms in education based on modern technology
- II. Additional stimulus for citizens during the conversion to DVB



DIMTV Ltd.

Digital Interactive Multimedia TV

Alippe.TV

Educational Channel for Pupils

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