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**UGANDA COMMUNICATIONS COMMISSION**

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FRAMEWORK FOR SHARING RADIO FREQUENCY SPECTRUM

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February 2025

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## **1. Introduction**

- 1.1. The radio frequency spectrum (spectrum) is a finite resource that is vital to all wireless technologies and services. The use of spectrum resources should be rational, equitable, efficient, and geared to maximize socio-economic benefit. The demand for spectrum to support the constantly evolving technology, services, and applications continues to grow globally.
- 1.2. Sharing spectrum has been globally adopted as a viable mechanism to address the ever-growing demand for the resource, thus promoting efficient use of the resource and maximizing socio-economic benefit by enabling multiple users, applications, and/or technologies to use the same range of frequencies.
- 1.3. Spectrum sharing typically refers to the simultaneous use of a specific radio frequency channel or range by several users, applications, or radiocommunication systems. Spectrum can be shared in different dimensions. They include time, frequency, geography (spatial location), and signal separation, as highlighted in the International Telecommunications Union recommendation ITU-R SM.1132, among others. Spectrum sharing also facilitates addressing spectrum needs for research and innovation, provides additional network resources for improved quality of service, alleviates artificial spectrum scarcity, and facilitates new market entrants and investments. Shared use of spectrum may also facilitate the sharing of infrastructure.
- 1.4. Section 5(1)C of the Uganda Communications Act CAP 103 mandates the Commission to license, standardize, and manage the use of the radio frequency spectrum resources in a manner that ensures the widest variety of programming and optimal utilization of spectrum resources. This framework, therefore, establishes a regulatory mechanism to facilitate the sharing of spectrum in Uganda.

## **2. Objectives**

This framework seeks to facilitate:

- 2.1. Availability of spectrum to meet demand for existing and new use cases.
- 2.2. Improved utilisation of spectrum while minimising underutilisation and promoting high spectral efficiency.

- 2.3. The fulfilment of national coverage objectives, promotion of faster network roll-out, and the improvement of the capacity and quality of service.
- 2.4. Investment, research, and innovation in radiocommunications services.

### 3. Amendment

This framework shall be reviewed periodically and may be withdrawn, revised, updated or amended to take into consideration and align with any changes in the communication industry, the national Information, and Communication Technology (ICT) policy and national development objectives, regulatory decisions, emerging regional and international best practices as well as public interest.

### 4. Interpretation

In this Framework, unless defined hereunder, the terms used herein shall have the same interpretation as in the Act and the Regulations issued thereunder.

- (a) **“Act”**: Uganda Communication Act Cap 103.
- (b) **“Assignee:”** a person duly authorised by the Commission to use the radio frequency spectrum and/or operate radiocommunications equipment.
- (c) **“Assignment”**: the grant of authorization by the Commission to a person to use a designated radio frequency or frequencies under specified conditions.
- (d) **“Licensed Shared Access”**: authorising additional users to use spectrum (or part of the spectrum) already assigned to another user in accordance with sharing rules included in their radio frequency spectrum authorisation.
- (e) **“Collective Use of spectrum”**: where an undetermined number of independent users and/or devices are authorised to access spectrum in the same range of frequencies at the same time and in a particular geographic area under a well-defined set of conditions.
- (f) **“The Commission”**: the Uganda Communications Commission as was established under section 4 of the Uganda Communications Act CAP 103.

- (g) **“Communications”**: means telecommunications, data communication, radio communications, postal communications, and includes broadcasting.
- (h) **“Dynamic spectrum sharing”** refers to a radio’s ability (enabled by cognitive capabilities) to operate using temporarily unused/unoccupied spectrum and to adapt or cease the use of such spectrum in response to other users of the band.
- (i) **“Individual authorisation”**: gives the holder of the radio frequency spectrum authorisation the exclusive right to use a specific frequency or frequency band in a pre-determined geographic area.
- (j) **“Interference”**: any unwanted radio frequency signal that interferes with another desired signal, eventually causing electronic radiocommunications devices to malfunction or distortion of communication.
- (k) **“Lessee”**: any third-party person that leases, pursuant to this spectrum framework, certain spectrum usage rights held by an assignee.
- (l) **“Non-interference and non-protected basis”**: no harmful interference may be caused to any radio communications service, and no claim may be made for protection of these devices/services against harmful interference originating from radio communications services in the same band.
- (m) **“Network Slice”**: is a virtualization technique that allows a single physical network infrastructure to support multiple independent logical networks, or slices, each with tailored performance characteristics and security settings
- (n) **“Operator”**: a person who is licensed under the Uganda Communications Act Cap 103 to provide communication services.
- (o) **“Person”**: includes any individual, company, association, or body of persons, corporate or unincorporated.
- (p) **“Private network”**: refers to a private wireless communications system established and maintained using radiocommunications installations, apparatus, equipment and devices operating at the authorized frequencies and associated technical parameters specified to enable communications to and/or from such installations, apparatus,

equipment and device for self-use by the assignee only, and at locations specified.

- (q) **“Short-range devices”**: radio transmitters which provide either unidirectional or bidirectional communication, transmitting over a short distance at low power.
- (r) **“Smaller Service Area”**: localised regions or zones that are smaller compared to regions or nationwide service areas.
- (s) **“Spectrum Leasing”**: where a spectrum assignee leases some or all its rights to use spectrum granted under a radio frequency spectrum authorisation to another party (*operator or private network*) for a limited period less than the remaining duration of its authorisation and/or a portion of the spectrum.
- (t) **“Spectrum pooling”**: two or more assignees merging some or all their spectral assignments into a common pool and coordinating their shared use of these to avoid interference.
- (u) **“Spectrum sharing”**: where the use of the same spectrum band, or a portion thereof, by two or more authorized users or assignees under technical or regulatory arrangements that ensure coexistence without harmful interference.
- (v) **“Spectrum trading”**: where an assignee transfers its spectrum usage rights for a particular set of frequencies to another party or person through the trading/selling of these.
- (w) **“Station”**: one or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying on a radiocommunication service, or the radio astronomy service.
- (x) **“Temporarily unused/unoccupied spectrum”**: is a portion of spectrum in a band, designated for use by one of several applications operating under the provisions of the National Table of Frequency Allocations, that is not being used at a given time, within a given geographic area.
- (y) **“User”**: means any person or body of persons who uses radio frequency spectrum or operates radio communication equipment/networks.

## 5. Applicable National Laws and Regulations

The following legal and regulatory instruments shall be considered and applicable during the implementation of this framework:

- (a)* Uganda Communications Act CAP 103.
- (b)* The National Broadband Policy of 2018.
- (c)* Uganda's National Fourth Industrial Revolution (4IR) Strategy of 2022.
- (d)* The Digital Transformation Roadmap, 2023/2024 - 2027/2028.
- (e)* Uganda Communications (Licensing) Regulations, 2019.
- (f)* Uganda Communications (Fees and Fines) Regulations, 2019.
- (g)* The Uganda Communications Commission Radio Spectrum Management Guidelines, 2017.
- (h)* Guidelines on the Establishment and Operation of an FM Radio Station in Uganda, 2019.
- (i)* The Framework for Spectrum Assignment to Telecommunications Services in Uganda, 2019.
- (j)* Guidelines on access and use of Radio Frequency Spectrum on a Temporary Basis, 2023.
- (k)* The Uganda Communications Commission Framework for Satellite Communication, 2022.
- (l)* The respective Commission's band policies and standards/regulatory guidelines for different radiocommunications services.
- (m)* The Uganda Table of Frequency Allocation, 2020.
- (n)* The Uganda Communications Commission Guidelines on Variation and Withdrawal of Radio Frequency Spectrum Authorization, 2021.
- (o)* The Framework for monitoring mobile network operator service coverage obligations in Uganda, 2024.
- (p)* The Terms and Conditions for the Radio Frequency Spectrum Authorization.

- (q) Any associated decisions or directives issued by the Commission, however so described.

## **6. Scope**

This framework:

- 6.1. Defines the modes of spectrum sharing considered by the Commission.
- 6.2. Presents the corresponding spectrum sharing rules or conditions for the same.
- 6.3. Outlines application procedures for authorisation to share spectrum under the various sharing mechanisms, and;
- 6.4. Specifies eligible person(s) for the different modes of sharing spectrum.

## **7. Applicability**

- 7.1. The Framework shall only apply to the assigned spectrum in use or planned for use by the services below:
  - (a) Fixed and Mobile services, including applications such as short-range devices (SRD) and Private Mobile Radio (PMR).
  - (b) Broadcasting Services.
  - (c) Aeronautical and Maritime.
  - (d) Satellite Communications services.
  - (e) Public protection and disaster Relief services.
- 7.2. The framework shall not apply to unassigned spectrum, bands that have not yet been permitted for use in Uganda, or spectrum in use by any services other than the ones specified under section 7.1 herein.
- 7.3. This framework does not apply to or provide for spectrum trading in Uganda. Spectrum trading is not permitted in Uganda.



## 8. Sharing Conditions

### 8.1. General provisions applicable to all forms of spectrum sharing

8.1.1. The Commission shall grant radio frequency spectrum authorisation for the use of any frequency (ies) or a frequency block(s) within a defined geographic area(s) under certain minimal regulatory and technical conditions. This authorisation shall be based on:

- (1) a class authorisation in the case of licence-exempt spectrum, and
- (2) “First-Come, First-Served” approach or a competitive process for licensed spectrum.

8.1.2. The licensed spectrum may be authorised either for:

- (1) A single national service area,
- (2) Regional basis (*based on the four (4) regions; Northern, Eastern, Western, and Central; shown in Figure 1*) as shall be specified in the respective license, or;
- (3) Specified smaller service areas.

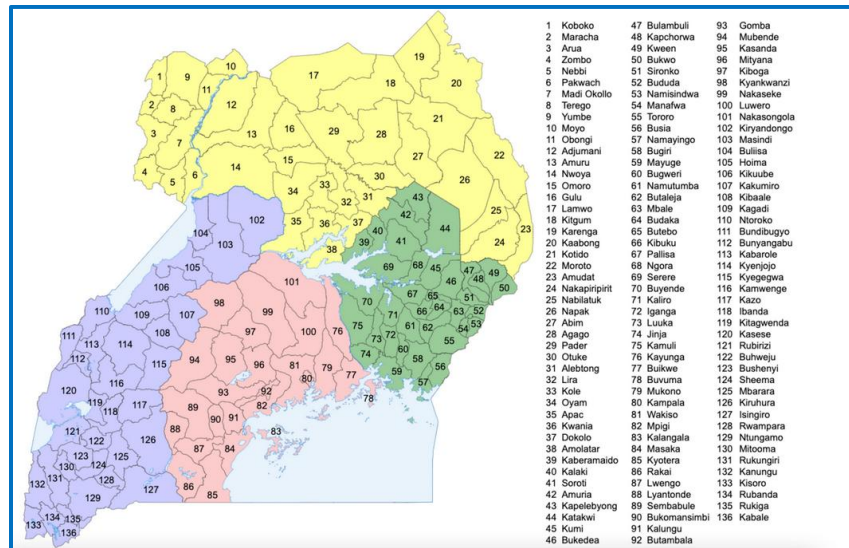


Figure 1. Map showing the spectrum authorisation regions

- 8.1.3. Radio frequency spectrum resource in any band may be used to deploy any technology, provided it complies with the technical specifications and regulatory conditions set out in the relevant band plan and associated usage guidelines issued by the Commission.
- 8.1.4. The right to access and use spectrum in licence-exempt frequency bands shall be granted on a non-interference, non-protected basis for devices and users that comply with the specified regulatory requirements, including technical conditions prescribed in the applicable band plans or regulatory guidelines.
- 8.1.5. Spectrum sharing in other bands, whether between any assignees of the same or different service(s), shall be approved by the Commission in accordance with the provisions of the National Frequency Table of Allocations. Such requests shall be evaluated on a case-by-case basis.
- 8.1.6. The categories of rights of use in spectrum sharing arrangements shall comprise the following:
  - (a) Equal Rights: both assignees shall have the same rights on the shared spectrum.
  - (b) Primary Users: A primary user shall have more rights on the spectrum than a secondary user. Primary users shall be protected against interference caused by the usage of shared spectrum by secondary users.
  - (c) Secondary user: A secondary user may be authorized to share the spectrum subject on the condition that their use does not cause interference or degrade the quality of service provided by the primary user(s).
  - (d) Priority access: An assignee shall have a priority right to use the spectrum in the designated band and shall be protected against interference caused by other users, including incumbent users, sharing the same band.
- 8.1.7. Interference resolution shall be carried out in accordance with the current *Uganda Communications Commission's Interference Handling Guidelines*.

- 8.1.8. A person wishing to establish a private network using licensed spectrum may do so using the following options:
- (a) Within a licensed operator's spectrum holding, by using a network slice from the operator's network.
  - (b) By formally requesting the operator to establish an independent, isolated private network on the private network's premises using the operator's spectrum.
  - (c) By leasing spectrum from a licensed operator to establish an independent network.
  - (d) By obtaining the spectrum and the relevant authorisations directly from the Commission to facilitate the establishment of a private network.
- 8.1.9. Entities sharing spectrum in either licence-exempt or licensed bands shall ensure that all communication equipment, devices, or systems associated with their operation are Type-Approved before use.
- 8.1.10. The operation of a radio station(s) under a spectrum-sharing arrangement shall not cause harmful interference to any radiocommunications station(s) and radio service duly authorized by the Commission.
- 8.1.11. All radio frequency spectrum authorisation holders be responsible for ensuring that their installation(s) or modification(s) of their radio system(s) do not cause harmful interference.
- 8.1.12. To protect existing authorised radio stations from interference, spectrum assignees shall coordinate with co-channel, interstitial, and adjacent channel assignees authorized within the same or adjacent geographic areas in Uganda before operating a new or modified system that may potentially cause interference.
- 8.1.13. In the event of a reported case of harmful interference, the subject radio station operating under a sharing arrangement shall immediately take necessary steps, including ceasing transmissions.
- 8.1.14. Any interfering station(s) in 8.1.11 above shall not resume transmissions until mitigation measures satisfactory to the Commission

have been established to prevent such interference from happening again.

8.1.15. The Commission reserves the right to approve, reject, vary, suspend, or cancel any sharing arrangements or agreements where:

- (1) One of the sharing parties or persons ceases to be eligible to hold or utilize spectrum.
- (2) One of the sharing parties or persons (*either Primary or Secondary*) repeatedly breaches any of the terms and conditions associated with the right to use the shared spectrum or other spectrum held.
- (3) One of the sharing parties uses the subject spectrum for purposes other than the ones for which it was assigned.
- (4) The continued sharing arrangement or agreement is deemed to adversely affect or impact competition.
- (5) The arrangement is deemed contrary to public interest or national security.

8.1.16. Person(s) sharing spectrum shall ensure that their operations jointly and individually comply with emission standards published by the International Commission for Non-Ionizing Radiation Protection (ICNIRP) or any other applicable radiation standards as may be specified by the law or by the Commission from time to time.

8.1.17. The Commission reserves the right to access and inspect all radiocommunications systems or operations under sharing arrangements or agreements at any time and without prior notice, to confirm, among others, continued compliance with the authorization terms and conditions.

8.1.18. All spectrum users shall comply with the Commission's requests for information and reports, including data on equipment, use of frequencies, rollout of network, and other information required for effective spectrum management.

## **8.2. Collective Use of Spectrum or Licence Exempt**

### **8.2.1. General provisions on licence-exempt access**

- 8.2.1.1. The Commission shall designate and make available, on a non-exclusive, non-interference and non-protected basis, certain frequency bands for collective use, subject to the harmonised technical conditions.
- 8.2.1.2. All users and devices operating in each of the designated bands shall meet the defined set of conditions specified in the respective band plan or regulatory guideline.
- 8.2.1.3. Spectrum users shall be responsible for sharing spectrum efficiently and managing interference effectively.

### **8.2.2. Industrial, Scientific and Medical (ISM) equipment bands**

- 8.2.2.1. The Commission has allocated the following frequency ranges as ISM spectrum bands for the provision of Radio Local Area Networks (RLANs) and Wireless Access Services (WAS):
  - (a) 868MHz (863-870MHz).
  - (b) 2.4GHz (2400–2483.5 MHz).
  - (c) 5GHz ((150-5350 (Block A)), ((5470-5725 (Block B)), ((5725-5850<sup>1</sup>))
  - (d) Lower 6GHz (5925-6425 MHz).
- 8.2.2.2. Any eligible person may use the ISM bands to operate devices or equipment designed to generate and apply radio frequency energy locally for industrial, scientific, medical, domestic, or any similar purposes. This does not preclude the use of the bands by wireless Local Area Network (WLAN) systems and other non-ISM systems as allocated in the National Table of Frequency Allocations and provided for in the respective band plans.
- 8.2.2.3. Access to the spectrum in the bands highlighted under 8.2.2.1 above shall be on a shared basis. No exclusive assignment rights shall be

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<sup>1</sup> For only operations with max eirp ≤ 1W.

granted to any individual or organization, whether for private, public, or commercial use.

- 8.2.2.4. The specific technical specifications and regulatory conditions for each band in 8.2.2.1 above are included in the following documents, which are available on the Commission's website:

- (a) Technical Requirements for the use of the 863- 870MHz (868MHz) Band for Industrial, Scientific and Medical (ISM) in Uganda, 2019.
- (b) Guidelines for utilization of the 2.4GHz band for Wireless Access Networks in Uganda, 2022.
- (c) Guidelines for utilization of the 5GHz band for Wireless Access Networks in Uganda, 2022.
- (d) Guidelines for the access and use of the Lower part of the 6 GHz (5925- 6425 MHz) Band in Uganda, 2023.

- 8.2.2.5. The same technical specifications and operation restrictions shall apply to all users, both private and commercial operators. These requirements include limits for and methods of measurement of radiated and conducted radio frequency emissions produced by ISM equipment, as well as administrative requirements applicable to such equipment.

- 8.2.2.6. Spectrum in the ISM bands may be used for indoor and outdoor services and/or applications.

- 8.2.2.7. The use of the ISM bands for the provision of public services shall require an applicable license issued by the Commission.

### 8.3. ***Light-licensing access***

#### 8.3.1. ***General provisions on light licensing***

- 8.3.1.1. Light licensing shall be applied where:

- 8.3.1.1.1. frequency coordination is not required, and there are no restrictions on the number of users, but registration with the Commission is still required, or;

- 8.3.1.1.2. The right to access and use of spectrum shall be granted through a simplified procedure, compared to the process for exclusive rights authorisation.

### **8.3.2. *Dynamic Frequency Sharing Or White Spaces***

- 8.3.2.1. The Commission shall identify portions of spectrum for dynamic sharing and prescribe the applicable conditions for such sharing in each designated spectrum band.
- 8.3.2.2. Any radiocommunication system relying on dynamic spectrum sharing shall operate only when and where spectrum is available, in accordance with the technical rules established by the Commission in the respective band plans or regulatory guidelines.
- 8.3.2.3. The Commission has identified the UHF<sup>2</sup> frequency band 470-694 MHz for Television White Spaces (TVWS) access in Uganda on a secondary user basis. The technical specifications and regulatory conditions for the use of spectrum in this range are outlined in the Uganda Communications Commission Standard for TV White Spaces access and use in Uganda, 2019, available on the UCC website.
- 8.3.2.4. A database of existing spectrum users and installed stations, containing relevant technical parameters (e.g. location, frequency, power, antenna, etc.) shall be established or authorised by the Commission and shall be consulted before installing new stations.
- 8.3.2.5. Every user of a system in 8.3.2.2 shall thus register with the Commission the following information about its operations, as applicable, including but not limited to:
- i.** Geographic co-ordinates of the transmitter.
  - ii.** Geographic co-ordinates of the receiver(s).
  - iii.** Height of the transmitting site above mean sea level.
  - iv.** Height of the transmitting antenna above ground level.

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<sup>2</sup> UHF – Ultra High Frequency

- v.** Make and model of the transmitting and receiving equipment (including antennas).
- vi.** Antenna gain.
- vii.** Antenna azimuth.
- viii.** Antenna polarization.
- ix.** Transmitter power (equivalent isotropically radiated power - E.I.R.P).
- x.** Transmission bandwidth (MHz).
- xi.** Emission type.
- xii.** Transmission frequency and mode (FDD/TDD<sup>3</sup>, etc).

8.3.2.6. If a station/transmitter can be installed without affecting stations already registered (i.e., not exceeding a pre-defined interference criteria), the new station may be recorded in the database.

8.3.2.7. The database referenced in 8.3.2.4 shall be used to determine whether a particular frequency may be used at a specific location in accordance with 8.3.2.2, based on a set of pre-determined compatibility criteria aimed at protecting incumbent services from interference.

8.3.2.8. There shall be no protection from interference to services or systems operating in the bands, nor shall they cause interference to primary services.

### **8.3.3. Individual Or Controlled Light-Licensing**

8.3.3.1. The right to use spectrum in the respective bands, as determined by the Commission, is on a non-exclusive basis.

8.3.3.2. However, the radio frequency spectrum authorisation does provide some protection from interference to the assignee.

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<sup>3</sup> FDD – frequency division duplex and TDD is time division duplex



- 8.3.3.3. The Commission reserves the right to modify, if necessary, the use of the spectrum.

#### 8.4. **Licensed Access**

##### 8.4.1. **Licensed Shared Access**

- 8.4.1.1. The Commission may assign a particular part of a spectrum that has already been assigned to an assignee (referred to as the primary assignee), to one or more additional persons (referred to as the secondary assignees), where such secondary assignment does not cause harmful interference in the use of the relevant part of the spectrum by the primary assignee, subject to such terms and conditions as may be prescribed by the Commission.
- 8.4.1.2. The rights of use under Licensed shared access shall be granted as individual rights of use and shall carry obligations.
- 8.4.1.3. The radio frequency spectrum authorisations so granted shall entail specific provisions to avoid harmful interference and ensure quality of service.
- 8.4.1.4. The grant of this shared access shall consider national objectives and specificities, including the use of the band by an incumbent user.

##### 8.4.2. **Local Service Areas**

- 8.4.2.1. The Commission shall establish allowance zones, each describing a locally confined deployment area where the secondary assignee has the right to transmit using a defined frequency range for the specified period.
- 8.4.2.2. Locally confined deployment areas may be indoor and/or outdoor, and the deployment durations may range from several hours (research or simulations, etc) to months.
- 8.4.2.3. Eligibility criteria for this kind of authorisation include:
  - 8.4.2.3.1. Operators who wish to provide targeted capacity for wireless access systems in rural or remote communities.

- 8.4.2.3.2. Private broadband networks on enterprise premises or campuses (e.g., universities/colleges, stadiums, shopping centres, office buildings).
- 8.4.2.3.3. Private networks to support vertical industrial use cases, including automation, in industries such as agriculture, manufacturing, and mining.

#### 8.4.3. **Local Area Private Network Authorisation**

- 8.4.3.1. A holder of a local area private network authorization shall deploy the assigned spectrum to establish and maintain a private network system within specified locations, aligning with the intended system operation areas and a maximum coverage of one square kilometre.
- 8.4.3.2. The right to use shall be granted on a non-exclusive and geographically sharing basis. Accordingly, spectrum in the same frequency range may be assigned for use by the other assignees at different locations.
- 8.4.3.3. A radio frequency spectrum authorisation for such use of the respective spectrum by a private network shall not exceed a duration of five (5) years.
- 8.4.3.4. There shall be no legitimate expectation of any right of renewal upon the expiry of the spectrum assignment.
- 8.4.3.5. The grant of rights of use of spectrum under local area private network authorisation shall be subject to a spectrum cap. The actual amount of spectrum to be assigned by the Commission to an applicant will depend on the merits of its application and the availability of the spectrum in the proposed areas of operation.
- 8.4.3.6. The assignee is required to take all reasonable measures at its own cost to install, maintain, and operate the system in such a manner as not to cause any harmful interference to any lawful communications services, systems, or networks.
- 8.4.3.7. applications shall be considered based on the following; , subject to the applicable spectrum band:
  - 8.4.3.7.1. First-come, first-served basis; or

8.4.3.7.2. Invitation by the Commission to submit applications in accordance with the Framework for spectrum assignment to Telecommunication services in Uganda, 2019, or on a case-by-case basis as deemed necessary.

8.4.3.8. An applicant shall, among others, submit the following:

8.4.3.8.1. A technical plan highlighting –

- (a) technical configuration including system layout and components using relevant diagram(s) for illustration, the technology to be employed, the likely choice of equipment, system design, capacity, and other technological characteristics.
- (b) the facilities upon launch of the system and the facilities expansion plan (if any) for the years of operation.
- (c) the planned location(s) of equipment to be installed.
- (d) the planned system management facilities, and;
- (e) specifications with which the equipment would comply. The specification(s) should be internationally recognised standard(s) covering functional specifications, modulation, transmitter power, out-of-band and spurious emissions, antenna characteristics, etc., as applicable.

8.4.3.8.2. An implementation plan for deployment of the shared spectrum assigned, giving the key milestones of implementation for the first twenty-four (24) months starting from the issuance date of the radio frequency spectrum authorisation, including where applicable.

- (a) The system planning and the plan for the installation of radio units.
- (b) Placing of order for equipment.
- (c) Delivery of equipment.
- (d) Construction of equipment, buildings/rooms.
- (e) Installation of equipment, and;
- (f) testing.

#### 8.4.4. **Spectrum Leasing**

- 8.4.4.1. An assignee that holds an individual spectrum authorisation can lease to a third party its right to use spectrum or a portion of its frequency or in a geographic area under the terms set out herein.
- 8.4.4.2. Spectrum may be leased to:
- (a) A national telecommunication operator.
  - (b) Community network(s) operator in rural areas.
  - (c) A private network(s) operator, including industries/enterprises, public institutions, and universities.
  - (d) short-term use, including for programme making or live events.
- 8.4.4.3. The leasing of spectrum shall be governed by the terms and conditions of the respective band plan(s) and applicable guidelines issued by the Commission.
- 8.4.4.4. No spectrum user shall be allowed to enter a leasing arrangement in respect of spectrum for which an intention to withdraw the assigned spectrum has been made by the Commission.
- 8.4.4.5. The term of any spectrum lease should not exceed the duration of the assignee's radio frequency spectrum authorisation.
- 8.4.4.6. The lessor and the lessee shall jointly seek approval before entering and concluding a leasing agreement. The term for which a spectrum lease is sought must be specified in the application submitted to the Commission. A request for approval for a spectrum leasing arrangement shall include such information as indicated in Annexure 1 of this framework.
- 8.4.4.7. The lessee shall also provide to the Commission the following additional information to facilitate the consideration of the application for approval of the leasing arrangement:
- (a) Description of the current and post-lease capacity and utilisation, including the appropriate technical information.

- (b) Description of relevant upstream and downstream markets that may be affected by the usage of the spectrum proposed to be leased.

8.4.4.8. The consideration for approval of an application for spectrum leasing will be subject to, but not limited to, the following:

- (a) The party to whom the spectrum is to be leased must meet the applicable eligibility criteria for use of the respective spectrum, as outlined in the respective band plan or specified during the award/assignment process.
- (b) A leasing agreement cannot exceed the authorization granted to the assignee in any respect (e.g., lease term, service area, and/or frequencies) and does not constitute a transfer of the primary radio frequency spectrum authorisation.
- (c) Any proposed change in the use of the spectrum, including whether the proposed change of technology may cause harmful interference.
- (d) The obligations associated with the radio frequency spectrum, including how these will be treated.
- (e) The impact of the proposed spectrum leasing on competition in the market.
- (f) Whether the lessor and lessee are in good standing under applicable laws and regulations, that is, their compliance status with the license obligations.
- (g) Whether the lease would likely influence the level of competition among existing competitors in the market versus the improvements in efficiencies resulting directly from the spectrum lease that cannot be realised by any other means, and the potential benefits to customers, and;
- (h) Potential threat to national security.

8.4.4.9. Special consideration may be made by the Commission for an application for spectrum leasing to a new entrant without any existing rights of use of spectrum in any bands.

8.4.4.10. The Commission may require that a spectrum assignee licensee justify current utilisation as well as plans for any spectrum identified for leasing.

8.4.4.11. No assignee shall be allowed to lease its right to use spectrum:

(a) Within three years from the date of grant of the radio frequency spectrum authorisation of the subject spectrum.

(b) For more than 50% of its spectrum holding in the specific frequency band being leased.

8.4.4.12. An assignee shall not be eligible to lease its spectrum if it is established to be in breach of the terms and conditions of the radio frequency spectrum authorisation, including payment of spectrum fees and implementation of roll-out obligations.

8.4.4.13. The Commission shall not participate in negotiating, reviewing, or enforcing any leasing agreement undertaken between the assignee and the lessee.

8.4.4.14. Permission for spectrum leasing shall be granted by the Commission in one of the two forms below:

(1) Lessor-controlled leasing:

(a) The assignee shall remain fully and solely responsible and liable for compliance with all the Commission's spectrum authorisation conditions and rules, including payment of spectrum fees.

(b) Permission to share spectrum shall therefore not absolve the assignee from any of the conditions of its radio frequency spectrum authorisation, including the obligation on rollout, national geographic coverage, quality of service (QoS), and the payment of spectrum fees.

(c) The Commission, however, reserves the right to contact the assignee directly for non-compliance issues of the radio frequency spectrum authorisation conditions and the lessee for non-compliance issues by the lessee.

(2) Lessee-controlled leasing:

The Commission shall issue a subordinate radio frequency spectrum authorisation to the lessee, granting the lessee rights of use for the leased spectrum with legal control and responsibility for the obligations associated with the leased spectrum for the duration of the authorisation.

8.4.4.15. To evaluate the spectrum cap, the amount of access spectrum leased by the lessor to the lessee shall continue to count in the spectrum holding of the lessor.

8.4.4.16. The right to use of spectrum that is the subject of a leasing arrangement shall revert to the original assignee after the expiry of the period of lease or after termination of a leasing agreement, until expiry of the respective radio frequency spectrum authorisation or unless withdrawn by the Commission.

8.4.4.17. If the radio frequency spectrum authorisation of the assignee is withdrawn, cancelled, terminated, or otherwise ceases to be in effect, the lessee has no continuing authority or right to use the leased spectrum unless otherwise authorized by the Commission.

8.4.5. **Spectrum Pooling**

8.4.5.1. The Commission's prior approval is required for spectrum pooling among assignees.

8.4.5.2. Spectrum may be shared as follows:

(1) Intra-Band Spectrum Sharing: where multiple assignees in a frequency band pool their spectrum holdings in that frequency band and coordinate in the sharing of the same.

(2) Inter-Band Spectrum Sharing: where assignees in two different frequency bands, pool their spectrum holdings in the different bands and coordinate in the use of the same.

8.4.5.3. Applications for inter-band spectrum pooling in spectrum bands for IMT<sup>4</sup> Services shall only be considered for bands in the same category:

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<sup>4</sup> IMT - International Mobile Telecommunications

- (a) Category-1: low band (less than 1GHz);
- (b) Category-2: mid band (1GHz–6GHz);
  - (i) Category-2A: 1800 MHz and 2100 MHz.
  - (ii) Category-2B: 2300 MHz, 2500 MHz, and 3300-3600MHz.
  - (iii) Category-3: high band (24GHz–40GHz).

8.4.5.4. Applications shall be considered by the Commission on a case-by-case basis and for the following scenarios:

- (a) Pooling in a single band in rural areas or sparsely populated areas, and/or those areas with poor broadband coverage and availability.
- (b) For the efficient deployment of high-capacity data networks through a network-sharing venture of more than two (2) competing operators.

8.4.5.5. In reviewing an application, the consideration by the Commission shall include an assessment of its effects on competition, efficient use of spectrum, market development and end-user protection.

8.4.5.6. Approvals for spectrum pooling between operators shall require the parties to enter non-commercial, non-discriminatory pooling agreements for the assigned spectrum, based on proportionally sharing the costs of the infrastructure.

8.4.5.7. Permission to share spectrum shall not absolve the assignee from any of the conditions of its radio frequency spectrum authorisation, including the rollout and spectrum fees payment obligations that are conditions of its respective authorisation. Each assignee shall continue to remit individually its spectrum fees due under its radio frequency spectrum authorisation.

8.4.5.8. Spectrum pooling shall not be permitted where:

- (a) One of the assignees is a defaulter of spectrum fees payments and/or roll-out obligations.



(b) one party is a subject of an ongoing proceeding for breach of the terms and conditions of its radio frequency spectrum authorisation or other regulatory obligations: or

8.4.5.9. Spectrum sharing shall not change the radio frequency spectrum authorisation tenure for the spectrum being shared.

8.4.5.10. All participating assignees shall take utmost measures to avoid interference or mitigate interference to an acceptable level so that the quality of service for end-user (s) is not compromised as a result of spectrum sharing.

8.4.5.11. The Commission reserves the right to revoke the permission for spectrum leasing in the interest of national security, threat to the competition, hazard to public health and safety, non-compliance with terms and conditions of radio frequency spectrum authorisation, and/or degradation of quality of service.

## **9. Spectrum Fees**

(a) Use of unlicensed/licence-exempt spectrum shall not be subject to payment of spectrum fees.

(b) Registration and/or authorisation under light-licensed access shall be charged a nominal fee.

(c) Any person engaged in any form of licensed spectrum sharing arrangement described herein shall continue to individually fulfil their spectrum fees obligation as per the Uganda Communications Fees and Fines Regulation, 2019 (as amended).

(d) Every application for spectrum lease or pooling shall be accompanied by a one-time administrative fee.

## **10. Stakeholder Responsibility**

### **10.1. The Commission**

The Commission shall regularly review and update the provisions of this framework to ensure continued relevance and effectiveness.

### **10.2. Spectrum Assignees**

- (1) Any person engaged in any form of spectrum sharing arrangement described herein shall comply with all the provisions described above.
- (2) Establish and maintain appropriate interference mitigation techniques and limit emissions to within the assigned block and respective authorized region(s) of operation.
- (3) Submit information to the Commission as and when required to do so. Accordingly, spectrum users or assignees shall maintain their respective deployment and operational records.

## **11. Information Management**

- (1) All information submitted to the Commission in support of an application for a spectrum sharing arrangement will only be used to inform its consideration.
- (2) The Commission may, however, make it public if this is deemed necessary in the public interest or national security.

## **12. Enforcement and Remedial Measures**

- (1) Where the Commission determines that a spectrum user or person is not compliant with any provision of this framework, this shall be deemed to be a contravention of the Uganda Communications Act CAP 103 and Regulations issued thereunder and shall be dealt with in accordance with the relevant provisions of the Act.
- (2) Both the assignee and lessee shall submit an undertaking to the Commission that they shall comply with all the terms and conditions of this framework for spectrum sharing and agree that in the event it is established by the Commission that either party is in non-conformance with the terms and conditions of the guidelines for spectrum, the Commission shall have the right to take appropriate action which inter-alia may include annulment of the sharing arrangement.
- (3) Additional measures that may be considered by the Commission in the case for breach of (1) above may include, but are not limited to, the following:

- (a) Issuance of a violation notice, specifying, among others, specific remedial actions, as well as a deadline for implementing the same.
- (b) Seizure and subsequent destruction of the equipment used in the breach

## ANNEX 1: SAMPLE INFORMATION TO BE SUBMITTED FOR THE APPLICATION FOR APPROVAL OF SPECTRUM LEASING

*Table 1: Application for approval of a spectrum leasing agreement/  
arrangement*

Applying assignee:		
Applying lessee:		
Contact details of each applying party		
<b>Assignee</b>		<b>Lessee</b>
Legal Name: _____		Legal Name: _____
Business physical address: _____		Business physical address: _____
Postal address: _____		Postal address: _____
Telephone number: _____		Telephone number: _____
Email: _____		Email: _____
Website: _____		Website: _____
<b>Assignee's radio frequency spectrum authorisation</b>	<b>Frequencies/spectrum blocks or parts to be leased</b>	<b>The geographical area in which frequencies are to be leased</b>
Map enclosed showing area where spectrum is to be leased:      Yes, ___ No ___		
The business activities of the lessee:		
Information to demonstrate the eligibility of the lessee:		
Proposed start date of lease agreement:		
Planned expiry date of the lease arrangement:		
Type of spectrum sharing authorisation sought:		
a) Lessor-controlled leasing		
b) Lessee-controlled leasing		