



Operator's console for Mitel's superswitch SX-20

Mitel Corp of Kanata, Ontario, with sales of only \$300 000 in 1975 had revenues of more than \$250 million in 1982. It currently has some 13 per cent of the highly competitive US market for private branch exchanges and is very active in the United Kingdom and European markets.

Northern Telecom's success has been built on daring technical innovation and a strong home base. In 1976, Northern Telecom began production of a full range of new generation digital telephone exchanges. The company was taking a gamble in bringing up-to-the-minute computer technology to the telephone business. Research and development spending increased from \$33 million in 1973 to \$241.4 million in 1982 with the majority going on digital technology.

The gamble paid off. The company was the first in the world to produce a complete family of fully digital switching and transmission systems and net income in the first half of 1983 was up 80 per cent at \$109.8 million.

According to Northern Telecom chairman and chief executive Walter Light, the company now has a two to three year technological lead over its competitors. It has fully digital public and private exchanges serving 14 million telephone lines in 50 countries, with the largest market in the United States. Sales in the US now account for 55 per cent of the total compared with 32 per cent in Canada and the balance from other countries.

Northern Telecom entered the American Telephone and Telegraph Co (AT&T) market in 1980 when the US group approved the sale of the company's DMS-10 small local exchange to Bell operating companies. A new four-year contract was signed in June 1983 for Northern Telecom's larger DMS-100 family of large digital exchanges and toll switches. With sales of transmissions systems AT&T and the Bell operating companies are now Northern Telecom's largest customers in the US.

Northern Telecom is also increasingly looking to overseas markets. In August 1983, the company signed a \$300 million five-year contract to supply digital switching systems to Turkey and, on October 6, announced a \$12.9 million investment in the United Kingdom to take advantage of the opening up of the British Telecommunications market. The company's existing UK operation was hived off from its European subsidiary into a separate company, Northern Telecom PLC. The

new 100 000 square foot plant in Hemel Hempstead is large enough to allow both data systems and telecom manufacturing. A new British subsidiary of Bell Northern Research, itself a subsidiary of Northern Telecom, will also be established, near Maidenhead, to concentrate on developing the digital switching systems for international markets.

Mitel too, has been actively engaged in the United Kingdom market and has recently received the approval of the British Telecom Regulatory Affairs Department to connect the company's superswitch, the SX-2000 integrated communications system, to the British public telephone system. The SX-2000, a sophisticated internal switching system that channels calls within companies and to outside lines, will now be available for sale in the UK. According to Mitel spokesman Diana Daghofer, British Telecom's standards are among the most stringent in the world and since gaining its approval, other European countries will also approve the SX-2000 for sale.

Mitel is also planning to introduce a stripped-down version of its SX-2000 superswitch with limited capability for data transmission. Full volume production of this version is expected to begin in the spring of 1984 with the full system being available a year later. Marketing efforts are being concentrated on the private branch exchange market, where digital equipment is growing fastest and Mitel remains an acknowledged technological leader.

The electronic office

Like other western countries Canada is in the midst of an information revolution and, in 1980, the federal government initiated field trials of integrated electronic office systems within its departments. The aim was also to develop services for national and international markets. About \$12 million has been budgeted for the project which will run until 1985.

Some 5000 work stations used by professional and executive employees are being established across Canada and they are expected to make Canadians more aware of the potential of electronic office products, systems and services.

World's first teletext

In February 1983, Teleglobe Canada, a Crown company responsible for Canada's external communications services, announced that it had inaugurated the world's first overseas teletext service, making it possible to transmit a business letter from Canada to West Germany in ten seconds. Teletext is a new service using word processors and computer terminals and transmitting data in digital form. Canada, West Germany and Sweden are the first countries to adopt this system. The UK is scheduled to participate later this year.

Fibre optics

Technology relating to fibre optics (optical fibres that carry light instead of electricity) has been used in Canada since 1976. A wide variety of field trials have been introduced throughout the country —