

Nigeria's Digital Transition Architecture

Technical overview for board-level and policy-level decision makers



Core proposition Nigeria's optimal path: a converged architecture using Satellite, Terrestrial and IP - with DTT as the national backbone.

The policy question is not satellite versus terrestrial. It is how to use every layer for the role it performs best.

1. SATELLITE LAYER (DTH)



Universal reach and safety net

- Reaches remote and underserved communities
- Useful for hard-to-reach terrain and baseline national availability
- Best as gap-fill and resilience layer, not the sole national architecture
- Supports contribution/distribution to DTT head-ends

2. TERRESTRIAL BACKBONE



DVB-T2 / SFN primary capacity layer

- High-capacity coverage in cities, villages and transport corridors
- More robust under tropical rainfall than DTH reception
- Supports portable and mobile viewing pathways
- Enables local, regional and minority-language services
- Provides distributed resilience and sovereign emergency reach

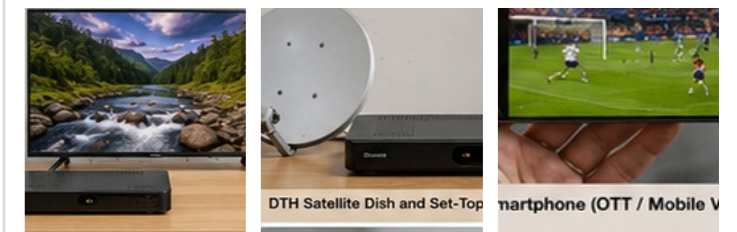
3. INTERNET LAYER (IP / OTT)



On-demand and interactive services

- Catch-up TV, on-demand libraries and personalised services
- Supports hybrid broadcast-broadband and HbbTV-style interactivity
- Enables audience data, advertising intelligence and service innovation
- Depends on broadband affordability and availability

4. END-USER ACCESS



DVB-T2 STB

DTH dish

OTT mobile

- DVB-T2 set-top boxes and indoor/outdoor antennas for terrestrial reception
- Satellite dish and decoder for DTH where terrestrial reach is uneconomic
- Smartphones, tablets and smart TVs for IP services where broadband exists
- The winning architecture gives citizens multiple access paths

One nation. Multiple platforms. Universal access. Sustainable transition.

Why the terrestrial backbone is indispensable



1. Rain resilience

Terrestrial UHF reception is more dependable during heavy tropical rainfall.



2. Mobility

DTH requires a fixed dish; terrestrial supports portable and future direct-to-mobile pathways.



3. Urban capacity

Dense markets need high-capacity terrestrial reuse and SFN planning.



4. Local content

Transmitters can carry regional and minority-language services by geographic area.



5. Interactive advertising

Hybrid terrestrial/IP enables audience measurement and addressable advertising.



6. National resilience

A distributed terrestrial network avoids over-reliance on a single satellite asset.



7. Continuity

DTT reduces risk during satellite replacement and service-transition cycles.



8. Affordability

Antenna plus set-top box is lower-cost where terrestrial coverage is viable.

Policy and implementation alignment

Licensed signal-distributor-led architecture

Transmission must be a regulated national infrastructure function, not a fragmented station-by-station arrangement.

Separation of content provision and signal distribution

Broadcasters focus on content; signal distributors deliver the platform equitably and commercially.

Single Frequency Network planning

DVB-T2/SFN allows efficient spectrum use and coordinated national coverage.

Satellite as complementary safety net

Satellite fills uneconomic and hard-to-reach areas; it should complement terrestrial, not replace it.

Cable, communal reception and IP support

Local reception clusters and broadband services extend reach where individual reception is difficult.

Infrastructure photo panels are illustrative; logo inserted from source file without alteration.

Satellite reaches everywhere. Terrestrial reaches everyone where they live, work and move. Nigeria's national transition needs both.

