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Czech Local Loop Operators: SPT Telecom's Future Competitors?

*At the end of 1995, the Czech Telecom Office awarded licenses to six new operators for the provision of local loop telephone service in sixteen regions of the Czech Republic. The new operators are actively preparing for implementation of their business plans while negotiating interconnection agreements with national operator SPT Telecom. Fixed wireless systems will play an important part in the rollout of regional networks. Operators are also discussing future strategic alliances with each other as well as foreign operators, anticipating competition in all telecom services after the year 2000.*

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# MARKET TRENDS

## Centertel To Examine Wireless Local Loop Potential

Though *Wireless Local Loop (WLL)* solutions have been deployed in several countries throughout the CEE/NIS region, Poland has waited patiently and prudently . . . until now. Ideally suited to Poland's large, rural population, *WLL* may prove to be a catalyst for increasing rural main line penetration - a main priority for the government. For the past several months **Telekomunikacja Polska S.A. (TPSA)**, the country's national telecom operator, has been negotiating with vendors, the **Ministry of Communications** and the **State Radiocommunications Agency (PAR)** to launch a number of trials to test wireless local loop solutions. However, while TPSA assesses the latest systems from various vendors, its majority-owned mobile operator, **Centertel**, should not ignore the possibility of augmenting its *NMT-450* network with fixed wireless solutions.


In fact, Centertel is already in the early stages of assessing a modified *WLL* solution, involving a field trial for wireless payphones along major highways. So far, results are promising. Though Centertel may take another few months for further testing, the potential to pursue the wireless payphone market could be a lucrative lead-in to *WLL* solutions in rural homes.

There are several factors for Centertel to consider. First, it must determine whether the provision of fixed wireless telephony is justified. According to Centertel's **Martin Zelazne, Special Projects Manager**, the market for Centertel has changed significantly in the last year and *WLL* technology has now proven itself a viable option for telephony. As a result, Centertel is quite interested in pursuing fixed wireless as a new line of business. Indeed, with two new *GSM* mobile cellular companies as well as a *DCS-1800* license to be tendered at the end of 1996, cellular competition will be fierce. Centertel must branch out into new services.

Head-to-head competition between TPSA and Centertel for *WLL* provision is unlikely, especially since TPSA is the 51% owner of Centertel, along with partners **Ameritech** and **France Telecom**, each with 24.5%. The two operators would have a mutual interest in coordinating their efforts. In fact, TPSA is looking to offer *WLL* throughout the country, perhaps utilizing more than one system and frequency. Also, the scope of TPSA's project is considerably larger than that of Centertel, which would offer services regionally and on a limited basis.

From a technical viewpoint, *NMT-450* is believed to be a viable technology for wireless local loop. Its analog characteristics and lower frequency range contributes to a greater broadcast coverage, making it advantageous for low-density, rural areas. Also, Centertel claims to have enough bandwidth to offer service in rural regions, as it is only in Poland's major cities where its wireless networks are quickly approaching full capacity.

The Ministry of Communications must also consider several factors. From the regulatory standpoint, it must either alter Centertel's existing license, which does not allow for fixed wireless service provision, or grant Centertel a new license. The next challenge for the Ministry would involve determining a tariffing policy for Centertel as a mobile *and* fixed operator. Most likely, the Ministry would mandate that Centertel charge its *WLL* customers the same telephone rates as TPSA's wireline subscribers, while mobile customers would pay higher charges which are not regulated (though will be determined by competition from rival *GSM* mobile operators).

While there are a number of *WLL* plans before the Ministry and in corporate conference rooms, the next few months will witness the transformation from network conceptions to actual systems in the field. Once these tests begin, TPSA, Centertel and the Ministry will have the opportunity to assess the results and make decisions on how to proceed on a larger scale. 

*More detailed information on WLL markets is available in ITC's newly published report, "Wireless Communication Markets: Eastern Europe & NIS". To learn more about this study, please contact William Thurmond at 301-907-0060 (p) or 301-907-6555 (f).*

## Tajikistan's Bumpy Road Ahead


The Government of Tajikistan is currently preparing an ambitious plan to restructure the **Ministry of Communications** and create a partially-privatized independent telecommunications operator, **Tajiktelecom**. Indeed, if everything proceeds on schedule, the Ministry of Communications may launch the tender by the end of July. However, even with the support and advice of the **European Bank for Reconstruction and Development (EBRD)**, Tajikistan's Ministry of Communications has an extremely difficult task ahead.

In March 1996, consultants financed by the EBRD held a press conference at which they identified necessary elements for developing Tajikistan's telecommunications sector. Emphasizing the crucial need for foreign participation, they recommended the creation of a single joint venture company to operate as well as modernize and expand the telecommunications network throughout the country. The press conference was held to announce the results of a preliminary report by the EBRD examining Tajikistan's telecommunications sector. The final report is expected to be presented in May to *Minister of Communications Nuriddin Muhitdinov*.

There are several hurdles which the Government of Tajikistan must overcome in order to ensure sufficient interest in Tajiktelecom from foreign operators. EBRD consultants noted that the Government of Tajikistan must elucidate the legal conditions in which a foreign strategic partner can operate in telecommunications. Also necessary is a clearly-defined role of a new regulator for telecom. Currently, the Ministry of Communications is both operator and regulator of telecom in Tajikistan. These issues underscore the crucial questions the Government must face before proceeding with a tender for a strategic investor.

The Government of Tajikistan originally raised these same issues of reform on August 4, 1995, when it passed the *National Program of Communications Development Until the Year 2000*. The program prioritizes areas needing significant telecom investment and offers annual investment projections. However, the Government must also revise specific accounting practices of the "independent" telecom administrations under the umbrella of the Ministry. Cross-subsidization practices between separate telecom service branches must end. In addition, a sound tariff policy must be devised, under which tariffs may be raised enough to attract strategic investor interest, yet must remain affordable for the average Tajik telephone subscriber.

Another main obstacle confronting foreign investors in Tajikistan is the factional fighting still underway in the country. Political instability in Tajikistan is viewed as a barrier to operators who do not seek such a high-risk investment. Besides impeding further expansion and modernization of the country's telecom infrastructure, the civil war has also resulted in the emigration of many of Tajikistan's skilled labor force, including the Ministry's important engineers and technicians. Employees with valuable telecom training and knowledge are essential to improving the country's telecom environment.

While the task of restructuring its telecommunications sector may seem daunting, the Republic of Tajikistan has a decent chance of achieving its goal. With the full support of the EBRD, Tajikistan has access to financing and valuable aid in looking for foreign strategic investors for the operating joint venture. The country faces an uphill battle, yet if Tajikistan is serious about telecommunications progress, the recipe for success already exists. 

## Tajikistan Telecom Investment (In Millions US\$)

	1996	1997	1998	1999	2000	Total
Int'l. & CIS Networks	12	6.2		2		20.2
Local Networks	55.5	49.5	45.5	66.5	35	252
Total	67.5	56.7	45.5	68.5	35	273.2

Source: Ministry of Communications Projections

## Difficult Circumstances Besiege Romania's Telecom Sector

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It has not been a good year for Romania's telecom sector. In January 1996, *Minister of Communications Adrian Turicu* was sacked by the government over a disputed appointment at Romtelecom, the anxiously-awaited tender for *GSM* cellular licenses continues to be delayed, passage of the Telecommunications Law has stalled in Parliament, and national operator **Romtelecom** still lacks a permanent General Director. The country's new *Minister of Communications, Ioan Ovidiu Muntean*, inherits these problems as he sets out to turn the country's telecom sector around.

One of the most pressing telecom issues in Romania currently is the long-awaited tender for two *GSM* cellular licenses. During the summer of 1995, when the opportunity was initially announced, foreign companies signalled their hopes for an efficient tender procedure. However, the Ministry's inability to resolve complicated questions surrounding the tender and draft a final document has ground the process to a halt. Minister Muntean must proceed carefully. A key consideration will be the strong political desire to award the licenses before the upcoming national elections this Fall, most likely in September. Yet he must not rush through a superficial tender procedure which may fall apart or fail to fetch a high bidding price.

In addition, the Ministry must lay out a clear policy for dealing with **Telefónica Romania**, the country's current *NMT-450* cellular provider. Ministry officials have hinted that Telefónica Romania, whose joint venture partners include Spain's **Telefónica d España** (60%), **Romtelecom** (20%) and **Radiocomunicatii R.A.** a.k.a. **Radiocom** (20%), may not automatically receive one of the *GSM* licenses. Instead, the operator may have to participate in the competitive bidding process or fulfill the same obligations and match the other license winner's high bid. If Telefónica Romania does not receive a license in a competitive bid, Romtelecom and Radiocom could be precluded from offering *GSM* service, since they must refuse offers to join other consortia due to non-compete agreements.

Finally, new rumors have surfaced from within the Ministry that it may consider offering more than two *GSM* licenses. Though it may be an effort to placate many of the key players interested in Romania's cellular market, it is doubtful that there would be sufficient demand to profitably sustain three or four operators.

A positive turnaround at the Ministry is also imperative since in 1997, Romania will run out of international development funding from sources including the **World Bank** and **European Bank for Reconstruction and Development (EBRD)**. Recent negotiations have yielded few positive results; renewed financing has been conditioned on regulatory reform as well as commercialization and privatization of Romtelecom. At present, it is unclear when Romania's Parliament will place debate of the Telecommunications Law on its agenda.

Yet, interest is growing around the privatization of Romtelecom, believed by many government officials to be one of the few assets the country has to attract foreign investor capital. Government officials call for the commercialization of Romtelecom followed shortly thereafter by a sale of a minority stake to a foreign operator, as occurred in the highly successful privatizations in the Czech Republic and Hungary. Yet such an important restructuring of Romtelecom is doubtful prior to the appointment of a strong, permanent General Director.

Romania's telecom sector has a full plate of tasks ahead. Yet prospects are good that with a well-executed *GSM* tender, appointment of a new General Director for Romtelecom and passage of new telecom legislation by the end of the year, the country will build up enough momentum to spring ahead in 1997.



## Adam Smith Conference Wrap-Up

On March 27 and 28, 1996, the **Adam Smith Institute** held its third annual "Conference on Telecommunications in the Russian Federation, Ukraine, Belarus, Armenia, Georgia and Moldova." The conference was well-attended, though noticeably absent were officials from the Russian Ministry of Communications. Still, the forum presented a unique opportunity for active players in the Newly Independent States to share experiences and voice common concerns regarding future development of telecommunications throughout the region.

Wireless growth, particularly in the Russian Federation, remained strong during 1995, and forecasts for the coming year are bright. **Yuri Khromov**, Deputy Managing Director of *NMT-450* operator **Moscow Cellular Communications (MCC)**, stated his company has experienced steady growth in subscribers and call volumes since launching the service in 1992. Currently, MCC has more than 21,000 subscribers and it expects to swell its customer base to 210,000 by the year 2001.

Significant interest in *wireless local loop (WLL)* systems has resulted in trial systems planned throughout the region for the remaining part of 1996. **Global Telesystems Group (GTS)**, whose Russian ventures include **Sovam Teleport**, **Sovintel** and **GTS Cellular**, announced it plans to launch *WLL* pilot projects in 1996, one of which will be in Moscow. In addition, **Nortel CIS** Managing Director **Ian Latremaille** announced his company expects to establish two of its own *WLL* pilot projects based on the company's *Proximity* system.

An important issue for conference participants focussed on tariff rebalancing. Operators and regulators are currently grappling for an effective method of redressing operators' costs and tariffs for basic services. **Martin Salomon** of the **Organization for Economic Cooperation and Development (OECD)** pointed to a lack of accurate data from regional operators, making reform extremely difficult. He stressed the need for better accounting procedures, yielding more accurate information for restructuring pricing regulation. Armenia's operator, **ArmenTel**, acknowledged the problem it faces concerning tariffs. **Ashot Hovhannisyan**, the company's Vice-President of Service and Finance, explained that raising tariffs on the local level would be impossible in Armenia. For the moment, ArmenTel's best option is to make most of its revenues from international long distance services.

Moldova's Deputy Director for Telecommunications at the **Ministry of Communications and Informatics**, **Cezar Dragutan**, remained optimistic with regard to tariff rebalancing in his country. Mr. Dragutan emphasized the importance of reliability in pricing basic telecom services, balancing the rights of current subscribers with the operator's need to make profits [*For more information concerning Moldova's telecom reform and restructuring, please refer to this month's exclusive interview with Mr. Dragutan, p. 16*].

Tariff reform often precedes or accompanies the privatization of a state-owned operator. The privatization trend across the region also held a top spot on the conference agenda. Participants heard from **Alexander Lipatov**, Director General of **AO Svyazinvest**, which attempted an unsuccessful privatization in 1995. Rather than identifying factors responsible for the failed deal with Italian operator **Stet**, Mr. Lipatov focussed on steps Svyazinvest is taking to ensure success in a new tender, to be launched after the June 1996 elections in Russia. He highlighted new initiatives being taken to bolster the corporate organization of Svyazinvest, as well as steps to ensure better communications with the regional operating companies.

This spring's Adam Smith conference did not resolve the most urgent questions regarding telecom development and reform across the region. This was never its intention. What the conference did provide, however, was the important opportunity for telecom leaders active in the region to meet and share experiences and ideas. The positive result of the conference was the "down-to-work" attitude which emerged. Telecom operators have a better idea of their needs and are now determined to search for hard business solutions to achieve their goals. 📞

## OPPORTUNITY SPOTLIGHT

### Privatization

#### Hungary:

On April 13, 1996, Hungary's **State Privatization and Holding Co. (ÁPV Rt.)** announced its intention to proceed with a second attempt to privatize **Antenna Hungária**, the country's state-owned, monopoly broadcasting company. Antenna Hungária boasts Hungary's second largest telecommunications network, and the company is involved in ventures offering paging, *GSM* mobile cellular, VSAT data transmission, satellite broadcasting, as well as other services.

ÁPV Rt. expects to invite bids in the middle of June 1996. Once the tender is officially launched, the successful bidder can acquire a 60% stake in Antenna Hungária if it fulfills a US\$ 27 million (HUF 4 billion) capital injection into the company.

For more information on the tender, contact: ÁPV Rt., Pozsonyi u. 56, H-1133 Budapest, Tel.: 36 1 269 8600; Fax: 36 1 118 7115.

For more information on Antenna Hungária, contact the legal advisor to ÁPV Rt.: Koves & Tarsai Clifford Chance, Madach Imre ut. 14, 1075 Budapest, Tel.: 36 1 268 1600; Fax: 36 1 268 1610.

### Cellular

#### Slovak Republic:

The **Ministry of Transport, Posts and Telecommunications** has announced an international public tender for implementation and operation of *GSM* networks on the territory of the Slovak Republic and provision of *GSM* services. The Ministry intends to grant two licenses to provide public mobile telecommunication services according to the *GSM* standards using an equal number of frequencies in the frequency bands of 890-908MHz and 935-953MHz.

The invitation to tender costs US\$500. All bids must be delivered to the Ministry of Transport, Posts and Telecommunications on or before 10:00 a.m. local time on May 10, 1996, and must be accompanied by a security of US\$200,000. The offer must be presented in a form of a bank guarantee issued by the Slovak Post Bank.

Bank Name: the Slovak National Bank, Bratislava,  
Bank Account Number: 19-9926-002/0720

For further information about the bidding documents, contact:

Ministry of Transport, Posts and Telecommunications

nam. Slobody 6  
P.O. Box 100  
810 05 Bratislava  
Slovak Republic

The address of the Telecommunications Department of the Ministry where the bidders may receive the bidding documents:

Mileticova 19, Bratislava  
Ms. Erika Mala  
Room number 701  
Tel: +42-7-253-752 or +42-7-5432-279  
Fax: +42-7-526-1982

Or: Mr. Viliam Podhorsky  
Room number 702  
Tel: +42-7-5432-221  
Fax: +42-7-526-1982.

#### Russia:

The U.S. Department of Commerce notes **Sotovaya Company Ltd.**, established in 1994, seeks a U.S. company to supply cellular subscriber equipment and handsets. For more information, please contact:

Victoras Dzindzeleta, Marketing Director  
Sotovaya Company Ltd.  
P.O. Box 106  
630009 Novosibirsk  
RUSSIA



## BUSINESS BRIEFS - IN GENERAL

**International Mobile Communications** announced the extension of its *Worldcell* GSM cellular rental service to Moscow, St. Petersburg, Bulgaria, Estonia, Latvia and Lithuania. The firm provides U.S. business travelers with a pocket phone service in over forty countries in Europe, Africa and the Pacific Rim. For information call *Worldcell* in the U.S. at Tel.: +001.301.652.2075.

As EESTR went to press, the **World Trade Organization (WTO)** took last minute steps to extend the deadline for negotiations aimed at liberalizing international telecommunications environments. The move came as a result of the United States withdrawing international services and satellite communications from its offer of complete access to the U.S. market. Such an action, just days before the original deadline, threatened to ruin the talks. The WTO set a new deadline for a telecom agreement by February 17, 1997.

**Millicom International Cellular** announced that in the first quarter of 1996 its worldwide operations experienced record growth, adding 50,281 new cellular subscribers. During this quarter, **MIC's** worldwide subscriber base grew from 251,277 to 301,558 subscribers. With only 19,226 new subscribers in the first quarter of 1995, the 1996 figures illustrate a 162% growth for MIC. MIC is involved in GSM cellular joint ventures in Estonia (**Ritabell**, a 48% stake), Lithuania (**COMLIET**, a 29% stake), Kazakhstan (**Tolkyn Corporation**, a 35% stake) and Russia (a 20% stake in **MCC**, a 51% stake in **Chelyabinsk Cellular**, a 65% stake in **Personal Systems Network** in Nizhny Novgorod, a 60% stake in **Kursk Cellular Communications** and a 60% stake in **Belgorod Cellular Communications**).

**Motorola** recently presented the *SC 604*, a new, compact, self-contained CDMA base station. The new CDMA provides less expensive full power cell site capability, and does not require shelter or forced cooling. The SC 604 supports one fully channeled three-sector CDMA carrier with full redundancy in a self-contained enclosure. Motorola plans to supply the CDMA service for 800 MHz applications by early next year.

**Navigation Maritime Bulgare (Bulgaria)** invested \$1 million in shares in **ICO**, the global mobile satellite communications company. To date, ICO has raised US\$1.5 billion from 48 investors, including many of the leading telecommunications operators.

**Inmarsat-3 satellite**, the world's most advanced commercial mobile communications spacecraft, was finally launched. Inmarsat will expand the availability and usefulness of global mobile satellite communications by lowering cost of communications services with more economical mobile and transportable terminals.

**Geotek Communications Inc.** announced its merger with Germany's **RWE Telliance AG** which will combine each operator's *public access mobile radio (PAMR)* networks, creating Germany's second-largest PAMR network. Mobile radio networks are used by businesses which need communications to link members of a mobile fleet, such as a taxi service. The combined network will be equally owned by the partners and will serve nearly 30,000 business subscribers in 12 of Germany's 14 major economic regions. The networks to be merged by the Geotek and RWE Alliance under the memorandum of understanding are **RegioNet** and **TERRAFON Bundfunk**. The companies anticipate offering digital services beginning in the second half of 1997. Geotek also announced plans to create a separate telecom equipment company to develop, manufacture, market, and license communications systems and products utilizing *frequency-hopping multiple access (FHMA)* digital wireless technology. Geotek estimates equipment revenues could total US\$400 million over the next five years.

**Hughes Network Systems** recently unveiled a new product line utilizing enhanced digital access and advanced signalling support to dramatically improve telephone services to rural areas, developing markets and private voice networks. The *TES Quantum* is a platform for intelligent voice and data services over *Very Small Aperture Terminal (VSAT)* satellite networks. In addition, **INTELSAT** selected the TES Quantum architecture as the thin-route *Demand Assigned Multiple Access (DAMA)* standard for its users. The added functionality of Hughes' TES Quantum platform will increase the ability of users to rapidly deploy advanced communications services in the most geographically-challenging regions.

**Scientific-Atlanta** announced it will install its *PowerVu™* digital video compression for the **United States Information Agency's (USIA) WORLDNET** satellite television station. The new network will operate over the *EUTELSAT* 13 degree E Ku-band satellite with a double illumination period on the *EUTELSAT* 10 degree E Ku-band satellite. Among others, **Radio Free Europe/Radio Liberty** will utilize the new system's video and audio programming. Also, U.S. embassies and consulates in St. Petersburg, Prague and Budapest will receive the new digital programming.

**COMSAT** of the U.S. recently displayed its new *MPEG-2* digital video multiplexer. The new multiplexer gives broadcasters the ability to combine up to 14 *MPEG-2* video channels into one high-speed transport stream for transmission over satellite or terrestrial links. The multiplexer also lets broadcasters adapt *single channel per carrier (SCPC)* systems to a *multi-channel per carrier (MCPC)* solution quickly and easily.

## BUSINESS BRIEFS - FINANCIAL

U.S. regional Bell operating companies **NYNEX Corp.** and **Bell Atlantic Corp.** announced their intention to merge, creating the second largest American telecom company behind AT&T. The merger, with a market value of approximately US\$52 billion, became possible after sweeping telecom legislation passed in February 1996. The companies will become one under the Bell Atlantic name. Both companies are well-positioned in Eastern Europe, participating in ventures in the Czech Republic, Slovakia, and Poland.

**Cable & Wireless** will make a US\$79.5 million (£120 million) exceptional charge in its 1995-96 profit and loss account. The company will take the charge, of which US\$50.3 million (£76 million) is in goodwill, after disappointing results from its Central and East European operations. The ventures include a 32% stake in **Petersburg Long Distance**, a 50% stake in **Belcel** of Belarus, a 63% stake in the **Tilts** consortium involved as a major shareholder in Latvian operator **Lattelekom** and **Mobikom** of Bulgaria. Cable & Wireless emphasized that such a charge will not negatively impact the company's cash position.

**Motorola, Inc.** announced its earnings rose just 3% in the first quarter, despite a nearly 16% jump in sales. The company believes that the results reflect competition in the cellular telephone business and weaker demand for computer chips and semiconductors. Earnings rose to US\$384 million, or 63 cents a share, in the quarter, from US\$372 million, or 61 cents a share in 1995. Sales jumped 15.8% to US\$6.96 billion from US\$6.01 billion. Motorola announced that earnings would have been flat compared with the 1995 quarter without a lower corporate tax rate of 35% versus 37%. The results were also helped by lower selling and general and administrative costs.

**Petersburg Long Distance (PLD)** announced record revenues of US\$30.7 million for the year ended December 31, 1995. Revenues for the same period in 1994 totalled US\$8.8 million. For 1995, PLD's earnings before interest, depreciation and amortization (EBITDA) reached US\$300,000, up from a US\$3.7 million loss in 1994. The 1995 EBITDA earnings are before a loss from the disposal of certain assets and a provision for an amount due from a shareholder of the company's **PeterStar** subsidiary. PLD's other subsidiaries, **BECET**, the cellular operator in Kazakhstan, and **Technocom**, a Russian telecom equipment leasing company, sustained strong growth over the past year.

**Koninklijke PTT Netherlands (KPN)**, a member of the **Telsource** consortium holding a 27% stake in **SPT Telecom** of the Czech Republic, reported an 11% rise in net profit in 1995 and forecasted further growth in the coming year due to an increase in acquisitions. Specifically, KPN expects to bid on foreign **GSM** networks and the privatization of the Irish PTT. Net profits rose to US\$1.38 billion (2.26 billion guilders) in 1995 from US\$1.25 billion (2.04 billion guilders). Net sales rose to

US\$11.7 billion (19.15 billion guilders) from US\$10.9 billion (17.86 billion guilders). KPN accounted for US\$8.3 billion (13.6 billion guilders) of group sales, with its mobile communications arm leading the way. Mobile sales rose to US\$843 million (1.38 billion guilders) from US\$553 million (906 million guilders) in 1994. The number of mobile subscribers rose 60% to 513,000, with about 240,000 of those customers connected to the **GSM** digital network. KPN is active in both Hungary's and Ukraine's mobile networks.

**Siemens** announced positive financial results for the first six months of its fiscal year. Strong growth in international markets contributed to the company's net income rise of 15%. During the six month period, Siemens recorded new orders of US\$31.8 billion (DM48.6 billion) worldwide, compared with US\$30.1 billion (DM46.1 billion) the previous year. The number of orders from Eastern Europe and the NIS regions were well above average, though not as high as Asia and the Americas. Worldwide sales for the company rose 6% to US\$27.6 billion (DM42.3 billion) from US\$26.1 billion (DM40.0 billion) for the same period in 1995. Sales for Eastern Europe and the NIS showed 45% growth.

The **European Bank for Reconstruction and Development (EBRD)** won the approval of its shareholders to double its capital base to US\$25.2 billion (ECU20 billion) over twelve years. However, the Bank's shareholders announced they expect this will be the last increase in the EBRD's capital.

**DSC Communications Corporation** announced lower revenue and earnings for the first quarter of 1996 as compared to the same period in 1995. Total revenue for the first quarter was US\$307.9 million with a net income of US\$11.5 million, providing US\$0.10 per share. In comparison, 1995 revenue for the first quarter was US\$318 million, bringing in a net income of US\$41.9 million. Overall operating income in the first quarter of 1996 was US\$18.0 million, a significant drop from the operating income of US\$63.5 million in the 1995 first quarter. The company expects to make up the balance over the course of this year by introducing **Airspan**, a fixed wireless loop solution; **Litespan-120®**, an international loop access product; **iMTN**, a next generation digital cross-connect; and **DSC FOCUS AC1** and **AC4**, which are **SDH**-based high-end transmission and add drop multiplexers.

On April 22, 1996, **Alcatel Alsthom's** Board of Directors met and approved the terms and conditions of the merger between Alcatel Alsthom and **Alcatel Cable**. The merger will occur following a reorganization of Alcatel Cable's activities into a new subsidiary. Alcatel Cable shareholders will exchange shares on a "one-for-one" basis. The arrangement will be finalized once it receives approval during the Annual General and Extraordinary Shareholders Meeting on June 20, 1996.


(continued on page 19)




## BUSINESS BRIEFS - COUNTRY BY COUNTRY

**BALTIC STATES**  **Metromedia International Telecommunications, Inc. (MITI)**, a subsidiary of **Metromedia International Group**, recently received a license to provide GSM cellular service in Latvia. The operator of the license is **Baltel**, a joint venture between MITI, **Western Wireless Corp.** of the U.S., and **Alina** of Latvia. Baltel will invest US\$25 million in to rapidly build up its national network over the next four years. To date, MITI participates in 26 wireless communications ventures throughout Eastern Europe and the former Soviet republics.


### BOSNIA & HERCEGOVINA

 **Ericsson** signed two contracts with the **Bosnian PTT** to supply **AXE** switching systems for the reconstruction of the Bosnian network. The equipment, which Ericsson will install in Sarajevo, will total 40,000 new subscriber lines. One of the two contracts is financed by **SIDA**, Sweden's agency for development aid. The value of the contracts was not disclosed.


**BULGARIA**  **Global Cable Systems** of Canada announced its wholly-owned subsidiary, **Global Satellite Transmission Systems, Inc. (GSTS)**, entered into a joint venture with venture fund **Eurobalance N.V.** of the Netherlands to further develop a cable television project in Bulgaria. The two companies created a US\$2.6 million bridge loan facility to be converted by Eurobalance into equity in GSTS's interest in the Bulgarian cable venture **Union Television Ltd.** In consideration for receiving such an interest, Eurobalance will arrange a minimum US\$6 million in funding to finance GSTS's current 16% stake in Union Television. In addition, Eurobalance intends to provide up to US\$72 million in project financing. With such a financing commitment, GSTS has concluded an agreement to acquire 100% of Union Television's shares from **Intergroup Bulgaria AD** for US\$2 million. Union Television currently has exclusive licenses to provide cable television services in 16 cities in Bulgaria, with a total population of 1,114,100 people.

On April 19, 1996, **Aurtex, Inc.** of the U.S. concluded an agreement to acquire 100% of **Global Communications, Inc.** for stock. No other terms of the agreement were disclosed. Since 1993, Global Communications has built and operated international long distance for hotels, banks, and embassies through a license with the national operator **Bulgarian Telecommunications Company**.

### CROATIA

 Croatia and Serbian-led Yugoslavia recently agreed to restore telecommunications links between the two countries in an effort to normalize relations after the war. Foreign Ministers **Mate Granic** of Croatia and **Milan Milutinovic** of Yugoslavia signed the accord to encourage renewed commercial activities between the two Balkan neighbors.

### CZECH REPUBLIC

 On April 24, 1996, **Hughes Network Systems** announced it had received a contract to expand the initial **GMH 2000™** wireless local loop (**WLL**) system installed for **SPT Telecom** in Prague. The contract, valued at over US\$50 million, adds approximately 38,000 lines to SPT Telecom's **WLL** system. The total capacity of the system exceeds 43,000 customers. To fulfill the expansion requirements, Hughes will install an additional 29 sites. The **GMH 2000™** system is based on the Alcatel 1000 S12 switching platform and utilizes **E-TDMA** technology.

**Czech Railways** and **BeedNet Praha** jointly applied to the **European Commission** for a grant covering part of a planned US\$12.2 million (ECU9.8 million) joint laboratory project to co-develop satellite based tracking and communications with moving trains, as well for the monitoring of valuable or hazardous railway cargoes. The new system is based upon the Czech Railways' new railroad signaling and resource management systems and BeedNet's **Low Earth Orbit and Mesh-DAMA VSAT** satellite plus wireless communications techniques. The two companies have applied to the European Commission's **DG-XIII-B, the Advanced Communications Technologies & Services (ACTS) program**, funded by the European Union. The proposed system provides continuous and low cost **Automated Vehicle Location (AVL)** and communications between dispatching centers and trains throughout the Czech Republic, even in regions lacking traditional radio coverage. Principal international suppliers to the program include **Trimble Navigation Ltd.** and **Interferometrics Inc.**

**SPT Telecom** mandated **Chemical Bank** and **Citibank International** to arrange a US\$500 million five-year revolving credit facility. Proceeds will be used to finance the company's capital expenditure needs. This announcement verifies **EESTR's** in-country reports [see *Business Briefs - Country by Country, issue 704*].

**Nokia Cables Ltd.** will deliver over US\$41.3 million (FIM200 million) worth of telecommunications cabling during 1996 to **SPT Telecom**. SPT Telecom will use the cabling for new construction projects as well as modernization efforts for the **Czech Public Switched Telephone Network (PSTN)**.

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# COUNTRY PROFILE

## Czech Local Loop Operators: SPT Telecom's Future Competitors?

The Czech Republic rang in 1996 with six new local telecom operators (LTOs). In December 1995, the **Czech Telecommunications Office** announced the six concession winners to provide telecom service in sixteen regions throughout the Czech Republic. Telephone service in fifteen of the sixteen regions will operate in competition with **SPT Telecom**, with only one operator, **Opatel** in Opava, working in cooperation with SPT. Although the sixteen regions make up less than 15% of the Czech Republic, the local networks represent the long-term opportunity to challenge SPT Telecom in long distance services after the year 2000. In the short-term, the local operators expect to boost penetration levels in these selected regions of the Czech Republic.

Many of the sixteen regions have penetration levels below 12% teledensity. In addition, waiting lists contain thousands of people who must wait several years for telephone service. To reduce the size of these waiting lists in their areas, many LTOs have incorporated similar strategies for network rollout. Many of the new operators first concentrate on developing the most densely-populated areas within each region and then focus on adding lines in rural areas. Yet before any network construction or telecom service can occur, LTOs must conclude acceptable interconnection agreements with SPT Telecom. Though the Czech Telecom Office does not expect complications, cases in other countries, such as Poland, prove this is not always an easy task.

### Operator Profiles

**Telecom 21 spol. s.r.o.**, was established in 1992 as a distributor of telecommunications equipment for **Alcatel Business Systems**, **Siemens** and **AT&T** (now **Lucent Technologies**). The company currently holds licenses in Sedlcany, Votice, Horsovsy Tyn, and Moravske Budejovice. Telecom 21 is 34% owned by **US Global**, a consortium of American regional operators. The LTO also cooperates with **UTS International**, which represents the interests of **Alcatel Austria** and **U.S. Telecom East**. UTS International provides services for the planning, realization and operation of the local networks, and the firm is considering a possible equity investment in Telecom 21.

US Global and UTS International are also actively involved with another LTO, **Kabelova Televize Jeseník s.r.o.**, which holds operating licenses in Zabreh na Morave and Jeseník. US Global owns a 30% stake in KT Jeseník, with the remaining 70% held by Czech owners. KT Jeseník was founded in 1992 to construct and operate cable television (*CATV*) networks, as well as to provide related commercial activities and consulting. At present, Jeseník's *CATV* network has over 2,500 subscribers.

UTS International assessed the telecom infrastructure needs in each of the regions held by KT Jeseník and Telecom 21 and plans to construct *Synchronous Digital Hierarchy (SDH)* networks, with transmission rates of 155 Mbps, upgradable to 622 Mbps. Planned network rollout is over a ten year schedule and includes a 25% reserve for switching equipment. Network rollout will involve deployment of *Wireless Local Loop (WLL)* systems, which UTS International believes could slash waiting lists by 25-30%. The operators plan to install microwave relay links, as well as copper and fiber optic cabling. The transmission networks will be configured in a ring topology. In all, KT Jeseník expects capital expenditure through the year 2005 to total over US\$31 million, and Telecom 21 foresees an investment of almost US\$34 million.

In the near future, Telecom 21 and KT Jeseník plan to transfer their licenses over to newly-created operating companies **Globaltel** and **Moratel**, respectively. In addition, they will form a new financial and management holding company, **Telfin**, to consolidate and strengthen their market positions, coordinate common project development and represent the operators before the Czech Telecom Office.

**Future Product Design (FPD Telecom)**, owned 20% by **Harris Corp.** of the U.S., operates in Benesov, Uhlirské Janovice, Bilovec and Valske Klobouky. According to **Val Kranz**, Director of FPD Telecom, the company expects to install 5-10,000 lines in each region by the year 2000, depending on demand. FPD Telecom plans to implement *WLL* solutions in its local networks, using the Harris-Novatel *VACS-3* system. In addition, the company will construct fiber optic lines utilizing transmission equipment supplied by **DSC Communications Corporation**.

FPD Telecom is serious about becoming a future challenger to SPT Telecom for all services. Once liberalization in domestic and international long distance occurs in 2000, FPD Telecom aims to steal market share from the national operator. For this reason, FPD Telecom is presently looking for other partners with operating and management expertise, as well as the ability to construct nationwide networks quickly. A foreign operating partner is one option, where interest may come from companies who bid in the Spring of 1995 for a stake in SPT Telecom. Also, FPD Telecom is interested in discussions with the Czech utility companies, such as **CEZ** and **Cekom**, who plan to use their fiber optic private networks and valuable rights-of-way which extend nationwide.

Telecom 21, KT Jeseník and FPD Telecom are discussing plans for cooperation and have not ruled out the possibility of creating a new holding company in the future. These companies may also cooperate with **Dattel** and another LTO, **Alias**, on the basis of separate agreements. According to Mr. Kranz, these five LTOs expect to operate more than 100,000 lines by the year 2000 and 250,000 by 2005.

## Czech Local Loop Operators

Company	Foreign Partners	Regions	Population of Each Region	# of Lines (1995)	Teledensity % (1995)	# of Lines (2000)	Teledensity % (2000)
FPD Telecom	Harris-20%, Helsinki Telecom 5% (Planned)	Benesov	46007	9005	19.6	17967	39.1
FPD Telecom		Uhlirské Janovice	9745	1647	16.9	3387	34.8
FPD Telecom		Bilovec	33703	3159	9.4	10239	30.4
FPD Telecom		Valske Klobouky	32571	3254	10	9894	30.4
Telecom 21	US Global - 34%	Sedlcany	20321	3046	15	7056	34.7
Telecom 21		Votice	13834	1975	14.3	4625	33.4
Telecom 21		Horsovsky Tyn	7784	1003	12.9	2703	34.7
Telecom 21		Moravske Budejovice	14382	1525	10.6	4995	34.7
Alias	Int'l. Finance Corp. - 34%	Ceska Lipa	72886	13366	18.3	27666	38
Alias		Novy Bor	29878	4538	15.2	11348	38
Alias		Frydlant	23304	2592	11.1	8852	38
Kabel Plus Tel	US West - 25%	Litomerice	45784	6827	14.9	17887	39.1
Kabel Plus Tel		Lovosice	26499	3156	11.9	10346	39
Kabelova Televize Jeseník	US Global - 30%	Zabreh na Morave	48618	3538	7.3	14766	30.4
Kabelova Televize Jeseník		Jesenik	42815	3639	8.5	12049	28.1
Opatel		Opava	133461	14208	10.6	46338	34.7

Source: Company Reports, ITC Research

Dattel is a private *CATV* and data service provider in Prague. In June 1995, Dattel received a license to provide voice telephony over its own digital fiber-optic network, *Metronet*, throughout the Metro tunnels of Prague. In the future, Dattel plans to incorporate digital *ATM* transmission and switching equipment into the *Metronet* network.

**Alias (FACTCOM)** will be active in Northern Bohemia, offering local services in Ceska Lipa, Novy Bor and Frydlant. Alias' main foreign investor is the **International Finance Corp.'s Central European Telecom Investments**, which holds a 34% stake in the local operator. Alias' three operating regions cover a total population of more than 125,000 people. The company plans to install approximately 60,000 lines by the year 2005, with 40,000 lines in Ceska Lipa, 10,000 lines in Novy Bor and 10,000 lines in Frydlant. Initially, Alias expects to utilize *WLL* systems for rapid rollout of its network while also constructing landline networks consisting of coaxial and fiber optic cabling.

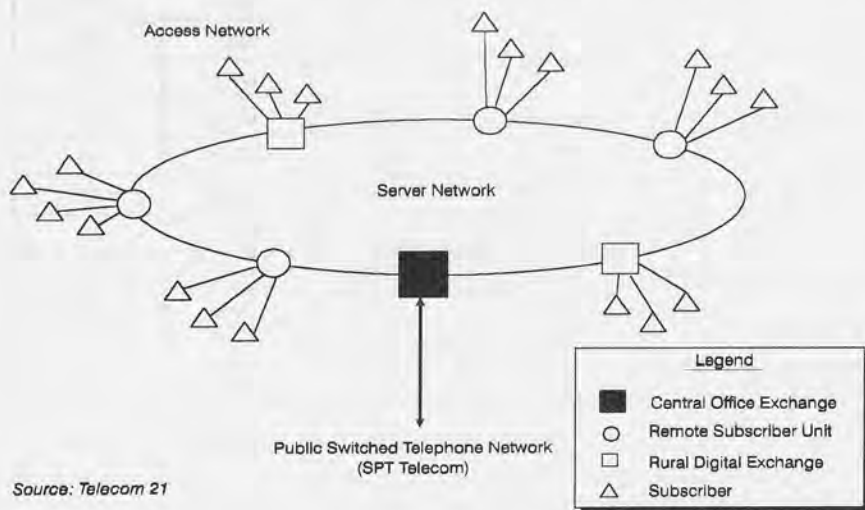
**Kabel Plus Tel** was one of the first private telecom service providers in the Czech Republic. In 1995, the *CATV* operator, which is 25% owned by **US West International**, received a pilot license from the Czech Telecom Office to test voice telephony over its network in Liberec, a region northeast of Prague. For the pilot project, Kabel Plus has built a multi-functional network, over which it will deliver not only cable television and voice telephony signals, but also other value-added and interactive services.

For its current telephone exchange, Kabel Plus utilizes a **Siemens EWSD** switch. The transmission network is supplied by **GPT** of the United Kingdom and consists of an *STM-1* system using *Synchronous Digital Hierarchy (SDH)* technology with a transmission rate of 155 Mbps. At the end of 1995 and into the beginning of 1996, Kabel Plus began testing interconnection of its network with SPT Telecom's public switched telephone network (*PSTN*). At present, Kabel Plus has extended its voice telephony service to actual subscribers and declared the first stage of its pilot program a success.

Kabel Plus envisions the same such network development in its newly licensed areas, Litomerice and Lovosice. In order to provide the most rapid connection for the estimated 73,000 people in these two regions to its new networks, the company will construct not only cable-based telephone networks, but also use *WLL* systems. Kabel Plus is currently testing the **Nortel PROXIMITY** system in its Liberec pilot project. If successful, Kabel Plus will deploy such systems throughout its local loop networks.

**Opatel** is the only company among the concession holders which will offer local service throughout Opava in cooperation with SPT Telecom. With over 133,000 inhabitants, Opava is the largest of the sixteen regions. With just over 14,000 main lines, Opava has a teledensity of only 10.6. Opatel plans to install an additional 32,000 lines by the year 2000, raising the teledensity level to 34.7.


### Czech Local Network Architecture



Source: Telecom 21


## BUSINESS BRIEFS - COUNTRY BY COUNTRY

(continued from page 9)

**HUNGARY**  **Pannon GSM Telecommunications Rt.** concluded a US\$175 million financing loan agreement arranged by **ING Bank**. The syndicated loan agreement involves about a dozen banks, including Hungarian banks, and consists of 30% of funds in dollars and 70% in ECU. Pannon received the loan on very favorable conditions. Pannon will use the syndicated loan to pay back an earlier debt of US\$115 million as well as to complete nationwide coverage of its network. The cellular operator intends to invest approximately US\$85 million into network development in 1996. At the end of March 1996, Pannon GSM had approximately 95,000 subscribers and it expects 140,000 subscribers by the end of the year.

**Hungarian Telephone and Cable Corp.** signed a US\$75 million senior secured term loan facility with **Citicorp North America, Inc.** The funds will repay short-term debt and provide additional funds to build its telecom system in Hungary. The company presently operates 71,000 telephone lines and expects to build out to a 200,000 line system in its first phase.

The **European Bank for Reconstruction and Development (EBRD)** announced it is providing US\$65 million in loans and equity to **Digitel 2002 Rt.**, a local telecom operator providing service in the Vác and Gödöllő regions of Hungary. The loan will total US\$62 million, of which US\$42 million will be syndicated by **Banque Nationale de Paris (BNP)** and **Dresdner Bank Luxemburg S.A.** Digitel 2002 began operating in December 1995 and is controlled by the French **Compagnie Generale des Eaux (CGE)** and Israeli **Tal-Giltek Ltd.** The total project cost is US\$190 million and its aim is to considerably improve the telephone network in Northern Hungary with state-of-the-art telecom infrastructure equipment.

**KAZAKHSTAN**  In-country reports indicate Kazakhstan, a recent signatory to **INTELSAT**, has committed to purchase a full transponder on the **INTELSAT VII** satellite at 64 degrees. The Government of Kazakhstan recently announced that a public/private consortium would be created to manage and operate the transponder and five digital television channels would be made available. The transponder is scheduled for operation beginning October 1, 1996.

On April 11, 1996, **AT&T** announced it had extended its **AT&T Direct® Service** to Kazakhstan. The service will be provided in cooperation with Kazakhstan's operator, **Kazakhtelecom**.



**Ericsson** recently signed a turnkey contract with Kyrgyzstan's national operator **Kyrgyz Telecom**. The contract, worth US\$11.8 million (SEK80 million) calls for delivery of Ericsson's **AXE** switching equipment as well as training. Ericsson expects the initial part of the network to be operational in November 1996.



**Alcatel Telecom** installed a turnkey **GSM** network for cellular operator **Mobicom** in Ulan Bator, Mongolia's capital city. The US\$4.6 million network, put into operation on April 23, 1996, provides geographic coverage for the entire capital city and has a capacity of approximately 2,000 subscribers.



**Telekomunikacja Polska S.A. (TPSA)** announced the second phase of a massive expansion of its telecom infrastructure in Poland. The national operator plans to install more than 150,000 lines in Poland this year, partially in order to boost economical growth in rural areas - areas that are presently without any landline phone facilities whatsoever. **TPSA** also plans to install wireless telephones to small rural exchanges on an experimental basis. The cost of installing a wireless telephone line is considerably less expensive - around US\$800 - than the approximately US\$1,500 it costs for the average rural connection. The Polish Government will contribute approximately US\$5.4 million (13.5 million zloty) to **TPSA**. Over the past year, more than 131,000 lines were installed in the rural areas of Poland, bringing the total number of rural subscribers to 804,000, an increase of 19.5% from March 1995. Telephone ownership among the rural population increased from 4.0% to 5.5%.

On April 23, 1996, **Polkomtel S.A.**, one of two new **GSM** cellular operators in Poland, and **Nokia Telecommunications** signed a *Preliminary Agreement* for the delivery and installation of **GSM** network infrastructure equipment. Though no value for future contracts has yet been disclosed, the agreement defines the terms of cooperation between **Polkomtel** and **Nokia** through 1998. **Nokia** has agreed to supply a complete **GSM** system, including base stations, base station controllers, mobile switches, a short message service center and an operations and maintenance system.

**Elektrim S.A.**, a partner in one of two new **GSM** cellular operators in Poland, recently announced it will receive a loan of up to US\$72.5 million from **Citibank NA** to finance the new

(continued on next page)

cellular operation. Elektrim stated it will use the loan to pay for its 32.5% stake in the venture, **Polska Telefonía Cyfrowa S.A. (PTC)** as well as to meet its investment obligations.

March 23, 1996 marked the official opening of local telecom operator **Telefony Brzeskie S.A.** in the Tarnow region. The new operator currently serves approximately 3,000 subscribers and expects to have 10,000 by the end of the year. Another new telecom operator, **Telekomunikacja Debica**, expects to open May 29, 1996. With two-thirds coverage in the district of Tarnow, Debica anticipates 3,000 subscribers initially and increasing that number to 9-12,000 by the end of 1996. The two new operators have received extensive support and training from the U.S.-based **National Telephone Cooperative Association (NTCA)**.

The **European Bank for Reconstruction and Development (EBRD)** announced the approval of funds for **Netia S.A.** The telecom operator, formerly known as **Telco S.A.**, is a joint venture between **R.P. Telekom** (65%), **Telia** of Sweden (25%) and the EBRD (10%). Netia holds licenses to provide local and long distance telecom service in nine regions of Poland: Lublin, Modlin, Kalisz, Puchazchow, Josefow, Kielce, Radom, Siedlce and Kujawy. The EBRD approved approximately US\$180 million (ECU138 million) in multi-currency loans, US\$15 million (ECU11.5 million) in equity and created a US\$1.8 million (ECU1.5 million) working capital facility with a ceiling of US\$20 million and a US\$19.1 million (ECU15.3 million) hedging facility.

## ROMANIA



The **Government of Romania** chose **Ioan Ovidiu Muntean** as new Minister of Communications to fill the vacancy after the removal of **Adrian Turicu**. Previously, Mr.

Muntean served as a Regional Director with state operator **Romtelecom** and briefly as General Director of Romtelecom in January 1996. Ironically, Mr. Muntean's appointment as General Director by former Minister Turicu resulted in Turicu's prompt dismissal. Government officials also selected **Dumitru Angelescu** as the new Interim General Director of Romtelecom. Later this year, the Ministry of Communications will hold another competition to select a permanent General Director.

## RUSSIA



**Globalstar** received official government approval to market its worldwide satellite communications systems in Russia. The decision was made by the **Governmental Commission on Electrical Communications (GCES)** at the **Ministry of Communications**. Globalstar and **Rostelecom**

agreed to form a joint venture to become the exclusive service provider of Globalstar service in Russia. Rostelecom will be responsible for the transmission of any international Globalstar calls within the Russian Federation and for obtain-

ing the necessary operating permits and licenses to provide the Globalstar service in Russia. The system is designed to integrate with existing terrestrial telecommunications systems, not bypass them. All calls through the Globalstar system in Russia will be routed through the ground-based gateway stations owned and operated by the Russian joint venture.

**US West International's** Russian investment venture, the **Russian Telecommunications Development Corporation (RTDC)**, launched a new **NMT-450** cellular network in Yekaterinburg. **Uralwestcom**, which will operate the new cellular network, is 49% owned by RTDC, 25.5% owned by **Uraltelcom** and 25.5% owned by **Yekaterinburg Intercity Telephone Station**. The cellular network will provide coverage throughout Yekaterinburg and the Sverdlovsk region.

The **Open Society Institute (OSI)** announced plans to spend US\$100 million over the next five years to establish Internet centers at 30 universities in Russia. These centers will provide students, faculty and local communities outside Moscow and St. Petersburg with computing and communications equipment, allowing full Internet access. According to OSI, the Government of the Russian Federation also pledged US\$30 million in expansion of the backbone network to ensure full connectivity between the centers.

On April 3, 1996, **DeTeMobil**, the mobile subsidiary of German operator **Deutsche Telekom AG**, acquired a 48.5% stake in Russian cellular operator **Russkaya Telefonnaya Kompaniya (RTK)**. RTK currently holds licenses to provide **GSM** cellular service in six regions of Russia, including Kaluga, Pskov, Ryazan, Smolensk, Tula and Vladimir. By the year 2001, RTK expects to sign on at least 250,000 subscribers. DeTeMobil, which holds a 39% stake in **Mobile Telesystems (MTS)** of Moscow, plans to connect its Russian cellular networks to cover almost 30 million people from Belarus to the Volga.

The first Western satellite to be launched by a Russian Proton rocket, built by **Hughes Space and Communications Co.**, lifted off successfully on April 9 from the **Baikonur Cosmodrome** in Kazakhstan. The satellite, **Astra-1F**, was built for the Luxembourg-based **Societe Europeenne des Satellites (SES)**, and carries 22 active 82-watt Ku-band transponders and has solar panels that generate 4700 watts. The satellite allows SES to broaden its direct television and radio broadcasting selections for viewers across Europe. The Proton launch was provided by **International Launch Services (ILS)**, a joint venture company formed by **Lockheed Martin Corp.** and Russian companies **Khrunichev State Research and Production Space Center** and **RSC Energia**. The April 9 liftoff replaced the originally scheduled March 28 liftoff because there was a leak in one of the helium boosters [see *EESTR, Business Briefs Country by Country, Volume 7, Number 4*].

## SLOVAKIA



Slovakia's **Ministry of Transport, Posts and Telecommunications** selected **N.M. Rothschild** to advise how to proceed with

the privatization of state-owned operator **Slovenské Telekomunikácie (Slovak Telecom)**. Rothschild will advise the government whether to place a partial stake of Slovak Telecom with a strategic foreign partner or sell shares in an *initial public offering (IPO)* or to institutional investors. The British investment bank will present its analysis to the Slovak government by September 30, 1996.

## UKRAINE



**Global Telesystems Group, Inc. (GTS)** and **Barings** investment bank purchased a 49% stake in **Bancomsvyaz**, a Ukrainian telecom solutions provider. The minority interest was purchased from **Techtel** of the U.S.

[see *EESTR, Interview, Volume 7, Number 1*]. GTS and Barings plan to invest US\$10 million to roll-out the first phase of a new digital wireless network in Kiev, based on the *DCS-1800* standard. The network will carry high quality domestic and international voice and data services primarily to business users. In the beginning, the new *DCS-1800* network will provide hotels and other high-volume customers in Kiev with fixed wireless service. Bancomsvyaz plans to incorporate mobile cellular service and international roaming later this year.

**Racal Messenger** of the U.K. will supply its advanced radio-based *WIDANET* system to **Bancomsvyaz** of Kyiv. Bancomsvyaz will use the network to offer commercial services in Kyiv on an X.25 network, expected to begin service by the end of the summer. The *WIDANET* system enables data services including on-line credit/debit card verification, security alarms and environmental monitoring. The contract is worth approximately US\$530,000 (£800,000).

**Alcatel** opened a new *S12 1000* telephone exchange in Kyiv for telecom operator **Kyivelektrosvyaz**, under a contract financed by the French government. Plans include subsequent contracts for Alcatel to install another 30,000 line exchange in November 1996, as well as an exchange providing 23,000 lines in the beginning of 1997. The new Alcatel *S12 1000* switches will serve the Kyiv suburbs of Osokorki and Poznyaki.



## BUSINESS BRIEFS

## FINANCIAL

(continued from page 8)

**US West International**, a division of **US West Media Group**, reported a first quarter 1996 earnings before interest, depreciation and amortization (EBITDA) loss of US\$9 million for its cable and telephony holdings, an 18% improvement over the same period last year. In addition, revenue for the first quarter also increased by 154% over the first quarter 1995, totalling US\$61 billion. US West's purchase of a stake in **Kabel Plus** of the Czech Republic in 1995 contributed to the division's 171% increase in cable and telephony subscribers over the same period in 1995. US West International's wireless subscribers totalled 334,000 subscribers by the end of the first quarter 1996 - a 63% increase over last year. First quarter revenues increased 47% over the year to US\$88 million. Finally, EBITDA for the group's international wireless operations reached US\$1 million, compared to a US\$12 million loss for the same quarter in 1995.

**Lucent Technologies**, the AT&T spin-off that designs and manufactures consumer and business communications systems and public and private networks, reported revenues of \$4.5777 billion for the first quarter of 1996, up 10.1% from the equivalent operations by AT&T a year earlier. Revenue gains were principally attributed to increased sales of microelectronic products and strong transmission and switching equipment sales. The company posted a net loss of \$103 million for the quarter, compared to an equivalent loss of \$22 million during the same quarter of 1995. The Company attributed the increased loss to start-up costs and expenses associated with the launch of the company. In April 1996, the company issued an initial public offering (IPO) for 17.6% of its common shares; AT&T is expected to spin off the remainder of the company to AT&T shareholders by the end of 1996.

**Sprint** announced record first quarter 1996 revenues and net income of US\$3.37 billion and US\$312 million, respectively. This marks a 9.5% rise in revenues and a 38.9% rise in income from a year earlier. Long distance revenues for the quarter totalled US\$2 billion, an increase of 14.2%, and operating income grew 47.3% to US\$226 million, in what company officials called the most profitable quarter on record. Local telephone service and operations revenues rose 8.7% to US\$1.24 billion and operating income was US\$332 million, up 22.9% from the first quarter of 1995. In addition, **Deutsche Telekom and France Telecom** announced the completion of their investment to acquire a 20% equity stake in Sprint. The three companies have formed the international telecom joint venture **Global One**.



## INTERVIEW



**Cezar Dragutan,**  
Deputy Director of  
Telecommunications  
Development,  
Ministry of Communica-  
tions & Informatics,  
Moldova

Moldova's telecommunications sector is liberalizing more rapidly than many of the other former Soviet republics. In 1993, the Government of the Republic of Moldova separated its operator from regulator and its postal and telecommunications services. The move freed state-owned operator **Moldtelecom** to pursue an ambitious Development Program. Currently, Moldova's **Ministry of Communications and Informatics** is preparing to sell up to a 40% stake in the national operator. In this month's exclusive interview, **Mr. Cezar Dragutan, Deputy Director of Telecommunications Development and Head of the Privatization Group at the Ministry**, shares his insights on the upcoming privatization of **Moldtelecom**, regulatory reforms and future development of the country's telecom infrastructure.

## Privatization

**EESTR:** *Could you briefly describe the structure of Moldtelecom?*

**Dragutan:** Moldtelecom is the national telecommunications operator in Moldova, organized in 1993 as a result of the separation of regulatory and operational functions of our Ministry. The organizational structure of Moldtelecom is similar to other state-owned telephone companies in Europe. It is consistent with the structure of a telephone company pursuing a commercial strategy, in having separate technical and commercial lines of responsibility. The company has 39 regional operating divisions throughout the country. The largest divisions of Moldtelecom include the **International and Interurban Telecommunications Network**, which provides international and domestic long distance, and the **Chisinau Telephone Network**. The company has over 456,000 main lines in operation and employs approximately 7,500 people. Moldova's telecommunications network has a star configuration with its hub located in Chisinau. In addition to Moldtelecom, Moldova also has seven Local Telecom Operators (LTOs) in the Transnistria region. They have concluded interconnection agreements with Moldtelecom for the provision of domestic and international long distance. The seven LTOs provide services to about 110,000 customers.

**EESTR:** *When will the Ministry officially launch the tender to sell a 40% stake in Moldtelecom?*

**Dragutan:** We are currently working together with our advisors on the Program for Privatization of Moldtelecom. The Program must be approved by the Government of Moldova and passed in Parliament. Once we accomplish this, we will launch the tender. I expect this will happen by the end of the year.

**EESTR:** *What are the Ministry's objectives for the partial privatization of Moldtelecom?*

**Dragutan:** In 1993, the Ministry of Communications and Informatics and Moldtelecom elaborated a ten year *Development Program*. The Program calls for doubling the size of the network to achieve a teledensity of 23.6. The objective of the privatization is to accelerate the *Development Program* by attracting a world-class strategic investor to Moldtelecom. The privatization also has the financial objective of attracting outside investments in Moldtelecom, since it does not have sufficient resources to finance the development on its own. Once we achieve these goals and create a strong, reliable infrastructure, we will remove one of the main constraints to the overall development of our national economy.

**EESTR:** *Who has the Ministry selected to advise on the privatization of Moldtelecom?*

**Dragutan:** The privatization process was structured in two phases. The advisor for the first phase, *Sector Policy and Initial Regulatory Development*, was **BMP International** of the United Kingdom. We are currently in the second phase, *Privatization of Moldtelecom*, and have chosen a consortium of advisors including **N.M. Rothschild & Sons Ltd.** and **KPMG** of the UK, as well as **Squire, Sanders and Dempsey** of the U.S. Both consultancies were selected through international tenders organized with the assistance of the **European Bank for Reconstruction and Development (EBRD)** and funded by the Bank from its technical cooperation funds.

*"The objective of the privatization is to accelerate the Development Program by attracting a world-class strategic investor to Moldtelecom."*



**EESTR:** *What specific recommendations did BMP International make regarding Sector Policy and Initial Regulatory Development?*

**Dragutan:** BMP International was quite helpful in elaborating a Draft Sector Policy Statement and Draft License for Moldtelecom. Since Moldtelecom has been operating on the basis of its Statute, such a license is necessary. The full terms of the license are still being analyzed. BMP's suggestions on the revised organizational structure for the Ministry of Communications and Informatics have also been quite helpful. BMP also proposed a basic methodology for setting telephone tariffs and provided comments on the Draft Regulation on Licensing Procedures. Finally, we received useful papers on the International Experience with Strategic Investors and the Implications for the Policy and Regulatory Agenda in Moldova. The Ministry is very pleased with the job done by BMP International.

**EESTR:** *What specific arrangements has the Ministry made with regard to the new management structure between Moldtelecom, the Ministry and the strategic investor?*

**Dragutan:** Following the provisions of the **European Union Green Paper**, the Ministry has divested itself of direct responsibility for the operation of the network and provision of services, and is now focusing on policy and regulatory functions. Moldtelecom's operations shall be conducted on a commercial basis. As to the management structure of the new company, the Ministry has made no arrangements yet. The structure will be devised, discussed and approved as a component part of the Privatization Program. However it is likely to be similar to arrangements in place with other international telecoms privatization.

*"The privatization of Moldtelecom, including the elaboration of the Individual Privatization Program, falls under the auspices of the Privatization Law passed in 1995."*

## Regulatory Environment

**EESTR:** *Will the Government of Moldova pass a separate law privatizing Moldtelecom before the tender proceeds?*

**Dragutan:** The privatization of Moldtelecom, including the elaboration of the Individual Privatization Program, falls under the auspices of the Privatization Law passed in 1995. This Law includes Moldtelecom on its list of companies to be privatized on a case-by-case basis, and on the basis of a Government Decision specifying the method of privatization and the shares of ownership in the new company.

**EESTR:** *What is the Ministry's strategy for liberalizing basic telecom services, including local, domestic and international long distance service?*

**Dragutan:** The competitive policies are clearly defined in our Telecommunication Law, adopted last year, in addition to several other decrees. International and domestic long distance telecom services will remain a monopoly of the national operator. The Ministry shall define its policy with respect to liberalization of the long distance and local telecoms services within the context of the privatization program. Moldtelecom will be assigned an exclusive authorization for international and national fixed services for a definite period of time. As to the non-basic services, the Ministry follows a policy of liberalization of this sector. Competition in terminal equipment and value added services markets already has already been permitted subject to required type approvals and certification.

*"The Ministry shall define its policy with respect to liberalization of the long distance and local telecoms services within the context of the privatization program."*

**EESTR:** *What duration of exclusivity for Moldtelecom is long enough to attract attention from strategic partners but short enough to introduce international and domestic long distance competition similar to Western and Central Europe?*

**Dragutan:** If we look at the international experience, we see that terms of exclusivity differ from country to country, reflecting specific conditions of each. The shortest period offered was five years, as in the case of, for example, the Czech Republic, while the longest was 20 years, as in the case of Latvia. The exact duration for our monopoly will be determined at a later stage of our process.

*(continued on next page)*

(continued from previous page) **EESTR:** *Increased tariffs for telecom services are important to a strategic investor for maximizing revenue. How is the Ministry balancing this issue with the need to keep services affordable for Moldtelecom's customers?*

**Dragutan:** The principles of our tariff policy are based on two concepts illustrated in our Telecommunications Law. First, telecommunications services shall be offered on a non-discriminatory basis; and second, telecommunications services shall be offered at reasonable prices. By *reasonable*, we mean the service provider shall be allowed to operate profitably. These two concepts shall ensure protection of both customers and operators. We understand that balancing the two competing objectives is difficult, particularly in the case of residential customers. However, it is essential to establish tariffs which more accurately reflect the cost of providing service.

**EESTR:** *How does the Ministry of Communications and Informatics regulate tariffs?*

**Dragutan:** Tariffs for basic services are established, upon request from Moldtelecom, by using a straight Price Cap. Other tariffs are regulated by a fixed Rate of Return. Various issues are taken into consideration in this case-by-case approval process. These include incurred costs, inflation, the social and economic situation in the country, etc..

Clearly, such tariff regulation is not optimal for determining predictability or forecasting future cash flows, thereby reducing risk. I believe a better solution involves implementation of a Price Cap Formula. In this case, the macroeconomic indices shall serve as tariff drivers which are much more predictable. Also, the operating company will focus on improving efficiency in order to maximize profits.

## Development

**EESTR:** *The Ministry and Moldtelecom devised a ten year Development Plan for the period 1993-2003. Has the nation's telecom development adhered to this plan?*

**Dragutan:** Yes, we are currently in line with the provisions of the *Development Program*, though at the moment we are a bit behind with teledensity. The Program provided for a 13.7 index by this time, but we are now only at 13.0. At the same time we put into operation over 25,000 new digital phone lines. In general, the program outlines a number of development objectives including construction of a 500 km North-South fiber optic cable, introduction of a cellular phone network as well as paging and public data networks, development of local fixed wireless networks, and installation of a new international exchange.

Moldova has made notable progress in developing its *Public Switched Telephone Network*. With regard to required investments, the Ministry estimates that implementation of the *Development Program* will call for approximately US\$50 million per year.

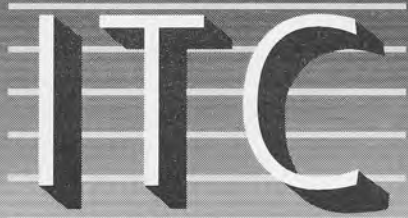
**EESTR:** *What specific telecom technologies do you believe are suited to increasing rapid modernization and expansion of Moldova's Public Switched Telephone Network (PSTN)?*

**Dragutan:** I believe we must rely only on leading technologies, i.e. technologies which ensure high reliability, good basis for growth, and cost-effective operation. Most important in this group are fiber-optic cabling, on which we are building our backbone network, and *Wireless Local Loop (WLL)*, a technology that solved the long-ailing "last mile" problem. After a thorough analysis of the existing *WLL* systems and specific local conditions, the Ministry will adopt specific standards for implementation.



"I believe a better solution involves implementation of a Price Cap Formula."

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