

# Kazakhstan

Like many of the governments in the Commonwealth of Independent States (CIS), Kazakhstan has a conflicted position with regard to the Internet. The Kazakh government aims to make Kazakhstan the main IT portal in Central Asia. In this regard, the government has harnessed efforts to liberalize the IT sector, promote Internet use, and encourage e-government in order to spur social development. However, the government has also implemented a complex system that allows for state surveillance of Internet traffic that can be used to filter or suppress Internet content. Current rules require all Internet traffic to pass through state-owned channels, politically sensitive Internet content is selectively filtered, and opposition media and bloggers are said to practice self-censorship for fear of government reprisal.



has recovered from the economic crises of the 1990s, and President Nursultan Nazarbayev is determined to turn Kazakhstan into an IT powerhouse in the region. An ambitious e-government project has been launched and the development of IT infrastructure is encouraged.

Politically Kazakhstan has become increasingly authoritarian. President Nazarbayev been the head of state since national independence in 1991, and he is widely alleged to have had manipulated results of elections and suppressed opposition to remain in power.<sup>1</sup> Although press freedom in enshrined in the constitution,<sup>2</sup> the government controls most mass media outlets and exerts influence over most printing and

## RESULTS AT A GLANCE

Filtering	No evidence of filtering	Suspected filtering	Selective filtering	Substantial filtering	Pervasive filtering
Political		●			
Social	●				
Conflict/security	●				
Internet tools	●				
Other factors	Low	Medium	High	Not applicable	
Transparency				●	
Consistency				●	

## KEY INDICATORS



Source (by indicator): World Bank 2005, 2006a, 2006a; UNDP 2006; World Bank 2006c, 2006c; ITU 2006, 2004

distribution establishments. Anecdotal evidence points to online media and bloggers practicing self-censorship for fear of prosecution by the state under highly restrictive defamation laws.

### Internet in Kazakhstan

The Kazakh Internet community is growing rapidly. Internet usage increased from 0.7 percent of the population in 2000 to 2.7 percent of the population in 2004.<sup>3</sup> Computer penetration is around fifty to seventeen computers per 100 residents.

Because of its size and internal regional disparities (especially between rural and urban dwellers), Internet access remains beyond the reach of most Kazakhs, except for those living in major cities. Internet access is most popular among young urban dwellers, with a surprisingly high percentage of female users (44.1 percent).

Russian is the most popular language used on the Internet (94.1 percent), followed by Kazakh (4.5 percent) and English (1.4 percent), which may account for the high percentage of Kazakh Web sites hosted in Russia (including those on the “.kz” domain). Six percent of “.kz” Web sites are hosted in Kazakhstan, with the remainder hosted in Russia and elsewhere. Kazakhs use a wide range of search engines, including Russian, U.S.,

and Kazakh ([www.rambler.ru](http://www.rambler.ru), [www.yandex.ru](http://www.yandex.ru), [www.yahoo.com](http://www.yahoo.com), [www.google.kz](http://www.google.kz), [www.site.kz](http://www.site.kz)).

Recent liberalization of the telecommunications market increased competition among the five licensed operators. These are Kazakhtelecom (the former state monopoly), Transtelecom, Kaztranscom, Arna [DUCAT], and Astel. Kazakhstan also has five first-tier Internet service providers (ISPs) that possess independent channels to the Internet. These are Kaztelecom, Nursat, Astel, Telcom, and NIT. Some 100 second-tier providers lease access from the five first-tier ISPs.<sup>4</sup>

Kazakhtelecom is the operator of the national data transfer network, which connects the major cities of Kazakhstan with a total bandwidth of 665Mbit/s,<sup>5</sup> and carrying capacity of separate local segments of up to 10 GB/s.<sup>6</sup> Other leading first-tier ISPs (Nursat and Astel) also operate significant terrestrial and satellite based infrastructure.

### Legal and regulatory frameworks

The Kazakh government exhibits an ambiguous and at times contradictory approach to the Internet. On one hand the “Development Strategy of Kazakhstan until 2030” demonstrates the

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government's strong commitment to create an independent and effective system of telecommunications services, which will be competitive with analogous infrastructures in more-developed countries. On the other hand the government follows a strong and multilevel information security policy, ensuring surveillance of telecommunications and Internet traffic in the country.

The Agency for Informatization and Communication (AIC), a central executive body in the IT field, is authorized to implement state policy in telecommunications and information technology development industries, carry out control in these sectors, and issue licenses to every type of telecommunications services.<sup>7</sup> The Security Council (SC), a body chaired by the president, is responsible for drafting decisions and providing assistance to the head of state on issues of defense and national security.<sup>8</sup> The SC also prepares a list of Web sites every six months that should be blocked or forbidden from distribution. A 2005 SC decision legally forbade key national security bodies (namely the Ministries of Emergency Situations, of Internal Affairs, of Defense, and the National Security Committee) from connecting to the Internet. However, despite this prohibition, ONI researchers witnessed state officials accessing forbidden Web sites through an anonymizer.

The security system in Kazakhstan is complex and multilayered. The Inter-Departmental Commission is charged with coordinating and developing the national information infrastructure. The National Security Committee (NSC) monitors presidential, government, and military communications. The Office of the Prime Minister is an authorized state body responsible for the protection of state secrets and maintenance of information security. "State secret" is broadly defined, encompassing various government policies as well as the president's private life, health, and financial affairs. The NSC has issued a general license to the private Agency on Information Security to establish and organize facilities for

cryptographic protection of information, as well as to formulate proposals on information security for state organizations, corporate clients, banks, and other large commercial companies.

The information communications technology (ICT) sector in Kazakhstan is highly regulated, as evidenced by some 300 legislative acts that expressly or implicitly control the information and telecommunications environment. All ISPs require a license from the AIC.<sup>9</sup> All telecommunications operators are legally obliged, as part of the licensing requirement, to connect their channels to a public network controlled by Kazakhtelecom. The so-called Billing Center of Telecommunication Traffic, established by the government in 1999, helps trace the activity of private companies and strengthen the monopolist position of Kazakhtelecom in the IT sphere. In practice, some telecommunications operators circumvent such regulations by using IP telephony to pass their interregional and international traffic.

The government has established systems to monitor and filter Internet traffic. Since the traffic of all first-tier ISPs goes through Kazakhtelecom's channels, filtering can be achieved using centralized resources. The ISPs may unknowingly receive filtered content because the main operator could install filters on any information that it deems inappropriate. ONI suspects that state officials informally ask Kazakhtelecom to filter certain content. Russian companies and Kazakhtelecom have openly signed an agreement to provide filtering, censorship, and surveillance on the basis of Security Council resolutions.

State regulations oblige Internet providers to register and maintain electronic records of customer Internet activity. ISPs are required to install special software and hardware equipment in order to create and store records for a specified amount of time, including log-in times, types of the connection, transmitted and received traffic between parties of the connection, identi-

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fication number of the session, duration of time spent online, IP address of the user, and speed of data receipt and transmission. The ISPs are also required to prohibit their customers from disseminating (via Internet) pornographic, extremist, or terrorist materials or any other information not in accordance with the country's laws.<sup>10</sup>

The Kazakhstan Association of IT-Companies is the officially recognized administrator of the ".kz" domain. It is registered as a nongovernment organization but, in fact, it has 80 percent government ownership. The rules of registration and management of the ".kz" domain are issued by the AIC. The constitution guarantees freedom of speech and prohibits censorship, but the government often resorts to various mechanisms to suppress "inappropriate" information or to shut down oppositional domain names. These rules mean that an applicant may be denied registration if the resource server resides outside of Kazakhstan. Use of the Internet by political parties in Kazakhstan is limited, and few opposition or illegal parties have made the move to go online.

### **ONI testing results**

ONI conducted testing on three main ISPs: Kazakhtelecom, Megaline, and Nursat. The evidence gathered from the testing is not sufficient to conclusively confirm the existence of a systematic filtering regime. However, a number of sites with sensitive political content, including locally sensitive topics and regional issues of concern to the Kazakh government, were inaccessible. Several of these inaccessible sites are hosted in Russia and Kyrgyzstan. ONI found some political sites were inaccessible for users of two ISPs (Kazakhtelecom and Megaline), while they remained accessible to Nursat users. Generally most of the inaccessible sites contained content related to political dissidents, allegations of government corruption, human rights issues, and strongly expressed criticism of the president.

Kazakh authorities also de-register Web sites that do not comply with its restrictive rules for registering domains within the ".kz" domain, and filters sites within this domain.<sup>11</sup> In 2005 Kazakh authorities de-registered a Web site created by the producers of *Borat*, (claiming that the site violated the rules by hosting the site outside of Kazakhstan and providing false contact information).<sup>12</sup>

ONI suspects that filtering practices in Kazakhstan have changed and are now performed at the network backbone. All traffic should pass through the Kazakhtelecom network and thus be subject to filters put in place by the state-controlled ISP. However, not all incoming and outgoing traffic passes through the network, which results in inconsistent patterns of blocking.

Most of the users are also on "edge" networks, such as cybercafés and corporate networks. Kazakhstan companies apply filtering mechanisms on a user level to prevent employees from accessing pornography, music, films, and dating Web sites. However, ONI testing found that Kazakhstan does not block any pornographic content or sites related to drug and alcohol use.

### **Conclusion**

The Kazakh government has harnessed efforts to liberalize the IT sector, promote Internet use, and encourage e-government in order to spur social development. However, it has also put in place a complex security system that is capable of state surveillance of Internet traffic, and suppression of undesirable Internet content. Given government pressure on opposition media, self-censorship may also be an issue among online media publishers and bloggers. The technical sophistication of the Kazakhstan Internet environment and government's tendency toward stricter online controls warrant closer examination and monitoring.

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## NOTES

1. See Commission on Security and Cooperation in Europe, "Missed opportunity in Kazakhstan: Fraud and intimidation spoil election promised to be "free and fair," December 15, 2005, [http://www.csce.gov/index.cfm?Fuseaction=ContentRecords.ViewDetail&ContentRecord\\_id=107&ContentType=G](http://www.csce.gov/index.cfm?Fuseaction=ContentRecords.ViewDetail&ContentRecord_id=107&ContentType=G) (accessed May 1, 2007).
2. Article 20, paragraphs 1 and 2 of the Constitution of Kazakhstan and the Law on Media and Telecommunications (with last amendments of Jan. 2006) article 2, paragraph 1.
3. International Telecommunication Union, *World Telecommunication Indicators 2006*. The Kazakhstan Association of IT Companies estimated that 6.8 percent of the population used the Internet in 2005.
4. Source: The Agency for Informatization and Communication of Kazakhstan.
5. For comparison, by the end of 2002 the total Internet bandwidth capacity for Kazakhstan was 46Mb/s; by the end of 2003 it was 189 Mb/s.
6. Kazakhstan's investment in Internet capacity is part of the USD110 million loan from the European Bank for Reconstruction and Development. Lucent Worldwide Services and Winncom Technologies are providing support for the project. In 2006 Kazakhtelecom began construction of a next-generation network (NGN) and plans to deploy fixed wireless access (FWA) platforms such as Wi-Fi and WiMAX.
7. Resolution no. 724 of the Kazakh government, dated July 22, 2003.
8. Article 44, paragraph 20 of the Constitution of Kazakhstan.
9. Decree no. 998 of September 29, 2004, Concerning Question of Licensing in the Telecommunications Sphere.
10. Nursat Public Contract, <http://www.nursat.kz/?72> (in Russian).
11. <http://www.blokada.org/print.php?sid=1985>.
12. [http://www.rsf.org/article.php3?id\\_article=15919](http://www.rsf.org/article.php3?id_article=15919).