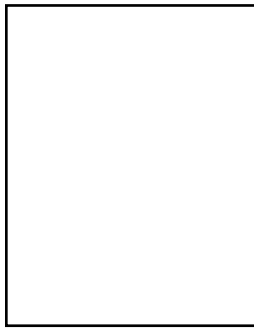


GLOBAL PERSPECTIVE

Developing a U.S. Telecom Presence in the Former Soviet Union

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While many eyes around the world are focused on the more familiar Western regions of Russia, especially Moscow and St. Petersburg, the really big business for telecom companies—whether they be equipment manufacturers, telecom service providers, or telecom financiers—seems very much to be elsewhere in the former Soviet Union (FSU). Who are some of the key North American players already hard at work on the scene? What strategies are they using to develop their market presence and to generate profits that can be repatriated after taxes take their bite?

Western companies establishing projects in remote regions of the FSU face real challenges in getting operations started. This is hard enough without also having to worry about how to deliver reliable telecommunications services in such difficult conditions. Western companies needing private networks have turned to several leading Western telecom firms to

provide turnkey telecommunications systems—including equipment, end-to-end service, licensing, installation and maintenance—for their business operations and offices inside the FSU. Each of these Western telecom service providers has become something akin to an in-country telecom department for the major Western operating companies, especially those in the oil, gas, mining, and hotel industries.

Entering the FSU Market

The many multinational telecom companies with offices and operations in the FSU—among them AT&T, Deutsche Bundespost, France Telecom, Sprint, MCI, and most of the others—have discovered one hard truth: Structuring commercial transactions, particularly ones that work, largely depends upon entering the market through the proper doorways and developing market presence with the appropriate partnerships. There are many ways a Western-headquartered telecom firm can organize and finance its FSU transactions:

- Some firms will choose to simply export their equipment.
- Others will license their technology to local manufacturers.
- Still more will focus on joint ventures to co-produce the equipment or to sell the services.
- The more adventurous will consider buying part or all of a local firm, some of them formerly state-owned and some state-run.

Choosing among these options is the single-most important decision any company will make in these countries. By looking deeply into local politics and

cultures, as well as the FSU's peculiar economics and legal framework, a firm from the West can unravel what lies behind each of these options. They can make clearer which choices are better and which are worse—whether it is picking a partner, selling to a customer, or investing in this marketplace.

Reforms in the FSU can be translated into profits only when a firm has mastered the essential elements:

- How the new rules really work.
- Vestiges of the old system that still survive.
- Who the key players are.
- Fatal pitfalls to watch out for.
- Coming changes for the better—and for the worse.

Assessing FSU investment and joint venture opportunities depends upon understanding firsthand how the economy and political system now works. It is also important that companies in the West integrate the lessons already learned by those who've gone down this road before. This means, in the end, avoiding becoming one of the horror stories by overcoming difficulties with creativity and patience. Western firms must design some ways to stay in tune with the latest and most important developments involving key people and local/national politics and policies surrounding commercial and business interests in the FSU. It takes more than good luck and connections to get a project approved today.

The Case of the Equipment and Systems Exporter—Hughes Network Systems (HNS), a subsidiary of General Motors

In July 1993, M-Tel, a Moscow-based telecom service operated by the Mannai Corporation, announced that it had placed an initial order of US\$6M worth of satellite networking equipment for customers throughout the FSU. M-Tel reports that it “now provides customers with fully meshed, call-by-call voice and data networking services over Russia's Raduga C-band satellite”—all with the help of more than a dozen HNS 2.4-meter Telephony Earth Station (TES) terminals, a TES Network Control System, and a network management facility. With HNS terminals deployed at customer premises inside various FSU republics, M-Tel delivers instantaneous voice and data communications via a single satellite hop. While Raduga's footprint extends further than Western-origin satellites into the farthest reaches of Central Asia and the Russian Far East, customers are able to gain access

to the worldwide Public Switched Telephone Network via a PSTN gateway in Denmark. Thereby, international calls can be placed without going through the central international switch located in Moscow.

M-Tel is a Russian joint stock company owned and operated by Mannai, along with MNPO ASTRA and SCEC, both of which are well-known entities within the FSU's own satellite marketplace.

In 1991, HNS sold nearly US\$1M worth of equipment to Telecom Denmark (a TES gateway and network control center). By providing a satellite hub earth station and remote antennas, the Danes could begin service on their new international telecom network linked to the FSU. It allows Western-based callers to access FSU-based businesses through assigned Danish phone numbers. It will also allow calls to be automatically routed through the international exchange to their destination. Initially, 15 remote and underserved sites lacking adequate high-quality voice and data lines were designated as stations for the network. The connections provided by the network are standard telephone channels operated over leased bandwidth on Eutelsat.

More recently, in 1993, HNS sold a digital wireless telephone system worth US\$48.6M to the Muslim and oil-rich Republic of Tatarstan for use in their major cities. Eleven regional cells employ HNS's high-capacity Extended Time Division Multiple Access (E-TDMA) technology which includes a GMH 2000R network, 50,000 subscriber terminals comprising 47,500 multisubscriber fixed terminal units for homes and businesses, and 2,500 mobile units. Arunas Sleky's (HNS vice president for digital cellular networks), the man who spearheaded the Tatar project, notes:

[T]his is a very exciting and strategically important program for both the republic and HNS. Digital wireless technology will enable them to leapfrog over conventional wire technologies and older analog wireless technology to provide high-quality voice and data services more rapidly and cost effectively. We are proud to have been chosen as suppliers in deploying this system through Tataria.

HNS owns a small piece of the operation in addition because, according to Sleky's, “part of the deal involves HNS helping establish a telephone operating company and eventually, if the volume justifies, a manufacturing facility in the republic.”

Since that initial Tatar deal, HNS has recently sold one GMH2000 digital wireless system in the Russian Pacific port city of Vladivostok under contract to a Russian firm called AKOS, a local operating company now majority owned by U S WEST. HNS is also currently installing one GMH2000 digital wireless system in the Russian Black Sea port city of Novorosiisk under contract to Telenovas and Techinfo, both of which are Russian-owned local enterprises. The Port Authority's own Novoport Trading Company is involved in the transaction. HNS has recently won a contract in the Russian city of Kurgan to supply one GMH2000 digital wireless system. All of these Russian orders are for combined fixed and mobile systems.

The Case of the Services Provider and Customer Solutions Specialist—IDB Worldcom, Inc.

Even before New Year's Day in 1995—when the firm was acquired by LDDS Communications/Metromedia and merged with Wiltel Communications—IDB, and most particularly its global telecom subsidiary IDB Worldcom, certainly ranked among the most aggressive and inventive of the small Western telecom firms operating in the FSU. It still holds that distinction today, even though it now exists inside a much larger telecom firm.

IDB began its activities in Russia in 1988 when Jeffrey Sudikoff secured a contract to broadcast via satellite a Billy Joel concert from Moscow. The U.S. telecast met with such great success that, when major news agencies saw the quality of the broadcast, they realized that IDB satellite communications capabilities could serve their needs for video, switched private line voice, and data links. Initial commercial service to the Soviet Union was to Moscow and St. Petersburg.

IDB WorldCom's service to Russia followed the company's rapid rise in status as a major provider of international voice, data, and video services. "The telecommunications sector of the Russian economy has evolved significantly since IDB's first project there in 1988," according to Jim McKenna, IDB vice president of government services. "When we first began operations in Russia, payment for services ran more along the lines of the barter system than the 'exchange of currency for service' agreements we are accustomed to in general."

As a U.S.-based telecommunications company, IDB's niche was initially to provide radio and television networks with point-to-point and broadcast

services no longer available from the dominant carriers. Headquartered in Culver City, California, it had assets before acquisition of over US\$900 million; in 1993, it had gross revenues totalling US\$310 million. IDB is the largest U.S.-based International Record Common Carrier for dedicated private line services, outranking AT&T, MCI, and Sprint in this service category.

While primarily satellite-based in the early years, IDB now has long-term fiber leases of two Mb/s to eight Mb/s to most developed countries. It utilizes satellite technology in underdeveloped regions, and employs a blend of satellite and fiber in Russia and elsewhere in the FSU.

IDB WorldCom now offers telecommunications service to a myriad of customers in strategic locations throughout the FSU. Interestingly, at present, IDB has no joint ventures in Russia or any of the other former Soviet republics. Instead, it operates in close cooperation with Russian State Companies such as Rostelecom, Russian Satellite Communications Company, Telecom Centre, MTLCC/GCU, and MGTS in order to complete customer circuits. William Wisniewski, vice president of IDB WorldCom in Rockville, Maryland, describes their unusual strategy:

In the transition years, IDB provided equipment in lieu of outpayments to many of these correspondents, along with expertise in retrofitting and maximizing use of existing Russian resources. IDB has similar broad agreements in Azerbaijan, Kazakhstan, and Uzbekistan, and is pursuing expansion of its operating authority in Ukraine and other key republics at present.

Consider the following:

In 1992, the Azerbaijan PTT granted IDB Communications Group with five-year operating agreements for the provision of switched voice and private line services between Azerbaijan and the West. Working with Azerbaijan operating companies Aztelcom and Teleradio, IDB has been providing modern and reliable international communications services to organizations working in Baku and other areas of Azerbaijan since August 1993.

IDB installed a 7.2-meter satellite earth station at a telecommunications tower located at Baku, Azerbaijan. The tower serves as the network collection point (NCP) for private line customers in the Baku region,

with connectivity between the NCP and customer location provided by digital microwave systems as well as four-wire copper facilities. The IDB earth station in Baku addresses the Statsionar 11 Russian owned satellite for direct reception in New York at IDB's Staten Island teleport.

For areas outside the Baku region, IDB provides customer-premise earth stations addressing the Statsionar 11 or five geosynchronous satellites. Signals carried by Statsionar 5 are received at IDB's gateway earth station in London.

The Statsionar 5 Russian C-band satellite is worthy of special mention due to its vital role in the development of the IDB StaCom communications service. Developed in coordination with the Russian Satellite Communications Company, Statsionar 5 links the United States and certain European cities to the Russian Federation and the FSU. This satellite also serves an area that includes the United Kingdom, Austria, Germany, Greece, Norway, Sweden, Eastern Europe, Turkey, Iraq, Iran, Afghanistan, and half of the FSU. Via the Staten Island teleport or the London earth station, dedicated private line services—including voice, fax, and data communications links—can be provided to any location in the world through Statsionar 5.

Also in 1992, IDB initiated service to Kazakhstan with the cooperation of Republican Center KazCom Technics (KCT) and operating companies of PTT Kazakhstan. The service provides dedicated private line and data communications service to London and, from London, globally. KCT, based in the Kazakh capital city of Almaty, specializes in designing, implementing, commissioning, operating, and maintaining digital switching and data transmission systems to include satellite and mobile communication systems. KCT formed an agreement with IDB to represent and coordinate these services to anywhere within the Republic of Kazakhstan.

In June 1994, IDB Communications Group announced the opening of the IDB WorldCom Representative Office in Moscow to coordinate the provision of international communications to those customers with their own offices in Moscow and throughout the FSU. Wisniewski indicates that "in light of IDB's substantial growth in the region, it was deemed necessary to establish a separate office to coordinate activities and to better serve the customer base in the FSU."

IDB WorldCom now provides international services to over 50 FSU customers in Lithuania, Moscow, Siberia, Azerbaijan, Kazakhstan, Uzbekistan,

the Baltic nations, Ukraine, Moldova, and Belarus. As Mary Burke noted in one of her in-depth integrated strategies reports on FSU telecom systems, "The scope of their FSU customer base is as diverse as the multitude of dynamic technological methods IDB utilizes to transmit voice, video, and data information around the globe." Applications range from facilitating diplomatic communications for the U.S. Department of State, to providing telecommunications services for the numerous international oil interests now focused on this region. It also allows for the delivery of reliable communications links for publishers and news agencies from countries around the world.

IDB has been active in the FSU since 1987. For some time, it has had a representative office in Moscow to look after the interests of its various divisions. By far, the most active division in this region is IDB WorldCom, with over 55 customer circuits operating on the following established satellite routes: Moscow to London, Moscow to New York, Almaty to London, and Baku to New York.

Western commercial accounts include the global news networks, Mobil Oil, Amoco, Halliburton, Baker McKenzie, and many others. One notable Russian commercial account is DEMOS+, a Moscow-based Internet access provider which connects to the New York node of an Internet access provider via IDB facilities. Wisniewski highlights two customer contracts as among the most important among the many clients utilizing the services:

IDB operates an international T-1 interconnection for NASA to support joint Russian-American space activities, and we have recently been awarded an additional E-1 circuit on the same route to augment the network. The U.S. State Department uses IDB 64K circuits for critical voice and data access to missions in six of the FSU republics.

Wisniewski points out that, "In addition to providing private line access to Russia and other republics via satellite, IDB WorldCom provided access to the FSU's telephone network as early as 1992, with over 160 telephone trunks available today via satellite and fiber optic cable."

The company is currently involved in the NASA/Mir space mission for the benefit of the scientific and medical communities around the globe. "The Mir space station project is an excellent example of how our two countries can work together to accomplish

great tasks for the global community, as well as successfully building strong, profitable business ties,” said McKenna of IDB government services.

Data and voice transmissions come in from Russia to the United States from a nine-meter antenna operated by IDB’s counterparts in Russia through Stationsar satellites. These transmissions arrive in the United States at the IDB teleport at Staten Island. The voice and data telecommunications transmissions are then transferred via the Wiltel U.S. domestic fiber optic network to the Marshall Space Flight Center at Huntsville, Alabama, and the Goddard Flight Center in Maryland. The signal is then distributed via the NASA satellite system to agencies throughout the United States.

Video transmissions from the Mir space station downlinks to the same nine-meter earth station in Russia, and are then transmitted back up to an INTELSAT satellite. The transmissions arrive in the United States again at the IDB Staten Island teleport. From the New York teleport, the Mir video transmission is uplinked to an IDB domestic satellite and is delivered to the Johnson Space Flight Center in Houston, Texas.

The Russian Satellite Communications Company is heavily involved in the development of quality telecommunications networks throughout the region. Now, the business protocol is much more formalized. What was once a rather awkward atmosphere in the wake of Cold War tensions between the East and the West has evolved into one conducive for the development of a high-quality telecommunications network in this newly-developing region of the world.

What Have These Companies Learned?

THE HNS EXPERIENCE

- (1) For HNS, the key ingredient to successful business in the FSU has been finding the right customer, such as an oil-rich republic or a growing seaport, especially one that is capable of paying the costs of importing an expensive, Western-made technological solution.
- (2) Selling a new and complex system solution to a telecom problem of the type Russians now have is not an easy matter. There is tremendous competition from many others in the industry who also want to sell to the same oil-rich republic or growing port city. It helps a great deal that HNS

technology lives up to its promise, and allows the customer to leapfrog over years of expensive development others have already gone through.

THE IDB EXPERIENCE

- (1) Importing a specific Western-made technological solution has not worked well. Rather, the focus has been on imaginatively designing solutions that involve a mix of Western capabilities and tools with the intelligence and technical capabilities present within the market itself—such as the Intersputnik system of satellites now owned and operated by the Russians.
- (2) Developing relationships with the PTT and the carriers (the official government organizations seeking revenues from the sale of minutes of voice traffic) has been a key element in the successful search for a profitable FSU business niche. This is true even when the primary customer base has been Western corporations operating within the FSU for their own business reasons.
- (3) There is no urgent need to form joint ventures, as long as the governmental organs of power overseeing the telecom sector are comfortable with the service provider (in this case, IDB) and feel they are getting their fair share of the revenue stream generated by the voice traffic. As the authority structure changes and the most enterprising of the key officials move into the private sector, they can be collaborated with—again, without necessarily having to create a joint venture company.
- (4) In all projects, IDB provided turnkey services including design, procurement, systems integration, liaison with regulatory bodies, installation, commissioning, and maintenance of systems. IDB deploys systems that integrate a number of other companies’ technologies to fulfill a customer’s voice and data requirements, according to their specific needs. This is much more productive for all concerned—customers and IDB—and a more flexible option than HNS’s approach of finding a site where a paying customer will buy one specific set of solutions.
- (5) With these resources, and with its international gateways in Europe and Moscow, IDB combines elements from its private and shared network facilities to configure communications solutions for Western companies working in the FSU.

As reforms continue at varying levels and degrees inside each of the FSU's 15 republics, many of the West's telecom industry giants—and many of the smaller adventurous firms—have faced the fact that such transitions are, by their nature, never clean and always messy affairs. Since no one has ever attempted this before, none of the Western firms has any special monopoly of knowledge on the outcome of the privatization and systems upgrade efforts. Since the rules are being made up as we go along, there is room for frustration and also room for innovation.

The outcomes of the wrenching change processes underway are unknown—but the indigenous wealth (measured not only in natural resources but in developed human capital) is a measurable factor that firms are banking on. When the history of the last days of the 20th century are written, there will be many chapters. At least one, and possibly several of them, will be written around the central role telecom played in creating freer markets, freer societies, freer minds—and a group of richer companies. nto