GLOBAL INFORMATION SOCIETY WATCH 2008

Focus on access to infrastructure

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KYRGYZSTAN

Civil Initiative on Internet Policy
Tattu Mambetalieva and Zlata Shramko
www.gipi.kg

Country situation

Kyrgyzstan (or the Kyrgyz Republic) is 199,900 square kilometres in size with a population of a little over five million. Located in the northeast of Central Asia, it borders China, Kazakhstan, Uzbekistan and Tajikistan, rendering it completely landlocked. Most of the country is mountainous (93%), and the average altitude is 2,750 metres above sea level. The highest altitude is 7,439 metres (Peak Pobedy), the lowest 394 metres.

After having gained independence in 1991, Kyrgyzstan implemented a number of large-scale projects focused on establishing a digital communications network and providing access to the global communications network for Kyrgyz users. Despite these efforts, around 30% of rural settlements still lack telephone services. The number of mobile network subscribers is constantly growing, although this has not become a very widespread service. In order to overcome this problem, a universal access programme was launched, which included e-centres and a rural access project, both aimed at reducing the digital divide between rural and urban areas.

Internet penetration in Kyrgyzstan is improving each year, a process facilitated by surmounting many regulatory barriers and the establishment of public access centres and internet cafés. The number of popular and affordable internet telephony services is constantly growing as well.

The market for computer and telecommunications equipment is well developed, but the software market is much less advanced. The large volume of counterfeit software and gaps in governing software development processes present grave problems for this sector.

The mass media is reasonably developed in Kyrgyzstan. Hundreds of distant towns and villages in the country have gained access to a television signal as a result of a satellite television project. However, difficulties in securing a frequency range for broadcasting, as well as financial constraints and pressures, affect the variety of public information, its independence, and national audience coverage.

Citizen access to government information is also problematic: the information is still very scarce, and its provision often involves complex bureaucratic difficulties.

Kyrgyzstan has a unique experience in that it formulated its development policy on information and communications technologies (ICTs) collaboratively. The country has adopted a national strategy called Information and Communication Technologies for Development in the Kyrgyz Republic. Despite some criticism, this document has played a crucial historic role in providing an understanding of ICTs as a working tool for development and in unifying disparate stakeholders in the field. A strong, collaborative and truly multilateral ICT community in Kyrgyzstan, represented by the private sector, civil society actors and government institutions, is capable of successfully defining the development direction in the near future, and creating a new, effective strategy, as well as developing the corresponding practical action plans.

The country's telecommunications legislation was adopted in 1998. However, the legislation is now outdated. Amongst other things, it does not allow for independent regulation, curtails real competitiveness in the market, and has not kept pace with changes in technology. As a result, preparatory work is being done in order to draft a new telecommunications law. This process is unique: for the first time the business sector is asserting its rights through legislative reforms. However, there is still a need to attract international consultants in order to help develop appropriate telecommunications policies.

Access, affordability and political will

The importance of ICTs for living and development can be seen in the efforts by many countries to assure equal access for users to telecommunication infrastructure, ICT services and products. Universal access approaches vary from country to country depending on state policy and economic status, as well as on the infrastructure resources of a territory.

Determining a set of universal services appropriate to the present day capacity of the country is an issue of the day in Kyrgyzstan. In this regard, it is important to keep the strategic priorities of economic development and the development of a social state in balance.

Telephony

The Kyrgyz population has around 428,000 primary telephone lines: 349,000 home phones and 79,000 business phones. The number of pay phones has grown to 1,545, having increased 3.5 times compared to 2002, when the total number of pay phones across the country was 432.

The local telephone network in Kyrgyzstan is mainly provided by the national operator JSC Kyrgyztelecom. Kyrgyztelecom has implemented a number of projects over the years focused on establishing modern digital telecommunications infrastructure. In spite of this, a year ago the fixed-line teledensity in Kyrgyzstan was only around 84 lines per 1,000 people. The relatively low ratio is explained by the fact that almost two-thirds of the population resides in mountainous rural areas. Currently almost 30% of the 6,000

settlements located in the rural areas of Kyrgyzstan do not have telephones.

Providing local fixed-line phone service is an unprofitable venture for Kyrgyztelecom. This is due to the low prices set both for the capital Bishkek and for the outlying regions – the prices are lower than the cost levels. Losses are significantly higher in the rural areas because of the higher cost of operations and even lower prices to end-users. The price of an annual phone bill for the urban population ranges between USD 12.60 and USD 15.50 (without taxes), and in rural areas between USD 4.70 and USD 7.00. The need to subsidise local telephone service forces Kyrgyztelecom to utilise cross-subsidies, which leads to higher prices for long-distance phone calls than alternative operators can offer.

These alternative operators – such as Saima-Telecom and Winline – have an opportunity to effectively compete with Kyrgyztelecom in terms of pricing for intercity and international communications. Intercity and international long-distance services are currently provided by fifteen operators. The market share of Kyrgyztelecom in this market segment is constantly decreasing, while other network operators use the Kyrgyztelecom infrastructure to various extents for providing their own services. Alternative operators for fixed-line telephonic communications mostly provide their services in Bishkek and its vicinity, focusing on the richest clients.

For example, Saima-Telecom's network covers around 40% of the city. The company provides its services via fibre-optic cable. Since 2005, it has offered asymmetric digital subscriber line (ADSL) internet connectivity. In 2006 the company began implementing a project that created a new-generation network in Bishkek, unifying such services as traditional telephony, internet protocol (IP) telephony and broadband internet access.

Another alternative fixed-line telephone operator, Winline, is the owner of a major communications network and is able to provide local and long-distance telephone services through wireless telephone terminals with an independent feed. The company offers services to the residents of Bishkek and the Chui region – mostly surrounding Bishkek city. Experts estimate that alternative operators have the aggregate of at least 5,000 telephone lines.

Mobile communications

Kyrgyzstan has experienced rapid growth in mobile communications over the past several years. According to official International Telecommunication Union (ITU) data, in 1999 the number of users of mobile networks was no greater than 2,600, but the number of mobile users had risen to 263,400 in 2004, 541,700 in 2005, and exceeded 560,000 in 2006.

Despite this dynamic development, it should be noted that the adoption of mobile communications in the country still remains relatively low. The 2006 figure still represents only 10% of the total population. When mobile communications services first appeared in Kyrgyzstan in the 1990s, only the people with the highest levels of income could afford them. Gradually, as the competition strengthened, cell phones became more affordable to the wider population.

Presently in Kyrgyzstan there are nine registered mobile service providers. Six of these are operating. Every year there is tougher competition for the less solvent groups of the population, and the revenues of the mobile network operators per user are constantly declining. The average cost of a one-minute phone call on a mobile phone within the same network ranges from six to twenty cents (depending on the tariff, zone, and call category), which makes mobile communications affordable for the general population.

The market of additional mobile services is developing very rapidly in Kyrgyzstan. These services include multimedia messaging service (MMS) and wireless application protocol (WAP) access that makes it possible to download music and videos and receive postcards and various information items through short message service (SMS) subscription, as well as to take part in SMS games. It should be noted that at this point there are relatively few WAP websites in the .kg domain, and subscribers mostly use Russian information and entertainment WAP sites.

Internet

The total number of internet users in Kyrgyzstan over the last few years has increased annually by 100,000 people on average. Today it totals over 550,000 – which means each tenth resident of Kyrgyzstan has become an internet user. Notably, the number of regular users is only 150,000. Growth in the dial-up segment has practically stopped, while there has been an increase in the number of ADSL broadband subscriptions. The total number of subscribers to all internet providers combined is currently estimated at 16,000. Approximately 10,000 of these are corporate users. The cost of hourly dial-up internet access ranges on average between USD 0.40 and USD 0.80 (without taxes) during the day and between USD 0.10 and USD 0.30 (without taxes) at night. At the same time, the average monthly income in Kyrgyzstan remains very low (around USD 60), which is the major socioeconomic factor hindering growth. Another barrier to development is a low level of home computer ownership: the Expert Consulting Agency estimates that the total number of home computers in the country amounts to about 80,000.

There are over 150 centres offering public access to the internet in Kyrgyzstan, including internet cafés and free public access centres. The latter, together with a number of higher education institutions offering public access, are financed by international donor organisations and positively contribute to the number of internet users in the country.

Hardware and software

There is a major disparity in the hardware and software markets in Kyrgyzstan: the software market is much less developed. While Kyrgyz users have an opportunity to use most of the newest software products and programmes, sometimes even before their colleagues from other countries,

according to experts, 99% of these are pirated. The major factor explaining the current situation, apparently, is not a resistance on the part of users to purchase licensed products, but the mere fact that they cannot afford to buy them due to limited financial resources.

Another reason for the lack of development in the software market is the lack of any system of software governance – software installation in the corporate and even in the state sector occurs on an ad-hoc basis. At the same time, free and open source software (FOSS) is only used by some companies.

Targeted work on promoting and disseminating FOSS in the country has begun. For example, an initiative for developing FOSS, called Free and Open Source Software Support in the Kyrgyz Republic,[1] has developed FOSS training courses to train non-governmental organisations and educational institutions, amongst others. FOSS localisation is also being done to encourage wide public use, including in schools.

Factors affecting physical access to technology

- Geography: Kyrgyzstan is primarily a mountainous country. This makes many parts of the country hard to reach, with high costs involved in rolling out telecommunications.

- High concentration of telecommunication services in the capital: 80% of the volume of ICT services are provided in Bishkek city, where 20% of the country's population resides. The remaining 20% are offered in the regions where 80% of the population lives (half in cities or towns).

- Low density of telephone lines in rural areas: Teledensity in rural areas is 1.5% to 2%, which is roughly four to five times less than the country average (8%), and twelve to sixteen times less than the capital (25%).

- Disproportionate development of the internet network: Since the level of poverty is considerably higher in the outlying regions, the more remote a village is from the capital, the fewer the customers. This makes some areas relatively unprofitable for operators.

- Poor quality of services: The quality of available services in the regions (e.g., the stability of cellular communication, quality of TV and radio signals, transfer, etc.) is much lower than in the capital, because of the less-developed infrastructure.

- High cost of telecommunication services: The purchasing capacity of the population greatly influences the situation. High tariffs for international and intercity services (despite the ongoing restructuring of tariffs for international, intercity and local communication services) restrict access for many Kyrgyz citizens.

- Insufficient widespread access to wireless communication facilities: Apart from fixed telecommunication lines, other communication facilities are seldom used and not always used effectively.

Action steps

Several attempts have been made to broaden universal access. One of these attempts was when providers initiated a fund to finance setting up communication centres (e-centres) in remote areas and rural settlements. However, this initiative was not successful, despite the fact that around 30 centres were set up. One of the problems is that the centres were not business-oriented and self-sustainable. The operators were carrying most of the costs, and there was mass closure of the centres when the funding finished.

Another model was attempted with the support of the United States Agency for International Development (USAID). It proposed setting up e-centres which were to provide paid communication services to people, including paid computer literacy courses. This project was more successful, as its e-centres became self-sustainable. However, expansion of the centres has been very slow, as the providers do not extend their coverage networks to remote areas and villages.

It is critical for the development of universal access in Kyrgyzstan for one of the key ICT players – either government or business – to exert political will. One of them must assume responsibility for the development of access to ICTs in the country, and consequently undertake appropriate commitments.

Current legislation does not make any provisions relating to universal access, except for political declarations by government leaders who declare the priority of universal access development. Concrete proposals are necessary. ▪

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- **Encouraging** critical debate

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