

The DoT has awarded licences to private operators for the provision of cellular mobile phone services in almost all circles of India. Some of the private operators have already started operating cellular mobile phone service in major cities of India. However, for operating the basic phone service in the country, the DoT has awarded licences to private operators in only five circles so far, and seven bids are under evaluation with the licences to be awarded thereafter. For the balance of nine circles, the DoT received a very poor response from the telecom industry during the third round of bidding. This was attributed to: (1) unwillingness of banks and financial institutions to give bank guarantees to telecom companies; and (2) changing political conditions. Bell Canada International/Tata combined won two licences for operating cellular mobile phone services and basic phone services in the Andhra Pradesh Circle. Telesystems International Wireless Services Inc. (TIW), Montreal, has joined hands with Shyam Telecom to operate cellular phone services in Rajasthan Circle.

To boost investment in the telecom sector, the government also announced that the telecom sector will be treated as an infrastructure sector. This measure permits telecom projects to raise the ceiling on external commercial borrowing (ECB), from 35 percent to 50 percent of the project cost, and enables them to take advantage of a five-year tax holiday and concessional rates of tax for the remaining period of the project life under the *Income Tax Act*.

Market potential exists for Canadian companies to sell equipment and technology in the following areas:

- **Transmission** (OLTE, MARR, Digital point-to-point and point-to-multipoint radio communication systems; digital microwave radio using TDMA, CDMA, DAMA; SDH/PDH technology, trunked radio systems, compression multiplexers, etc.);
- **Switching** (all digital 20-25 port PABx, voice/data switches, key telephone systems of various sizes and features); Datacom (inexpensive technology for data networking products — routers, high-speed modems, statistical multiplexers, bridges, LAN products and PADs);

- **Terminal equipment** such as pagers, key telephone sets, equipment for value-added services in cellular telephony and radio paging, OHM for Canadian telephone-set manufacturers, V-SAT and also VSAT voice/data; earth stations for INMARSAT A, C, AND E SYSTEMS (install and maintain data networks for companies wishing to sell their products in India; dedicated networks for voice, data and video — using mixed media, including extended c-band satellite communications, up- and down-link equipment, etc.);
- **Miscellaneous items** like multimedia multiplexers, digital cross-connects, fax cards, video-conferencing equipment, echo cancellers, e-mail software, system services, etc.

A market in excess of C\$1 billion exists for Canadian telecom companies for the supply of equipment and systems over the next couple of years to cellular and basic phone operators in the country who recently won licences or are likely to get licences in due course from the DoT.

#### SOFTWARE

The Indian software industry, renowned for its sophistication and technical competence, is making rapid strides. Skill and expertise have been developed in areas such as design and implementation of management information and decision-support systems, banking, insurance and financial applications, conversion methodologies and technologies, expert systems, AI and fifth-generation systems, CAD, CAM and CIM. Indian software enterprises have completed projects for reputed international organizations. Many of the world's top information technology (IT) companies (e.g. BNR, Texas Instruments, Hughes, etc.) have set up operations in India, and others such as Microsoft are contemplating sizable investments.

In 1996-97, the Indian software industry grossed more than US\$1.8 billion of revenue with software exports exceeding US\$1.15 billion and a domestic market of US\$720 billion. It registered a growth rate of 52.7 percent over its 1995-96 performance.

