

2.3 DATA COMMUNICATIONS MARKET

2.3.1 Market Structure and Embratel's Historic Role

Apart from a few telephone lines and international circuits equipped with user-provided imported modems, the data communications (DC) market for services and equipment practically did not exist until 1974, when Embratel announced its first leased circuit offering for local and long-haul data communications: the Transdata service.

Created in 1965 by Law 4.117 and incorporated into the Telebras system in 1972, Embratel has consolidated its mission and objectives, not only in DC, where it has, and continues to play a decisive role, but also in providing domestic and international long distance basic and specialized voice services as well as data, text and satellite services. Headquarters in Rio de Janeiro, Embratel has over 12,500 employees (1991) and operates nationwide through 5 Regions, 31 Districts and 25 Sub-districts, 10 Operation and 63 Maintenance Centers.

Table 1- Embratel Network - shows the evolution of the main infra-structure indicators of Embratel in the 1987-1991 period.

	1987	1988	1989	1990	1991
Microwave trunks	22,562	22,562	22,572	22,776	23,430
Voice channels installed per km. (10^3)	108.22	109.99	119.93	127.14	146.28
Optical systems (km)	-	5	46	96	249
Satellite earth stations	30	38	45	50	54
Mux channels installed (10^3)	142	144	169,6	198,8	226,0

The commercial launch and sustained growth of data communication services, and of the related equipment markets, occurred mainly in the late 70's and in the 80's, driven by growth in the information systems market, and supported by consistent efforts and investments in local technology development and manufacturing.

Embratel's revenue totaled US\$ 1.46 billion in 1991, and is projected to reach US\$ 2.2 billion in 1996, with total investments of US\$ 3.8 billion planned for the 1992-1996 period.