



PRODUCTS & STRATEGY, PRESENT AND FUTURE

Miguel A. Panduro
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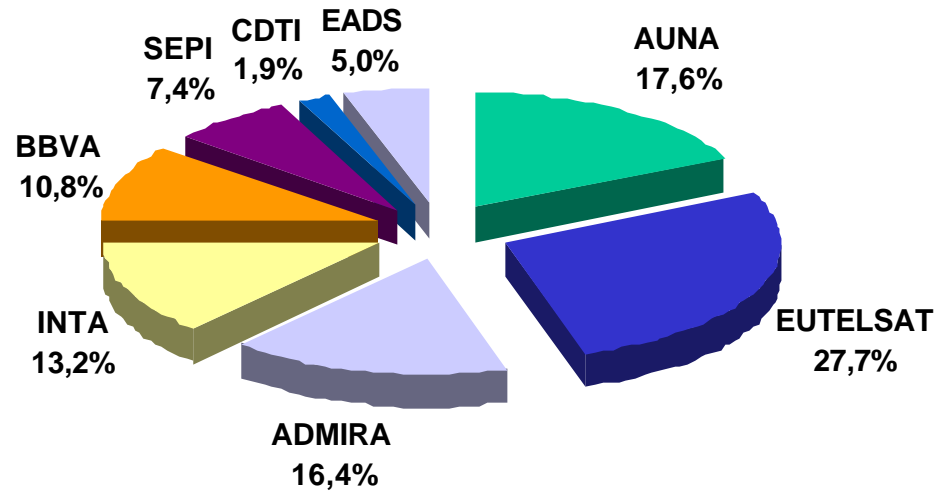
CONCLUSIONS ►

acercando culturas

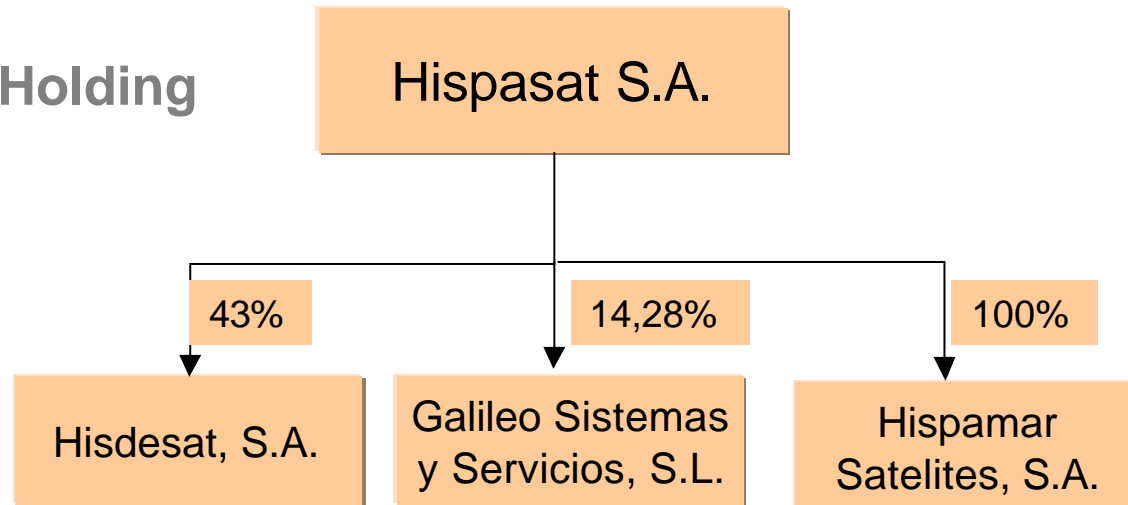


hispasat

Hispasat Shareholders



Hispasat Holding



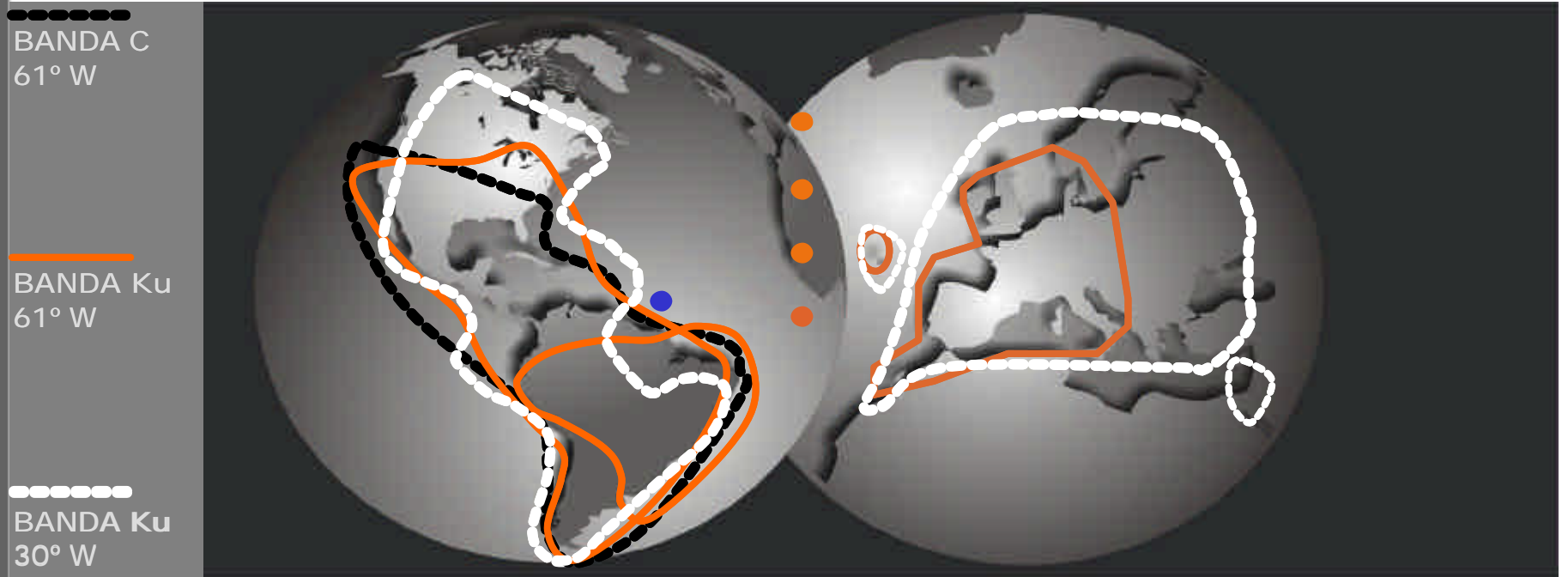
Satellites Fleet

Position	Satellite	Trp	Launch	Useful Life
30° O	Hispasat 1A	12 Ku	1992	10 years
30° O	Hispasat 1B	12 Ku	1993	10 years
30° O	Hispasat 1C	24 Ku	2000	15 years
30° O	Hispasat 1D	28 Ku	2002	15 years
30° O	Hispasat 1E	In specification phase	2005	In specification phase
30° O	SpainSat	13 X, 1 Ka	2004	15 years
61° O	Amazonas	36 Ku, 27 C	2004	15 years
IOR (TBD)	Xtar -Eur	12 X	2003	15 years

- In orbit
- Next launches

Hispasat system coverage

Satellites system



1A

1B

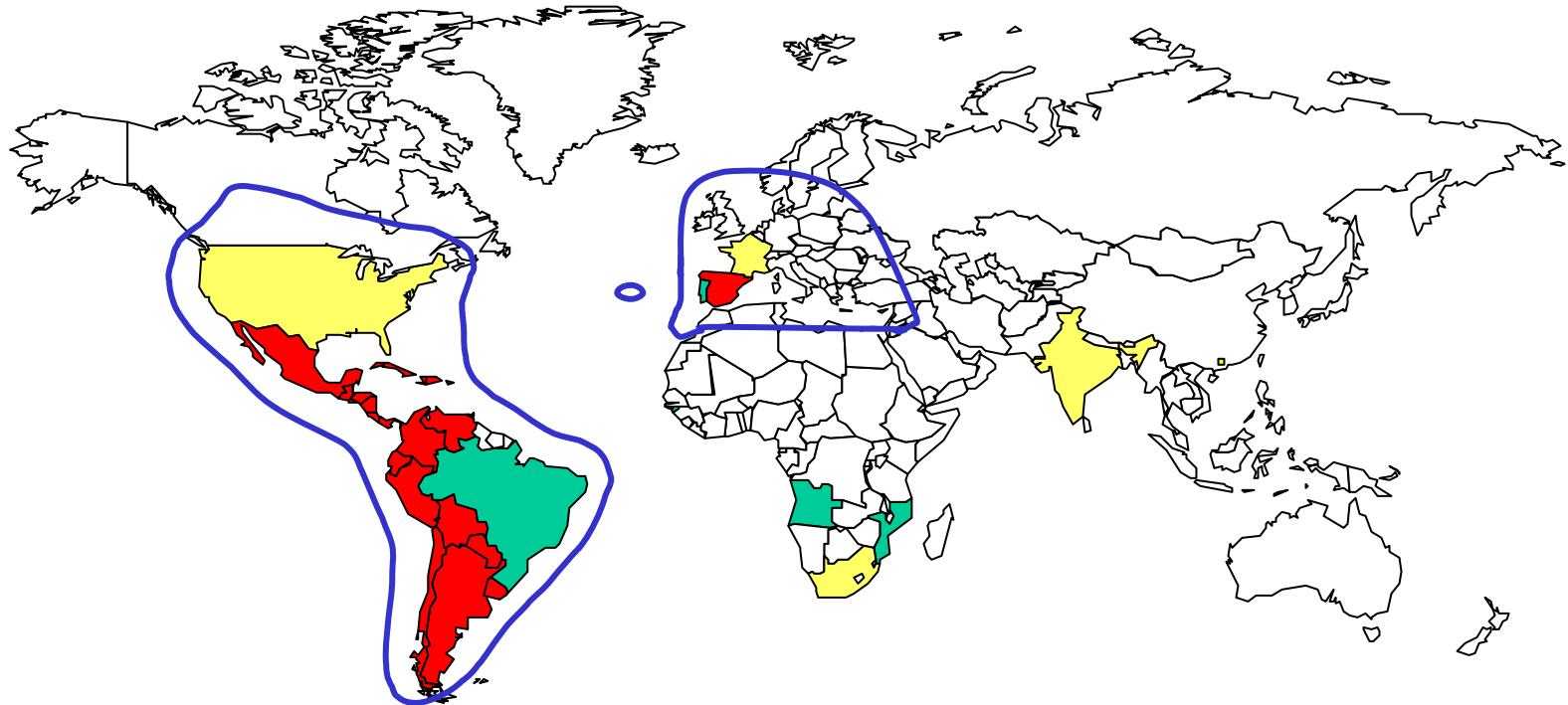
1C

1D

AMAZONAS

launch 2003

- The Vision of HISPASAT is to become the Satellite Operator leader for the Spanish and Portuguese speaking markets ...



- ... developing its business into the Americas, Europe and North of Africa



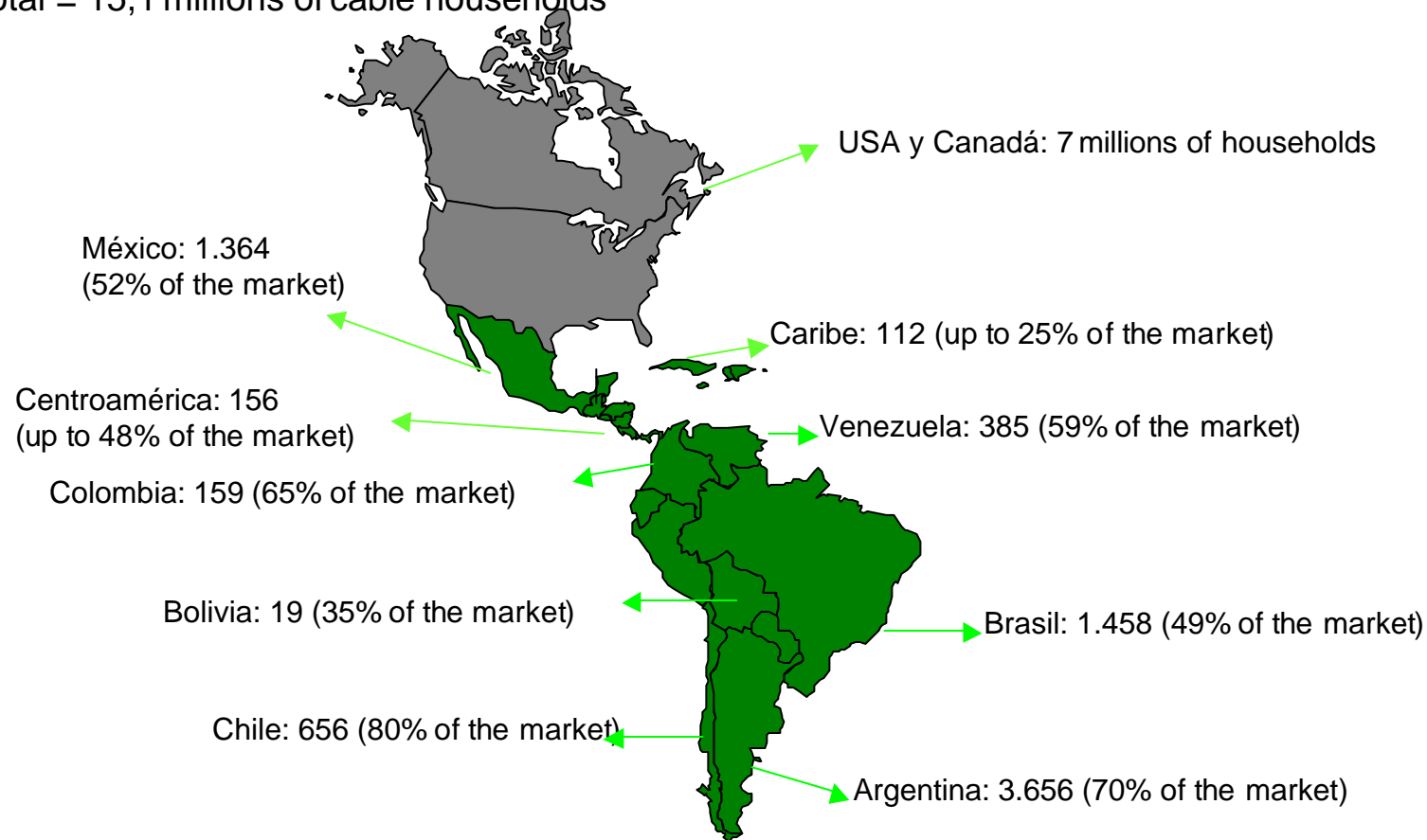
100% of Spanish and 85% Portuguese speaking population covered by HISPASAT

- Spanish
- Portuguese
- High percentage of Spanish/Portuguese

Latam market

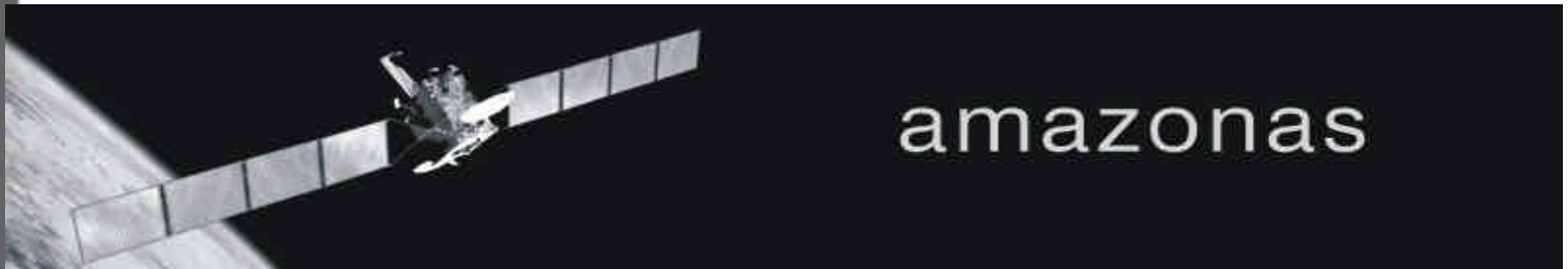
In thousand of households

Total = 15,1 millions of cable households

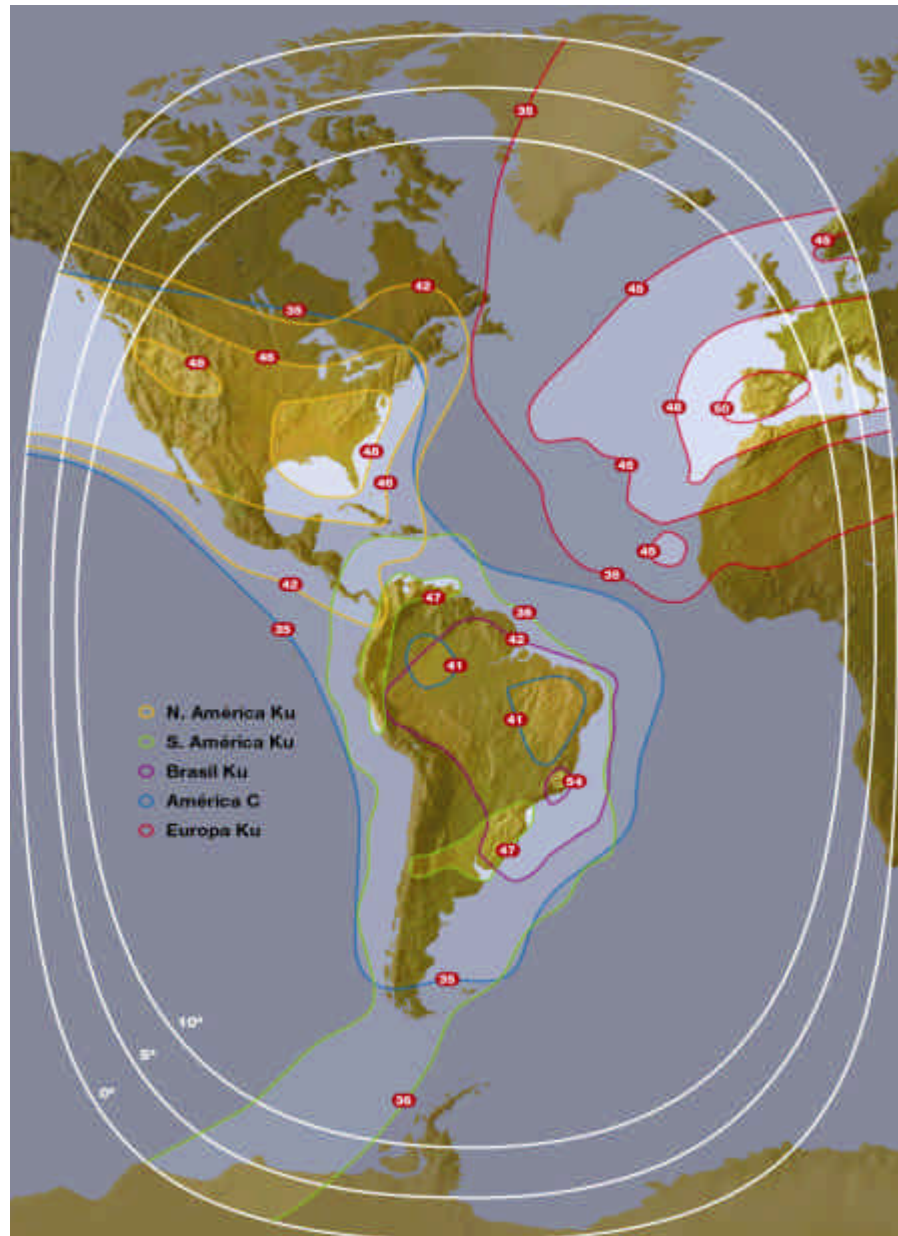


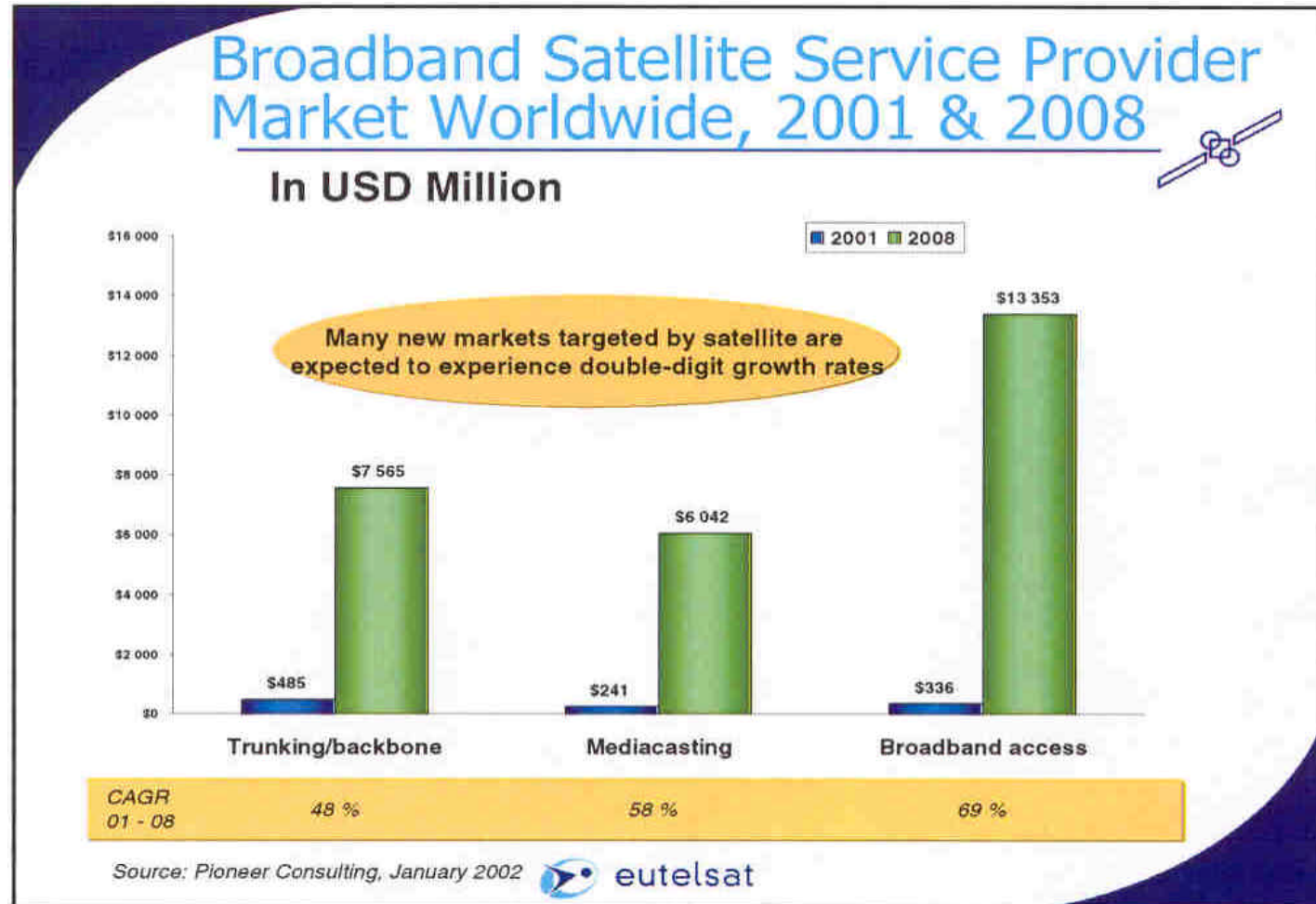
Amazonas characteristics

- Number of transponders: 63 equivalent - 36 MHz (36 in Ku Band and 27 in C Band)
- Managed HISPAMAR (100% owned by HISPASAT)
- Panamerican, Brazilian and Transatlantic coverages.
- Frequency bands: C y Ku
- Life time: 15 years
- Launching in 1Q 2004



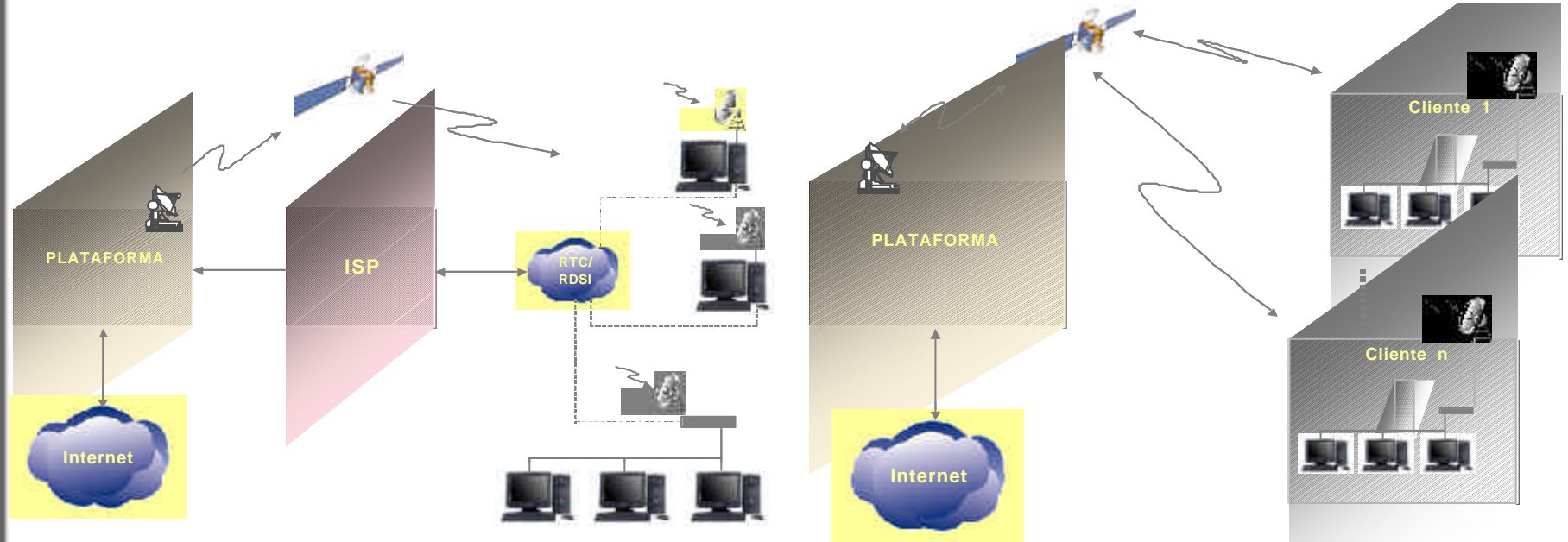
Amazonas coverage





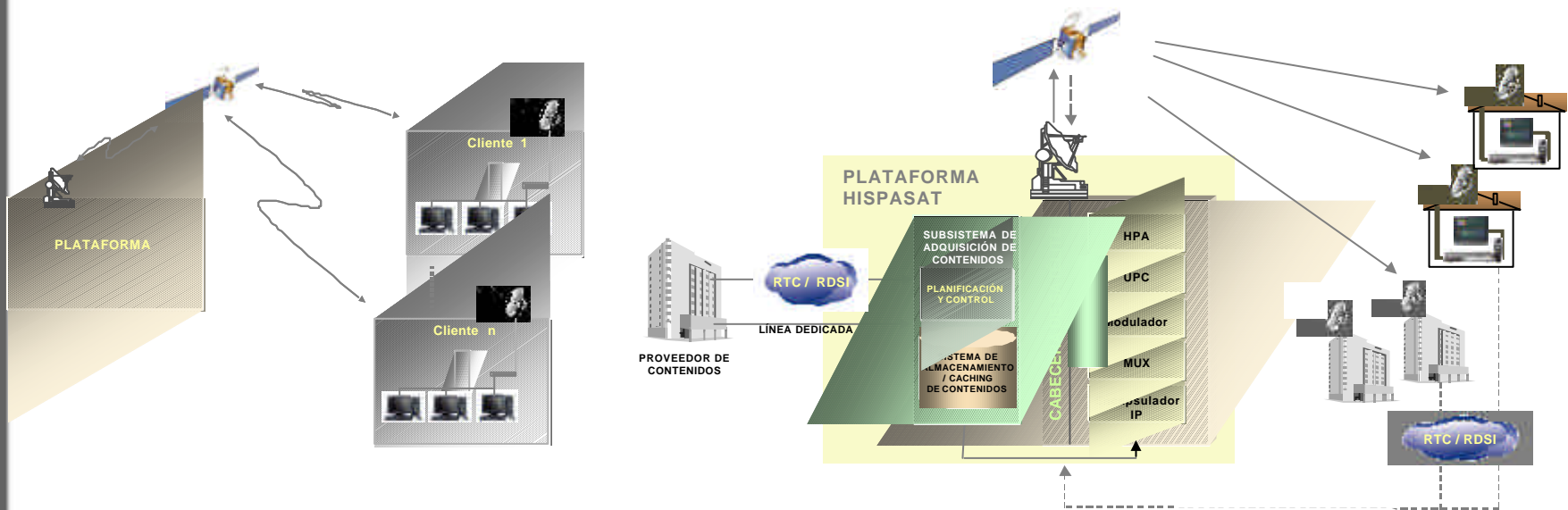
Satellite IP SERVICES

- Use of standard IP over DVB-S protocol. Up to 48 Mbps in outbound.
- Internet access with different QoS.
 - Maximum Bit rate with/without guaranteed CIR.
 - Flat fee or connection time billing.
 - Limit of download in Mbytes.
 - Unidirectional or bidirectional.



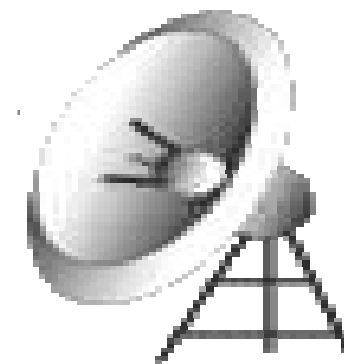
Satellite IP Services

- VPN (virtual private networks).
 - Through VSAT networks for interconnection of different sites.
 - Capacity to define CIR and QoS.
- Trunking. Point to point connection for:
 - Voice over IP.
 - Connection to backbone for remote ISPs.
- Content delivery services.
 - Multicast traffic with configurable bandwidth up to 48 Mbps.
 - Types: streaming or delivery of files.



One-way Internet access

Receiving antenna of small diameter and easy installation
Signal reception: DVB-S: (IP over DVB)



Receiver terminal: PCI card or USB

Protocolos: Unicast & Multicast

Requirements:

Pentium II 300 MHz/Celeron 366 MHz

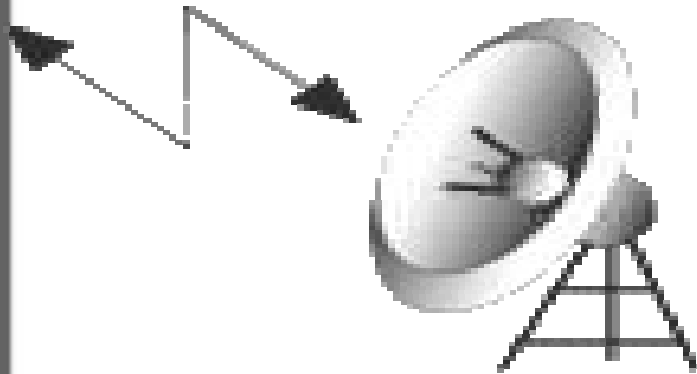
(PCI) Windows 98, 98SE, NT4.0, 2000, Me, XP Operating Systems

(USB) Windows 98SE, 2000, Me, XP Operating Systems

64MB of RAM

10MB of Hard Disk space available

Two-way Internet access



Transmitting/receiving antenna:
90 cm – 1.8 m (64 kbps- 2Mbps)

Service level: :
>99,7% of availability
Customer care 24x7

Indoor Unit

User interface

- Ethernet 10/100 BaseT
- USB (option)

Satellite interface

- Rx: DVB-S
- Tx: DVB-RCS

Protocol support

- IPv4/PPP/TFTP/FTP/BOOTP



Services and applications

Two-ways Corporate RTC / RDSI
 DVB RCS

Telemedicine

Symmetric permanent 2 Mbit/s

Two-ways Corporate RTC / RDSI
 DVB RCS

Mobile High Speed IP

Simetric Occasional 2Mbit/s

One-way Corporate

Wireless webcasting

Occasional 2Mbit/s

Two-way Corporate RTC / RDSI
 DVB RCS

Backbone conections

Simetric / asimetric Permanent >2Mbit/s

Two-way Corporate DVB RCS

Remote monitoring

Asimetric Permanent >64Kbit/s

Two-way Corporate/Residential RTC / RDSI
 DVB RCS

E-learning

Asimetric Occasional 2Mbit/s - 64 Kbit/s

One-way Corporate/Residential

Web casting

Permanent 2Mbit/s

Two-way Corporate/Residential RTC / RDSI
 DVB RCS

Internet access

Asimetric Permanent 2Mbit/s - 256 Kbit/s

One-way Corporate

Data broadcasting

Permanent >512 Kbit/s

One-way Corporate

Streaming video

Ocassional >512 Kbit/s

Two-ways Corporate/Residential RTC
 RDSI

Transmission files

Simetric / asimetric Permanent/Ocassional > 256 Kbit/s

One-way Corporate

Content delivery

Ocassional >512 Kbit/s

One-way Corporate

Business TV

Permanent >2Mbit/s

Two-ways Corporate RTC / RDSI
 DVB RCS

VPN

Simetric Permanent > 2Mbit/s

Two-ways Corporate RTC / RDSI
 DVB RCS

Audioconferences IP

Simetric Occasional >64Kbit/s

Two-ways Corporate RTC / RDSI
 DVB RCS

Videoconference IP

Simetric Occasional > 1 Mbit/s

Two-ways Corporate/Residential RTC
 RDSI

On demand Services

Asimetric Permanent >512Kbit/s - 64Kbit/s

Two-ways Corporate/Residential RTC
 RDSI

ADSL Extension

Asimetric Permanent > 256 Kbit/s - >128Kbit/s

Conclusions

- **SATELLITE APPLICATIONS WILL ALLOW TO REDUCE THE DIGITAL GAP FOR THE DEVELOPING COUNTRIES.**
- **HISPASAT WILL SUITED OVER SPANISH/PORTUGUESE MARKETS.**
- **IP BROADBAND SERVICES IS THE KEY FOR THE GROWTH OF SATELLITE SERVICES MARKET.**
- **HISPASAT VISION: BECOME THE SATELLITE OPERATOR LEADER FOR LATINAMERICAN MARKET.**

www.hispasat.com