

Internet in Armenia: Slow, Expensive, but Increasingly Important

By Onnik Krikorian, Yerevan

Abstract

Armenia's geopolitical situation in a region where it is in conflict with two of its four neighbors and the troubled privatization of the ArmenTel monopoly in the late 1990s mean that, in regional terms, the country's Internet connection speeds remain the slowest, prices remain the highest, and actual penetration remains the lowest. Nevertheless, Internet coverage is increasing in Armenia, especially with the arrival of three cellular phone companies in the market. Additionally, blogs moved in to fill the information gap when a 20-day state of emergency in the aftermath of the bitterly disputed 2008 presidential election imposed restrictions on the mass media. As a result, international donors, such as the World Bank and USAID, are interested in expanding and improving existing infrastructure, and especially using it to empower marginalized groups and communities in society. Even so, it remains to be seen whether such plans can succeed before Armenia's borders with Azerbaijan and especially Turkey are reopened.

Early Hopes Disappointed

Although Armenia was once known as the "Silicon Valley of the Soviet Union," the situation with the Internet remains the worst in the South Caucasus. Even though the government has prioritized the IT sector for economic growth, Internet penetration remains the lowest in the region. According to the International Telecommunications Union (ITU), it stood at just 6.4 percent as of September 2009, compared to 18 percent in Azerbaijan and 22.2 percent in Georgia. While such figures are open to debate, especially considering what constitutes "penetration" and with other statistics putting Armenia at 5.8 percent, Azerbaijan at 12.7, and Georgia at 8.4, connection speeds nonetheless remain the lowest while costs are the highest.

As an example, according to some statistics, a 1mb/s connection in Armenia costs \$80 a month, while in Azerbaijan and Georgia it costs just \$40 and \$10, respectively. In part this is because Armenia remains blockaded by two of its four neighbors. Locked in a stalemate with Baku over the disputed territory of Nagorno Karabakh, a major obstacle to the country's economic development in general, the common border between Armenia and Azerbaijan remains closed, thus preventing the provision of Internet from the east. The same is true with Turkey to the west, after it closed its border in 1993 in support of Azerbaijan during its war with Armenia in the early 1990s.

Although there has been talk of receiving high speed Internet from Turkey if efforts to normalize relations between Ankara and Yerevan succeed and the border is reopened, most of Armenia's Internet comes from the Trans-Asia-Europe fiber-optic cable system via Georgia, with a very minor part coming from Iran. However, the connection is often vulnerable to damage, faults and disruption on the Georgian side. Although rare, outages of

a few days have been known to occur, but even so, the situation remains erratic with reliability decreasing in recent months as a growing number of subscribers in Armenia take advantage of slowly falling prices.

Making matters worse was the lack of interest among Armenian businessmen in last year's auction of Georgian Railway Telecom, which is responsible for one of the cables bringing the Internet into Armenia. Critics argue that interest in the company would have increased bandwidth and reduced fees. Currently, ArmenTel uses much of the bandwidth coming from the six lines into the country for its own purposes. Indeed, one of the biggest obstacles to the development of the Internet in Armenia, as well as telecommunications in general, was the 1998 privatization of the Soviet-era company.

Granted a 15-year monopoly on telephony and Internet services in the country, ArmenTel did not make the necessary investments in the country's Soviet-era system, setting back development of the sector for years. In particular, the company maintained a monopoly on the provision of Internet services and prices were set too high for re-sellers to offer lower cost Internet services to the population. Despite widespread public criticism, it was not until 2004 that the monopoly was partially lifted and the market opened up to other cell phone companies. In particular, the appearance of VivaCell, which also offered mobile Internet in addition to standard cell phone services, dramatically changed the situation. All aspects of the monopoly, with the exception of domestic landlines, ended in 2007.

Mobile Internet Signals Transition

The arrival of the mobile Internet was an important development given the difficult conditions in the local

economy and the relatively low levels of access to PCs. Indeed, like elsewhere in the world, the number of mobile Internet subscribers should rise significantly in the next few years. Some statistics put the number of Internet-enabled phones in the country at nearly 1.5 million, although it is uncertain how many might use them for going online. Even so, the market is one that is sure to gain more attention, especially with the arrival of the French Orange company in Armenia, increasing the number of cellular phone companies to three, the other two being the Russian Beeline and the domestic VivaCell.

Nevertheless, until two years ago, most Internet subscribers were connected via dialup services, while many more only had access in Internet cafes. Since the breakup of the ArmenTel monopoly, more Internet service providers (ISPs) have entered the market with broadband services such as ADSL, Wifi, Wimax and 3G. According to the latest figures, there are some 70,000–75,000 subscribers connecting in this way, 6–7 times higher than in 2008. For the first time ever, this number exceeded that of dialup subscribers which stood at just 40,000–45,000. Even so, broadband speed remains low with most users connecting at just 256k/s for around \$30 per month. By comparison, subscribers in Georgia can access an unlimited 4mb/s connection for as little as \$19.

There are currently 12,250 domains registered in the .AM zone while the still developing e-commerce market was responsible for AMD 5.5 billion (\$14 million) in online transactions last year. Nevertheless, only AMD 1.6 billion (\$4 million) represented actual commercial purchases. Internet services are available in most major urban centers in Armenia, with around 100 ISPs believed to be offering connections. Wimax is also available in Yerevan and 18 other cities with some anticipating country-wide coverage by the end of the year. 3G connectivity is offered by all of the cellular phone companies, but the number of enabled handsets in circulation remains uncertain.

Additionally, even though the GPRS system allows connection speeds of up to 50 kb/sec, costs remain prohibitive, with 1 mb of data costing approximately 30 cents. As a result, surveys indicate that, as with standard home connections, most users logon mainly to access social networking sites such as Facebook and Odnoklassniki. Indeed, the Armenian Public Services Regulatory Commission reports that 60 percent of all Internet traffic is directed towards Russian domains. According to Alexa.com, Odnoklassniki, mail.ru, yandex.ru, rambler.ru, liveinternet.ru, vkontakte.ru are the most popular sites in Armenia.

Regional Internet Backbone

Despite the serious problems with bandwidth and connection speeds, the Armenian government does at least appear to consider developing the Internet an important priority. The Broadband Armenia project seeks to partner with the private sector in order to put in place the necessary infrastructure for higher speeds and more reliable Internet connectivity throughout the country. The initiative is seen as particularly important for the further development of the country's IT sector, as well as laying the foundations for an electronic society.

The government also hopes to connect all primary and secondary schools in an education network by the end of next year. For now, 624 schools are connected to the Internet as part of a World Bank funded project, although another 750 remain offline.

Internet Security

One area of concern, however, remains Internet security, especially in light of the still unresolved conflict between Armenia and Azerbaijan over the disputed territory of Nagorno Karabakh. A tit-for-tat hacking war of attrition has become as much a part of the continuing hostilities as occasional skirmishes on the frontline. As a result, the National Security Council in Armenia has drawn up provisions for considering Internet security as part of its national security remit. Plans to install equipment ostensibly to monitor and protect against potential attacks have proven particularly controversial because some civil society activists fear that such provisions could also target them.

Blogs and Social Media

The aftermath of the 2008 presidential elections may have triggered quicker growth in the Internet in Armenia. A bitterly disputed vote led to 10 days of street protests led by Armenia's first president Levon Ter-Petrossian, who now is a leader of the extra-parliamentary opposition. Clashes with police and security forces on 1 March 2008 resulted in 10 dead and the state's decision to declare a 20-day state of emergency. During that period, all media were censored and restricted to publishing only official government press releases and news.

However, in a surprise development, blogs were allowed to freely operate and many activists and media outlets published on them instead. Some observers likened their role in the post-election environment to that of samizdat during the Soviet era. Blogs disseminated opposition propaganda, and activists throughout the country as well as members of the Diaspora re-posted them or printed them out for further distri-

bution. Although YouTube was blocked for some days during that time as well as some news sites, the government decided that the best way to counter the information war online was by supporting bloggers sympathetic to the newly elected president, Serge Sargsyan.

As a result, international organizations and donors are now looking to promote blogs as part of their existing media development programs. Moreover, the U.S. Embassy in Armenia last year announced a \$4 million

program to be implemented over the next 4 years to support alternative resources in the media. The project aims to strengthen the regional media, particularly through individuals who serve as content producers using high and low technology solutions. The program also includes resources for the production of alternative video. Its success will be determined by the Internet as a delivery system, and as a result, its speed and cost to end-users.

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The Internet in Azerbaijan

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Abstract

Azerbaijan boasts the greatest Internet penetration rates of the three South Caucasus countries thanks to government support. The government, political parties, and civil society organizations are developing their on-line presences, including the use of social media. Especially for some progressive youth, the Internet has become a window to the outside world – an opportunity to learn, share, promote and discuss. In particular, blogs and video blogging have become increasingly popular tools for civil society activism in Azerbaijan.

Internet Leader in the South Caucasus

The third president of Azerbaijan Geidar Aliev considered information technology one of the foundations of the country's future industrialization. His son Ilham approved a strategy for information development when he first came to power in 2003 and the government hopes to turn the country into an information communications technology hub for the Caucasus region. The results of the strategy were more or less successful, though it is not clear whether it was the activities of the government or the needs of business, particularly the oil industry, that drove this progress.

From the quantitative point of view, Azerbaijan has the most extensive Internet development among the three countries of the South Caucasus. According to official statistics, 28 percent of the population used the Internet in 2008, though most likely this number was closer to 20 percent if one takes into account the main trends of the preceding years. In Georgia, the corresponding figure was 16.6 percent and in Armenia 6.2 percent. Overall, the Azeri Internet population is young, urban, and mostly male.

However, the South Caucasus Internet penetration rate is less than the global average of 26 percent. In the technological sense, the entire Caucasus is in the “digital periphery.” Turkey and Iran both have higher Internet penetration rates than Azerbaijan (approximately 31 percent in both cases). In 2007, Azerbaijan occupied 83rd place in the world for Internet penetration.

Ninety percent of Internet users in Azerbaijan access the Internet through a dial-up connection. On one hand, a dial-up connection is convenient because it is accessible to everyone who has a telephone line. But it is important to remember that only 14.8 percent of Azerbaijanis have a home phone. The situation is significantly better with mobile telephones since more than half of Azerbaijanis have them (53.7% in 2007) and there is coverage nearly throughout the country. Most experts think that mobile communications will make it possible for Azerbaijanis to overcome the problems of the digital divide, in which large parts of the population are still not able to have access to the Internet. On the other hand, dial-up and the mobile Internet offer only slow connections, which are not sufficient to support con-