Draft Digital Terrestrial Television Regulations, 2025

15 August 2025

Contents

1. Introduction

1.1. SENTECH thanks the Independent Communications Authority of South Africa (ICASA) ("Authority") for the opportunity to submit on the *Draft Digital Terrestrial Television Regulations 2025*, published in Government Gazette No.52946 on 04 July 2025 ("Draft DTT Regulations").

1.2. SENTECH intends to make a presentation should the Authority hold public hearings.

2. Repeal of Regulations

2.1. When finalising the DTT Regulations, the Authority must take note of the Order of the High Court of South Africa, Gauteng Division (Pretoria), case number: 2025-008928 dated 27 March 2025.

2.2. The Order impacts Analogue Switch Off (ASO) and the digital-to-digital (D2D) migration process in Eastern Cape, Gauteng, Kwa-Zulu Natal, and Western Cape Provinces.

2.3. The implementation of Regulation 10 is dependent on the issues linked to the Order, especially if the final DTT Regulations are finalised before an agreement on ASO and D2D is reached.

3. Draft White Paper on Audio and Audiovisual Media Services

3.1. The Authority must take note of the Department's Draft White Paper on Audio and Audiovisual Media Services and Online Safety, as published in Government Gazette No. 52972 on 11 July 2025 ("Draft White Paper").

3.2. The Draft White Paper proposes a broad policy shift for the regulation of both traditional broadcasting and online streaming platforms under a converged framework, encouraging a technology-neutral, service-based approach to regulation.

3.3. The Draft DTT Regulations remain platform-specific, focusing on spectrum management, multiplex allocation, and signal distribution for terrestrial networks.

3.4. The Draft White Paper proposes a regulatory environment that may require, in the future, the Authority to align with the broader converged framework to avoid duplication or conflicting obligations.

4. Definitions

4.1. Digital Broadcasting

4.1.1. SENTECH is concerned that the definition in the Draft DTT Regulations is overly narrow and potentially misleading.

4.1.2. The Draft DTT Regulations define digital broadcasting only as *terrestrial*, excluding satellite, cable, and IP-based digital broadcasts, which are widely accepted forms of digital broadcasting in global standards and practices.

4.1.3. The definition is circular and redundant, as it loops back to "terrestrial broadcasting in digital format," which is essentially DTT and fails to stand as a broad umbrella term.

4.1.4. Additionally, it creates confusion in the hierarchy. Internationally (e.g. ITU, DVB), digital broadcasting is the broad category, and DTT is one of its subtypes. But here, the regulation treats "digital broadcasting" as synonymous with DTT, which may confuse stakeholders or create unintended regulatory implications.

4.1.5. SENTECH advocates for the definition alluded to in the ITU *Handbook on Digital Terrestrial Television Broadcasting Networks and Systems Implementation* (2016 edition), namely:

> "**digital broadcasting**" means a broadcast technology based on the transmission of audiovisual media information by bit streams.

4.1.6. This definition illustrates that broadcast signal is not limited to traditional video and audio, included are data services such as teletext, subtitles (closed captions), or an Electronic Program Guide (EPG). The signal carries descriptive and technical metadata for programming identification and receiver configuration (e.g., station info, audio/video compression systems, sound-channel arrangements, interactivity controls, aspect ratio, etc.). Additionally, "access services" like audio description or sign-language video can be embedded within the broadcast multiplex.

4.1.7. Modern digital broadcasting integrates a suite of technologies to create the signal and deliver it to end users.

4.2. Fourth generation Moving Picture Experts Group (MPEG-4)

4.2.1. SENTECH proposes the following definition for MPEG-4:

"**fourth generation Moving Picture Experts Group (MPEG-4)"** means a digital video and audio compression standard, ISO/IEC 14496, enabling efficient encoding, compression, and transmission of multimedia content (video, audio, subtitles, etc.) and widely used in digital television broadcasting, video streaming, and mobile media.

4.3. Second-generation digital terrestrial television broadcasting system (DVB-T2)

4.3.1. SENTECH proposes the following definition for DVB-T2:

"**Second generation digital terrestrial television broadcasting system (DVB-T2)**" means a standard for digital terrestrial television broadcasting, offering significant benefits compared to DVB-T (EN 300 744 [i.18]).

4.3.2. A definition for “digital terrestrial television broadcasting system (DVB-T)” must be included in the appropriate place:

“**Digital terrestrial television broadcasting system (DVB-T)**” means a digital terrestrial television broadcasting system developed by the Digital Video Broadcasting (DVB) Project and standardised by ETSI (EN 300 744). It uses coded orthogonal frequency division multiplexing (COFDM) for modulation and incorporates forward error correction (FEC) for robust transmission over terrestrial channels.

4.4. Multiplex 1

4.4.1. SENTECH proposes the following definition for Multiplex 1:

“Multiplex 1” means the frequencies designated as “CA1; EC1; FS1; GT1; KZ1; MP1; NC1; NC1A; NP; NP1A; and NW1” in Annexure J (Digital Terrestrial Television SFN Networks Post 2015) of the Terrestrial Broadcasting Frequency Plan 2023 (as amended).

4.5. Multiplex 2

4.5.1. SENTECH proposes the following definition for Multiplex 2:

“Multiplex 2” means the frequencies designated as “CA2; EC2; FS2; GT2; KZ2; MP2; NC2; NC2A; NP; NP2A; and NW2” in Annexure J (Digital Terrestrial Television SFN Networks Post 2015) of the Terrestrial Broadcasting Frequency Plan 2023 (as amended).

4.6. Multiplex 3

4.6.1. SENTECH proposes the following definition for Multiplex 3:

“Multiplex 3” means the frequencies designated as “CA3; EC3; FS3; GT3; KZ3; MP3; NC3; NC3A; NP; NP3A; and NW3” in Annexure J (Digital Terrestrial Television SFN Networks Post 2015) of the Terrestrial Broadcasting Frequency Plan 2023 (as amended).

4.7. Multiplex 4

4.7.1. SENTECH proposes the following definition for Multiplex 4:

“Multiplex 4” means the frequencies designated as “CA4; EC4; FS4; GT4; KZ4; MP4; NC4; NC4A; NP; NP4A; and NW4” in Annexure J (Digital Terrestrial Television SFN Networks Post 2015) of the Terrestrial Broadcasting Frequency Plan 2023 (as amended).

4.8. Multiplex 5

4.8.1. SENTECH proposes the following definition for Multiplex 5:

"Multiplex 5" means the frequencies designated as "CA5; EC5; FS5; GT5; KZ5; MP5; NC5; NC5A; NP; NP5A; and NW5" in Annexure J (Digital Terrestrial Television SFN Networks Post 2015) of the Terrestrial Broadcasting Frequency Plan 2023 (as amended).

4.9. Multiplex 6

4.9.1. SENTECH proposes the following definition for Multiplex 6:

"Multiplex 6" means the frequencies designated as "CA6; EC6; FS6; GT6; KZ6; MP6; NC6; NC6A; NP; NP6A; and NW6" in Annexure J (Digital Terrestrial Television SFN Networks Post 2015) of the Terrestrial Broadcasting Frequency Plan 2023 (as amended).

4.10. Multiplex 7

4.10.1. SENTECH proposes the following definition for Multiplex 7:

"Multiplex 7" means the frequencies designated as "CA7; EC7; FS7; GT7; KZ7; MP7; NC7; NC7A; NP; NP7A; and NW7" in Annexure J (Digital Terrestrial Television SFN Networks Post 2015) of the Terrestrial Broadcasting Frequency Plan 2023 (as amended).

4.11. Multiplex Operator

4.11.1. SENTECH is concerned that the definition proposed for a Multiplex Operator is not sufficiently clear, so that there is a distinct difference with broadcasting signal distribution services.

4.11.2. The following definition is proposed:

"**Transport Stream Multiplex Operator**" means a licensee responsible for aggregating (multiplexing) digital television and data services from multiple broadcasters into a single transport stream (e.g. MPEG streams)

"**Multiplex Operator**" means a licensee providing signal distribution services, managing inputs from multiple transport streams, multiplex operators for delivery over terrestrial transmission networks (e.g. DVB-T2-MI streams) and gap-filler DTH network (e.g. DVB-S2).

4.11.3. SENTECH argues that a multiplex operation is an Electronic Communications Services licensable service as the aggregation equipment is not frequency dependent.

4.11.4. A licensee providing multiplex operation is responsible for the following, *inter alia*: aggregation and compression of digital content; managing Logical Channel Numbering (LCN), Electronic Programming Guide (EPG), Physical Layer Pipes (PLPs), dynamic channel load and capacity allocation; Service Information (SI); interfacing with signal

distributors (transmission network operators) or manage transmission directly; and may hold usage rights, depending on whether it offers transmission network services.

4.11.5. It is crucial for the licensee providing aggregation operation to fully manage the multiplex to enable dynamic service adaptation, integration with mobile and FeMBMS (5G broadcast), etc. The operator must configure transport stream parameters to fit these use cases, including PLP prioritisation, latency control, and codec optimisation (e.g., for low-latency live video). Additionally, to ensure relevance, the operator must be able to support interactive and immersive services.

4.12. Radio Frequency Spectrum Regulations

4.12.1. The publication date of the Radio Frequency Spectrum Regulations in the Draft DTT Regulations incorrectly states 2025 instead of 2015.

5. Framework for Digital Terrestrial Television

5.1. The Draft DTT Regulations erroneously focus almost exclusively on traditional digital broadcasting via DVB-T2 in the 470–694 MHz band with MPEG-4 compression, and this inherently limits terrestrial television.

5.2. Contrary to the principle of technology neutrality envisioned in the Electronic Communications Act (as amended), the Draft DTT Regulations seek to enforce technology lock-in.

5.3. The regulations mandate DVB-T2 and MPEG-4, which were cutting-edge in 2012–2015 but are now being overtaken by IP-based, hybrid, and OTT platforms. Therefore, overlook the global shift toward hybrid, mobile-friendly, and immersive media consumption, focusing on efficiency, flexibility, and seamless platform integration.

5.4. The Draft DTT Regulations do not account for next-generation standards like DVB-I (Internet-integrated) or HbbTV (Hybrid Broadcast Broadband TV), which many countries are adopting.

6. Shared multiplexing

6.1. In hindsight, it has become clear that the Annex G and J of the *Terrestrial Broadcasting Frequency Plan, 2013*, as published in Government Gazette No. 38005 on 16 September 2014 (“TBFP”), is operationally not feasible for shared multiplex operation when broadcasters have different and competing business strategies.

6.2. The core challenges with shared multiplexes are incompatible operational models and cost inefficiency for signal distribution.

6.3. The experience is that multiplex sharing dilutes the ability of each broadcaster to fully control coverage planning, service quality, etc., especially critical in provincial SFN environments where localised reach matters.

6.3.1. Shared multiplexes resulted in coverage conflict, resulting in challenges of optimising for different coverage targets without compromising others.

6.4. The cost of operating a network multiplex (e.g., infrastructure maintenance, power, redundancy) is fixed, irrespective of how much capacity is utilised; therefore, under-utilised multiplexes still incur full operational costs. Signal distribution incurs losses when capacity remains idle or broadcasters withdraw, unless the costs are passed on to the remaining occupants, thereby escalating financial strain.

7. Regulation 3

7.1. In the *Draft Signal Distribution Services Regulations 2025*, published in Government Gazette No.52622 on 08 May 2025, the Authority proposed the adoption of a market-based approach (cost-based tariffs, transparency) and does not prescribe technology, only wholesale market conduct.

7.2. The proposals in the Draft DTT Regulations will create regulatory asymmetry: competition is addressed, but technological evolution is not enabled.

7.3. To ensure a competitive market that does not undermine digital inclusion and innovation, the Authority must allow for a more flexible, technology-neutral regulatory approach.

7.4. Sub-regulation 3(1) must be revised as following:

> (1) Digital Terrestrial Television can use any digital standards and any advanced compression standard, on the condition that the final stream for delivery over terrestrial transmission networks falls within the 8 MHz channel bandwidth in compliance with Annex J of the Terrestrial Broadcasting Frequency Plan, as amended.

7.5. SENTECH advocates for the removal of sub-regulation 3(2), as there is no need for the Authority to state television or video systems.

7.6. Broadcasters should have the freedom to choose, as the type of content very much influences which television/video format is chosen, because different formats handle motion, detail, colour, and bandwidth needs differently.

7.7. It is important to note that it is no longer just about “better resolution” but about matching technical capabilities to the content’s nature and audience expectations, including image quality and viewing experience.

7.8. SENTECH requests the Authority to review the timeline specified in sub-regulation 3(3) from thirty-six (36) to twenty-four (24) months, to balance the cost implication on a partially full multiplex.

7.9. The cost of operating a network multiplex is fixed and not based on capacity usage.

7.10. Additionally, the Authority should include the following, as part of Regulation 3, namely:

> Where multiplex capacity remains unused pending the allocation of permanent licensees, the Authority shall permit the multiplex operator to temporarily occupy such capacity, subject to approval, to offset operational costs and ensure efficient spectrum utilisation. Such assignments shall be limited in duration and must comply with relevant content and technical standards.

7.11. This transitional proposal is crucial due to the length it takes for the Authority to license new broadcasters.

7.12. The transitional capacity assignment is a cost-offsetting tool that encourages revenue generation, improves return on investment, and maintains high multiplex capacity utilisation, which can also reduce per-service cost metrics.

8. Regulation 4

8.1. SENTECH refers the Authority to the company's submission on the *Notice of Intention to Conduct an Inquiry on the Review of the Digital Migration Regulations, 2012,* as published in Government Gazette No.50329, as published on 22 March 2024 ("Inquiry"), especially on questions relating to current multiplex capacity allocations.

8.2. SENTECH is concerned that the Authority is not correcting the challenges currently experienced within DTT on the sharing of multiplex capacity misalignments due to Provincial SFNs.

8.3. The Authority is requested to consider the table below as a possible solution to address some of the misalignments.

Multiplex	Primary Licensee(s)	Capacity Allocation (%)	Usage Conditions
MUX 1	SABC	100%	For SABC's own channels and others, it is authorised to broadcast
MUX 2	e.tv		For e.tv channels and others, e.tv is authorised to broadcast
MUX 3	Kwesé	55%	For Kwesé's authorised channels
	FTA	45%	For FTA channels, Kwesé may also use it if more capacity is needed
MUX 4	Subscription TV	100%	Allocated via competitive licensing (Invitation to Apply)
MUX 5	SABC	100%	Same as MUX 1 usage conditions
MUX 6	Community TV	25% per CB	Shared among community TV broadcasters. The idea is to license a maximum of four community broadcasters per multiplex per SFN.
MUX 7	Innovation and Trials	As per the application	For trials, experiments, and demonstrations under special authorisation

Table 1: Multiplex assignment

8.4. SENTECH advocates for dedicated multiplex allocation by broadcaster category.

8.5. The Authority should, where technically and economically feasible, *inter alia*: assign full multiplexes to public, commercial, and community categories independently within each SFN; and align the assignment with anticipated demand and scalability, using flexible licensing structures to allow new entrants to occupy vacant capacity.

8.6. If it is not possible to assign full multiplexes, the Authority should allow for transitional use of spare capacity by the multiplex operator with annual capacity audits.

8.7. Pending ICASA's finalisation of the licensing process for unassigned MUX capacity, the final DTT Regulations must allow the multiplex operator to temporarily utilise spare capacity for commercial services (e.g., test channels, short-term leases, value-added services).

8.8. This approach contributes to sustainability by offsetting fixed operational costs, and usage should be subject to transparent reporting and revocation once ICASA issues new capacity licences.

9. Regulation 6: Tariffs

9.1. The Authority is currently finalising the *Signal Distribution Services Regulations 2025*, specifically addressing competition issues and ex-post regulations.

9.2. Sub-Regulation 6 (10) states that "signal distribution services are subject to regulation by the Authority".

9.3. When is the Authority intending to initiate the regulation-making process to enforce Rub-Regulation 6 (10)?

10. Transport Stream Multiplex Operator vs Multiplex Operator

10.1. The two proposed definitions by SENTECH describe different levels of signal aggregation and distribution in digital broadcasting.

10.2. A Transport Stream Multiplex Operator operates at the content aggregation level, by taking individual digital services (TV channels, data services) from multiple broadcasters and combining them into a single transport stream using standards like MPEG.

10.3. This is essentially packaging multiple channels together at the source.

10.4. Multiplex Operator operates at the network distribution infrastructure level, by working with already-formed transport streams and managing their delivery across different transmission networks.

10.5. The operator handles the technical distribution using various broadcasting standards like DVB-T2-MI for terrestrial networks and DVB-S2 for satellite networks, including gap-filler systems.

10.6. The key distinctions are:

10.6.1. The Scope: Transport Stream operators focus on content aggregation, while Multiplex operators focus on signal distribution infrastructure.

10.6.2. The Input: Transport Stream operators work with individual broadcaster services, while Multiplex operators work with pre-formed transport streams.

10.6.3. Function: Transport Stream operators create multiplexed content packages, while Multiplex operators ensure these packages reach end users through various transmission methods.

10.6.4. Technical standards: Transport Stream operators primarily use MPEG standards for packaging, while Multiplex operators use broadcast transmission standards like DVB variants.

10.7. In the broadcasting chain, Transport Stream Multiplex Operators typically come first (aggregating content), followed by Multiplex Operators (distributing the aggregated streams to consumers).

11. Regulation 6: Multiplex Operator

11.1. Regulation 7 of the Draft DTT Regulations introduces licensing activity under the ECNS licence.

11.2. The proposed digital broadcasting value chain, *Figure 1*, dictates that the licensee providing content aggregation (multiplex) operation must conclude a “commercial

agreement with an ECNS licensee to provide signal distribution services" and not the television broadcasting service licensee.

11.3. The content aggregation operation is an ECS and not an ECNS service, as the frequency-dependent equipment is part of the transmission network.

11.4. Therefore, the spectrum licence must be issued to an ECNS licensee/s providing transmission services.

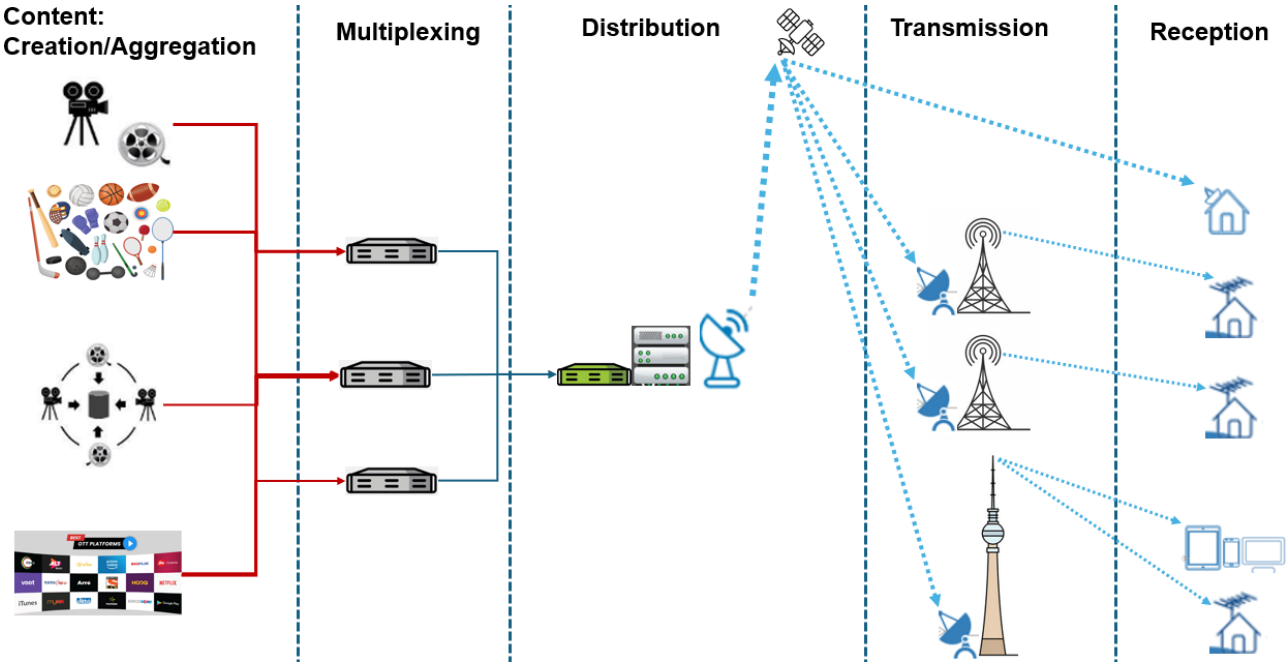

Figure 1: Digital broadcasting value chain

12. The Introduction of a Multiplex Operator

12.1. The introduction of a multiplex operator requires the Authority to include provisions in the DTT Regulations to ensure that network integrity and service continuity are maintained.

12.2. The DTT Regulations must require licensees to form a Technical Coordination Group to ensure ongoing operational oversight, interoperability enforcement, and sector-wide stability, making it easier and safer to evolve the DTT ecosystem.

12.3. The following technical key factors must be addressed:

12.3.1. The multiplex equipment and the Programme Input Equipment (PIE) processing, including transmitter modulators, must be compatible.

12.3.2. DVB-T2 Timestamps and Markers must be distributed and maintained for all broadcaster services occupying a multiplex.

12.3.3. A multiplex must provide a scrambling functionality for cross-border Satellite Services. SENTECH uses the same encryption platform for both DTH and DTT distributions.

12.3.4. SENTECH uses the encryption system for both DTH Gap-filler services (KU-Band) and Conventional DVB-T2 Modulator Interface (T2-MI) multiplexes (C-Band).

12.3.5. It is crucial to note how services are decrypted at transmitter sites plays a significant factor in SFN and Service availability.

12.4. The current network was designed and implemented without considering multivendor multiplex operations for ease of the plan.

12.5. Operationally, a signal distributor is responsible for maintaining SFN and with a multi-vendor system coupled with large SFNs, there is a risk of a technical scenario where transmission will not be achieved.

12.5.1. SFN transmission operates in a bit-by-bit mechanism where all participating transmitters in an SFN cell must transmit the same data information on a data bit level.

12.5.2. This mechanism will fail in a case where multiple off-site MUXs are targeting the same SFN cell.

12.5.3. Timestamps originating from the MUX are very critical in achieving a good functioning SFN cell.

12.6. SENTECH's current system uses a DVB-T2 DTH Compatibility technique where the same multiplex provides streams for DTH-Gap-filler and DTT linking, due to the TBFP only accounting for 86% land coverage.

12.6.1. The purpose of a DTH-compatible system is to use the same Satellite carrier for DTH and DTT links to reduce the distribution costs, ultimately reducing the tariff costs.

12.6.2. If the DTH compatibility function falls under the responsibility of third parties, and there is no coordination, SENTECH will risk the availability of its DTH services and Transmission signals.

12.6.3. DTH compatibility multiplex provides DVB-T2 modulation signalling for the transmitters.

12.6.4. If this multiplex is under the responsibility of the third-party licensees, and there is no coordination, the operation and availability of the transmissions are not guaranteed.

12.6.5. A DTH-compatible multiplex must provide scrambling functions that are compatible with a signal distributor's encryption system for cross-border services. The decryption system resides in the DTH STBs, transmitter sites, and PIE equipment.

12.6.6. For the current deployment, the decryption system is already embedded in the subsidised DTH STBs and satellite-integrated receive/decoders (IRDs) already commissioned at DTT transmitter sites.

12.6.7. Failure on the multiplex scrambling functionality will result in service loss, SFN disruptions and signal loss on the receive DTT STBs.

12.7. The proposed change in Regulation 7 brings about a challenge in operating a DTH-compatible network.

12.8. SENTECH provides a regionalisation technique where a national multiplex is reconstructed to include only community broadcaster services targeting the region or provincial transmission.

12.8.1. Currently, SENTECH distributes a common national and unique regional multiplex enabling content substitutions at transmitter sites.

12.8.2. These multiplexes must be timestamped and contain synchronised T2 markers to enable deterministic substitutions at transmitter sites, and this cannot be achieved with off-site multiplexes contributing various markers for deterministic PIE processing in the signal distribution phase.

13. Engineering services channel

13.1. There is a requirement for capacity for technical purposes, specifically, delivering software updates to DTT receiver devices (set-top boxes, integrated TVs).

13.2. The engineering channel is for DTT receiving equipment manufacturers and/or broadcasters, i.e. manufacturers of set-top boxes or TVs, as well as broadcasters, who will be able to push firmware or software updates over the air.

13.3. The following wording is proposed:

> *An engineering service will be established by the common carrier on a Multiplex with the largest coverage area, designated by the Authority, to make available 4 Megabits per second (Mb/s) of capacity to be used by DTT receiving equipment manufacturers and/or broadcasters to broadcast software updates to DTT receivers. The 4 Mb/s will be allocated from the total MB/s of the broadcast transmission prior to the calculation of capacity for allocation to broadcasting services.*

13.4. SENTECH assumes a capacity of 4 Mbps is required: i.e. at least 20 STB manufacturers & 200 kbps (enhanced profile) per manufacturer for SSU. The assumption of STB manufacturers was premised on the number of entities linked to the USAASA process. It was also assumed that STB manufacturers for subsidised and retail FTA boxes will not be more than 20.

13.5. It is important to note that the matter was previously discussed with the Authority via industry inputs to the Joint Spectrum Advisory Group (JSAG), chaired by ICASA.

14. Levelling the Playing Field

14.1. The Authority must take this opportunity to level the playing field, taking into consideration that the IMT and OTT platforms operate under a light-touch regulatory approach, thereby encouraging rapid innovation.

14.2. A flexible, technology-neutral regulatory approach is critical for terrestrial television to remain competitive and relevant in an era dominated by IMT (mobile broadband), OTT (Over-the-top streaming), and satellite services.

14.3. Terrestrial television requires a regulatory approach that encourages the following, inter *alia*:

- Encourages investment in next-generation services (e.g., immersive content, mobile TV, interactive ads).
- Supports new entrants who can experiment with hybrid broadcast models without being locked into outdated infrastructure.
- Promotes service differentiation—e.g., news broadcasters can provide live TV + real-time alerts on 5G Broadcast (FeMBMS).

15. 5G for Broadcasting

15.1. SENTECH has for some time taken note of the technological developments, other than DVB-T2, impacting the media and entertainment industry. Of interest to the company are the developments requiring high-power high-tower (HPHT) networks, namely Further evolved Multimedia Broadcast Multicast Service (FeMBMS).

15.2. Additionally, SENTECH is interested in technology developments requiring low-power low-tower (LPLT), namely 5G use cases for broadcasting.

15.3. SENTECH is of the view that digital terrestrial television (DTT) has long term prospects. For the company to realise these prospects, the company is mindful of the need to integrate complementing technologies to ensure enhanced user and viewer experience for customers of its clients (end-users).

15.4. The ability to exploit these prospects and enable the sustainability of SENTECH, requires that radio frequency spectrum allocated for terrestrial broadcasting must be assigned to ECNS licensees seeking to provide signal distribution services, under a technology-neutral regulatory regime.

15.5. SENTECH believes that FeMBMS offers the company and the industry the opportunity to enhance DTT services by making use of its existing infrastructure, with minor modifications, and spectrum already allocated for terrestrial television services.

15.6. FeMBMS technology enables emission of audio-visual content to mobile devices without data costs, this is essential for public services. Furthermore, the company is conscious of the increasing need to accommodate public safety services and FeMBMS provides that capability.

15.7. FeMBMS is a 5G use case suitable to complement DTT since its design is based on OFDM standards such as DVB-T2. SENTECH envisions a future where users experience ubiquitous coverage as a result of a combined platform comprising of terrestrial broadcast transmitters, satellite transmitters, fibre and mobile-cellular networks. Figure 2.4a and 2.4b illustrates the platform.

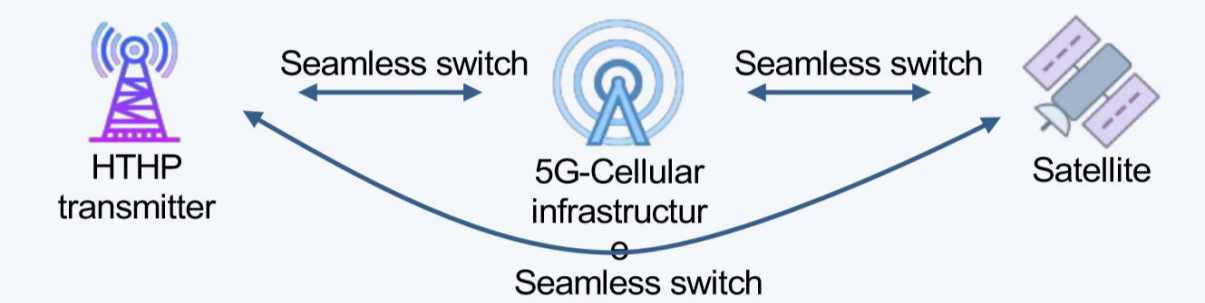

Figure 2 Platform comprising of terrestrial broadcast transmitters, satellite transmitters and mobile cellular networks (Source: EBU (2019))

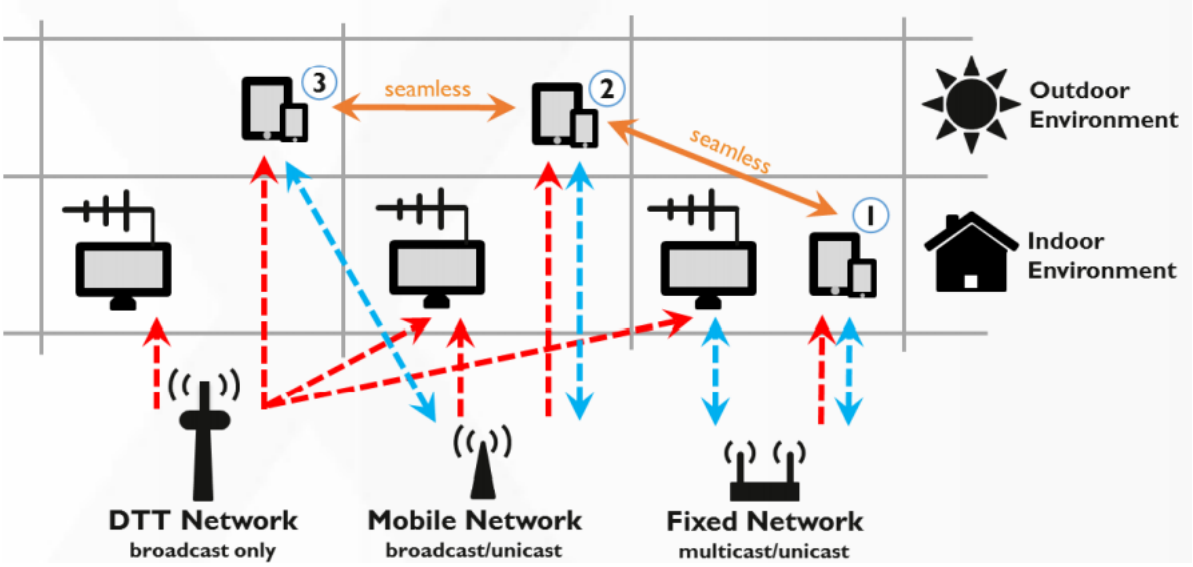

Figure 3 Converged media delivery architecture (Source: 5G-Xcast)

15.8. The expected value proposition for 5G infrastructure, when complemented with DTT, is to serve users with the best technology, optimisation of network usage, and minimising overall investments for both mobile and broadcasting.

15.9. SENTECH anticipate that the combination of both technologies will assist in addressing the cost challenges of rolling 5G services in rural and underserviced areas. Therefore, the mix of technologies is likely to facilitate and accelerate the process of bringing 5G services to the entire population at a reduced cost.

16. Conclusion

16.1. SENTECH thanks the Independent Communications Authority of South Africa (ICASA) ("Authority") for the opportunity to submit on the Draft Digital Terrestrial Television Regulations 2025, published in Government Gazette No.52946 on 04 July 2025 ("Draft DTT Regulations").

16.2. SENTECH argues that it is the responsibility of the Authority to create a regulatory approach that does not create a technology and service bottleneck by freezing terrestrial TV in a DVB-T2 era, while global trends are moving toward IP-based, hybrid, and on-demand ecosystems.

16.3. Terrestrial Television should not be bound to legacy standards, limiting service offerings and quality, thereby becoming a "public service relic" instead of a vibrant, competitive platform.

16.4. The Authority must comply with the ECA principle of technology neutrality, thereby encouraging innovation without repeated regulatory approval.

16.5. A technology-neutral and flexible regulatory framework is not optional—it is essential for ensuring that terrestrial television survives, competes, and evolves alongside IMT, OTT, and satellite services.

16.6. A Multiplex Operator shall not only be responsible for content aggregation but also for the full configuration, management, and technical optimisation of the multiplex transport stream, including support for dynamic service adaptation, mobile reception scenarios (e.g., FeMBMS), and hybrid IP-based enhancements (e.g., HbbTV, DVB-I).

16.7. To ensure a sustainable and future-proof DTT environment in South Africa, the Authority should reconsider the viability of multiplex sharing under Provincial SFNs. Dedicated multiplexes aligned with broadcaster type will promote efficiency, fairness, and innovation.

16.8. The future of DTT in South Africa depends on a fit-for-purpose regulatory approach that reflects operational realities. Allowing dedicated or flexibly managed multiplexes, cost-recovery provisions for operators, and transitional use of spare capacity will ensure the long-term viability of the SFN model and support a diverse, competitive, and innovative broadcasting sector.