



Satellite Spectrum for DTT & DTH Broadcasting

Thabo Makenete



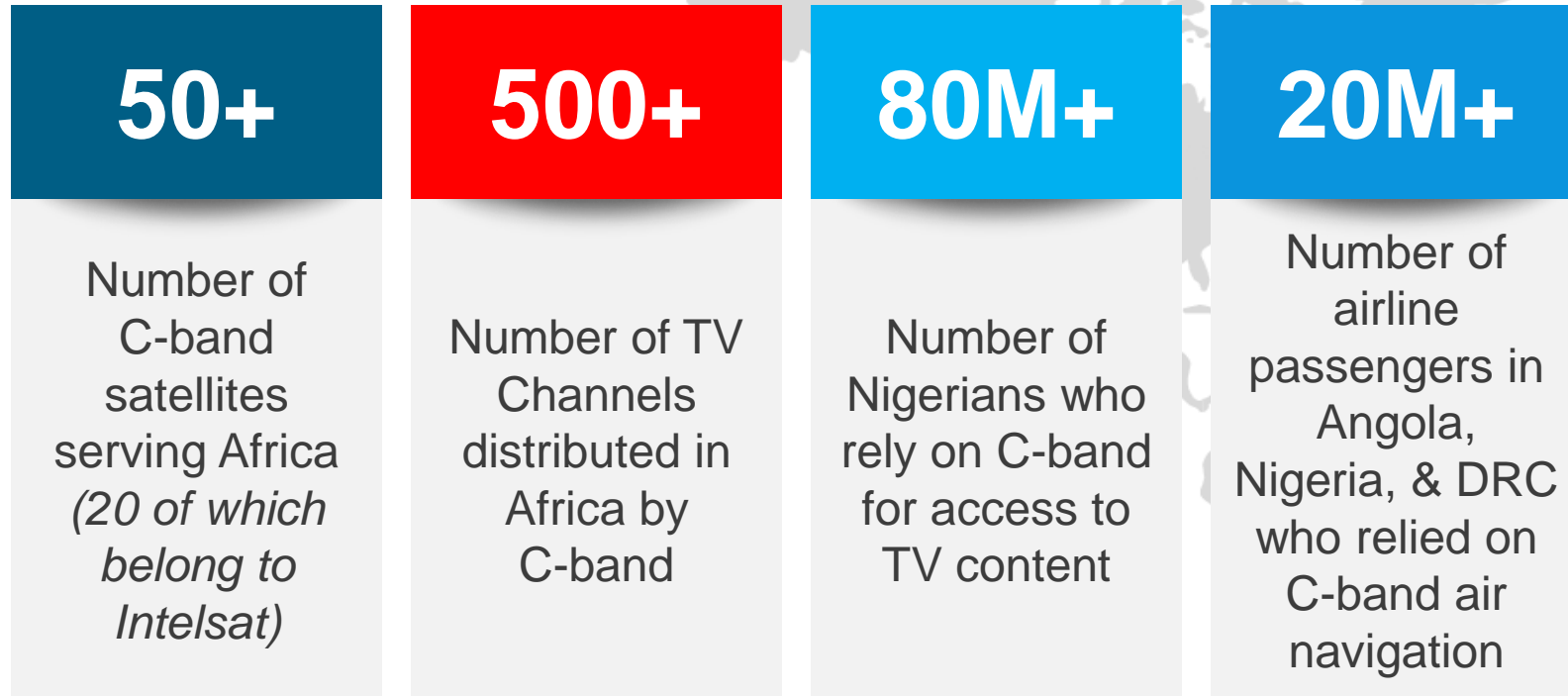
MULTI CHOICE
ENRICHING LIVES



C-Band Use

Facts and Figures

Sub-Saharan Africa Population: **1.061 Billion** (2017)



Satellite services in C-band play a critical role in Africa's economy

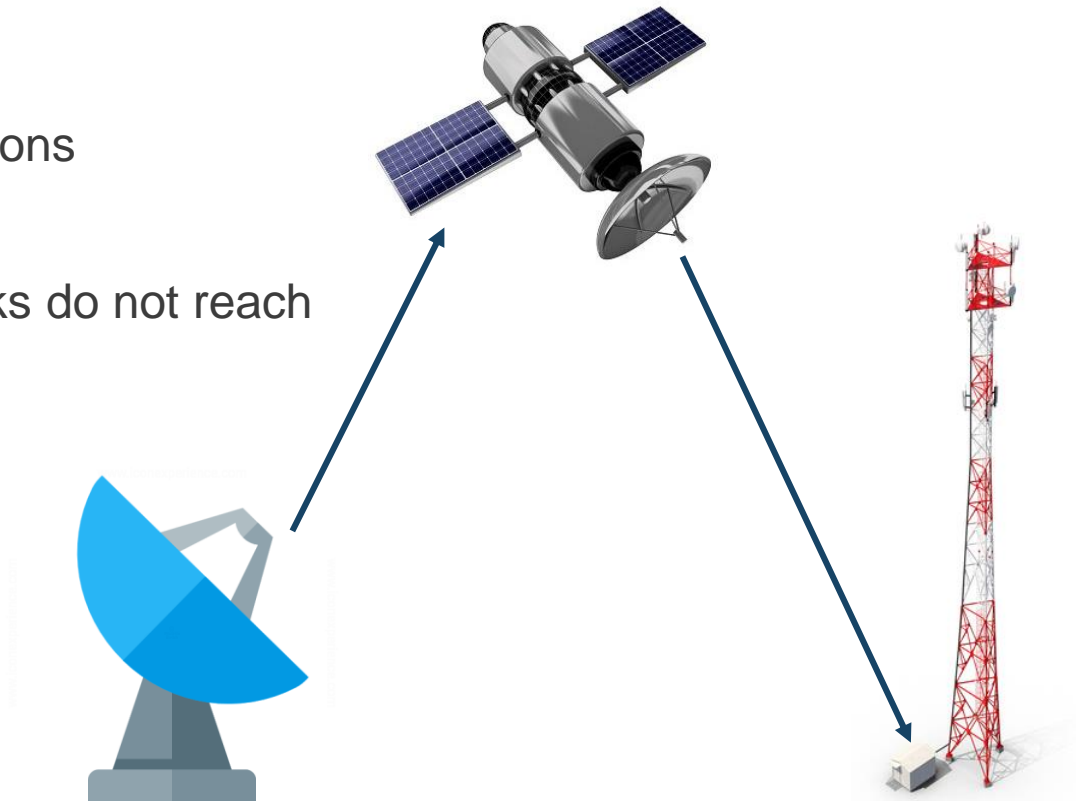
C-Band Use

Broadcasters use this band extensively for DTT backhauling

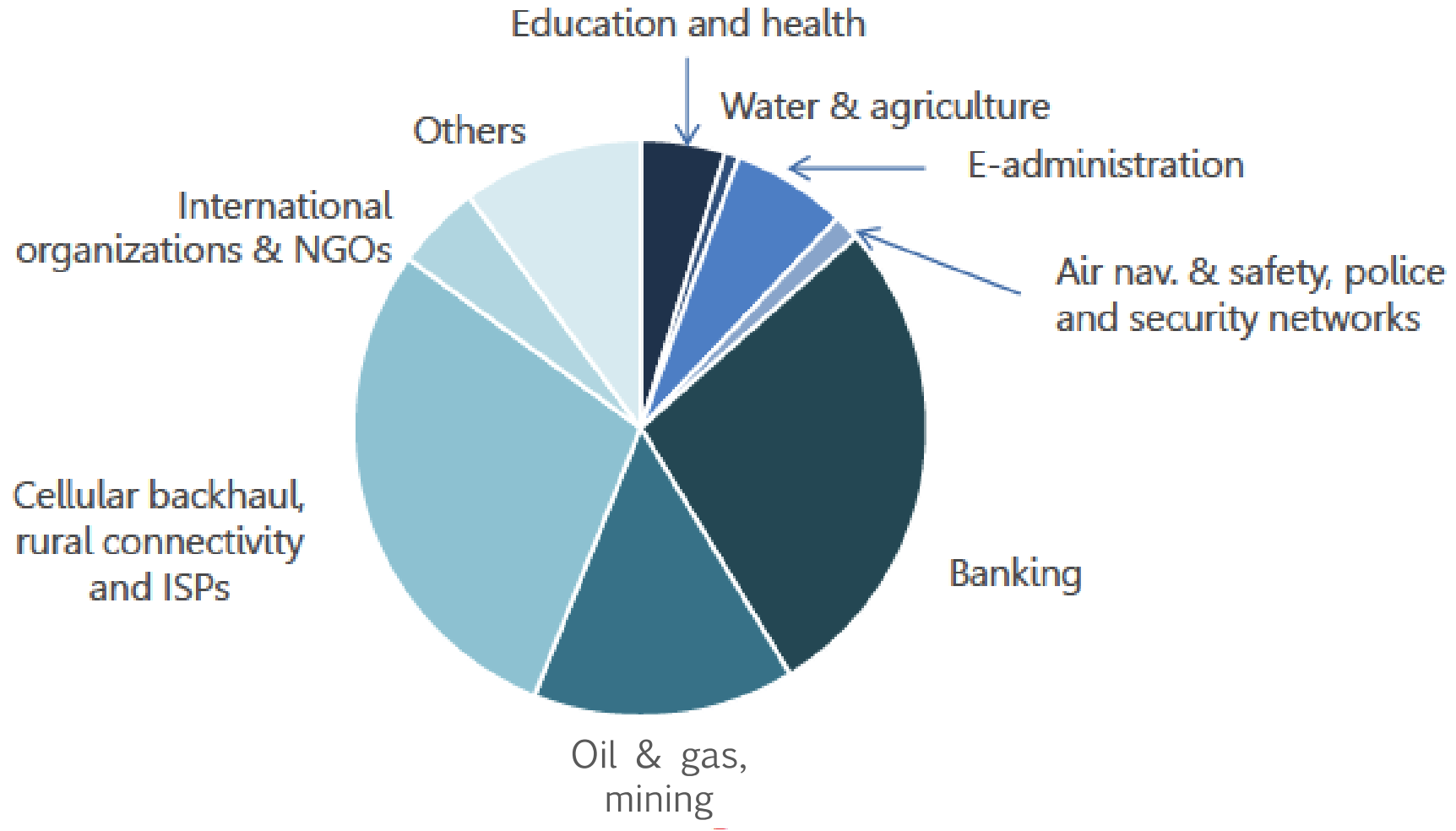
Critical in SFNs where transmitters require synchronization (no fiber feeding all transmitter sites - specifically remote rural sites)

Critical band for DTT as it is not affected by atmospheric conditions

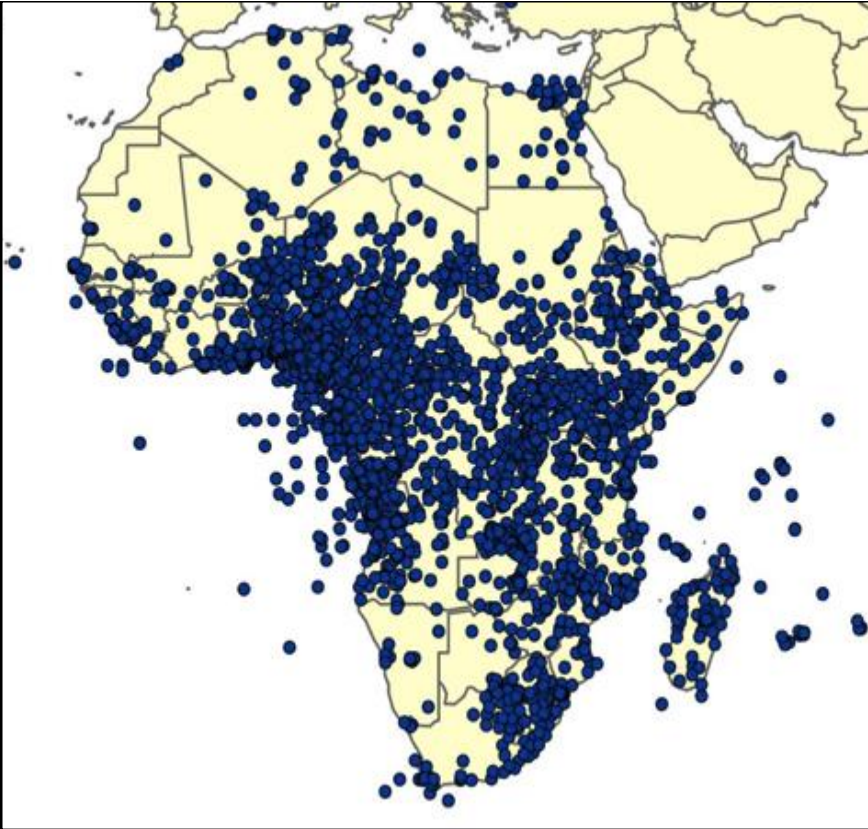
Also critical to many other FSS users - where terrestrial networks do not reach



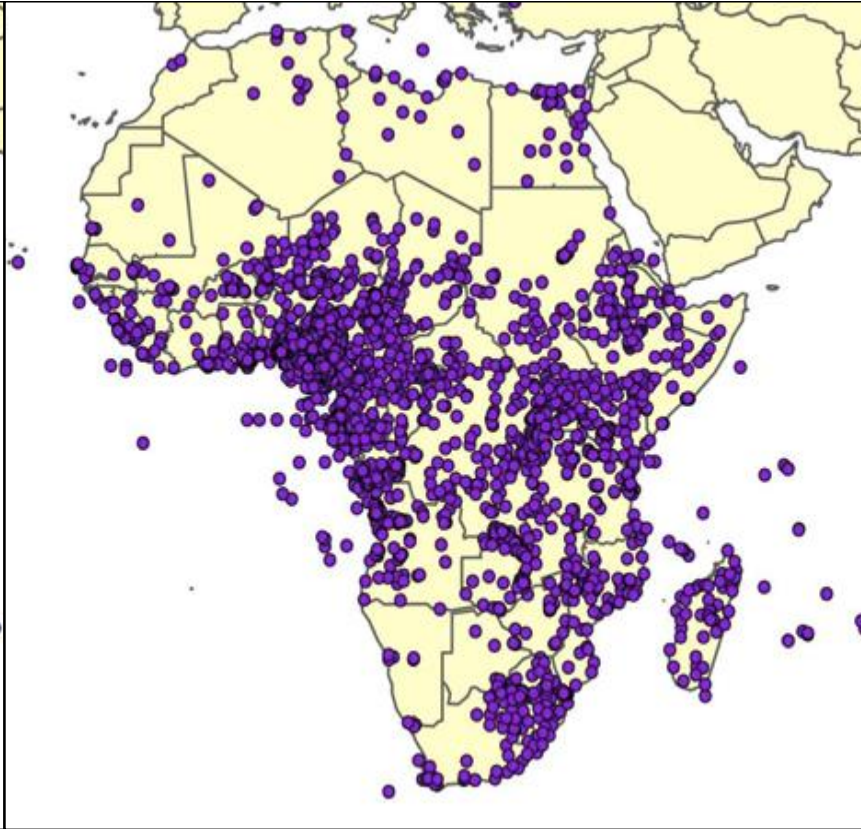
C-Band Use



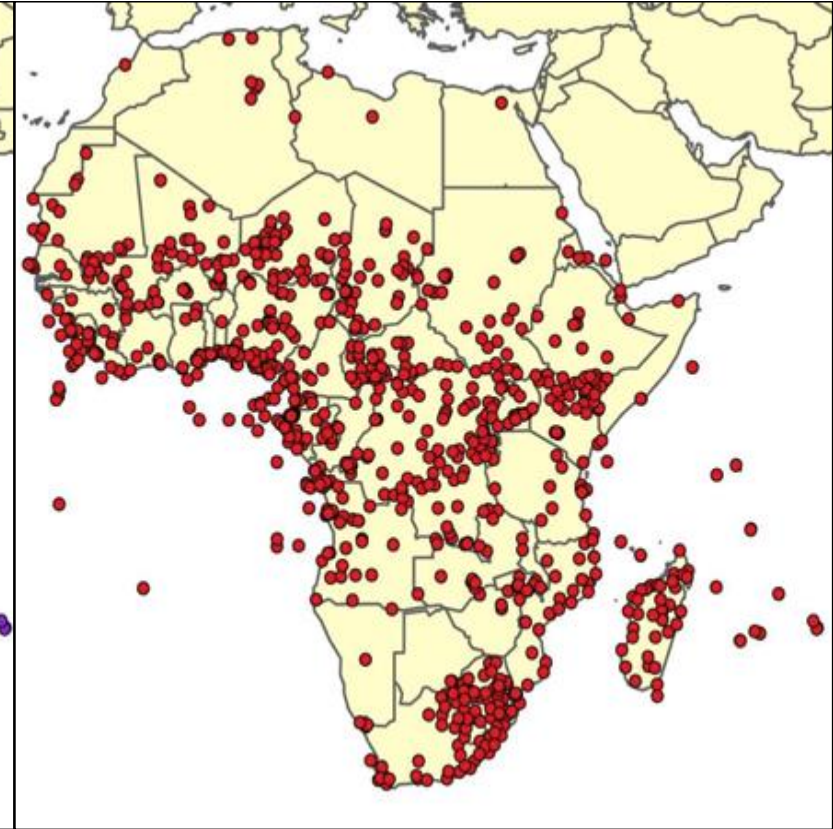
C-Band Use



C-Band Earth Stations



C-Band Earth Stations
(Below 3800 MHz)



C-Band Earth Stations
(3600 – 3800 MHz)

C-Band Use

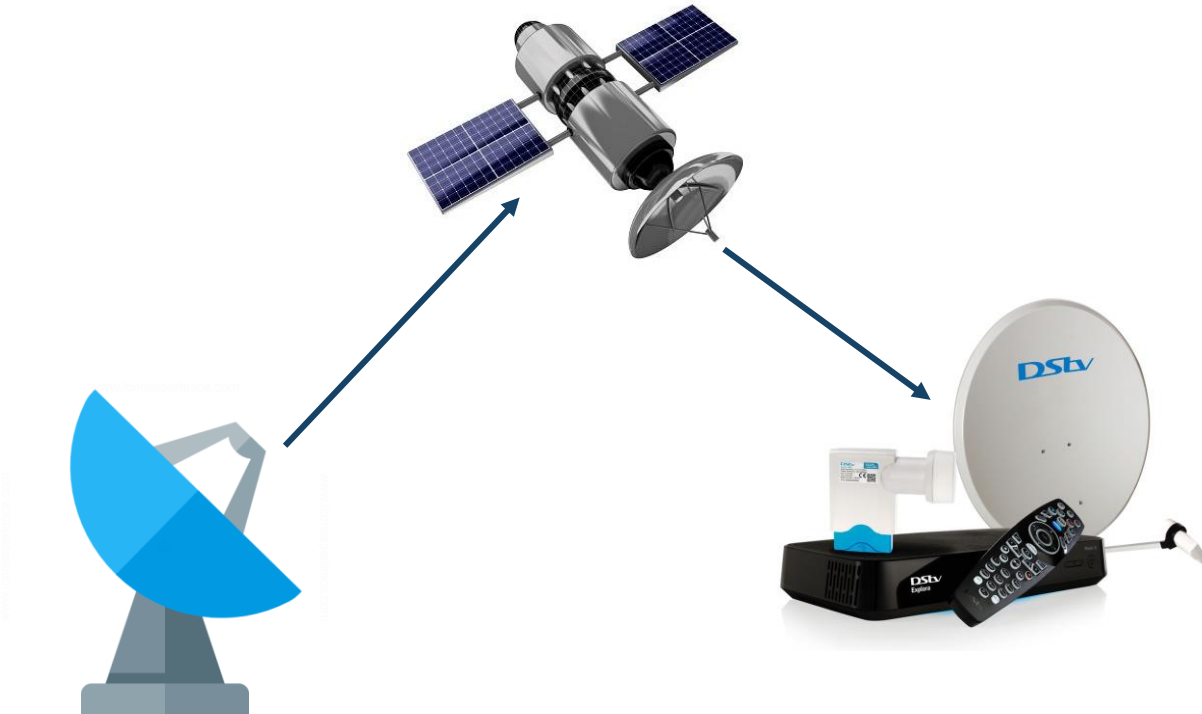


Ku-Band Use

Extensively used throughout Africa for broadcast feeds and DTH services

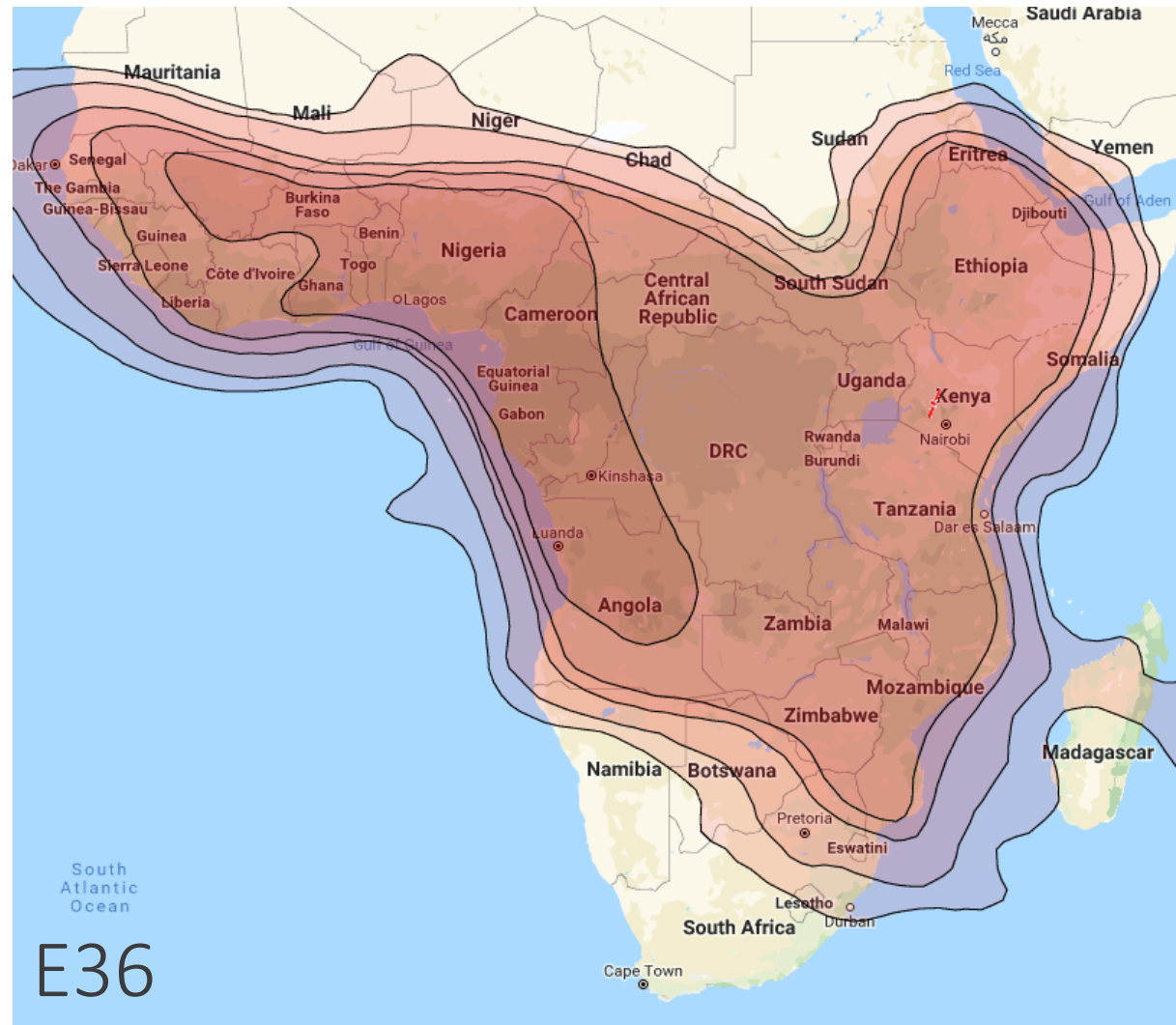
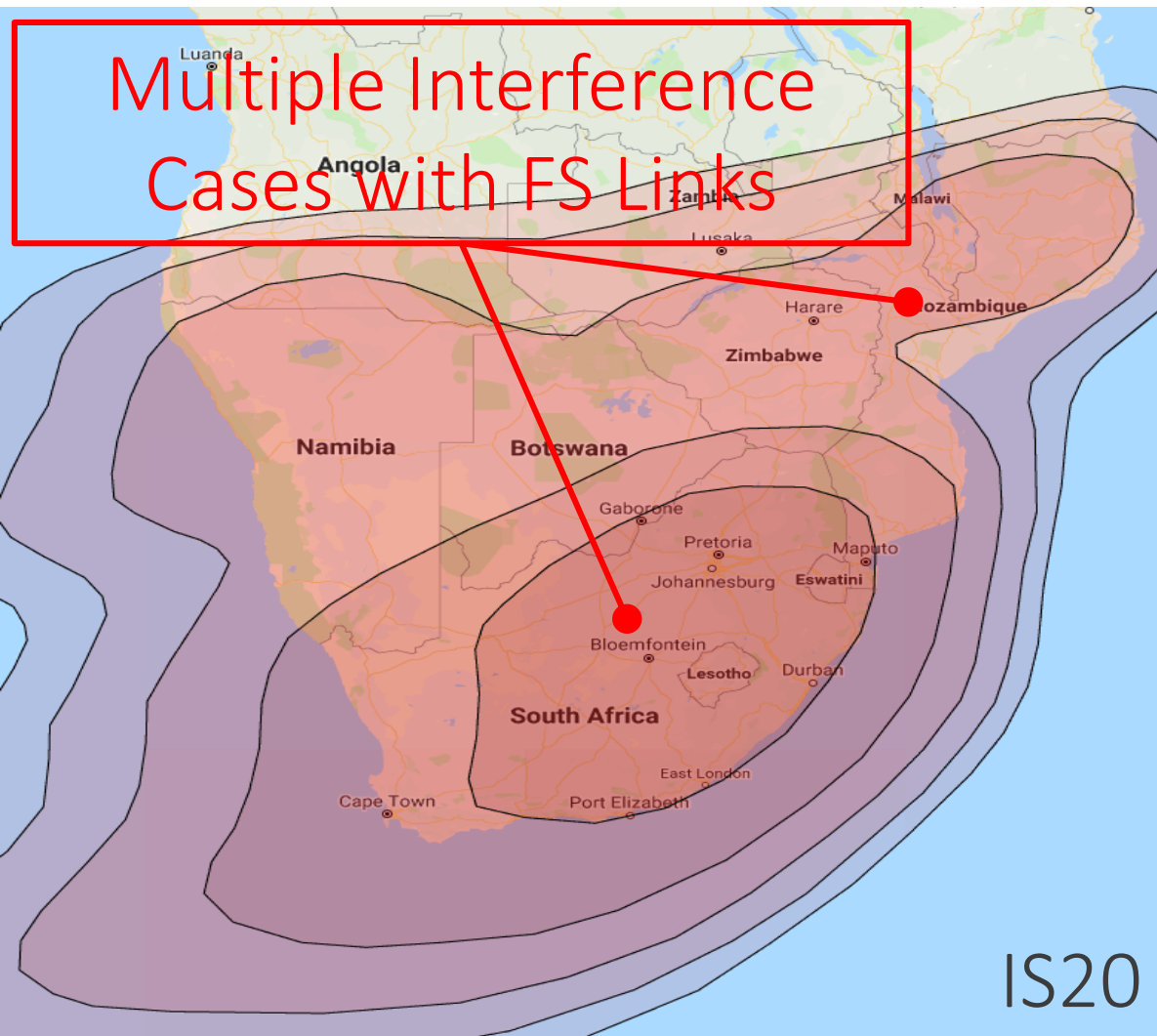
DStv alone provides DTH services to more than 14 Million households across the continent

Combine this number with households served by StarSat, OpenView, Zap and others; shows the magnitude and importance of this band for DTH



Ku-Band Use

Multiple Interference Cases with FS Links



Impact



Kenya - IS22

Ghana - IS37

Mozambique - IS37

Zimbabwe - IS37

Malawi - SES5

South Africa - IS33 & IS20

Final Thoughts

Satellite is critical to Africa's telecommunications and broadcasting infrastructure

3300 - 3600 MHz is available (still to be licensed in many parts of the continent) and adequate to meet 5G demands

Digital Dividend bands provide coverage, and this is Africa's biggest issue

Ensure that FSS in adjacent band is protected. Satellites are an integral component of 5G

Regulatory certainty is vital to all Radiocommunications services



The MultiChoice logo is centered on a white background. It features a stylized sunburst or fan shape composed of multiple colored segments in shades of purple, blue, green, yellow, orange, and red. Below the graphic, the word 'MULTIChoice' is written in a bold, black, sans-serif font. Underneath that, the tagline 'ENRICHING LIVES' is written in a smaller, black, all-caps, sans-serif font.