

## **Kazakhstan: Developments in the IT & Telecommunications Sector**

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### **I. General Market Info**

According to the national statistics agency Kazakhstan's 2006 GDP per capita reached \$5,100, which is about the current level of GDP in the Czech Republic, Hungary and Poland. By 2015, it is targeted to reach \$ 9,000. According to the World Bank rating, Kazakhstan currently is classified as a middle-income country.

Economic activity remains strong in Kazakhstan, with 2006 marking the seventh consecutive year of real GDP growth in excess of 9 %. Throughout 2006, key social indicators continued to improve and unemployment continued to decline.

The real GDP growth is expected in 2007 to total 8.6 % that will allow the GDP per capita to reach \$6.560.

The Republic of Kazakhstan is now paying great attention to its development of IT & telecommunications systems as being an important factor and condition for integration with the international community. The Kazakh IT & telecommunications market is one of the boom sectors of the country's economy. According to the national statistic agency the annual growth in the sector averaged 28% in the last three years, which is comparable with the 35% growth in the oil and gas sector.

Regardless of the boom in the sector, the statistics for the country's IT & telecommunications market are not in line with the country's economic development. The Kazakh IT & telecommunications share of the market barely exceeds 0.1% of the total global market.

According to CMAR (Center for Marketing and Analytical Research [www.cmar.kz](http://www.cmar.kz)) the sector accounts for 1.8% of GDP in Kazakhstan. In Russia it accounts for 5.2%. Kazakhstan lags three years behind Russia in this, despite the fact that the Kazakh model of developing this market is similar to the Russian one in many respects.

In terms of financial, the market was 202 billion KZT or \$1.6bn (excluding VAT) in Kazakhstan and \$36.4bn in Russia in 2005. For example, Discover Networks

Europe's revenue (a medium-sized European telecommunications company offering payable television services) was 50% more than the revenue from the Kazakh telecommunications market.

According to expert forecasts, the Kazakh market will total 320 billion KZT, or \$2.6bn, by 2008. However, the growth rate is expected to fall from 28% to 18% in 2006-2008. The Kazakh government is currently focusing its efforts on reducing charges for fixed-line and mobile services and the Internet, which is why in the short-term state policy will slow down any growth in telecommunications companies' revenue.

However, this will not decrease the client base or consumption in physical terms. The country's geographic and demographic features - a large territory and low population density - have a great impact on the telecommunications market in Kazakhstan. Kazakhstan is the ninth largest country in the world, behind Argentina and Brazil, whereas in population terms it is only 60th. As a result, the population density in Kazakhstan is very low and stands at 5.5 people per sq. km. This is a third lower than in Russia and tens of times lower than in Europe. This combination of large territory and small population, fairly high proportion of rural inhabitants (about 50%) and large households (3.5 people per household on average or four people in rural areas) explains the low level of penetration by the main telecommunications services in the country.

According to the National Statistics Agency In Kazakhstan, only 53% of households have fixed telephone lines compared to 62% in Russia and 97% in Germany.

It should be noted that the penetration of fixed telephone lines depends on the size of the settlement: it is from 76% to 87% in major towns and large cities and 38% to 44% in villages and medium-sized and small towns.

That fact explains the reason why most Kazakhstani families do not have computers and Internet access. For example, only 17% of Kazakh households have home computers and two-thirds of them are in cities (29% of households have computers in the Czech Republic, 32% in Hungary and 65% in Britain). Only about 8% of Kazakh households have Internet access (19% in the Czech Republic, 14% in Hungary, 34% in France and 56% in Britain).

In general, 35% of the Kazakh households that have computers can access the Internet (65% in the Czech Republic, 44% in Hungary and 86% in Britain).

### **The structure of the Kazakh telecommunication market in terms of revenue from various services.**

According to the government research in 2005, the largest segment of the market was mobile services with 41% of the total market, and second was the fixed telephone line segment (33%). Internet and data transfer accounted for 10% of the market. A boom in new types of telecommunications leads to a fall in revenue from the fixed telephone line segment, which already lags behind modern services such as mobile services. Revenues from fixed-line and mobile services were comparable

in 2004 (37% and 36% respectively), whereas the situation changed significantly during 2005.

The share of revenue from mobile services increased by 4 percentage points whereas that of fixed telephone line services decreased by 6 percentage points. However, the figures for Internet and data transfer and services to operators did not change between 2004 and 2005.

### **Mobile services**

The segment is made up primarily of cellular services, which account for 97% of the segment.

The cellular services segment is the most dynamically developing segment in the country's telecommunications market.

According to CMAR (Center for Marketing and Analytical Research [www.cmar.kz](http://www.cmar.kz)) revenue from services in the segment grew by 40% in 2005, and the average growth in the number of subscribers was over 70% in 2003-2005.

The average spending on mobile services by individual subscribers was 1,400 KZT per month in 2005 and about 19,000 KZT a month by corporate subscribers. And as of January 2006, the number of subscribers to mobile services was 5.6 million people and the penetration of mobile services was 36%. This means that the number of subscribers to mobile services is 80% higher than that of fixed-line subscribers and that spending on the former is higher than on the latter.

Growth in the mobile services segment accounts for 55% of the growth in the entire telecommunications market in Kazakhstan at present and this tendency will only increase. The development potential of this segment in the country is very high and significantly exceeds the development potential of the fixed telephone line segment. According to world trends, a penetration of mobile services of about 60%-65% would be in line with Kazakhstan's current economic development. Kazakhstan is capable of reaching this figure by mid-2008. By 2010, mobile services will account for at least 50% of the total telecommunications market in Kazakhstan. The highest potential number of subscribers is estimated at 12.5 million or 82% of the total population. The largest mobile operator in Kazakhstan is GSM-Kazakhstan (with the K-Cell and Activ brands); in 2005 it accounted for 68% of the mobile services market in monetary terms.

### **Internet and data transfer**

This segment is among the top three dynamically developing segments of the Kazakh IT & telecommunications market along with mobile services and cable television. According to CMAR (Center for Marketing and Analytical Research [www.cmar.kz](http://www.cmar.kz)) in 2005, the average spending on the Internet by individual users was 1,050 KZT per month and about 18,000 KZT per month by corporate users and the segment grew by 36%. It has already been stated that, in 2005, 5% of Kazakh households had Internet access; 56% of legal entities use the Internet and data transfer. Despite its relatively small share of the market (10%), the segment has promising potential. The number of Internet and data transfer users is estimated at

273,000 (both individuals and legal entities) at the moment, whereas market studies estimate the capacity of the Internet market (the highest potential number of users) at 1.6 million users.

The government is paying great attention to increase public Internet access. In particular, the Program to Develop the Kazakh IT & Telecommunications Sector in 2006-2008 aims to reduce fees for Internet services, find ways of reducing prices for computers and improve the content of the Kazakh Internet zone.

Five primary providers are operating in the Internet market in Kazakhstan and they all have separate access to the global network: Kazakhtelecom, Nursat, Ducat, Golden Telecom and Astel. Kazakhtelecom is the largest Internet provider and accounted for 61% of the market in 2005.

## **Space conquest**

The first Kazakh telecommunications satellite KazSat launched on 18 June 2006 was officially activated on 15 December 2006. After several months of testing, the Katelco satellite network had a live broadcast of the official meeting devoted to the 15th anniversary of the nation's independence.

According to Kazakhtelecom, the satellite testing results met the standards of the International Telecommunications Satellite Organisation. The full capacity of KazSat is 864 MHz; 760 MHz are meant for lease, 8 MHz are left for the guard band, and 96 MHz in store.

At present, the satellite load is 40%. Seven telecommunication companies, such as Astel, Katelco, Nursat, Today Telecom use KazSat. It is planned to achieve the satellite load of 70% by the end of 2007.

The prices for satellite services were set at a competitive level to create favourable conditions for Kazakh operators. They depend on the bandwidth and contract period, but are on average 5% lower than those of international satellites.

It is planned to launch five telecommunications satellites by 2020. The launch of KazSat-2 (designed by the Khrunichev State Research and Production Space Centre in Russia) is scheduled on 2009, KazSat-3 on 2013. The main control centre will be located in Akkol (Akmola Oblast) and a secondary control centre near Almaty.

## **Alatau IT City**

Alatau IT City is special economic zone with preferential tax and customs conditions for all informational and communicational companies, working in the territory of park

- Special economic zone «Park of informational technologies» was created by Decree of the President of RK #1166 «About formation FEZ » of August 18, 2003.
- Location Alatau IT City 25 km. from Almaty city, Alatau, 7 km from airport

Types of activities of Alatau IT City:

- Formation of modern infrastructure “Alatau IT City”, including the development of business-plans, designing estimates, building and installation works, land improvements of park
- Handling of research and experiment-constructive works on formation and implantation of projects in the field of informational technologies
- Designing, development, introduction, software manufacturing and data, hardware tools of informational and communicational technologies
- Marketing researches in the field of informational technologies
- Training and re-training of high-qualified specialists, having certificates in the field of informational technologies on international standards

Objectives:

Alatau IT-City was founded with aim of creation of base for slapping development of IT-business in Kazakhstan. For achieving the set goal AITC is positioned as center of high technologies in the Central Asia. Universal infrastructure of Park, including commercial and manufacturing building complexes, logistical and data-centers, can satisfy any needs of consumers in the sphere of doing business. Modern dwelling infrastructure, and also different recreation zones, should provide deserving and high standard of living for employees of company in the territory of the special economic zone.

Significance of AITC will be noticed in every sector of the economy, for example, by universities for transition and commercialization of technologies, by private sector for profit (as type of business of immovable property), by government for creation of work places, in order to build technological opportunity in private sector and to increase the economic growth.

According to the authority of the IT City the creation of brand Alatau IT-City will be associated with quality, superiority and innovations.

## **Personal computer**

The personal computer (PC) market has witnessed steady growth in Kazakhstan, with increasing numbers of local firms assembling computers, and a number of important computer projects springing up. There is also a rapidly growing market for computer spare parts. Some domestic companies specialize in assembling computers from imported spare parts in order to make their products less expensive and to avoid customs duties, value-added tax (VAT) and import tax. Locally assembled computers occupy 65% of the market.

The computer services sector is also rapidly expanding to meet increased demand, as growing domestic businesses need more advanced information technology (IT), equipment and services. An increasing number of small and medium-sized enterprises (SMEs) are becoming computerized. Important growth areas include integration services, systems and networks implementation, hardware maintenance, and training.

Kazakhstan ranks 13th out of 14 east European countries in the Economist Intelligence Unit's e-readiness report 2006. The country's worldwide standing is 64th out of the 65 countries covered. Although Kazakhstan is in the early stages of developing its e-commerce sector, there are promising signs of growth, such as the rising use of the Internet in urban centers.

### **Key players: IT technology**

Motorola, Lucent Technologies, Cisco Systems, Ericsson, Siemens, Alcatel, Nokia and Nortel are some of the leading international companies operating in Kazakhstan. The main foreign companies in the computers and peripherals market include Siemens, Bull, LG, Daewoo, Samsung, and Hyundai. The leading US manufacturers in Kazakhstan are IBM, Hewlett Packard/Compaq and Dell.

### **Supply telecoms**

Kazakhstan suffers from a poor and antiquated telecoms infrastructure, which it inherited from the Soviet Union. However, the situation is gradually improving. The state-controlled telecoms company, Kazakhtelecom, is building a fully digital national network, based on local and long-distance digital switches and fiber-optic lines linking all the main cities in the country. The proportion of digitization of the local telephone network was up to 60% by the end of 2004, according to Kazakhtelecom. In addition, companies including Kazakhstan's national railway company and Kaztranscom (which is a subsidiary of the national oil company, Kazmunaigaz) are using existing transport networks to lay fiber-optic and other communications lines.

The Kazakh telecoms market was liberalized in 2004 with the passage of new legislation giving all operators equal access to the network. Foreign ownership of telecoms companies is nonetheless restricted to 49%.

### **Key IT & telecoms players**

Kazakhtelecom is the largest telecom company in the country. The company provides a full range of communications services, including basic voice services (local, domestic, long distance and international); telegraph and telex; data services; access to the Internet; channel leasing; satellite network services; and telephone business network services. It is the sole operator providing rural communications services in the country, although, as a result of market liberalization in 2004, it no longer has a monopoly on the provision of international and long-distance services. By April 2005 four other companies had received licenses for these services namely, Transtelecom, Kaztranscom, Arna (DUCAT), and Astel.

Three operators provide mobile communications services in Kazakhstan: Altel, Kar-Tel and GSM-Kazakhstan. Altel was the first operator of mobile telephony in Kazakhstan, starting in 1994. Altel has changed its network over to the code division

multiple access (CDMA) standard from an advanced mobile phone service-narrowband advanced mobile phone service (AMPS-NAMPS) network. In August 2003 Ericsson and Altel signed a contract, valued at over US\$30m, to deploy a nationwide wireless network in CDMA2000 1X. In 2004 Ericsson also conducted a 450-mhz CDMA2000 trial zone in Talgar, near Almaty. A local operator, Dalacom, participated in the trial, in co-operation with the Kazakh Agency for Information Technology and Communications. Ericsson hopes to develop CDMA2000 in 450 mhz as a key supplier of telecommunications in rural networks.

GSM-Kazakhstan was established in September 1998 in a partnership between the largest mobile operator in Turkey, Turkcell (with a 51% share), and Kazakhtelecom (with a 49% share). In May 2000 Turkcell transferred all of its shares to its affiliated company, Fintur (Netherlands). The company operates under the trademark, KCell, and is the largest mobile operator in Kazakhstan, with 2m subscribers. Kar-Tel is the second most important player in the mobile telephony market. The company was a joint venture between Rumeli Telecom (Turkey) and Investel, but was bought for US\$350m by Vimpelcom (Russia) in August 2004. Kar-Tels share of the market is 31%, operating under the Excess and K-Mobile trademarks. In May 2005 Kar-Tel signed an agreement with Motorola (US) for a US\$100m expansion plan. Other significant domestic telecoms service providers operating in the Kazakh market include Ducat, Golden Telecom, Katelco, Nursat, TNS-Plus and Aksoran, which specialises in wireless networking.

## **USEFUL RESOURCES**

### **Sustainable Development Fund “Kazyna”**

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### **National Innovation Fund**

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Telephone: in Almaty 7 (327) 259-98-16  
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### **Insurance Corporation**

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Fax: 7 (3272) 50-49-67, 50-48-74  
Email: [almaty.office.box@mail.doc.gov](mailto:almaty.office.box@mail.doc.gov)

**Major Players:**

**KazakhTelecom**

URL: [www.telecom.kz](http://www.telecom.kz)



**KazTransCom**

URL: [www.Kaztranscom.kz](http://www.Kaztranscom.kz)

**GSM Kazakhstan**

URL: [www.K-cell.kz](http://www.K-cell.kz)

**KaR-Tel**

URL: [www.k-mobile.kz](http://www.k-mobile.kz)

**Golden telecom**

URL: [www.goldentelecom.kz](http://www.goldentelecom.kz)

**Katelco**

URL: [www.katelco.kz](http://www.katelco.kz)

**Nursat**

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LogyCom is recognized as a high growth company in the PC market, taking the third place in the Central Asia.

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