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SUCCEEDING IN THE RUSSIAN TELECOMMUNICATION ENVIRONMENT

The Feb 27, 2001 (p. 11) edition of the St. Petersburg Times included a startling story titled "End of the Road for PeterStar?" The story seemed curious since just the day before it was announced in the media that Mr. Sergei Kuznetsov, general director of PeterStar had been made the acting general director of Rostelecom pending almost certain share approval from the shareholders at their meeting scheduled for March 11, 2001.

ZAO PeterStar was founded in October 1992 at the dawn of the emergence of the free markets and Perestroika in Russia. PeterStar was formed with the participation of Leningrad City Telephone Network[2]. Before 1992 all communication services in Russia were controlled directly by the Ministry of Communications without making any distinction between postal services, TV and radio broadcasting and telecommunications. In 1992, the government split up these three sectors while the whole telecommunications sector was restructured, 79 regional telephone companies which provide local services, six local trunk network operators which provide toll switching and one long-distance and international services provider Rostelecom were created.

In 1992-93, more than 4000 licenses were granted to private operators. These operators have primarily focused on value added services such as digital overlay networks (Sovintel, Comstar, Combellga, PeterStar), cellular services (Moscow Cellular Communications, Mobile TeleSystems, Vympelcom, Delta Telecom, Northwest GSM etc.) and paging services. These licenses were meant to be the pillars on which the new Russian telecommunication industry was to be built. All these players have been helped by the fact that the existing networks did not posses the necessary technical, human and financial resources to satisfy the growing demand for value added services. They were, in most cases, created by one of the existing regional telephone companies or by Rostelecom in order to obtain the necessary western "know-how" and finances.

ZAO PeterStar

ZAO PeterStar is owned by two organizations, Metromedia International Telecommunications International, a division of the publicly traded American company

[1] Trademark of ZAO PeterStar

[2] Leningrad City Telephone Network was reconstituted and is now known as OAO St. Petersburg Telephone Network - PTS

This case has been prepared by Professor Ajay Vinze, School of Accountancy and Information Management, Arizona State University in collaboration with Professor Dawn Gregg, University of Colorado, Denver. *The case serves the basis for class discussion rather than illustrating any specifics of management handling of a situation.*

Metromedia International Group (NASDAQ MMG) and Telecominvest, a Russian holding company (29%). Metrodmedia's shares are held through Metromedia's wholly owned entities, PLD Holding Limited (11%) and New Capital (Cyprus) Limited (60%).

At its inception, PeterStar focused primarily on enhancing telecommunication capabilities by addressing the need of Northwest Russia in general, and the city of St. Petersburg in particular. It was driven by initial set of licenses that it acquired via Rostelecom during the 1992 privatization of Russian telecommunication. While the country struggled with coming to grips with the changes caused by the adoption of a western style market economy, PeterStar aligned its future to a single key component it considered critical for the success of any market economy – telecommunication. PeterStar's initial foray into telecommunication was in the area of telephony when in 1993 when it began offering telephone numbers "117-, 119-" based on the switch manufactured by a British company GPT. The tech-savvy of the management team was apparent when they realized early on that the future of the company was in the digital world of telecommunication.

Close to a decade since it was formed, PeterStar is now 400 employees strong, and provides St Petersburg with the communications links required for it to compete in today's competitive international markets. In the past decade, the company has spent over $114 million installing more than 1000 kms of fiber optic cable building a communications infrastructure. Exhibit 1 shows a timeline of major events in PeterStar's history. For the past three years the company capital expenses have run at approximately $10 million per annum. The company press service told Interfax that it plans to invest more than$ 8 million in 2001 for developing further its infrastructure. Digital transmission equipment and network switching exchanges provide high quality telephone, fax and data services to hundreds of thousands of customers. PeterStar's activities are now viewed as an integral part of the economic development of St. Petersburg and the NW Russia region.

PeterStar today provides local, national and international telephone communication services as well as data services, leased circuits and videoconference and telematics services. PeterStar provides local telephone service for either $20 per month plus a per minute fee or $49 per month with free local calling. In addition, PeterStar provides unlimited 24 hour access to the Internet to its customers for $39 per month.[3] PeterStar's fiber-based transport network is 1000 km long and consists of 10 SDH 2.4Gb/s rings (STM-16 level). From the very outset, the PeterStar network was fully integrated into the existing city telephone network, and was in fact a significant part of the city's telecommunication infrastructure. .

PeterStar offers its users an entire complex of advanced telecommunications services, including the installation of new telephone lines ensuring high-quality digital local, domestic and international connections, the organization of switched and leased high-speed digital data transfer channels, wireless access to the telephone network, Lucent Technologies PBX's with turnkey installation and full technical support. Its customers are offered an entire spectrum of data transfer services, including those based on ATM, ISDN and FRAME RELAY technologies, videoconferencing, the creation of corporate networks, access to the Internet through PeterStar lines. A multitude of additional telephone services (such as hunting groups, call waiting, call

[3] Expert,North-West,N12(41)/2001

diversion, conference calls, analytic call reports and others), connections via a PeterStar calling card from any phone in St. Petersburg, Moscow, Novgorod, and from a number of European countries, 777 operator services are also made possible[4].

As part of positioning themselves in the Russian telecom market PeterStar focuses on the complete solution, including anything from installing a simple telephone line to a modern digital PBX, to creating a complete corporate turnkey wide area network (WAN). This is quite a change for the average Russian individual and business customer, who have over the years struggled with inadequate service and an orientation to "make do" with what is provided instead of demanding value. At PeterStar, the general attempt is to provide full service for all installations they support. As Rick Macy, their commercial director likes to point out, "you will be able to take advantage of high-quality long-distance connections with a large number of additional modern telephone services. We are here for you from start to finish and afterwards." The list of subscribers for PeterStar services includes an impressive array of high profile Russian business ventures, those who are particularly associated with high-end service, for example the Hotel Grand Europe, and the well recognized foreign companies in search of stable telecommunication services (Exhibit 2 has a list of the key customers). Today PeterStar is also attempting to further expand its operational scope to auxiliary offerings. In mid 2001 they began offering ISP services. They also plan on adding video telephone, quality high-speed access to the Internet and to other information resources, such as stock market exchange data, electronic data bases and financial information systems. The aim is for PeterStar specialists to help companies create switched and leased data transfer channels and unite them to the more traditional dial-up computer networks.

With the dawn of 2001, there are a number of events in the Russian telecommunication scene that are impacting the prospects for the future success of PeterStar. On January 26, 2001, RBC news5 reported Telecominvest strengthened its position in the St. Petersburg market with the launch of St. Petersburg Transit Telecom (PTT). Telecominvest, through its influence in St. Petersburg Telephone Network (PTS), leveraged PTS' position as the St. Petersburg monopoly PSTN operator and rerouted all the city phone numbers that provided service to cellular providers (those numbers in the 9xx-xxxx series) to PTT. This is of critical significance since the cellular providers had previously routed this traffic through the PeterStar system. This change was a serious blow to PeterStar, as cellular traffic generated about $19 million in revenues during 2000 - about a third of total revenues (United Financial Group (UFG) report). Telecominvest, a St. Petersburg based holding company, owns 100 percent of PTT's shares. Telecominvest also holds a 29 percent stake in PeterStar. This puts Telecominvest at loggerheads with PeterStar.

According to a report authored by Ari Krel, a telecom analyst with UFG, the PTT project was originally launched in January 2000 by PTS itself, but was later transferred to Telecominvest because the parent firm lacked the funds to complete it. Telecominvest provided $21 million of the price tag for the new 320-kilometer fiber-optic network, with an additional $10 million credit provided by Moskovsky International Bank and the remaining $17 million coming in the form of credits from equipment suppliers. While Krel reported that other firms,

[4] Downloaded from http://www.ceo.spb.ru/eng/business/kuznetsov.s.i/about.shtml on March 21, 2001.
[5] Downloaded from http://www.rbcnews.com/eng_digest/2001/01/26/20010126105553.shtml on March 21, 2001.

such as payphone service provider Metrocom, and Sovintel, which provides long-distance and other services, are also negotiating a shift to the PTT network, he stressed that the cellular-related business was the most important factor for the new system.

The PTT network was built with an aim to reduce overload in channels connecting PTS's exchanges. When the network was ready, PTT received from PTS the so-called "nine million zone" (9xx-xx-xx numbers). Cell phone numbers serviced by PeterStar also usually begin with "9." According to Telecominvest's manager Vitaly Slizen, co-operation of PeterStar with cellular operators had but a temporary character: "According to license agreements, operators connected to PTS network, while PeterStar only provided technical facilities for PTS traffic." Now, PTS will take over PeterStar's "nine million zone" as well as cellular companies' payments. Severo-Zapadny GSM switched its 200 thousand numbers to PTT network at the beginning of January, Delta switched to PTT on January 20-21, and FORA on January 23.

While cellular operators can still buy number capacity from PeterStar and other companies, PTT is in a position to offer better terms because of its better technical and commercial conditions from PTS. For example, up to 1,500 numbers cost $100 per one number (subscription fee - $10 per month), while acquisition of, say, 25,000- 30,000 numbers will reduce price of one number to $50 (subscription fee - $4). Price list of traffic transfer is based on the same principles. PTT does not conceal its ambition to get a full control over wholesale market of telecom traffic. "We would like to operate like British Telecom, which currently has only 7% of subscribers, while the rest are serviced by commercial operators that buy channel capacity from British Telecom," Mr.Slizen says. "PTT conducts a very efficient pricing policy and motivates operators to buy more," general director of ZAO Metrocom Ravil Halikov says. According to him, Metrocom is going to buy numbers from PTT. Fixed-line communication operators, including Sovintel, Comincom, and Rosnet, are conducting talks with PTT about purchasing phone numbers, Vedomosti reports.[6]

This is a significant blow to PeterStar as about 30% of PeterStar's revenues came from cellular traffic transfer. According to the company Metromedia (PeterStar's main shareholder), PeterStar could have $25-$30 million from cellular traffic transfer this year. Last year, this service brought $19 million. However, commercial director of PeterStar Rick Macy says that other services, in particular fixed-line communication, give about $40 million per year providing an interim cushion for PeterStar during these tumultuous times.

A second event impacting PeterStar came on February 26, 2001 when it was announced on national television that Mr. Sergei Kuznetsov, general director for PeterStar, had been named by Mr. Leonid Reiman, the Minister for Telecommunication and Information Technology to assume the role of acting general director for Rostelecom. Mr. Kuznetsov replaces Mr. Nikolai Korolev who was the general director of the Board of Management at Rostelecom since 1999. PeterStar is replacing Mr. Kuznetsov with Victor Ioseyevich Koresh. The new General Director began work on June 1, 2001. He was appointed by Metromedia. In Soviet times, Mr. Koresh was the head of the St. Petersburg Telegraph. He left the telegraph to join the then-Cable and Wireless venture, BCL, as its general director (now a 100% Metromedia owned company) and then he launched the Sovintel (50% Rostelecom and 50% Golden Telecom) branch in St.

[6] Vedomosti, "Telecommunication Services Market," U.S. and Foreign Commercial Service - January 30, 2001

Petersburg. Rick Macy the commercial director at PeterStar, an individual affected immediately by this change, indicates that PeterStar is very pleased to have Mr. Koresh on board as he has a demonstrated ability to move a business forward.

The ascension of former PeterStar general director, Mr. Kuznetsov, to the top spot of the largest telecommunication company of Russia could have beneficial spillover effects for PeterStar given the relationship driven business culture of Russia. However this news is not met with widespread optimism by observers and potential investors in PeterStar. To the average Russian investor, this pessimism seems curious. Rick Macy has a more positive, but cautious assessment of the situation. While generally upbeat about the commercial telecommunication market in Russia, Rick draws part of his optimism from the general robustness of the Russian telecommunication section which is now second only to Oil and Gas in terms of revenue generation in the emerging economy. Rick Macy suggests that the western investor needs to consider that the Russian business orientation is "non-linear" when compared with the American and other Western European business models. He asserts, "Relationships are everything here in Russia." However, it is unclear if Mr. Kuznetsov's assent to the top spot in Rostelecom will improve PeterStar's position in the complex Russian telecommunication marketplace or if it will cause them to lose the influence they once had through the connections of their former general director.

In Russia, things are never as straightforward as one might expect. The Russian telecommunication industry is in the mode of explosive growth, the structure for which is still evolving. While on the surface you see a proliferation of mobile telecommunication, especially in the major metropolitan areas like Moscow and St. Petersburg, the vast majority of the Russian people are still trying to shake off the remnants of the Soviet-era infrastructure. There is indeed a great disparity in telecommunication customers in Russia. The average Russian for instance pays only 50 Rubles ($1.70) per month for phone services. At this level they have access only to the crumbling twisted-pair telecommunication backbone, and the local telecommunication companies lose money for every account they service. On the other hand a typical business and mobile phone user averages Rubles 147 ($5.00) per month. The difference is in the growth rate of these markets as well as the perceived social implications of these inequities. As such, modernization of the telecommunication infrastructure may not be the only answer. As the general director of Comec suggests that an approach around this telecom paradox is to consider alternate strategies to reach the masses and to be economically viable. One proposal that is rumored to be considered favorably is a "fixed rate plus per minute billing set up." This is currently being debated and economic studies are being conducted to estimate its utility. The goal of the new pricing policy will be to bring loss-incurring services to the cost-recovery level. [7] However, regional incumbents that have switched to per minute billing have not reported any lasting changes in terms of revenue, growth or profitability as a result of the new billing structure.[8]

The Russian Context

[7] Inna Nazarova, "Russia Announces Blueprint for Development of its Telecommunications Market" U.S. Commercial Service, March 1, 2001 downloaded from http://www.bisnis.doc.gov on March 21, 2001.
[8] Nadezhda Golubeva, "Russian Regional Telecos Ready to Connect" An Equity Research Report of Aton Capital Group, April 2001.

Curving around the North Pole in a huge arc, Russia (the Russian Federation) spans almost half the globe from east to west and about 4,000 kilometers from north to south. Divided into eleven time zones, Russia is by far the world's largest country and ranks sixth in the world in population (see Exhibit 3). The largest part of the population is Slavic (Russians, Ukrainians, and Belarusians) but there are more than 100 other European and Asiatic nationalities in Russia.

Russia is still in the midst of a transition from the totalitarian structure of the Soviet era to a proto-democracy. After the demise of the Soviet Union in 1991 the Russian people gained some freedoms, however, for the average citizen, social and economic conditions worsened considerably in the early post-communist era. As the economic controls of centralized government were eased, prices for basic necessities rose dramatically (see Exhibit 4). Post-Soviet Russia is slowly striving to create a civil society and restore the family and other basic institutions as functional units within the society.[9]

Russia inherited the state-owned telecommunications infrastructure from the Soviet Union. Under this system each region of the country had a single, relatively independent provider of local, long-distance, and international telecommunications, as well as data transmission (telegraph), TV and radio broadcasting, and postal service. During the Soviet era, the telecommunications industry experienced under investment because the governments was more interested in their cash generating activities rather than treating them as businesses to be developed. Profits were not re-invested for long-term returns rather; funds were diverted to cover immediate government expenditures. There was significant competition for investment from the high-status industries such as steel, industrial equipment, and military hardware. It was not politically expedient to make needed staff cuts so overstaffing became a problem payroll expenses were higher than they should be resulting in lower than potential return on investment. Subsequent to the Gorbachev period, the telecommunications sector has served international business interests in Russia, resulting in, very advanced pockets of telecommunications infrastructure, which are unconnected to the telecommunications, needs of ordinary citizens.[10]

During the 1970s, the Soviet government initiated a program called the Unified Automated Communications System with the objective of improving the overall performance of the Soviet telecommunications network by consolidating the diverse networks that had been previously constructed. This initiative met with very little success. Up until the mid-1990s, the former departmental networks were still in existence and were not integrated with the rest of the telecommunications systems. [11]

During Perestroika, initiated by Mikhail Gorbachev during the period 1985 through 1991, the Soviet government sought assistance from overseas service providers and equipment producers to establish joint venture projects in the Soviet Union and allow the

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[9] "Russia – A Country Study" Library of Congress – Federal Research Division, downloaded from http://lcweb2.loc.gov/ on June 6, 2001

[10] W. Russell Neuman, Franklin Miller, Shawn O'Donnell and Brian Regli, "The Future of Russian Telecommunications Infrastructure: Toward an Open Communications Environment" White Paper, June 1995, downloaded from http://www.freedomchannel.org/whitepaper.html on April 16, 2001.

[11] W. Russell Neuman, Franklin Miller, Shawn O'Donnell and Brian Regli, "The Future of Russian Telecommunications Infrastructure: Toward an Open Communications Environment" White Paper, June 1995, downloaded from http://www.freedomchannel.org/whitepaper.html on April 16, 2001.

telecommunications sector to serve international business interests. On June 1, 1990, the Soviet Government gained observer status in the General Agreement on Tariffs and Trade. This development presented opportunities to gain access to higher levels of technology than was previously attainable. Accompanying this was the first wave of overseas investment in the telecommunications industry. Initially Equipment manufacturing received the most significant investment with companies like Siemens and Alcatel, both establishing manufacturing plants in the Soviet Union. On the service side, international carriage attracted the most significant investment. The most notable investment was the 50/50 project, which had as its goal the laying of 50,000 kilometers of fiber optic cable to create a modern network. [12] Exhibit 5 shows a timeline of major events in the Russian telecommunications industry.

Today, the Russian telecommunications market has great potential. The industry attracts domestic and foreign investment and is one of the most dynamic sectors of the national economy following oil and natural gas. Russia's telecommunications market is still not up to the standards of most industrialized countries with infrastructure and services that vary greatly from region to region. There are basically four kinds of networks currently in operation in the Russian telecommunications market[13]:

1) Local Telephone Networks – Analog public switched telephone networks

2) Digital Overlay Networks - use of fiber optic or digital microwave technology by service providers in an effort to bypass the public switched telephone network.

3) Departmental Networks – Revitalization of individual communications networks constructed by each of the government ministries and the military that now employ them for business use.

4) Cellular/Wireless Networks – Government licensed providers offering wireless communications services, such as paging and cellular telephone. Almost all of the cellular systems involve joint ventures, investments, or part ownership by foreign interests.

Digitalization networks reached 29% in 1999 for urban areas (primarily Moscow), while telephony service in rural areas remains almost 100% analog. Russia averaged 22 telephone lines per 100 people in 2000 and with six million people on waiting lists for basic telephone service[14] (see Exhibit 6). The number of mobile subscribers reached nearly 3.4 million in early 2001. However, the Russian telecommunications market remains severely underdeveloped, lagging far behind other markets in Eastern Europe, Latin America, Southeast Asia and the Pacific Rim (see Exhibit 7)[15].

[12] Jean-Pierre Vandromme, GTS/Sovintel, downloaded from http://www.amcham.ru/news15/15.htm
[13] W. Russell Neuman, Franklin Miller, Shawn O'Donnell and Brian Regli, "The Future of Russian Telecommunications Infrastructure: Toward an Open Communications Environment" White Paper, June 1995, downloaded from http://www.freedomchannel.org/whitepaper.html on April 16, 2001.
[14] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.
[15] Internal report provided by Mr. Rick Macy, 2001.

Keepers of the Russian Telecommunication Industry

Until 1993, the telecommunication sector in Russia was completely controlled by the Russian Ministry for Communications. In 1993, the telecommunication units for the county were privatized such that each of the administrative units was allocated a telecommunication provider. 85 such providers, also referred to as Electrosvayz, were formed. These Electrosvayz were the purview of Rostelecom, which became the single largest national network operator. The Electrosvayz were privatized according to the following model: 51% of the company common shares were kept by the state, 10% of the common shares were sold to companies, 5% of the common shares were given to the company management, and 25% of the shares were given to the employees in the form of preferred shares. The leftover 22% of common stock were sold by regional property funds. [16]

Subsequently in 1995, the government formed the Svyazinvest, a holding company that consolidated state-owned shares of all 85 regional telecommunications providers. The government held 51 percent of Svyazinvest, with the remaining shares intended for sale at auction.[17] Later Svyazinvest received, among others, the shares of Rostelecom, the owner of the national backbone network.

When Vladimir Putin gained power in Russia, he began installing people of unquestionable loyalty in key positions in Russia's largest enterprises. This included the telecommunications sector. In late 1999 fellow Leningrader, Leonid Reiman was installed as the head of the Russian Federation State Telecommunications Committee (later made the Ministry of Telecommunication and Information Technology). A month later Valery Yashin, Reiman's former boss at St. Petersburg Telephone was installed as general director of Svyazinvest.[18] In June 2000, Communications Minister Leonid Reiman was elected as board chairman at Svyazinvest, and Valery Yashin, was also made chairman of the board at Rostelecom, the national long distance operator, which is owned by Svyazinvest.[19] Finally, in March 2001 Mr. Sergei Kuznetsov, former general director of PeterStar was made the general director of Rostelecom.[20] This action gave former St. Petersburg Telecommunication executives (and allies of Vladimir Putin) control of the three entities that control the destiny of Russian telecommunication: the Ministry of Telecommunication and Information Technology, Svyazinvest and Rostelecom.

Ministry of Telecommunication and Information Technology

During the Soviet period, the state controlled all means of communications and used them primarily to convey decisions and to facilitate the execution of government directives affecting the economy, national security, and administrative governmental functions. The Ministry of Communications had responsibility for most nonmilitary communications, and the

[16] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.
[17] Maria Breiter, http://www.bisnis.doc.gov/bisnis/isa/9807teco.htm, 1998
[18] "St. Petersburg To Take Over Telecom Giant Svyazinvest," The Current Digest of the Soviet Press, October 20, 1999
[19] Melissa Akin "Putin Allies To Run Top Telcos' Boards," The Moscow Times, June 27, 2000
[20] "End of the Road for PeterStar?" St. Petersburg Times, Feb 27, 2001 (p. 11)

Ministry of Defense controlled military communications. Other ministries, including the Ministry of Culture, controlled specialized elements of the communications infrastructure.[21]

Under the Russian Federation the regulatory framework for telecommunications remains weak. The Law on Communications, enacted in 1995, is the chief statute regulating civilian telecommunications. In November 1999 the Russian Ministry of Information Technology and Telecommunication was created and given responsibility for the telecommunications sector. The Ministry is headed-up by Mr. Leonid Dodojonovich Reiman. Since 1985 Mr. Reiman has taken chief administrative positions at the Leningrad City Telephone Network. From 1988 until 1999 he has been aide to the Network's Director, Chief Engineer of the Network, Director of international affairs, Director of investments, First Aide to the St. Petersburg Telephone Network's General Director.[22]

In December 2000, the Ministry of Telecommunication and Information Technology approved a blueprint for the development of the national telecommunications services market (MinCom Plan). The MinCom Plan should allow industry to meet the growing market demand for telecommunications services, improver the national telecommunications infrastructure, and bring telecommunications services to every town in Russia. The goals of the plan are to create a fair competitive environment and increase the efficiency of telecommunications operators. The government proposes to accomplish these goals through more effective industry regulations.[23]

The regulatory issues facing the Mr. Reiman and Ministry of Telecommunication and Information Technology include frequency assignments, standardization of equipment, levels of competition, and establishment of optimal user rates.[24] For example, the fixed monthly user fee for basic telephone service, the main source of financing telecommunications infrastructure improvement, is currently regulated such that the local telecommunication provider only recoups only 70-80 percent of the costs. The situation is worsened further by the fact that one third of users pay even less as they qualify for various social benefits. As a result public telecommunications networks are deteriorating. Russian operators successfully lobbied for a metered use payment schedule for local calls, which will be introduced in 2001. While per-minute billing for local calls will help traditional operators, it will hurt many local ISPs as the traditional operators will be able to offer cheaper Internet access.[25]

The Ministry of Telecommunication and Information Technology also has responsibility for the maintaining the government's interests in Svyazinvest and Rostelecom.

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[21] Downloaded from http://www.europeaninternet.com/russia/ on May 31, 2001

[22] Vladimir Kozlov, "Creation of a favorable investment climate", The Russian Journal, December 2-8, 2000 page T3.

[23] Inna Nazarova, "Russia Announces Blueprint for Development of its Telecommunications Market" U.S. Commercial Service, March 1, 2001 downloaded from http://www.bisnis.doc.gov on March 21, 2001.

[24] Downloaded from http://www.europeaninternet.com/russia/ on May 31, 2001

[25] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.

Svyazinvest

On October 10, 1994, a presidential decree suggested the consolidation of government position in telecommunication sector. Under the auspices of this decree, on September 18, 1995, a holding company Svyazinvest was founded, by consolidating the government shares in all the local fixed monopolies in telecommunication and the regional telecommunication providers. The operating activities of Svyazinvest include the coordination of the operating and financial activities of its subsidiaries to ensure the development of the telecommunications network, the management of the investment projects in its subsidiaries, and the coordination of the activities of its subsidiaries and those of professional market makers to stimulate a liquid telecom stock market.[26]

Svyazinvest is a holder of between 19 and 51 per cent share in each of the joint stock companies included in its membership. Once established, Svyazinvest reached out and acquired 51 percent of the shares in Rostelecom, owner of the national backbone network. By 1996 Svyazinvest had a controlling interest in the 85 regional telecoms and in Rostelecom - the nationwide backbone operator. Svyazinvest also has shares in, but does not control, the Moscow City Telephone Networks (MGTS), Sakhalinsvyaz, Kostrama GTS, and Komi Republic Telecommunications Company.[27] The major Svyazinvest subsidiaries (based on operating income) are Rostelecom, Moscow International Telephone (MMT), Moscow Telephone (MGTS) Electrosvyaz (Moscow), St. Petersburg Telephone (PTS), Kubanelectrosvyaz, and Svyazinform (Samara). [28]

In July 1997, the Russian government began privatizing Svyazinvest by divesting 25 percent plus one share of the Company's stock to help raise the required hard currency to modernize this sector. The Cyprus based consortium Mustcom lead by billionaire financier George Soros purchased the stock. Of the $1.875 billion raised from the sale, only $95 million were actually applied directly to telecommunication sector through Svyazinvest, and the remainder was taken into the government budget.[29]

The Russian government planed top further privatize Svyazinvest (25% minus 2 common shares) in 1998 but it was called off due to Russia's announcement of default on foreign debt and subsequent devaluation of the Ruble. It is possible that this second stage of privatization will go forward in 2002. Industry experts believe that Svyazinvest should go through the second round of privatization. However, some government officials oppose the loss of control over regional operators because they believe it would signal the state's exit from the telecommunications

[26] "An Embattled Sector" Business and Management Practices: Telecommunications International Edition, Horizon House Publications, Inc., October 1999.
[27] Maria Breiter, "Privatization of Svyazinvest Holdings in Russia", U.S. and Foreign Commercial Service, August 19, 1999. downloaded from http://www.bisnis.doc.gov/bisnis/isa/9909szinv.htm on March 21, 2001.
[28] "An Embattled Sector" Business and Management Practices: Telecommunications International Edition, Horizon House Publications, Inc., October 1999.
[29] Maria Breiter, "Liberalization and Privatization of Telecommunications in Russia", U.S. and Foreign Commercial Service, August 31, 1999. downloaded from http://www.bisnis.doc.gov/bisnis/isa/tellib.htm on March 21, 2001.

industry. In early 2000, President Putin reportedly instructed the Minister of Communications to begin to structure the deal.[30]

Svyazinvest is among the most profitable Russian companies and had a net profit of US$ 1.2 billion in 1997. However, as a result of the August 1998 crisis in Russia 35 out of the 87 Svyazinvest companies became effectively bankrupt (See Exhibit 8).[31] In 1999, the government began taking steps to increase its influence over Svyazinvest. Former head of St. Petersburg Telephone Network (PTS), Valery Yashin was brought in as the chairman of the Svyazinvest board, a move that also places him on the boards of all its subsidiaries.[32]

The key issues facing Svyazinvest as it enters 2001 is the fragmentation of the market and the need to consolidate at the regional level. The regional governments have so much power that it is very difficult to institute the reforms necessary to improve the Russian telecom sector. However, Svyazinvest does seem to be moving towards restructuring the 88 regional telecommunications companies into 8-12 interregional operators.[33] The purpose of this consolidation would be to create larger, more efficient and better-managed companies, which should become more attractive to domestic and foreign investors. However, many of the regional operators are not in favor of the upcoming consolidation and their resulting loss of control.[34]

Rostelecom

When Russia began privatizing the telecom industry the state-owned international telecommunications operator JSC Intertelecom was split off from the local telephone companies and became Rostelecom. The privatization of Rostelecom included distributing 25 percent of preferred shares free to Company's employees, selling about 10 percent of common shares to Company's employees, and selling 5 percent of the voting common shares to Company's management. 22.1 % of all shares were auctioned through the All-Russia voucher auction in March-April of 1994. The Russian government retained 38 percent of Company's shares, representing about 50.6 percent of voting shares, and thus maintained control over Russia's long-distance and international telephone services.[35]

Rostelecom is the largest communication company of Russia, national operator of long-distance and international telecommunications and leader in the Russian telecommunication service market. Rostelecom provides long distance and international telecommunications services. It controls approximately 95% of Russia's long-distance telephone market and has an 85% market share in outgoing international telephone calls. Widely recognized in the world

[30] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.
[31] Maria Breiter, "Privatization of Svyazinvest Holdings in Russia", U.S. and Foreign Commercial Service, August 19, 1999. downloaded from http://www.bisnis.doc.gov/bisnis/isa/9909szinv.htm on March 21, 2001.
[32] Denise Bedell, "Building your telecoms strategy in Russia," Corporate Finance: June 16-18, 2000.
[33] Denise Bedell, "Building your telecoms strategy in Russia," Corporate Finance: June 16-18, 2000.
[34] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.
[35] Downloaded from: http://www.vfp.ru/surveys/russia/rostel.phtml

telecom market, Rostelecom cooperates closely with foreign operators and participates in major international telecommunication projects.[36]

Exhibit 9 shows a diagram of an International phone call. Revenues from long distance and international service are shared between Rostelecom and regional local telephone providers, and the local telephone providers retain all local revenues. In addition, Rostelecom is a leading data and Internet service provider in Russia. The company controls over 50% of the total Internet market's capacity. [37]

When Rostelecom was formed Russia had 1,000 international lines (only 0.3 percent were digital). By 1996, Rostelecom owned 51,000 digital lines and operated 12,000 international digital lines (see Exhibit 9). Rostelecom controls more that 90 percent of international connections for Russian customers and provides international connections to more than 200 countries. Rostelecom uses 1,500 satellite lines leased mainly from Teleport TP and Russian Satellite Communications Company.[38]

The company is continuing to modernize the long distance telecommunications trunk network by connecting Rostelecom's primary network with regional operators, as well as constructing additional digital exchanges and adding high capacity telecommunications lines. These modernization efforts should improve the efficiency and productivity of the company and improve the quality and reliability of the services provided. Rostelecom also has plans to build a national pay phone network. The new system will work on a chip card that can be used in any city [39]

In addition to improving its telephone operations, Rostelecom is enlarging the types of value-added services it offers, including facsimile, data transmission, paging, e-mail, multimedia services, access to Internet system, and IP-telephony.[40]

Rostelecom's profit in 1999 was 1.9 billion rubles ($68 million), compared with a loss of 15.1 billion rubles in 1998. The company restructured debts and reduced its interest bearing loans to 12.5 billion rubles in 1999. [41] Rostelecom's stock is traded on the New York, Berlin, Frankfurt, Dusseldorf, Stuttgart, Bavarian, Hamburg and Chicago stock exchanges (see Exhibit 11).

As Rostelecom enters the 21st century will be dealing with increased competition from both independent operators (like PeterStar) and other government agencies eager to have a part of the lucrative telecommunications sector according to Kirill Skokov, deputy general director of Rostelecom [42] For example, a nationwide fiber-optic communications network has been created

[36] Downloaded from: http://www.rt.ru
[37] Maria Breiter, "Liberalization and Privatization of Telecommunications in Russia", U.S. and Foreign Commercial Service, August 31, 1999. downloaded from http://www.bisnis.doc.gov/bisnis/isa/9909tellib.htm on March 21, 2001.
[38] Downloaded from: http://www.ceo.spb.ru/eng/business/kuznetsov.s.i/about.shtml on March 21, 2001.
[39] Downloaded from: http://www.rim.com.cy/rostelecom.htm on March 21, 2001.
[40] Downloaded from: http://www.rim.com.cy/rostelecom.htm on March 21, 2001.
[41] Downloaded from: http://www.rim.com.cy/rostelecom.htm on March 21, 2001.
[42] Moscow Times, February 28, 2001.

by the Russian Railways Ministry (MPS). The ministry plans to use the built network as an information media for the country's whole transport system and also to lease surplus capacity to other users.[43] Rostelecom is currently blocking these plans, however, it is not clear how long they will be able to maintain their monopoly long-distance telecom provider status. In addition to facing increased competition in the long-distance market, Rostelecom is also facing threats in the Internet market. Rostelecom may lose part of its wholesale Internet business to a newly formed company, RTCom.ru, which is set to become the national ISP operator. Svyazinvest has inspired the creation of RTCom.ru. Rostelecom will provide the long-distance infrastructure but will only hold a small indirect stake in the project, while Svyazinvest and a number of regional telecommunications companies will be given over 50 percent.[44] It remains to be seen if newly appointed Rostelecom general director, Sergei Kuznetsov will act in the best interests of Rostelecom when addressing these threats, or if he will allow his relationship with his former St. Petersburg allies, Reiman and Yashin to influence his decision-making.[45]

Telecommunications Prospects in Russia

Telecommunication prospects in Russia continue to be good. As of early 2000, there were 6,150 licenses issued to provide telecommunications services. In 1999 telecommunication industry revenues were generated by the following services [46]:

International & Domestic Long-Distance Calls	44.2%
Local Telephony	27.5%
Wireless Communications	21.2%
Other Services	7%

The main trends in the industry are a transition from analog to digital technologies, system integration of telecommunications and IT networks for corporate customers, introduction of value-added services, and increasing customer service standards. Russia estimates it will need to spend 33 billion over the next 10 years to upgrade existing telephone lines and to provide service to regions that do not as of yet have long distance telephone service (e.g. 54,000 towns in Russia do not have phone access).[47] The fastest growing segments of the market are mobile services and Internet technologies. Industry experts expect the market share of voice communications to decrease and that of data transmission to increase significantly (see Exhibit 10).[48]

[43] **"**Russia: Russian Railways Ministry has built a fibre-optic communications network." Moskovskie Novosti: 14, January 09, 2001, downloaded from http://rdsweb2.rdsinc.com/texis/rds/suite/ on June 5, 2001.
[44] "Russia: Rostelekom may lose part of its wholesale Internet business to RTCom.ru" Inzhenernaya Gazeta: 4, April 24, 2001, downloaded from http://rdsweb2.rdsinc.com/texis/rds/suite/ on June 5, 2001.
[45] Andrei Bogdanov, The Moscow Times, February 28, 2001.
[46] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.
[47] Inna Nazarova, "Russia announces blueprint for development of its telecommunications market," U.S. Department of Commerce, March 1, 2001. Downloaded from http://www.bisnis.doc.gov on March 21, 2001.
[48] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.

The mobile communication market was valued at $2.1 billion and experienced 152 percent growth in 2000.[49] In the late 1990's mobile penetration had been limited by low disposable income (especially in rural regions), but as the economic situation in Russia improves, more people will be able to buy mobile phones (see Exhibit 11). In addition, these services have become cheaper and, therefore, affordable to more people. The average revenue per mobile subscriber has steadily declined since 1997 (see Exhibit 13). This has caused a dramatic increase in cellular subscribers. The difficulties of getting a regular fixed line to one's home also contribute to wireless segment growth. The number of cellular subscribers is predicted to grow from 3 million in 2000 to over 15 million in 2009 (see Exhibit 14).

Currently, 95 percent of cellular users use them for voice communications only. Only two percent use short messaging service (SMS). Wireless operators promote value-added services and invest resources in customer education. The North-West GSM offered its clients weather forecast and foreign exchange updates, free for a 3-month introductory period. Moscow Cellular Communications (NMT-450) offers SMS and is planning to launch a WAP service. [50]

The total market for Internet technologies was about $450 million at the end of 2000. [51] There are over 350 Internet Service Providers (ISPs) in Russia. Traditional telecom operators are typically the largest ISPs in the regions. However, there are also a number of alternative operators that target corporate customers by offering higher speed access at a higher price. The ISP market in major metropolitan areas is quite mature; over 100 companies provide dial-up Internet access services in Moscow alone. The competition has forced down access fees, which should help continue the growth of the Internet access sector. [52] It is expected that Internet access revenues will grow by 30 percent until 2005 and data communication revenues will grow by 44 percent. [53]

The majority of Internet users access the web through a dial-up modem connection; however, other technologies, including ISDN, ADSL and WAP are available in the market. The fact that there are many people waiting for basic service in new real estate developments of Moscow may also spur the demand for wireless, cable TV and satellite Internet access. [54]

As the Russian telecommunication industry enters the new millennium, it is increasingly apparent that big changes are coming and that the keepers of the Russian telecommunication (Reiman, Yashin and Kuznetsov) will play an important role in defining the destiny of companies like PeterStar. Leonid Reiman, a pragmatist, who has bold plans to bring the Russian

[49] Maria Chernobrovkina, "Telecommunications in Russia/Adam Smith Conference in St. Petersburg," U.S. Foreign and Commercial Service – February 7, 2001.
[50] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.
[51] Maria Chernobrovkina, "Telecommunications in Russia/Adam Smith Conference in St. Petersburg," U.S. Foreign and Commercial Service – February 7, 2001.
[52] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.
[53] Maria Chernobrovkina, "Telecommunications in Russia/Adam Smith Conference in St. Petersburg," U.S. Foreign and Commercial Service – February 7, 2001.
[54] Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000.

market in line with global standards and expectations, is driving changes in the telecommunication industry. Mr. Reiman expanded on his views during a keynote address at the World Telecommunication Policy forum on March 7, 2001. In his speech he indicated that a "new version of the Federal Law on "Communications" is being prepared … We are planning over the coming ten years to invest more than USD 30 billion in the development of communications, about half of which is expected to be provided by national operators and half by foreign companies."[55] The new law regulating telecommunication will have a significant impact on how PeterStar conducts and reorients its business. Furthermore, from a financial perspective an increase in investments to the $30 billion mark reads as an opening up of new opportunities in this sector, making it more important that ever for the Russian economy.

Recent history for PeterStar however suggests that it needs to approach the upcoming industry changes with cautious optimism. In regulated industries in Russia, companies need influence at the state level.[56] PeterStar experienced a lack of influence when they lost much of their cellular traffic to the Telecominvest controlled PTT. The question is: how will Sergei Kuznetsov and Rostelecom treat alternative operators like PeterStar and how will Rostelecom leverage its position in the market?

An additional concern related to PeterStar's future is with the expected increase in investment in the telecommunication sector industry insiders are predicting a 2-3 fold increase in the number of companies providing telecommunication-oriented services in the coming decade. This increased intra-industry competition should improve telecommunications prospects for the Russian consumer. However, PeterStar must be prepared to continually adapt to compete with the onslaught of new competitors in the ever-changing Russian telecommunications sector.

A final concern is that the rapid growth and changes in the basic telecom technology itself requires companies to continually upgrade or be left behind. An advantage that PeterStar has over some of its current and potential customers is its ownership of a 1000 Kms of fiber-optic cable that it owns and the over 10,000 business customers it currently bills. These advantages now need to be leveraged, as the PeterStar management considers extending their stake in Russian telecommunication via an increased emphasis on Mobile computing, ISP services, Voice over Data and E-business technologies and infrastructure offerings.

It is in this rapidly changing telecommunication environment that PeterStar has to chart its survival and growth plans. As Nikolai Korolev contemplates PeterStar's future, he will see his decisions and strategies being shaped by a variety of forces, regulatory, financial, intra-industry competition, and technology. How he responds to these forces will help determine if PeterStar can succeed in the complex Russian telecommunications industry.

[55] http://www.itu.int/newsroom/wtpf/presentations/reyman.html - March 7, 2001
[56] The St. Petersburg Times, March 1, 2001

Questions for students to consider when preparing for this case

PeterStar has a number of challenges ahead of them as they strive to succeed in the emerging Russian telecommunication sector. As we consider the situation for PeterStar, both organizational and technological issues need to be addressed:

Organizational issues:

1. How can PeterStar pursue strategic alliances with major players in the telecom sector to give them an edge in the rapidly changing regulatory and competitive environment?

2. What is the importance of Sergei Kuznetsov leaving PeterStar? What would be attributes they consider in selecting their new general director?

3. Is "complete solutions" a viable strategy in the future for PeterStar given the changing nature and alliances in the telecommunication sector?

4. Should they strive to be on the cutting edge of technology or reorient themselves away from a technology and more towards being a business solutions provider?

Technological issues:

5. How should PeterStar reorient itself from a technology perspective to take advantage of the changes in the Russian telecommunication market?

6. What specific growth areas should PeterStar target, other than Cellular, given the up coming regulatory changes and the introduction of new players in the telecom sector?

7. How can PeterStar use its technological advantage to continue to dominate the St. Petersburg business telecommunication market? In particular consider their existing technology infrastructure and the implications thereof.

Russian Context Issues:

8. How will the upcoming regulations in the Telecommunication sector impact the market viability of PeterStar? Can it impact the process and content of future legislation?

9. How does the complex nexus between Svyazinvest, Rostelecom, the Ministry of Telecommunication and Telecominvest impact PeterStar? Is the new General Director equipped to deal with the challenges that are upcoming based on the actions of this combination of government bodies?

10. Evaluate the impact the proposed Telecommunication Act in Russia and its future impact on the Telcom entire sector. Asses the impacts on businesses like PeterStar?

Exhibit 1 – PeterStar History

1992
• Foundation of PeterStar
1993
• Provision of telephone numbers 117-, 119- based on the switch manufactured by a British company GPT
1994
• Incorporation of PeterStar's exchange to the existing digital node • Construction of a new node for 100K numbers on the basis of equipment of an American company AT&T (now Lucent T.) • Construction of the digital fiber optical network integrated into the city telephone network • Official communication provider of the Goodwill Games • Creation of a card pay-phone network
1995
• Putting into operation of a 100K node on the basis of the AT&T 5ESS exchange • Beginning of the provision of 325-, 327- telephone numbers
1996
• Extension of PeterStar's licensed territory to the whole northwest region and Moscow • Licenses for the provision of national communication, telematisc and videoconference services • Beginning of the provision of channels to access the Internet services rendered by WEBplus • Application of ISDN technology
1997
• Purchase of an ATM switch manufactured by General DataComm • Launching of the project on modernizing the city telephone network on Vassilievski island - changing 30 thousand telephone lines from the PTS analogue exchanges over to the PeterStar digital network • Beginning of the provision of videoconference services • Selling of all PeterStar payphones to a Petersburg telecommunication company BCL
1998
• Major part of the project on switching of appr. 23,000 lines of the subscribers and enterprises on V.I. • Replacement of the PeterStar exchanges' software to allow the application of the latest ISDN functions and intelligent network services; development of SS7 signaling support according to the latest international recommendations to obtain a wider range of services and improve their quality; open interface to connect access equipment. • Beginning of the provision of wireless access services on the basis of Tadiran Telecommunications equipment • Jointly with a Moscow company Comstar, beginning of the provision of the service "Direct Moscow Number" • Opening of a public videoconferencing with a professional videoconference equipment of an American company PictureTel • Launching of a new Call Center to improve the processing of customer requests • Introduction of a new Calling Card allowing calls from St. Petersburg and from Finland, Moscow and Novgorod • "Winner of Contest on Communication Service Provision Quality" in the nomination "Electric Communication Operators"
1999
• Got Certificates Nos. 212 and 213 of the State Technical Commission of Russia on the compliance of the PeterStar transport network management system with the requirements of the Guidelines of the State Technical Commission of Russia. • Data protection against unauthorized access • Classification of automated control systems and 1D-category data protection • Expansion of the PeterStar Calling Card geography to Finland, Germany, France, Belgium, Sweden, Norway and Australia • PeterStar calling card customers allowed to make telephone calls from Petersburg payphones without using a payphone card
2000
• New tariffs for routing services are introduced. • Opened access to subscribers of GSM mobile communication in the Tyumen Oblast and in the Stavropol Oblast and to subscribers of ZAO Kievstar-GSM in Odessa and to the Gastel network. • PeterStar launches voice services over data networks. DATAPHONE is based on the CISCO 1750 router.
2001
• Victor Ioseyevich Koresh replaced Mr. Kuznetsov as General Director beginning June 1 • Introduced a new local pricing policies: $20/month fee + per minute rate or $49/month fee with local calls free • Began offering ISP services.

Source: PeterStar – www.peterstar.com, June 4, 2001

Exhibit 2 – PeterStar's Key Customers

- Grand Hotel Europe
- Nevski 25 Business Center
- Sweeden House Business Center
- General Consulate of Great Britain
- BNP - Dresdner Bank
- Price Waterhouse - Coopers
- DHL
- Sberbank of Russia
- Promstroibank
- Bank Petrovski
- SPb Monetary Exchange
- Leningrad Metallic Factory
- ABB
- Alcatel
- Siemens
- Lucent Technologies
- Motorola
- Philip Morris
- RJR
- Wrigley
- McDonald's
- Brewery Baltica
- Brewery Vena
- Dom Laverna
- Tex
- Ultra Star
- OCS Distribution Company
- Climat Prof
- Eurosib
- Medi

Source: PeterStar – www.peterstar.com - June 4, 2001

Exhibit 3 – Russian Map

Source: U.S. Central Intelligence Agency

Exhibit 4 – Russian Socioeconomic Indicators

	Unit	1994	1995	1996	1997	1998	1999	2000
Rural Population	Thousands	na	na	na	3385	33883	33250	32628
Urban Population	Thousands	na	na	na	11325	114034	113917	114306
Total Population	Thousands	148333	148097	147876	147656	147434	146723	146199
Trends in Total Retail Sales	Million rubles	198805	302337	402028	513343	668388	691784	719454
Gross Domestic Product	Million rubles	610750	1585030	2200230	2562600	2684510	4476000	4401400
Gross Personal Income	Million rubles	364834	910748	1339514	1618001	1875141	1804186	1776534
Net Savings	Million rubles	73287	101435	180201	240682	246676	217641	215046
Personal Disposable Income	Million rubles	340400	860500	1261700	1518100	1752785	1681298	1646332
Rates of Economic Activity	% total population	na	na	na	49.9	48.6	48.4	48.2
Unemployment Rates	% econ active pop.	2.2	3.2	3.4	3.9	12.4	14	14.1
Consumer Exp. Alcohol	Million rubles	19626	54220	82979	98149	123493	120368	119546
Consumer Exp. Telecom	Million rubles	1453	5742	10988	11505	17085	16769	16771
Consumer Exp. Food	Million rubles	107624	330908	467242	509604	613230	597118	592445
Possession Color TV Set	per 100 households	69	72	74	78	79	80	81.1
Possession P. Computer	per 100 households	3	3	3	4	5	5.2	5.3

Source: Euromonitor. (1999). Country Data: Russia. Retrieved June 1, 2001, from Global Market Information Database, http://212.240.205.5/

Exhibit 5 – Key Events in Russian Telecommunications

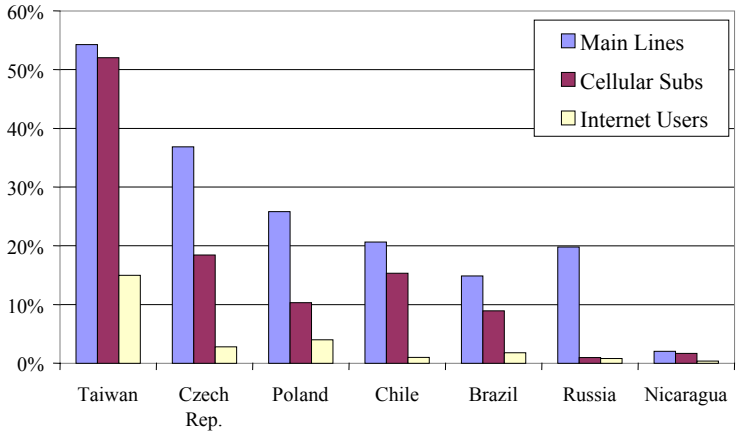
1990
• June - Soviet Government gained observer status in the General Agreement on Tariffs and Trade
1991
• Soviet Union disintegrates and fourteen former republics become independent nations. • The first regulations on certification of telecommunications equipment • The first cellular systems were introduced in Russia using the NMT-450 mobile standard.
1992
• S.I. Kuznetsov headed Russia's first cellular communication company, AO Delta Telecom. • October - ZAO PeterStar was founded • Vympelcom (Bee-Line trademark) implemented the AMPS mobile standard. • Yashin becomes general director of the St.Petersburg telephone network
1993
• Paging came to Russia • Local network operators were privatized in such a way that each region received one telecommunications provider. Rostelecom became the single national network operator, and 85 regional telecommunications companies were formed.
1994
• Kuznetsov's becomes Telecominvest's, first director. Valery Yashin and Leonid Reiman helped found Telecominvest
1995
• The Russian Law on Communications was adopted • Svyazinvest, a holding company that consolidated the government stakes in all of the 85 regional telecommunication companies, was created. • Federal Minister of Communications stated that the system of "Technical Means for Support of Operational and Search Activities" (SORM) should be established at all Russian-made and imported electronic switching stations for all phone networks
1996
• Digital line built from Moscow via St. Petersburg to Denmark. Optic fiber lines were built linking Russia to Finland, Estonia, Japan, South Korea, China, Turkey, and Italy
1997
• Svyazinvest, part privatized in July - 25% sale. The Cyprus-based consortium Mustcom won the tender, • Department on Certification of Communications Facilities and Services of Goskomsvyaz created a new procedure for telecommunications equipment certification, called "Electrosvyaz
1998
• August - Economic Crisis. Telecom companies profits plunge, debt grew, loans rescheduled and massive cuts in new investment • 1998 - Sergei Kuznetsov appointed general director of PeterStar, a subsidiary of Telecominvest. • 1998 – October - A.Nyago the general director of "The north-western GSM" is appointed as the general director of "Telecominvest"
1999
• Rostelecom takes over the Moscow International Long Distance Telephone company (the MMMT). • April - Oleg Belov, former Rostelecom General Director, was elected General Director of Svyazinvest • August - Rostelecom signed up with Teleglobe of Canada to provide a 52 Mbps fiber optic link to Teleglobe's backbone • Leonid Reiman becomes Russia's Minister for Communications and Computerization the year it was formed. • July - V. Yashin was named a new chairman of the association of the telecommunication operators of the Northwest region of Russia. He is also chairman of Board of Directors of Telecominvest. • July - Leonid Raiman, was appointed as Senior Deputy Chairperson of the STC. He was previously a manager of Telecominvest (St. Petersburg) and Senior Deputy General Director and Commercial Director of the St. Petersburg Phone Network, • Over one million registered cellular users in Russia, estimated that by 2002 there would be five million mobile users.
2000
• January - ZAO PTT started. 100% owned by Telecominvest PTT does not conceal its ambition to get a full control over wholesale market of telecom traffic. Takes over substantial portion of PeterStar's cellular traffic. • May 29 - BROAD-BAND ACCESS TO INTERNET ORGANIZED IN ST. PETERSBURG - built by three companies: Web Plus (which is mounting network and client ADSL equipment), PeterStar (which provided its transport ATM network) and St. Petersburg Phone Network (PTS). Telecominvest invests $1.8 MILLION.
2001
• March - Sergei Kuznetsov appointed acting general director of Rostelecom after former director Nikolai Korolyov resigned for health reasons

Exhibit 6 – Information on the Russian Telecommunications Market in 2000

Telecom	2000 estimate (millions)
Number of fixed phone lines, of which:	29.5
- are analog	21.7
- are digital	7.8
People on waiting list of phone installation	6.2
Number of mobile phones	1.7
Population	146

Source: Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000

Exhibit 7- Penetration of Main Telecom Services in Selected Countries



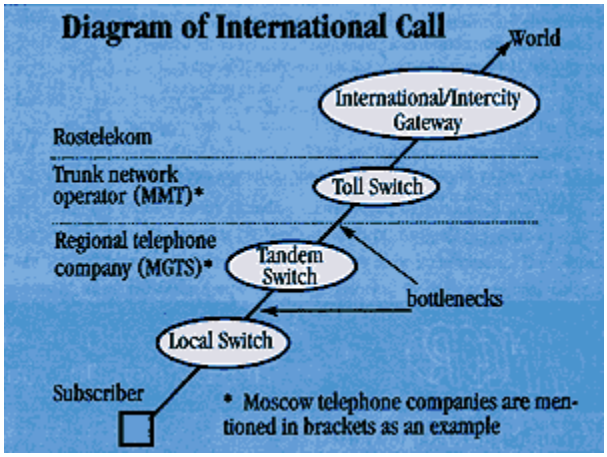
Source: Internal report provided by Mr. Rick Macy, 2001

Exhibit 8 – Financial Indicators for the Three Largest Companies in Svyazinvest (millions of Rubles)

Company	Official Profit 1997	Official Loss 1998
Rostelecom	2,626.7	-3400
Moscow City Telephone Network (MGTS)	805	-1847.9
St. Petersburg Telephone Network	250.3	-513.1
Exchange Rate (Ruble for US$)	6.21	16.7

Source: Interfax information agency and in Russia report of the Delovye Lyudi Magazine

Exhibit 9 – Diagram of a Russian International Call



Source: GTS/Sovintel (http://www.amcham.ru/news15/15.htm)

Exhibit 10 – Russian Telecommunication Indicators

	Unit	1994	1995	1996	1997	1998	1999	2000
Internet Users	Number	80,000	220,000	300,000	700,000	1,000,000	5,400,000	17,280,000
Cellular Users	Number	27,744	88,526	233,002	484,883	747,160	1,105,796	na
Internet Hosts	Number	6,537	21,940	58,091	152,620	182,680	230,176	na
Facsimile Machines	Number	18,618	30,610	65,246	57,600	52,900	52,000	52,246
Telephone Lines	Thousand lines	24,097	25,019	25,915	28,250	29,031	29,770	30,417
Telecom Investment	Million Rubles	1,405,000	4,491,000	6,716,000	9,000	12,000	23,054	na
Telex Subscribers	Number	7,205	11,470	23,126	40,400	26,500	22,525	na
National phone calls	Million calls	1,436	1,493	1,564	1,775	1,795	1,792	1,810
International Outgoing Telephone Calls	Million calls	138	187	113	139	140	154	155.1
% Digital Exchanges	% of lines	12.2	15.5	20	24.8	29	35	na

Source: Euromonitor. (1999). Country Data: Russia. Retrieved June 1, 2001, from Global Market Information Database, http://212.240.205.5/

Exhibit 11 – Rostelecom NYSE Stock Price History

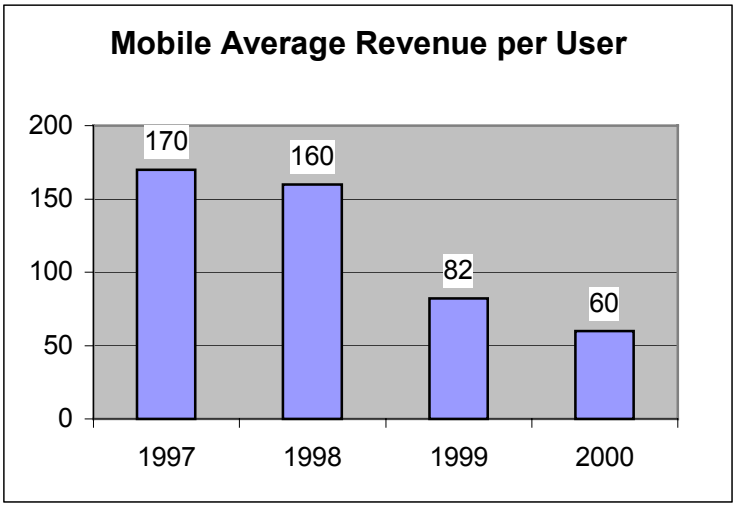
Exhibit 12 – Russian 2000 Salary Data ($US)

	Monthly Average Salary ($US)	Monthly Income per capita ($US)	Monthly Consumption per capita ($US)	Tax Receipts (% total)
Russian Federation	76	68	55	100
City of Moscow	115	267	267	26
City of St. Petersburg	88	79	68	3.6

* Figures are taken from the report of the Russian State Statistics Committee and are converted to $US using 27.6 rubles to 1 dollar. Although adjusted for under reporting this data may still be an underestimation of actual income and salary.

Source: Inna Nazarova, "Value Added Telecommunication Services" Industry Sector Analysis – U.S. Commercial Service – August 1, 2000

Exhibit 13 - Mobile Average Revenue Per User Declines In Russia



Source: Global Wireless, 3 (6): 29, November 2000, Crain Communications Inc.

Exhibit 14 - Predicted Growth in Mobile Telecommunication Subscribers

	2001	2003	2005	2007	2009
Moscow operators	3,085,500	4,480,500	5,255,500	5,875,500	6,495,500
St Petersburg operators	674,069	1,021,349	1,419,149	1,869,989	2,267,789
Other operators	942,831	2,186,751	3,777,951	5,581,311	7,172,511

Source: HSBC Security