

Northern Telecom a US\$ 33 million contract for the next 15,000 port expansion of its Rempac network, due late 1993.

Table 3 - Packet Switching Service Figures - indicates an additional US\$ 190 million is scheduled for further expansion of Rempac between 1993 and 1996, basically for the acquisition of packet-switches, modems and access gear. Six major Telcos are in the process of procuring and launching their intra-state or regional X.25 networks over the next two years, with a total forecasted capacity of 40,000 ports, at a total value in excess of US\$ 60 million. It is Telcos assumption that there is a substantial non-satisfied demand for these services within their respective customer bases. Telesp alone shall develop 20,000 new ports. In the private arena, large banks have purchased X.25 private networks, at a total value of US\$ 15 million. This number is expected to grow in the next 2-5 years with deregulation and privatization, although arriving technologies and services, like E1, frame relay, cell relay and virtual networks may cause some delays and changes in focus in this market.

The major vendors in this market are Promon-Northern Telecom, Equitel-Siemens, Matec-Ericsson, Alcatel-Elebra, DFV-Hughes, SID-AT&T/EDA, Moddata-BBN and CPM-Telematics. This market is expected to grow at an annual rate of 20% in the period 1994-1996.

2.3.3.3 Satellite stations

The most expressive segment in this equipment market is VSAT stations, with over 2500 stations contracted and approximate sales of US\$ 150 million over the last 4 years, including the master stations of the 8 major private networks. This segment is expected to grow at 25% per year from 1993 to 1995, when the installed base will reach 4,900 units, and expected sales in the order of US\$ 145 million. Market growth could pick up significantly if new operating companies competing with Embratel establish themselves in Brazil as result of privatization.

The installed base of SCPC earth stations totals 125 units, at an average price of US\$ 400,000, and generated total sales of US\$ 50 million in 1991. This segment is expected to grow at 20% per annum in the next 4 years, not just for data applications, but including digital voice and image systems. This will mean an additional 120 stations, at an average price of US\$ 200,000 and revenues of US\$ 24 million in these 4 years.

The major suppliers of VSAT's are Promon-Hughes, Vicom-GTE/NEC, Villares-AT&T/Tridon and Moddata/VSI. NEC Corporation is dominant in SCPC systems, and many new associations are