

Demand for integrated data, voice, fax and image services are treated as special customer projects. As there are no published tariffs for this kind of domestic service, price quotations are processed and reviewed case-by-case with each customer. Generally in this early stage of implementation the prices are 2 to 4 times higher than in North America. This situation constitutes a strong inhibitor to a more generalized and extensive use of satellite-based services in Brazil, a country where, by its size and geographical dispersion, there is certainly a considerable market to connect to remotely located sites for economic activities such as agriculture, warehousing, mining, public utilities and transportation.

A recent survey of potential users (Grin Consultoria / Plano Editorial - "A Comunicacao de Dados no Brasil - Uma Visao dos Usuarios") showed that users expect major change in the next 1 to 2 years, driven by deregulation and the entry of new suppliers, leading to more competition and better price/performance offerings. Embratel will be launching its second generation national satellite system, Brasilsat B1 and B2, with 28 transponders each, scheduled for early 1994, with priority for extensive digitalization of the network.

Despite uncertainties over the future of the Brazilian economy, analysts believe that the number of VSAT stations could reach 5,000 units by 1995, depending on the service evolution in term of pricing, technology and usage alternatives available, as well as on strategic decisions still to be made by some large corporate users.

In the international arena, Embratel offers the Digisat service, based on the Intelsat, 64 kbps to 2 Mbps digital circuits, available in dedicated as well as in shared configurations (Teleports), using terrestrial lines, optical fibers or radio links on the access networks. There are currently 5 users of dedicated international networks, all of them subsidiaries of multinational companies, but Embratel believes that the number of Teleport users will grow extensively, and that this will be the predominant form of international satellite communications in the years to come. The Mercosul is also an important element in Embratel's strategy and plans for growth in South America.

2.3.2.5 Value Added Network Services

In this item we include information diffusion and data-base access services, in addition to communications-oriented VAN services, as they historically and still exist in Brazil.

Although Embratel and Serpro have operated and provided access to some government-related and international data-bases and information diffusion services since in the 1980's, it can be said that the actual drive for the development of this market came from a few private companies in the 70's as