

Cable TV

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the cake is better than no cake at all. Other long-distance operators may also enter the U.K. market: both US Sprint and ATT have filed applications. So far, the U.S. companies have been denied licences, pending negotiations with the FCC over BT's access rights in the American market. Cable companies are also looking towards local loop competition. Earlier this year a new licence was granted to Ionica, a U.K. company planning to offer radio-based telephony services throughout the U.K. A number of other organizations, including the newly privatized U.K. electricity and water utilities, are also

planning their own telephony networks, either independently or in partnership with others.

All this activity has created opportunities for Canadian telecommunications companies to sell their advanced equipment and services to these new operators. Some, such as Northern Telecom, have already seized a significant share of the potential market and are well positioned for future orders. Others may not be aware of the opportunities or may be uncertain on how to best capitalize on them. If you would like advice or further information on the U.K. telecommunications market, please contact the Canadian High Commission in London (see contacts box).

The Pocket Phone of the Future is Here:

Canada Helps Other Countries Introduce New Service

The forecasted explosion in personal communications like pocket telephones will have a significant impact in developing and newly industrializing countries. Wireless local loops may become a reality in these countries before being implemented in the industrialized world. The Department of Industry, through the Canada/Mexico Memorandum of Understanding in Telecommunications, is actively working with the Secretaria de Comunicaciones y Transportes (SCT) to assist with the introduction of digital cordless telephony/personal communications in Mexico. The department recently hosted a Mexican delegation that was exploring Canadian strategies and approaches to personal communications.

Canada has taken a world leading role by licensing four operators of wireless personal two-way telephone systems service providers. Mexico considers Canada a model country. Officials from the

SCT are working closely with the Spectrum, Telecommunications and Information Technologies Sector at Industry Canada. A seminar on personal communications is being organized in Mexico from January 10 to 17, 1994, which will bring together Canadian licensed operators, equipment vendors, as well as potential future operators, and joint-venture partners from Mexico. Interested companies should contact the International Telecommunications Division of Industry Canada (see contacts box).



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Southeast Asia and the Cellular Telephone

In key developing countries such as the Philippines, Indonesia, Malaysia and Thailand, cellular telephone usage is increasing at phenomenal rates. Conventional networks have been slow and expensive to develop and have not been able to service the pent-up requirements for basic and other value-added services. Recent liberalization within these countries has changed the focus of service offerings with a variety of new approaches being employed, including the development of more cellular systems and more companies offering these services. In the drive for universal coverage, cellular has a technical advantage as wider coverage can be provided at lower cost than with conventional telephone service. The current low telephone phone densities should favour the market development of advanced services like voice messaging and roaming.

The Philippines

The Philippine government is working towards an open and competitive environment for mobile communications services. The industry, like other public utilities, is highly regulated by the government through: the House of Representatives, which formulates laws pertaining to the granting of franchises for telecom service operation; the Department of Transportation and Communication (DOTC), which serves as the policy making body for the industry; and the National Telecommunications Commission (NTC), which serves as the industry regulator.

Recent policy changes by the NTC are opening the field of mobile communications, leading to an increase in the number of cellular-based service applications. These new cellular services will help satisfy the demand for telephones in

a country where wire-based services are available in only 20 percent of the nation's municipalities.

A digital cellular network has been proposed by Universal Telecommunications Services Inc., which will complement the existing nationwide systems operated by Pilipino Telephone Corp. (Piltel), Express Telecommunications Corp. (Extelcom), ISLA and Asialink.

Indonesia

The cellular services market in Indonesia is small, about 50,000 subscribers, but growing rapidly. There are three cellular systems in operation. An AMPS network with 32,000 subscribers is owned by three companies, PT Elektrindo Nusantara, PC Centralindo Panca Sakti and PT Telekomindo. PT Telekom owns an NMT 450 network with 21,000 subscribers, and PT Inti owns a TACs network with about 4,000 users.

All cellular mobile networks in Indonesia are constructed by private companies under various forms of revenue-sharing arrangements with PT Telekom. As in Thailand, the types of agreements include: Build and Transfer, which is normally used for turnkey projects; Build, Own, and Operate, still uncommon but gaining ground with the influx of private investors; Build, Operate, and Transfer, under which the private company operates the network it has built for a concessionary period negotiated with PT Telekom before handing infrastructure over to Telekom; and Build, Transfer, and Operate, under which the newly built infrastructure is handed over to Telekom, but the private company continues to operate it. Build, Operate, and Transfer is currently the Indonesian government's revenue scheme of choice.

PT Indosat, responsible for international traffic, is planning to

offer cellular services across Indonesia in the near future and is soliciting international partners to invest in and assist with the operation of a new digital service. The company is also currently involved in negotiations with Bank Dagang Negara and PT Telekom to launch a new mobile system. Both PT Telekom and PT Indosat are planning mobile subsidiaries, indicating that the fixed network is still far from developed and confirming the increased importance of cellular communications.

Thailand

Thailand, with a population of about 60 million, has an estimated \$100 million cellular telephone industry with about 190,000 subscribers. On a competitive level, cellular is quite advanced in Thailand with four cellular providers. As in Indonesia, Thailand's two state-owned enterprises, the Telecommunications Authority of Thailand (TOT) and the Communications Authority of Thailand (CAT) which oversees domestic and international telecommunications respectively, recently commissioned new cellular networks under Build, Operate, and Transfer arrangements (BOT) with Advanced Information Services and Total Access Communications. TOT operates an NMT 450/470 system and CAT offers an AMPS 800 system. In Bangkok, operating under BTOs with TOT, Advanced Information Services provides the NMT 900 digital cellular network and Total Access Communications provides an AMPS 800 digital cellular service. This network offers international roaming service to Hong Kong and Singapore.

Substantial growth of mobile applications is expected in Thailand. The development of the terrestrial network remains slow, particularly in rural areas, and the quality of the fixed network is poor. TOT expects to introduce a GSM service in the next year. As there are already four

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