

## High-Speed Communications Systems Provide the Kanata-Based Firm Access to International Markets

Public and private network operators around the world use the software-driven, high performance business networks developed by Newbridge Networks of Kanata (Ontario). Newbridge has made major investments in the development of networking technologies and applications. This approach has resulted in record levels of public and private network sales, market share gains and technology breakthroughs.

Newbridge products have made major inroads in the expanding range of customers that includes more than 200 of the world's largest telecommunications service providers, such as AT&T, Siemens and Alcatel, as well as more than 10,000 public and private enterprises, government organizations and other institutions in more than 75 countries. The Company has facilities throughout Canada, the United States, Latin America, Europe, the Middle East, Asia and Australia.

Newbridge operations in all countries of the former Soviet Union (FSU) are directed from Canada by Bob Broomfield, Vice-President, and Alex Volynsky, Director General Commonwealth of Independent States (CIS).

Alex Volynsky first came to the Soviet Union in 1989. Today, there are 10 Newbridge offices and representatives throughout the FSU countries operating under his supervision. Volynsky made his first visit to Ukraine in 1992 and the following year, a Newbridge office began operations in Kyiv.

There were many opportunities for improving telecommunication services in Ukraine, as well as considerable technical challenges. Public telephone networks were so outdated that even if all existing cables were replaced, audibility would not improve. Analog systems for transmitting information are obsolete and the majority of telephone exchanges operate on worn-out equipment.

Until recently, it was practically impossible to communicate with foreign countries through direct dialing during business hours. Today the capacity of international communication lines in Kyiv makes it possible to dial foreign countries through a number of automatic telephone exchanges in the national capital. However, line noise often makes it impossible to hear the other party on the telephone, and data transmission over the telephone network is even worse.

The situation raises the question: can existing telephone twisted pair wiring be used for high-speed data transmission? The answer is yes, through the provision of a dedicated digital network of leased lines.

## Kiyline Digital Network

Newbridge multiplexers make it possible to double the multiplexing of the existing PCM Systems channel circuits (digital channel circuits with data rates of 2048 kbit/s) in the city telephone networks. As a result, one of the two digital circuit

channels will handle all the telephone signals and the second will be available to create a dedicated digital network without running additional channels between the telephone exchanges.

Currently, as a result of a joint effort of Kyivelectrosvyaz, the public communications enterprise, and Newbridge, the Kiyline dedicated overlay digital network has been set up in the national capital. Vladimir Lukash, Chief Engineer of Kyivelectrosvyaz, commented: "A Canadian firm was selected as our main partner to build a digital network. There were several other options, but, after examining the Newbridge equipment, we found it affordable and most suitable for our communications lines. The Newbridge equipment allows us to multiplex the digital channels of the city telephone networks and ensures high-speed transmission of large volumes of information. We would not want to lose partners who contribute so fruitfully to develop a digital network for Ukraine. I think we will be useful to each other."

The Kiyline network provides high-speed, reliable communications. Its users include banks which require communications between branch and head offices, embassies, representative offices of foreign firms, government departments and agencies, and media correspondent offices. The main partners of Newbridge are Kyivelectrosvyaz and Ukrtek, a long distance and international communications and television enterprise, as well as other organizations and companies.

In addition to direct digital channels, Newbridge also sets up corporate digital networks. The Customs Committee in Ukraine is the Company's first client for this type of business.

Deputy Head of State Customs Committee of Ukraine, Alexander Egorov outlined the equipment and services Newbridge is providing: "Ukraine Communications System has basic equipment and positive operational experience which were utilized by the Ukrainian branch of Newbridge. For example, in cooperation with Kyivelectrosvyaz, a universal digital trunk line of data communications was set up between the Customs Committee Computer Centre and long distance telephone exchange within two months. According to the principal technical and economic indicators such as installation speed, reliability, serviceability, expendability, and compatibility with international standards, Newbridge equipment is among the best in the industry."

In less than a year, the digital overlay network was set up in Kyiv and customers enjoyed its advantages.

## **BOSS Communications Network**

A year ago Industry Canada indicated its willingness to provide its Business Opportunities Sourcing System (BOSS) to Ukraine in order to develop Ukrainian information systems similar to Canadian ones. This system will be implemented only when the technical infrastructure is available to provide access to the database for every government institution, as well as for registered commercial enterprises.

BOSS is a Canadian information system developed by Industry Canada. It serves as a basis for the WIN information system of the Department of Foreign Affairs and International

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