



**Satellite Broadband
Internet Access in Brazil**

Embratel

Ricardo Fontes – Regulatory Process Management - Star One

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Embratel

Embratel

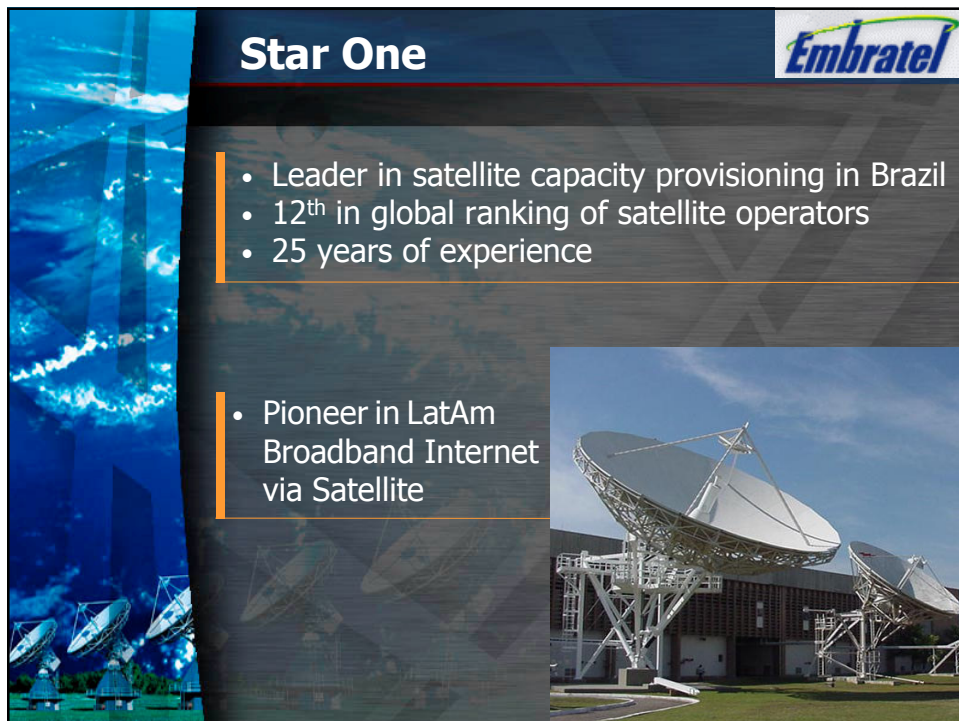
- Premium Telco in Brazil, offering complete solutions for all Brazilian markets
- Coverage in any point of the country, through an efficient infrastructure
- Pioneer in satellite communication:
 - Its satellites transmit and receive TV and radio signals, telephony, Internet and data information, for any kind of applications, contributing to the integration of all Brazilian remote areas;
 - Its satellites are being used by the top TV networks, independent TV channels, banks, governmental units and by the most of the 500 largest companies in Brazil



Star One


- Former Embratel's Satellite Unit
- Spin-off: Dec 2000
- Shareholders:

	80%		20%
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- A fleet of 4 geostationary satellites in C Band
 - 2 GEO C+Ku Band Satellites under construction



Star One

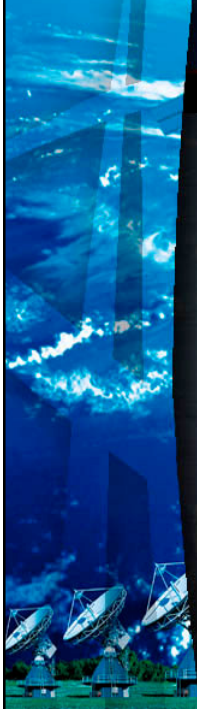

- Leader in satellite capacity provisioning in Brazil
 - 12th in global ranking of satellite operators
 - 25 years of experience
- Pioneer in LatAm Broadband Internet via Satellite



Star One



- ISO Certification in its Satellite Control Center (1st in the world)



**2-way Satellite
Broadband
Internet Access**

EasyBand

EasyBand Service

- Launched in Q4 2001, covering Brasil and other MercoSul countries
- Markets:
 - SMEs, Government and Large Companies
 - Agribusiness
 - Industries
 - Retail
 - Tourism
 - Energy



Internet de alta velocidade para a sua empresa.
Não importa onde ela esteja.

A internet de alta velocidade da Star One chega aos municípios com o Projeto Conexão e também a São Paulo, a cidade de origem. As vantagens são: conexão direta para Star One e não dependem de provedores locais. Também há conexão com velocidade de até 100 Mbps que atende às necessidades dos usuários de empresas para suas atividades. Para mais informações, consulte o site www.starone.com.br ou ligue para 0800 701 7327.

EasyBand Service

Business Model

- Business Model:
 - Wholesale, using Distribution Channels (called Aggregators) per market segments:
 - ISPs: UOL, Terra, AOL, iG
 - Telecom Integrators: Embratel
 - Very Specialized Entities: Rural Cooperatives, Rural Credit Organizations, Political Associations

EasyBand Service

CPEs


- Satellite modem
- 0.96, 1.2 or 1.8m antennas
- Easy and quick installation



The image shows a satellite dish with the 'Star One easyBand' logo and a satellite modem device. On the left, a person is seen looking out of an airplane window at the Earth's horizon.


EasyBand Service

Coverage and Field Support



The map shows the state boundaries of Brazil with a dashed orange circle indicating the satellite coverage area. Numerous red dots are scattered across the map, representing the locations of installation and maintenance teams. State abbreviations are visible on the map, including RR, AP, MA, PI, RJ, AC, RO, MT, BA, GO, SP, PR, RJ, and FM.


● **Satellite Coverage in Brazil**
● **Installation and Maintenance Teams**



EasyBand Service

Challenges: "a lot of lessons learned"

- Challenges:
 - 2001 scenario:
 - Lack of experiences in satellite broadband (no reliable benchmarks):
 - Retail x Wholesale?
 - Residential x Corporate?
 - What technology?
 - Right product(s) and right VAS
 - Price/performance positioning
 - Churn rates
 - Logistics activities x Time to install
 - IT systems



EasyBand Service

Achievements

- Achievements:
 - Technical Support:
 - Contact Center 24 x 7
 - Technical Lab
 - Network Performance Monitor
 - IT Systems:
 - CRM
 - Trouble-ticket management system
 - Logistics activities:
 - Installation time: from 45 to 15 days
 - Traffic control:
 - Road to profitability

Churn lower than 1,5% per month

EasyBand Service

Achievements

- Achievements:
 - Communication:

"Star One Solution"

- Extranets:
 - Web sites for end users and for Aggregators

EasyBand Service

Regulatory Aspects

- EasyBand Service is a Value-Added Service supported by Telecommunication Service (Art. 61 of Brazilian Telecommunication General Law-LGT):
 - End-users always assign contracts with Service Telecommunication Providers and Service Value-Added Providers.
- The VSAT earth stations are licensed by Anatel in block of typical stations (Blanket License - Anatel Resolution 288).

New Products in 2005



- Voice+Internet via satellite
- Internet Access, plus local distribution:
 - WISPs, using WiFi/WiMax, PLC and other technologies
- Specialized Products per market niche/applications;
 - Retail market
 - Distance Learning
- Customized Projects:
 - Digital Inclusion Programs
 - Corporate Networks

Recent Actions



- **2004 "Rally dos Sertões":**
 - Partnership with ANATEL
 - Media Center in a bus equipped with workstations and Internet access via satellite
 - Around 400 journalists
 - From Goiânia to Fortaleza, through Araguaia River region, Pará, Maranhão and Ceará



Recent Actions

Star One has recently implemented EasyBand Service for indian communities in Amazon (State of Acre), in a joint action with CDI (a Brazilian NGO)







Thank You!



OTHER INFORMATION

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