

3-1-2005

Internet Access in Romania

Sorin Gudea
swgudea@email.phoenix.edu

Terry Ryan

Follow this and additional works at: <http://aisel.aisnet.org/sais2005>

Recommended Citation

Gudea, Sorin and Ryan, Terry, "Internet Access in Romania " (2005). *SAIS 2005 Proceedings*. 15.
<http://aisel.aisnet.org/sais2005/15>

This material is brought to you by the Southern (SAIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in SAIS 2005 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

INTERNET ACCESS IN ROMANIA

Sorin Gudea

University of Phoenix, USA

swgudea@email.phoenix.edu

Terry Ryan

Claremont Graduate University, California

terry.ryan@cgu.edu

Abstract

Internet access in the former socialist block continues to be lagging. Would-be users are devising inventive solutions to get on the Information Highway. A country case study of Internet access offers available in Romania reveals the advent of self-established, co-operative networks providing shared Internet access.

Keywords: *Internet access, Internet café, home-grown networks.*

Introduction

The Internet is at the core of the information technology revolution, and the global economy. It allows everyone with a personal computer to communicate with all other computers connected to it, world-wide. Significant differences exist in terms of ability to access the Internet. Economical factors bear heavily on the issue. The cost of the personal computer (PC) and the recurring costs related to Internet access can be a major burden for some. Without a doubt, the Internet is slowly taking off in the countries of the former socialist block. Yet, connecting to the Internet remains a costly endeavor for the majority of the population. As the world economy continues its push toward globalization, those countries that are slow to embrace the Internet will be left behind once again.

Romania is located in Southeastern Europe, bordering the Black Sea. Bordered by Bulgaria in the South and the Ukraine in the North, it occupies an area of 237,500 sq. km., just slightly smaller than Oregon. The population in July 2004 was estimated at 22,355,000 people. Of these, 69.4% are between the age of 15 and 64. Median age is 36.1 years. Literacy is at 98.4%. The country's legal system is based on the constitution of France's Fifth Republic and the political system has separate executive, legislative, and judicial branches. Romania began its transition from Communism in 1989 and a largely obsolete industrial base complicated its efforts toward market economy. Yet, the country emerged in 2000 from a three-year recession. There are palpable gains in privatization, deficit reduction, and inflation control. The GDP per capita was \$6,900 in 2003. The GDP growth rate was 4.5%. The inflation rate in 2003 was 15%. The currency exchange rate reported for 2003 is 33,200 Lei per US dollar (CIA, 2004).

Communications Infrastructure

Internet access requires an adequate communications infrastructure. The communications infrastructure includes 4.3 million telephones, and 6.9 million cellular phones (CIA, 2004). The telephone system is assessed as rather poor, yet improving. Ninety percent of the domestic telephone network is automatic. Trunk network is mostly microwave radio relay, with some fiber-optic cable. About one third of the exchange capacity is digital. The internet country code is ".ro" and approximately 51,000 Internet hosts were online in 2004 - up from 41,373 Internet hosts in 2003 (Noua Economie, 2002). This shows a marked improvement over a 1997 study (1997) that showed 8205 servers in January of 1997, up from 20 in October 1993. Things are changing rapidly with the majority of educational institutions, government, NGOs establishing an Internet presence. There are more than 40 papers and 4 TV stations offering Internet programs (Jalobeanu, 2003). Internet access is offered by a number of 38 Internet Service Providers (Noua Economie, 2002).

During the socialist era, Romania, like the rest of the socialist countries fell behind in terms years data and telecommunications technology, and not only. After 1989, when Romania turned toward a market economy, significant progress was made. The telecommunication infrastructure continues to modernize, and most of the exchanges (Central Offices or CO's) are now digital exchanges. Yet, there are a significant number of analog COs still in operation. This impacts the availability and quality of dial-up service and of digital data transmission.

Market

The market for Internet services in Romania is estimated at \$6,000,000.00 per year. This is a relatively small number (Hungary: \$800,000,000.00/yr.; Czech Republic: \$1,600,000,000.00/year.) (*Tendinte*, 2004)

The number of personal computers in existence vary. One source reported 10 PCs per thousand and Internet access penetration of 9.01 per 10,000 (LearnLink). Another reported 880,000 PCs overall and Internet access penetration of 4.4% (Noua Economie, 2002). The average monthly wage is around €100, which is approximately \$130 at the current (November 2004) exchange rate. With the cost of a typical PC of \$6-700.00, it should come as no surprise that only 31% of the personal computers are used at home, 60% in the office (Noua Economie, 2002).

Internet Service Providers

Romania started connecting to the Internet in 1992 (Jalobeanu, 2003). In 1993 there were only three ISPs: EUNET (KPNQWest), Starnets (Euroweb), and PCNET. Romania kept the pace with the explosion of the WWW. Today, Internet access is offered via dial-up (ISDN, 33.6 kbps, 28.8 kbps, 56 kbps), leased lines (nx64K, E1, T1, T3, Frame Relay, DSL, ATM), and broadband (DSL, ADSL, Cable, Fixed Wireless, Satellite) (ANISP Romania, 2003).

A report by the National Association of ISPs in Romania indicates that at the end of 2003, more than 1659 companies were registered to offer Internet services. Of these, 1469 were registered as providers of telecommunications and data transmissions; 331 offered data transmissions; 334 offered Internet access. Dial-up Internet access was offered by 269 companies. Cable-Internet offered by 192 companies. Data lines could be leased from 266 companies. Radio data transmissions are offered by 247 companies. The ISPs in Romania connect to the Internet by means of optic fiber (40), satellite links (29), leased lines (39), and indirect access through a third party (267) (ANISP Romania, 2003).

Yet, for the average consumer, the most appealing types of service are in the form of either dial-up, or broadband Internet access.

Dial up Service

The most common access modality is dial-up. Unlike more developed countries such as USA, Canada, etc., where local calls are taxed at a fixed rate (included in the monthly fees paid to the local phone company), in Romania, just as in the majority of the European countries, calls incur charges by the minute. This adds to the cost of the Internet access.

For example, In Western Europe (e.g., Germany, UK) data transmission can be contracted for a fixed monthly fee, from the local phone carrier. Yet this type of change is slow to take place in Romania, where despite the liberalization of the phone services in 2003. For a long time, all phone services was provided exclusively by ROMTELECOM. Aside of cellular carriers that provide mobile telephony service, the situation continues. None of the new entrants into the market has managed to secure a significant share of the fixed telephony market. Any company offering phone service over existing cabling that belongs to ROMTELECOM would have to pay access fees, making potential profits less appealing and more difficult to achieve. In the end, the new entrants target they would have to lease existing cabling. IT is more lucrative for these companies to focus on offering long distance and international telephone service. Any company that tries to enter the market will face existing competition from established companies.

Telephone service fees vary during the day, and season. While customers in western European countries enjoy reduced telephone service tariffs during evening hours, this is not quite the case in Romania. Where and when such reduced tariffs are offered, the terms and conditions can vary significantly among providers.

In general, the rates for telephone service include a Value-Added Tax (VAT) of 19%. This monies are submitted to the tax collector and benefit the government. The most common type of telephone service costs \$7.00 a month and includes \$2.00 worth of traffic. Some other types of service are available for lower rates, yet they have additional restrictions. As of Jun 1st, 2004, telephone service rates are subject to two-tiers, with lower rates being charged during evening hours.

Internet Service Providers in general offer an fixed number of hours of access, that typically expire within 30 days from purchase. Innovative marketing campaigns and access packages target in particular the younger customers. Unlimited monthly access plans are very common. Alternatively, access cards that offer one month of unlimited access can be purchased for approximately \$9.00. Other plans offer a limited number of hours (usually in multiples of five: 5, 10, 15, 20, etc.) of Internet access, or, limited access to email only (Munteanu, 2004b).

The access fees charged by Internet Service Providers vary. For example, customer located in the capital city, Bucharest, can choose from several plans that offer a limited number of hours (e.g., 5 hours for \$1.19, 20 hours for \$5.95, or 100 hours for \$16.66). Subscription plans that offer unlimited service are somewhat more expensive, and range from \$5.95/month for non-peak access to \$11.90/month anytime. Billing, and payment for the monthly service is done in advance.

A few Internet Service Providers offer access to the Internet without requiring a long-term commitment, or subscription. In such case, fees for the Internet access are billed on the phone invoice.

Broadband service

A relatively small number of companies control the market. Over time, numerous mergers and acquisitions have taken place, leading to the current situation. Service areas do not overlap, and customers do not have a choice of cable providers. Cable access to the Internet was, until 2002 a very expensive proposition. Prices are beginning to drop after 2002. The abolition of the RomTelecom monopoly in the telephone services market, in 2003, should have helped the cable providers. Yet, there was no significant effort on their behalf to modernize their cable plants, a requirement for offering phone and Internet services (Munteanu, 2004a). Internet access plans typically include a limited amount of traffic for a monthly fee (e.g., \$10.71/month with 1GB traffic included – additional traffic is charges at \$0.04/MB). The broadband speed is between 128 kbps and 256 kbps. Additional fees are incurred for installation, and for the modem.

In the second half of 2004, Internet access service bundles continued to evolve (e.g., the \$10.71/month agreement now allows 1GB of traffic, up from 500MB). Likewise, \$17.85 will allow 2.5GB/month (up from 1.5 GB). The connection speed increased from 128 kbps to a maximum of 256 kbps.

Internet Cafés

A very popular and affordable means to the Internet is offered by Internet cafés. Typically these are set up in a two- or three-bedroom apartments, almost always on the first floor with easy access from the street. In general, there is no coffee served at this establishments. A typical Internet café has between ten and twenty networked computers sharing an Internet connection – usually broadband. The computers are of various vintage, often built using used or salvaged components. Additional services that may be available to customers are internet telephony, email, chat, software and media downloads, print and fax services. They are a resource that provides support for, and serves entertainment, business and communication needs of individual consumers – those that cannot afford Internet access from their own homes, and the occasional tourist. Internet cafés are attractive in that they represent economic opportunity for the owner. Thus, they are “for profit” enterprises and must sustain a profit. Would-be Internet surfers pay an hourly rate and can use a PC to access the Internet. The fees are between \$0.50-\$1.00 per hour. The current (November 14, 2004) listing of 18 Internet cafés (cyber-cafés) in Romania does not reflect the popularity of these establishments.

Homegrown Shared Internet Access

A notable trend is the development of private, neighborhood-, peer access networks. Typically, a number of ISP accounts are set up and shared among a number of participants that share the costs equally. This results in a decent quality connection at an excellent price. Clearly, the users are looking for better value. These private networks may cache popular sites (e.g., games, movies, shareware software). Aside of providing Internet access, these networks take advantage of the higher speed available on the ISP’s internal network (the term “metropolitan access” is used”) and offer online gaming, chat and email services to their members.

The high costs associated with Internet access has motivated users-to-be organize and build their own local networks, connecting to the Internet through a shared account. While mainly in the cities, these home-grown networks have become quite popular lately. Aside from offering Internet access, these networks also allow shared games, chat, file downloads, etc. One source (home.ro, 2004) shows 116 such networks, with approximately 12,000 users. This type of setup offers access to a superior Internet connection (in terms of connection speed and amount of traffic allowed) for a reasonable price. Table 1 shows some of the cities where these home-grown networks are noted.

Table 1. Home-grown networks.

Location	Number of networks
Arad	1
Bucuresti	74
Brasov	4
Buzau	2
Cluj	1
Constanta	2
Craiova	1
Focsani	1
Galati	4
Iasi	1
Oradea	3
Pitesti	6
Ploiesti	3
Sibiu	3
Targu-Jiu	1
Timisoara	5
Vaslui	1
Zalau	1

Source: (DAP, 2004)

The map in Figure 1 shows an un-even spread of these home-grown networks. As expected, they are concentrated in cities. Bucharest, the capital city, has the largest number of these networks. In contrast, the other cities have only a few networks each.

Figure 1. Home-grown networks in major cities

In terms of technology, these networks offer Internet access via fast connections (from kbps to Mbps) over fiber or dedicated circuits. Yet, some of them simply share broadband accounts over cable. While the costs may be placed in the vicinity of dial-up service (the average cost seems to be around 300,000 lei, which is equivalent to approximately \$10.00), users certainly receive more value: they can have access to a high-speed Internet connection now, and to additional services such as chat, online games, and downloads. It is notable that network connectivity is provided via wired Ethernet at 100 Mbps, and wireless – employing 802.11a, 802.11b, and 802.11g. While for many years a technology laggard in terms of networking



technologies, Romania is now seeing the latest technologies being put to good use.

The network speed information is usually provided in three tiers. The Internet connection speed varies across these networks from 16 Kbps for the slowest one, to 10 MBps for the fastest one. A second number indicates the connection speed on the metropolitan network – that is the ISP’s internal network. This typically is higher, around 512 Kbps on average. Yet, one of the networks states 200 MBps on the metropolitan network, using two different ISPs. Network connectivity is overwhelmingly 100 MBps. Some networks also allow wireless access over 802.11 standards a, b, and g (54 MBps). A two-tier pricing scheme is prevalent, with one fee for network and Internet access a lower fee for network-only access.

The typical home-grown network has 30-50 subscribers. Yet, membership ranges from two subscribers in the case of new, un-established networks to some 1,200 for the largest one. It is very common to see the number of Internet access subscribing member being lower than the total number of members. Once again, the laws of economics seem to prevail over one's desire to surf the Internet.

Comparison to other European countries

Overall, in comparison to what is available in other European countries, accessing the Internet from Romania continues to cost more, and offer less value. Furthermore, given the relatively low per capita income, it is not an affordable proposition for everyone. Not everyone can afford to surf the Internet.

This may be one of the main reasons behind the occurrence of the home-grown networked described in the previous section, and it may explain the popularity of the Internet cafes.

Table 2 offers a cursory view of the fees and types of Internet access plans available in other European countries, and for comparison, in the USA (Munteanu, 2004a).

Table 2. Internet Access in Other European Countries

Country	ISP	Download	Upload	Traffic	Cost	Installation
Hungary	MataV	384 kbps	64 kbps	unlimited	€37.62	€95.00
U.K.	Telewest	512 kbps		unlimited	GBP29.99	GBP50.00
France	Numericable	128 kbps		unlimited	€19.90	
USA	RoadRunner	1MBps	1MBps	unlimited	\$44.95	

Given the average monthly wage of around €100 (approximately \$130), it is fairly easy to see why Internet access continues to be a challenge for the average Romanian citizen.

Conclusion

Romania is making steady progress toward a fully functional market economy, and access to the Internet is becoming more and more affordable. Yet, it will take some time for this type of service to become truly affordable. As it stands, the ingenuity of the average citizen continues to find ways around this problem. Therefore, at least for the near future, this co-operative approach to Internet access can be expected to continue. After all, they do seem to offer better value to the consumer.

References

- (1997). from <http://www.romaniabusiness.com>
- ANISP Romania. (2003). *ANISP presentation 10/21/2003*. Retrieved 09/07/2004, from <http://www.anisp.ro/?c=noutati-comunicate&...&PHPSESSID=a56f0da9e760f6eb06f3e3db872d8d5d>
- CIA. (2004). *The World Factbook - Romania*, from <http://www.cia.gov/cia/publications/factbook/print/ro.html>
- DAP. (2004). *Retele Locale de Calculatoare*. Retrieved 11/08/2004, from <http://retele.dap.ro>
- home.ro. (2004). *Site-uri Web*. Retrieved 11/11/2004, from <http://www.home.ro/dir/107>
- Jalobeanu, M. (2003). *Romania pe Net*. Retrieved 09/07/2004, from http://www.itim-cj.ro/~jalobean/Romania_pe_net.html
- LearnLink.Roumanie - *Rattraper des decennies perdues*. Retrieved 09/07/2004, from http://learnlink.aed.org/Publications/Country_Papers/cp_pdf/FR_CP_Romania.pdf
- Munteanu, A. B. (2004a). *Connectare Cablu*. Retrieved 09/07/2004, from <http://www.geocities.com/muntealb/ConectareCablu-bn.htm>
- Munteanu, A. B. (2004b). *Costul Internet in Romania*. Retrieved 09/07/2004, from <http://www.geocities.com/muntealb/CostInternetRo-bn.htm>
- Noua Economie. (2002). *Revolutia Internet - Situatia din Romania*. Retrieved 09/07/2004, from <http://www.crie.ro/nouaeconomie/sr1231-situatia-VD.html>
- Tendinte. (2004). from <http://telework.bravepages.com/marketing/perspective-tendinte>.