

PANEL:
**WRC-23 DECISIONS THAT
TRANSFORM THE FUTURE OF WFI**

THE SATELLITE PERSPECTIVE

Fabio Alencar
Vice-President, Corporate
Development Latam

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SES – Company Overview

Delivering Global Content Connectivity Solutions



We broadcast over 8,000 TV channels that reach over 1 billion people



We deliver HD & Ultra HD content to any platform, on any device



We ensure that customers have full access to the cloud, from any location



We help restore connectivity after natural disasters



We connect over 300 customers in 130 countries and on planes, ships, oil rigs



We support telcos with their 3/G/4G/5G roll-outs and connecting remote areas

Spearheaded Multi-Orbit Networks

First to operate MEO and GEO satellites successfully

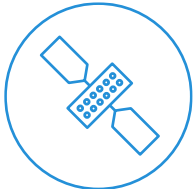
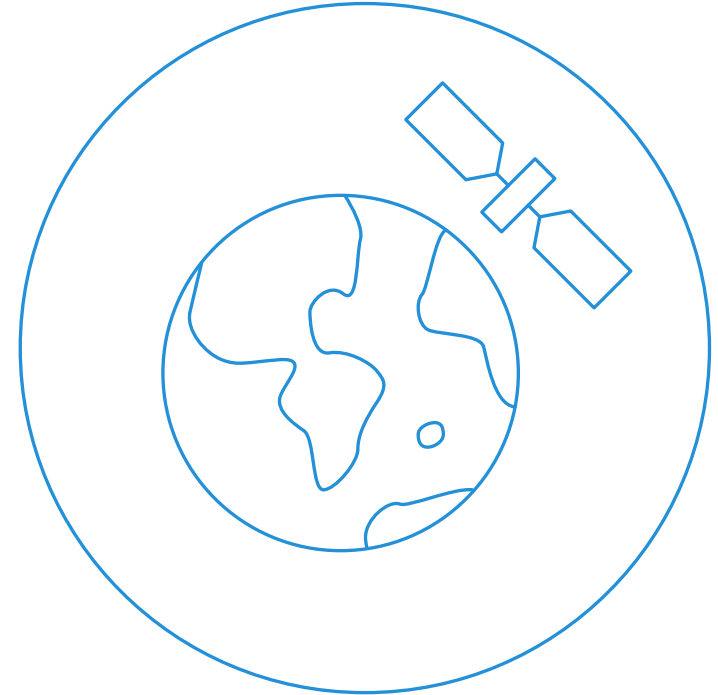


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GEO widebeam and high throughput satellites

99%

global coverage



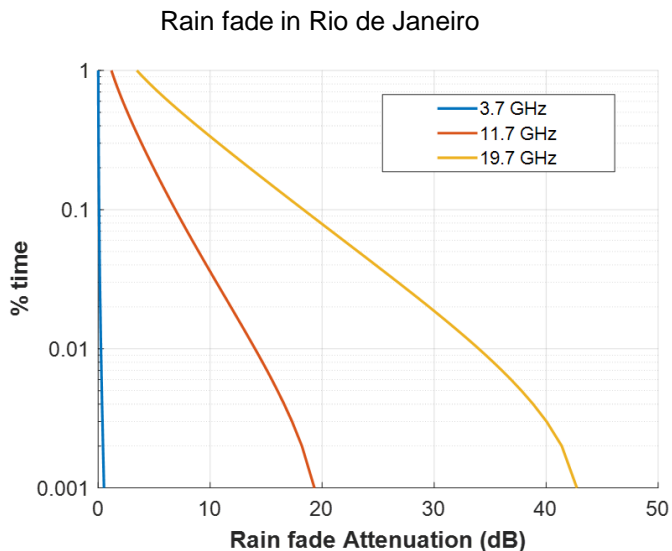
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MEO high throughput satellites

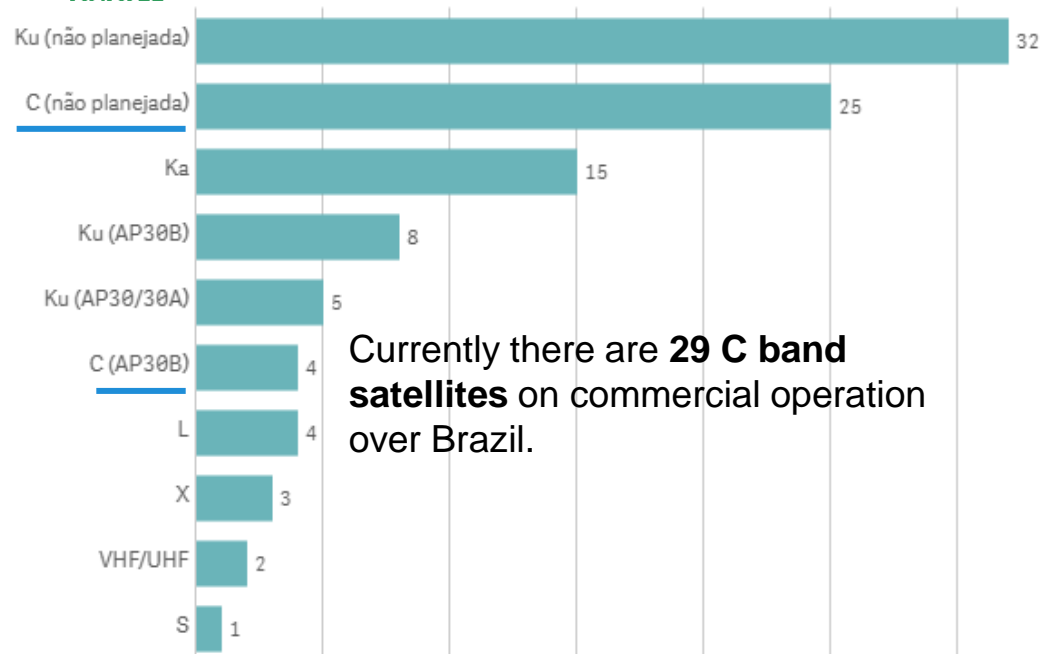
Satellite over Brazil

C Band

▲ Rain attenuation is a critical factor



Satellites per Radiofrequencies



Currently there are **29 C band satellites** on commercial operation over Brazil.

C-band applications

Backhaul &
Rural
connectivity



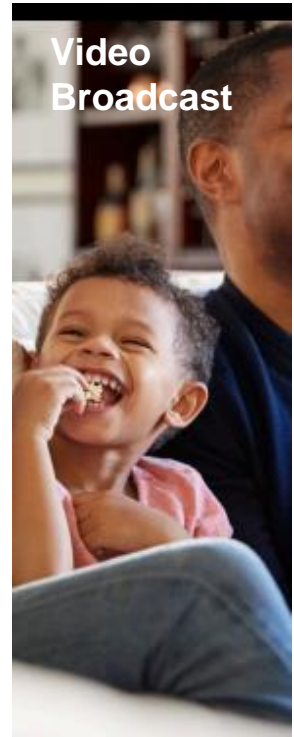
Maritime &
Energy



Government



Video
Broadcast



SES Fleet over Latin America

C Band satellites

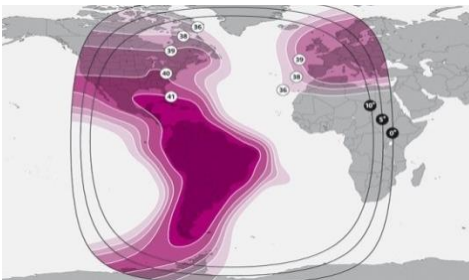
● C-Band

47.5°W
SES-14

40.5°W
SES-6

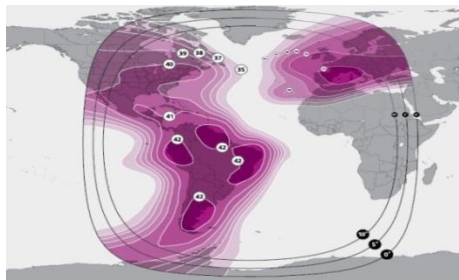
22°W
SES-4

SES-14



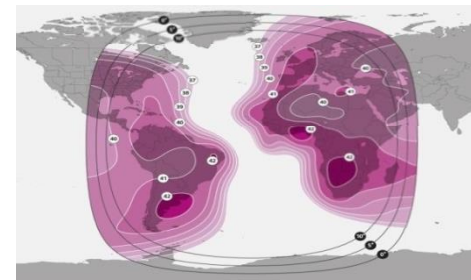
▲ Reaches 99% Pay TV subscribers in the region

SES-6



▲ Premium Video Community

SES-4

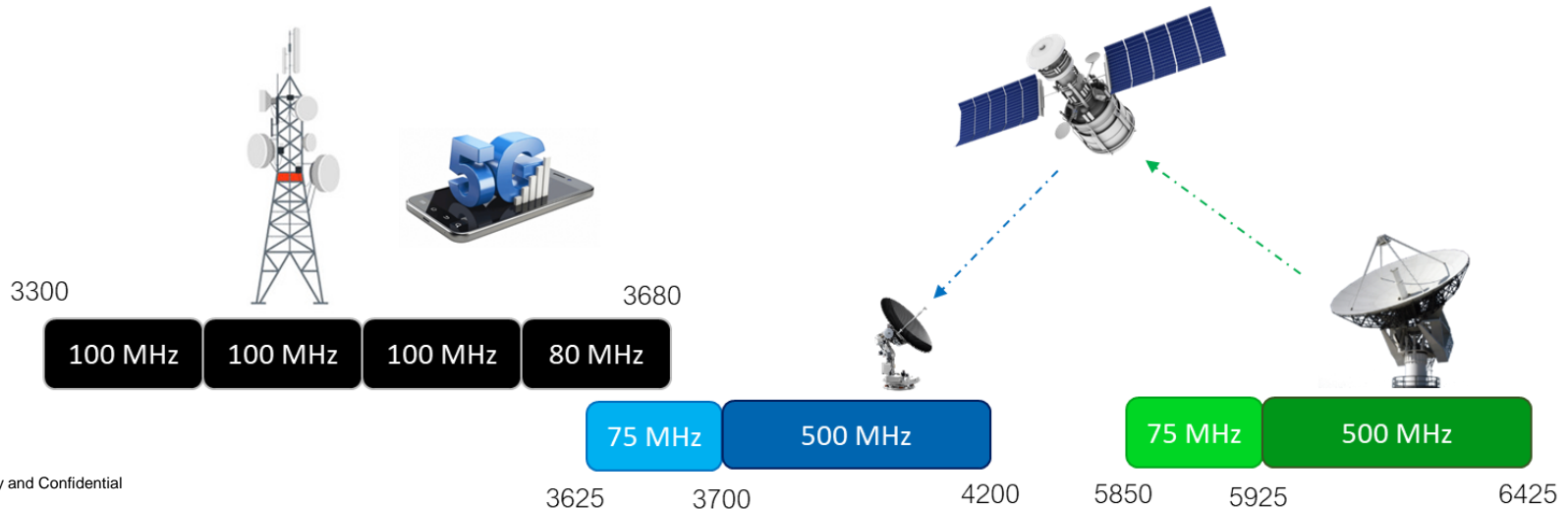


▲ Video Distribution for Local Channels



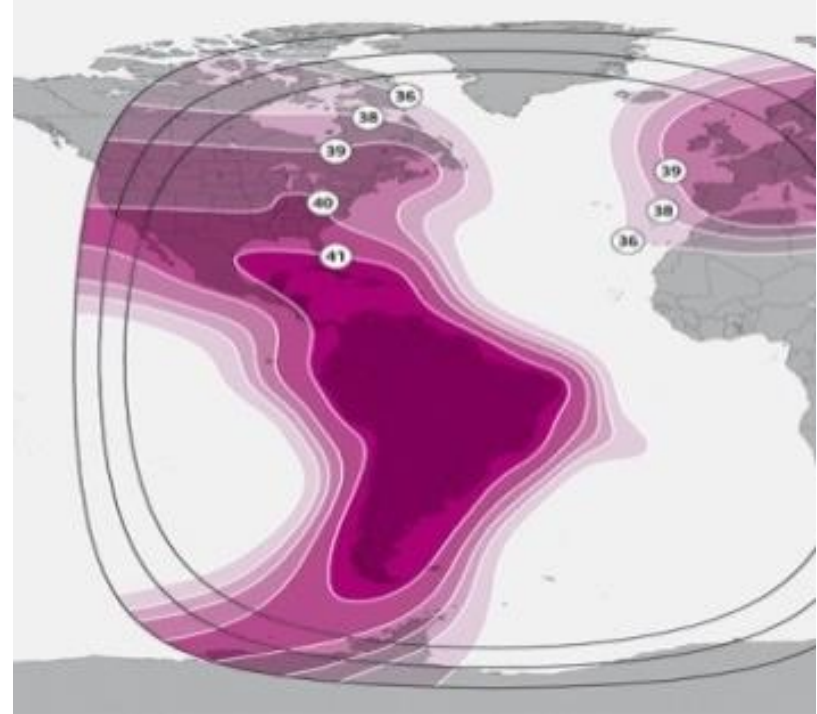
Brazil C Band & 5G Roll out

- ▲ There are more than **30,000** earth stations and **millions of TVRO** operating on C band.
- ▲ In 2022, **75 MHz** of the original FSS **575 MHz** C band downlink spectrum was allocated to IMT
- ▲ **Demand** for C band satellite capacity is **stable** and consumes almost the entire current offer of capacity
 - Deployment of a new satellite may require up to 4 years for planning, designing, building and launching
 - Migrate services to other frequencies bands would require huge investment



Regional Coverage

- ▲ Satellites coverage goes **beyond country borders**
- ▲ Many customer's applications requires the same signal **distributed over several countries**
- ▲ Different allocations of frequencies bands per country could limit end user application or **increase cost of services.**



GSOA Position on WRC-23 Agenda Item 1.2

6425-7025 MHz (RI)
7025-7125 MHz (globally)

GSOA position is **No Change**
to the ITU RR.

Using 6425-7025 MHz in RI
and 7025-7075 MHz globally
for IMT would lead to excessive
interference making these bands
unusable for FSS.

- ▲ *Sharing studies between IMT and FSS in 5925-6425 MHz (CEPT/ECC Report 302) demonstrated that sharing with unlicensed WiFi indoors is more feasible than sharing with IMT1*
- ▲ *In 6425-7075 MHz, studies conducted by GSOA and administrations show excessive interference to satellites, even with a very low IMT density. Any limit to protect satellite (e.g. 25 dB power reduction) would make IMT operations impractical*

Fabio Alencar
VP Corporate Development Latam

Fabio.Alencar@ses.com

+55 21 97502-7701

