



**UGANDA
COMMUNICATIONS
COMMISSION**

**Guideline on application and usage of Logical Channel
Numbers (LCN) in Uganda**

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1. BACKGROUND

- 1.1 The compression technologies used in digital television enables the provision of multiple television stations or logical "services" within a block of frequency allocations assigned to a television broadcaster. Each of the services is assigned a unique identifier on the digital broadcasting platform which also defines the order of the services in a manner easy for viewers to remember.
- 1.2 Section 5(1)(f) of the Uganda Communications Act of 2013 tasks Uganda Communications Commission (the Commission) to establish, amend, administer and enforce a national numbering plan and electronic addresses plan; and assign numbers and electronic addresses.
- 1.3 Sub regulation 24 of Uganda Communications Commission (Licensing) Regulations 2019 further requires all Public Infrastructure Providers (PIP) to implement Electronic Program Guides (EPG) for consumers to easily navigate content.
- 1.4 The Commission is desirous to revise the regulatory procedures and requirements for the allocation and use of Logical Channel Numbers (LCNs) to ease the discovery of content by viewers, facilitate protection of consumers from potential harm and efficiency in the administration of LCNs.

2. OBJECTIVE

The objective of this guide is to:

- a) Revise the assignment and administration of LCNs for digital terrestrial television services.
- b) Create new genre categories in line with growth in services and technology.
- c) Facilitate the implementation of protection of viewers from disturbing or harmful content especially to children.

3. AMMENDMENT

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

4. INTERPRETATIONS

In this document, unless the context otherwise requires –

- a) **“Logical Channel Numbers (LCNs)”** means three-digit channel numbers in the range 001 - 999, that are assigned to each broadcasting station and added to the digital signal for ordering

services and so that the viewer can uniquely identify the broadcast (television/radio) service they wish to watch/listen to on the digital broadcasting platform.

- b) **“Landing LCN”** means the default LCN which is displayed first whenever the Set Top Box (STB) is switched on.
- c) **“Hybrid Broadcast Broadband TV (HbbTV)”** means a TV application that enables access to audio visual content over IP but broadcast via a DTT platform.
- d) **“Multimedia Hypermedia Experts Group (MHEG)”** means an application that enables interactive services via digital TV services for all transmission networks.
- e) **“Broadcast License”** means a license issued by the Commission under the television licensing regime and the Act.
- f) **“Hybrid Channels”** means channels carried on both the free to air and pay platforms.
- g) **“Multiplex operator (Aggregator)”** means a licensee authorised to aggregate content or streams from multiple content service providers.
- h) **“Signal carrier”** means a licensee authorised to transmit or broadcast content.

4. APPLICABLE LEGAL FRAMEWORK

The following legal and regulatory provisions shall be considered in the implementation of this guide:

- a) The Uganda Communications Act 2013,
- b) The Uganda Communications Commission (Licensing) Regulations 2019,
- c) The Uganda Communications Commission (Content) Regulations 2019,
- d) Digital Migration Policy for Terrestrial Television Broadcasting in Uganda 2011,
- e) The TV Licensing Regime of 2018.

5. SCOPE

The guide presents:

- a) The application process for LCNs,
- b) The Eligibility for LCNs
- c) LCN Genres
- d) The regulatory obligations in usage of the LCNs
- e) The applicable fees for LCNs

6. APPLICABILITY AND EXCEPTIONS

This guideline shall be applicable to all licensees who operate technical infrastructure for terrestrial distribution of digital programs and supplementary services in Uganda.

7. LCN ELIGIBILITY

LCNs shall be assigned to multiplex operators (aggregators) or signal carriers broadcasting over a digital terrestrial transmission network. The operators must:

- a) Hold a valid broadcasting license.
- b) Demonstrate sufficient multiplex capacity to carry the Content Service Providers.

8. LCN Application & Authorization

8.1 LCN applications shall be exclusively made online via <https://eservices.ucc.co.ug/>.

8.2 Upon a successful application, an authorisation shall be granted to the applicant for the period of the broadcast license.

8.3 The authorisation shall be renewable depending on:

- a) Usage of the LCNs as per the terms and conditions of the assignment,
- b) Payment of LCN fees.

9. Criteria for LCN Usage

- a) The permitted LCN range in this guide is 001 – 999.
- b) Each Multiplex operator shall be assigned by the Commission a range of LCNs for broadcast services within 001 – 799.
- c) Each service within the Transport Stream of the Multiplex operator shall be allocated a LCN tag using the logical channel descriptor.
- d) Each multiplex operator shall file with the Commission a copy of its LCN listing policy prior to implementation.
- e) The Multiplex operator must not change logical channel numbering in the multiplexor without prior approval of the Commission.
- f) To avoid conflicting allocation of LCNs:
 - i. The LCN should be unique across all the networks that cover the same geographical region.
 - ii. The same LCN should be reused only in non-adjacent regions.

- iii. In case duplicated and conflicted LCNs are found, preference shall be given to the service with the better signal quality. The conflicting channel shall be bumped into the conflict range 800 – 999 or discarded.
- g) 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 on promotions, adverts and on-screen graphics.
- h) 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 Commission may designate additional, remove any or merge genres as and when deemed necessary.
- i) Receivers shall correlate the channel number label for a service in the service list menu and service selection on remote control with the corresponding service LCN.
- j) Receivers shall sort the service list displayed in EPG menu according to the LCNs in the ascending order.
- k) 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.

10. STAKEHOLDER ROLES

a) The Commission

- i. Regularly review and update provisions of this guide for continued coherence, relevance, and effectiveness.
- ii. Ensure implementation and compliance to this guide.

b) The Operators (Signal carriers or Multiplex Operators)

- i. Manage and assign the LCNs in a manner that is fair, reasonable and non-discriminatory to all channel providers and in the interests of DTT consumers and Uganda as a whole.
- ii. Comply with any statutory requirements and directives that may be issued by the Commission.
- iii. Maintain sufficient capacity to carry content at an acceptable quality of service.
- iv. Ensure that any allocation of LCNs is made on fair, reasonable and non-discriminatory terms.

- v. Publish and comply with an objectively justifiable method of allocating listings.
- vi. Refrain from giving undue prominence in any listing to a channel to which they are connected except the official UBC public service channel.
- vii. Carry out periodic reviews of their listing policy and of channel listings made in accordance with that policy, in consultation with channel providers. Consultations with channel providers should be transparent, have reasonable timeframes for comment and set reasonable implementation timeframes; ensure that viewers are able to access all television and radio services included in the EPG service on the same basis, provided that the viewers are equipped to use the EPG service and to receive the relevant programme services.
- viii. Ensure that the UBC public service channel is always prominently accessible on all television platforms as a free to air service, and that reception does not require additional equipment or commercial agreements over and above those required for the acquisition of the receiving equipment.
- ix. Ensure appropriate separation of adult and children content to protect consumers from offensive or harmful information.
- x. Implement provisions of this guide for effective usage of the resource.

11. LCN WITHDRAW

The Commission may withdraw an LCN authorisation where:

- a) The Broadcast License is withdrawn, expires or is not renewed,
- b) There is need to revise or reclassify service categories and genres,
- c) Infringement or violation of the usage conditions or abscondment from role as prescribed in this guide,
- d) The operator ceases to be eligible for LCN authorisation or the broadcast licence.

12. LCN FEES

There shall be applicable annual authorisation fees paid for the use of LCN as per The Uganda Communications (Fees and Fines) (Amendment) Regulations, 2020.

The Commission may revise and gazette the LCN authorisation fees as shall be deemed necessary from time to time in consultation with all stakeholders.

Annex 1: GENRES

General Entertainment Programming
High-Definition Programs
Children’s Programming aimed at children aged 15 or under.
News Programming
Adult channels
On-screen text services
Streamed services Channels, that are not adult and children’s services.
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 clearly 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 Commission 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.