



**Guidelines on the application and usage of DVB  
Identifiers in Digital Terrestrial Television (DTT) Networks  
in Kenya**

**JANUARY 2025**

Consultation Version

## Table of Contents

1. BACKGROUND.....	3
2. OBJECTIVE.....	3
3. AMENDMENTS.....	3
4. INTERPRETATIONS.....	4
6. ORIGINAL NETWORK IDENTITY.....	4
7. NETWORK IDENTITY.....	4
8. LCN IMPLEMENTATION.....	5
8.1. LCN assignment methodology.....	6
8.2. Logical Channel Number types.....	6
8.3. Billing and charging for LCNs.....	7
8.4. Service types and TV Channel types.....	7
8.5. LCN assignment within Channel types.....	8
8.6. Application for Allocation.....	9
8.7. Preconditions for Allocation of LCNs.....	9
8.8. Principal Obligations for Broadcasters.....	10
8.9. Allocation of Replacement LCNs.....	10
8.10. Allocations of LCNs to Subscription Service.....	11
8.11. LCN Vacation.....	11

## 1. BACKGROUND

The Authority in its 5<sup>th</sup> Strategic Plan 2023-2028 undertook an exercise to harmonize the identification of channels in Digital Terrestrial Television (DTT) Networks through the adoption and implementation of DVB identifiers (that is, Original Network Identifier (ONID), Network ID range (a total of 256), and Logical Channel Numbers (LCN)), within the strategic objective to increase DTT population coverage and usage.

The harmonization of the identification of channels in DTT Networks will be achieved through the implementation of the following DVB identifiers that have been assigned for use by Kenya.

DTT Kenya Original Network ID	0x2194 (8596)
Network ID Block	0x3201 – 0x3300

The DVB Identifiers will be allocated to Broadcast Service Providers by the Authority as stipulated in these guidelines.

## 2. OBJECTIVE

These guidelines will define the allocation of identifiers pertaining to different DVB specifications (e.g. MHP, SI, Data Broadcasting, etc.). The aim of the present document is to provide assistance to those allocating and using identifiers.

The objective of these guidelines is to ensure a standardized and user-friendly system for identifying and organizing television channels in digital broadcasting.

This aims to enhance the viewer experience by making it easier for audiences to navigate channels, find content quickly, and understand the channel lineup.

The guidelines also seek to promote consistency across different broadcasting platforms, ensure compliance with regulatory requirements set by the Authority of Kenya, and facilitate effective communication of any changes in channel assignments. Ultimately, the goal is to improve the overall quality and accessibility of television broadcasting in the country.

## 3. AMENDMENTS

This guide shall be amended periodically to ensure continued relevance with developments in the industry and emerging best practices.

#### 4. INTERPRETATIONS

In this document, unless the context otherwise requires

- a) **Original\_Network\_ID** means a unique identifier of a broadcast platform operator
- b) **“Logical Channel Numbers (LCNs)”** means three-digit channel numbers in the range 001- 999 that are assigned to each broadcasting service and added to the digital signal for ordering services so that the viewer can uniquely identify the broadcast (television/radio) service they wish to watch/listen to on the digital broadcasting platform.
- c) **“Landing LCN”** means the default LCN which is displayed first whenever the Set Top Box (STB) is switched on.
- d) **“Hybrid Broadcast Broadband TV (HbbTV)”** means a TV application that enables access to audio-visual content over IP but broadcast via a DTT platform.
- e) **“Multimedia Hypermedia Experts Group (MHEG)”** means an application that enables interactive services via digital TV services for all transmission networks.
- f) **“Broadcast License”** means a license issued by the Authority to provide broadcasting services.
- g) **“Hybrid Channels”** means channels carried on both the free-to-air and pay platforms.
- h) **“Broadcast Signal Distributor (BSD)”** means a licensee authorised to transmit or broadcast content.

#### 5. APPLICABLE LEGAL FRAMEWORK

The legal and regulatory provisions that shall be considered in the implementation of this guide will be the Kenya Information and Communications Act, 1998

##### **Background**

*Q1A. Do you agree with background, objective, interpretations used in the document, amendment period and applicable legal framework for the Guidelines on application and usage of DVB Identifiers in DTT Networks and its applicability? If no, give reasons*

*Q1B. What other initiatives, apart from harmonizing the channel identifiers, would you recommend to further promote DTT adoption and improve ease of TV content access in Kenya?*

*Q1C. Provide any other applicable comments under this section*

#### 6. ORIGINAL NETWORK IDENTITY

The licensed broadcast signal distributors shall be required to adopt Kenya’s assigned Original network IDs, 0x2194 (8596) in their networks.

#### 7. NETWORK IDENTITY

Kenya has been assigned 256 Network IDs 12801 – 13056 (0x3201 – 0x3300). Every regional SFN Network (multiple transmitters on the same frequency in the same area) and every transmitter in MFN should be assigned a unique Network ID.

Noting that some BSDs have not built their networks in SFN but in MFN, this requires that all their transmitters need their own Network ID.

The 256 Network IDs will be distributed, with each DTT operator being allocated 40 Network IDs per MUX as below;

Network ID	Broadcast Signal Distributor
Network ID Range: 12801 - 12840	1
Network ID Range: 12841 - 13930	2
Network ID Range: 12931 - 12970	3
Network ID Range: 12971 - 13010	4
Network ID Range: 13011 - 13050	5
Network ID Range: 13051 – 13056	Other

***Original Network Identity and Network Identity***

*Q2A. What are your comments on the Original Network Identity and Network Identity allocations*

*Q2B. Provide any other applicable comments in this section.*

## **8. LCN IMPLEMENTATION**

Logical Channel Numbers (LCNs) are crucial in the broadcasting industry for efficient organization and navigation of channels for viewers. They serve as a standardized way to assign numerical identifiers to channels, making it easier for audiences to find and access their desired content.

Criteria for making classifications based on LCNs:

- **Required Attributes:**
  - The numerical identifier assigned to each channel
  - Standardized format for consistency
  - Unique identification for each channel
- **Variable Attributes:**
  - Channel genre (e.g., news, sports, entertainment)
  - Channel language

- Channel resolution (e.g., HD, SD)
- Channel location (local, regional, national)

By utilizing LCNs, broadcasters can ensure a seamless viewing experience for audiences, enabling quick channel selection and reducing viewer confusion. Additionally, LCNs facilitate channel surfing features, enhancing user convenience and satisfaction.

In summary, LCNs play a critical role in simplifying channel navigation, improving user experience, and enhancing the overall efficiency of the broadcasting industry.

***LCN Implementation***

Q3A. What are your comments on the proposed classification criteria for assigning LCNs,

Q3B. Do you have any additional suggestions or comments on how LCN classification can be improved to better meet the needs of broadcasters and viewers?

**8.1. LCN assignment methodology**

The assignment methodology shall be on a first-come, first-served basis for free-to-air channels. This means that the LCN numbers shall be assigned in the order of receiving the licence applications and processing them to completion.

In the case of already operational TV broadcasters who will be transitioned to the LCN regime, the LCN number shall be assigned by the Authority with priority given to compliance with licence conditions.

***LCN assignment methodology***

Q4A. Do you agree on the first-come, first-served methodology adopted to assign LCNs to free-to-air broadcasters?

Q4B. What alternative approach would you suggest for assigning LCNs to all broadcasters

**8.2. Logical Channel Number types**

There are two types of Logical channel numbers.

These are:

- a) The Ordinary Logical Channel Numbers; and
- b) The Premium logical channel numbers.

**The Ordinary LCNs:** These are the LCNs that shall be assigned consecutively as the applications are received. These will be subject to review as the Authority deems fit to review

the assignment plan.

**The Premium LCNs:** These are the numbers which shall be specially chosen or preferred by a given content service provider. These may attract a fee because they will not have to be consecutively assigned.

They will have an additional privilege of being protected during the review process and the content service providers shall be allowed to additionally advertise and brand their services using these numbers.

### **8.3. Billing and charging for LCNs**

LCNs are a finite resource and therefore, they require management. Considering this, there is an administrative cost attached to the management of the LCNs. The associated administrative costs of implementation of LCNs will be borne by the Authority. Other additional services provided by the DVB Registrar for specific licensees that attract a fee shall be borne by the specific licensee.

#### ***Billing and Charging for LCNs***

*Q5A. What are your comments on the Billing and charging for LCNs?*

*Q5B. . Provide any other comments on the above subject matter.*

### **8.4. Service types and TV Channel types**

Service Types refer to the different types of content that can be uploaded on the DTT platform. The LCN allotment is based on these service types.

There are two (2) broad categories of service types. These are:

- 1. The Core TV services:** These are the services that are / will be viewable on the receiver with a prescribed program lineup. These are the traditional linear TV services.
- 2. The Complementary Services:** These are the nonlinear hybrid services that will be accessible through the DTT platform over the TV receiver but with no programming content.

Channel types refer to the different categories of the core TV services available on the DTT platform. The Authority shall when the need arises, use the Channel types to protect consumers from content that does not conform to existing laws.

Tables 2.1 and 2.2 below provide the service types and program channel types. Any amendments to these descriptions shall be made known to all relevant stakeholders.

**Table 2.1 Service types**

Service type Category	Service Type details
<b>CORE TV SERVICES</b>	Public FTA
	Commercial FTA
	Community FTA
	Subscription
	Temporary
<b>COMPLIMETARY SERVICES</b>	Audio services
	Data, Interactive services

**Table 2.2 Program Channel Types for the Core TV services**

<b>Channel Type</b>
Public service channel
General Entertainment Channel - FTA
General Entertainment Channel - Subscription
Associated Channel
Genre based channels such as Children’s Channel; International Channels; News only channels

***Service types and TV channel types***

*Q6A. What are your comments on the servive types and program TV Channel types?*

*Q6B.. Provide any other comments on the above subject matter.*

**8.5.LCN assignment within Channel types**

In line with the first come, first served approach, the Authority shall allocate the program channel the lowest available LCN within the Channel types of range.

In addition, Genres shall be the basis for the grouping of Channels on the DTT platform to assist viewer navigation of content. The respective Genres in Annex 1 shall apply. The Authority may designate additional, remove any or merge genres as and when deemed necessary.

**Table 3. Logical Channel Numbering Plan for Core Services**

	<b>SERVICE TYPE</b>	<b>Allocated</b>
	PUBLIC SERVICE FTA	001 - 005
	Reserved	006 - 010



<b>CORE TV SERVICES</b>	COMMERCIAL FTA	011 - 349	
	Reserved	350- 379	
	COMMUNITY FTA	380 -389	
	Reserved	390 - 399	
	SUBSCRIPTION SERVICES		400 - 499
			500 - 599
		600 - 699	
<b>COMPLEMENTARY SERVICES</b>	Reserved	700 - 719	
	DATA AND INTERACTIVE SERVICES	720 - 749	
	AUDIO SERVICES	750 - 799	
	Reserved Allocation	800 - 899	
	Receiver Allocation	900 - 999	

***LCN Assignment within channel types***

*Q7A. What are your comments on the LCN assignment within channel types?*

*Q7B. Provide any other comments on the above subject matter.*

**8.6. Application for Allocation**

1. By making an application to the Authority for allocation of an LCN in a prescribe format in respect of a particular channel (the "Channel")or broadcasting the Channel using an LCN, you agree to be bound by the terms of usage of LCNs.
2. The Authority will consider the application and, if the preconditions are met and such allocation is appropriate, to allocate an LCN for the Channel (the "Channel LCN"), and to continue to allocate the Channel LCN subject compliance with these Terms of Usage of LCNs. These Terms shall apply equally to all persons with a Channel having a Channel LCN allocated.

**8.7. Preconditions for Allocation of LCNs**

To be allocated a Channel LCN, the applicant must first:

1. Have made an application for a Channel LCN in the format prescribed by the Authority, this will generally be by completing an application form.
2. Have an agreement in place with a BSD operator to secure the necessary capacity to make the Channel available. (a "Carriage Agreement")
3. Hold a valid broadcasting licence permitting the broadcast of the Channel. (a "Broadcast Licence")

4. Provide all such information as the Authority reasonably requests, to consider the allocation of a Channel LCN.

### **8.8. Principal Obligations for Broadcasters**

1. The Broadcaster shall maintain in place, and comply with the conditions of, all consents, clearances and licences required from third parties, including owners and licensees of intellectual property rights in any work incorporated in the Channel, governmental authorities and regulatory bodies and authorities, in each case in respect of the Channel or otherwise required for the operation by you of your obligations hereunder (including all necessary music, mechanical transfer and performing rights clearances).
2. The Broadcaster further agree that you shall continue to maintain in place and comply with your Carriage Agreement and your Broadcast Licence, and promptly notify the Authority if it either expires (without simultaneous renewal) or terminates.
3. The Broadcaster agree to provide such information regarding the Channel as the Authority may reasonably require from time to time, which shall be used for Channel LCN allocation.
4. The Broadcaster agree to notify the Authority as soon as reasonably practicable if you intend permanently to cease transmission of the Channel.

### **8.9. Allocation of Replacement LCNs**

1. The Broadcaster shall give written notice to the Authority of any intended changes to the characteristics of the Channel as set out in the Broadcast Licence or your original allocation application for the Channel LCN not less than **six (6) weeks** before the intended implementation of any such changes.
2. This will allow the Authority to determine whether the changes require a replacement Channel LCN to be allocated and allow time for the necessary application process should a replacement Channel LCN be so required
3. In the event a replacement Channel LCN (whether in the same or a different genre) is required to be allocated, the Authority will notify the licensee within **fifteen (15) days** of receipt of the licensee's notice.
4. The Broadcaster shall submit further information requested by the Authority in relation to changes to the Channel, which may include the completion of an application where a replacement Channel LCN is required.
5. In the event that the Authority considers that the Channel has evolved into a new channel, it shall notify you in writing and advise on the replacement LCN process.

#### ***LCN Application and Allocation***

*Q8A. What are your comments on the application process, precondition for allocation of LCNs and obligations of a broadcaster?*

*Q8B. Do you have any additional suggestion on other aspects to be taken into*

*consideration under this section?*

#### **8.10. Allocations of LCNs to Subscription Service**

1. Each subscription broadcast service operator shall be assigned by the Authority a range of LCNs for broadcast services within 400 – 699.
2. Each service within the Transport Stream of the subscription broadcast service operator shall be allocated an LCN tag using the logical channel descriptor.
3. Each subscription broadcast service operator shall file with the Authority a copy of its LCN listing policy before implementation.
4. The subscription broadcast service operator must not change logical channel numbering in the multiplexor without prior approval of the Authority.
5. To avoid conflicting allocation of LCNs:
  - a. The LCN should be unique across all the networks that cover the same geographical region.
  - b. The same LCN should be reused only in non-adjacent regions.
  - c. In case duplicated and conflicted LCNs are found, preference shall be given to the service with better signal quality. The conflicting channel shall be bumped into the conflict range 800 – 999 or discarded.
6. If a channel is available on both SD (Standard-definition) and HD (High Definition) television, the channel provider may use the same LCN provided all content is similar. There may however be differences in promotions, adverts and on-screen graphics.
7. Genres shall be the basis for the grouping of Channels on the DTT platform to assist viewer navigation of content. The respective Genres in Annex 1 shall apply. The Authority may designate additional, remove any or merge genres as and when deemed necessary.
8. Receivers shall correlate the channel number label for service in the service list menu and service selection on the remote control with the corresponding service LCN.
9. Receivers shall sort the service list displayed in EPG menu according to the LCNs in ascending order.
10. Additional LCN assignments shall only be made on demonstration of usage of up to 90% of the channels and the potential growth of the content providers.

#### ***LCN Allocation to Subscription services***

*Q9A. What are your comments on the process of allocation of LCNs to Subscription Service providers?*

*Q9B. Do you have any additional suggestion on other aspects to be taken into consideration under this section?*

#### **8.11. LCN Vacation**

In the event that:

- a) The Broadcast Licence is withdrawn or expires and is not renewed.

- b) The Carriage Agreement expires or terminates and does not coincide with the commencement of a replacement Agreement, and you have not notified the Authority that the Channel is to be suspended,
- c) The Broadcaster is in material breach of the licence terms and fails to remedy such breach within receipt of written notice of such breach; or

The Authority may vacate the Channel LCN immediately and shall notify the Broadcaster as soon as reasonably practicable of the reason for such vacation.

***LCN Vacation***

*Q10A. What are your comments on proposed method of LCN Vacation?*

*Q10B. Do you have any additional suggestion on other aspects to be taken into consideration under this section?*

**Annex 1: GENRES**

General Entertainment Programming
High-Definition Programs
Children’s Programming aimed at children aged 18 or under.
News Programming
Religious Programming
Streamed services Channels
IP-delivered services
Interactive Programming
Standard Definition (SD) simulcast
Radio Audio-only.

For each genre, content on entertainment, children, news, radio and adult must be separated.

**GENRES Definitions**

**Radio**

Audio only programming that is licensed as a radio station rather than a television channel.

**Interactive**

Programming that can be accessed by the viewer as and when they demand via their remote control.

**IP delivered Services**

These are IP delivered channels with no Digital Terrestrial Television element accessible via LCN rather than MHEG or HbbTV.

**Testing Area**

This is reserved for the Authority testing purposes and for viewer/listener support in the event of platform changes.

**Streamed Channels**

Are channels where audio visual content is delivered over IP, but access is enabled via an MHEG or HbbTV application which is broadcast over DTT

## Annex 2: Proposed DTT Logical Channel Numbers (LCN) Classification by Genre

Category	LCN (TV)	Broadcaster	Type	Existing	Provision
Public	1 2 3 4 5	KBC 1 (Kenya Broadcasting Corporation) Heritage TV (Kenya Broadcasting Corporation) Y-254 (Kenya Broadcasting Corporation) Senate TV (Parliamentary Broadcasting Unit-PBU) Bunge TV (Parliamentary Broadcasting Unit -PBU)	Public service Public service	5	10
Reserved	6-10				
General Entertainment National Languages	11-70	For example Citizen TV (Royal Media Services), NTV (Nation Media Group), TV47 (TV 47 Ltd)	Entertainment Entertainment Entertainment Entertainment	35	60
News	71-75	For example KTN News (Standard Group), France 24	News News	2	5
Edu	76-80	For example Edu Channel (KICD)	Education	1	5
Children	81-85	For example Akili Kids	Children	1	5
General Entertainment Vernacular Languages	86-159	For example Mzalendo TV (Pro Business Ltd), Lolwe TV (Tentacle Communications Ltd, Githima Television (Topaz Driving College Ltd)	Entertainment	42	74
Other	160 - 169	For example PPP TV (Ngomma Value Added Services Ltd)	Music Channel	2	10
Religious	169-329	For example Capuchin TV Network (Capuchin Franciscan Fathers), Faith TV (Christian Foundation Fellowship Kenya), Heavens TV (Heavens Grace Media Ltd)	Religious - Christian	131	181
	330-349	For example Al-Huda TV (Noor Al - Huda Ltd), Horizon TV (Tamaz Communications Ltd)	Religious - Islamic		
Community	380 - 389	For example Riverside ministry	Entertainment, Music, Local etc.	4	10

Terrestrial Subscription	400 400 - 499	Go Channel LCN numbers assigned to GOtv		74	100
Terrestrial Subscription	500 500 - 599	ST Guide LCN numbers assigned to Startimes		62	100

***Other General consultation Questions***

*Q11. Are there other areas in your view that should be included in these Guidelines on the application and usage of DVB Identifiers in Digital Terrestrial Television (DTT) Networks in Kenya? If yes, provide relevant proposals and justifications for the same*