



**ASSIGNMENT OF MULTI-BAND RADIO FREQUENCY SPECTRUM FOR  
DEPLOYMENT OF BROADBAND SERVICES IN UGANDA**

**(Information Memorandum)**

---

**Call for Expression of Interest for Radio Frequency  
Spectrum in different bands to facilitate the  
deployment of broadband services in Uganda**



**May 2023**

## **Content**

### **Table of Contents**

1.0	Introduction .....	3
2.0	The Spectrum for Award .....	8
3.0	Applicable Spectrum Authorization Terms and Obligations .....	14
4.0	Eligibility.....	18
5.0	Application requirements .....	18
6.0	Application Documents.....	19
7.0	The Spectrum Award Process .....	23
8.0	Issuance of Radio Frequency Spectrum Authorizations.....	29
9.0	How to Apply .....	30
10.0	Withdrawing an Application.....	30
11.0	Liability.....	30
	Annex A: Glossary of Key Terms .....	31
	Annex B: Application Form(s).....	32
	Annex C: Declaration .....	33
	Annex D: Application Checklist.....	34

## **1.0 Introduction**

### 1.1. Background

1.1.1. Uganda Communications Commission (the Commission) was established by the Uganda Communications Act 2013 to implement the objectives of the Act.

1.1.2. The increase in digitization in the ICT and other sectors has heightened the need for high-speed, reliable, and ubiquitous internet connectivity. According to different broadband reports including those by Cable.co.uk and Statista respectively highlighted below, Uganda is among the countries lagging in internet speeds, amid the new technologies and techniques available.

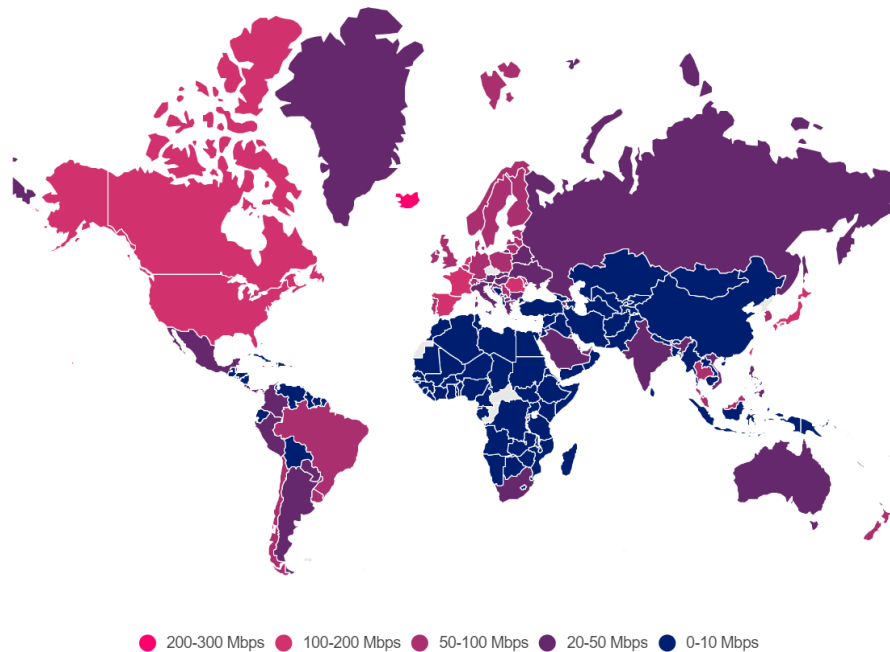


Fig 1: World broadband speeds (Source: <https://www.cable.co.uk/broadband/speed/worldwide-speed-league/>)

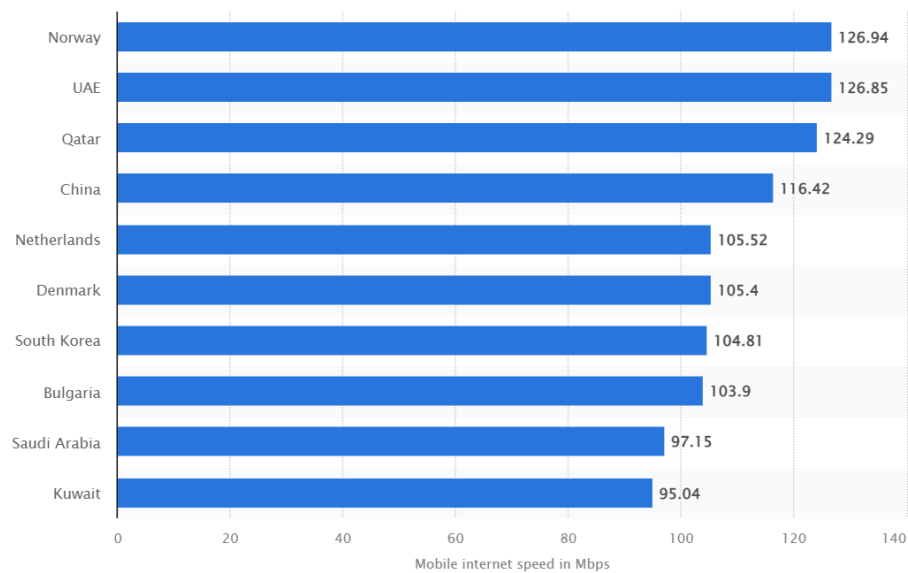


Fig 2: Countries with the fastest average mobile internet speeds as of September 2022 (Source: <https://www.statista.com/statistics/896768/countries-fastest-average-mobile-internet-speeds/>)

- 1.1.3. Section 5(1)(c) of the Act mandates the Commission to allocate, 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 the same;
- 1.1.4. In this regard, the Commission is set to assign spectrum in the 700MHz, 800MHz, 2300MHz, 2600MHz, 3300MHz, 3500MHz, 5GHz (Block C), and the E-band (Block B) bands to facilitate the development of broadband services, capacity, and coverage across Uganda;
- 1.1.5. In fulfilment of its mandate under section 5(1)(c), the Commission seeks to assign the subject spectrum to the applicants that present a utilisation plan that presents the utmost value for the spectrum and socio-economic benefits.
- 1.1.6. In accordance with the provisions of the Framework for Spectrum Assignment to Telecommunications Services in Uganda (2019) on the assignment of radio spectrum where demand exceeds the amount of spectrum available, the Commission shall use a competitive process (beauty contest) to assign the subject spectrum.
- 1.1.7. The criteria for this competition process shall be hinged on the realization of the national and United Nations (UN) ICT policy objectives and aspirations. The reference for these includes, among others, UN targets for universal and meaningful digital connectivity

to be achieved by 2030, the National Vision 2040, the National Broadband Policy 2018, the Digital Uganda Vision, the National Development Plan (NDP) III, National Fourth Industrial (4IR) Strategy 2020, and the National Broadband Baseline Survey & Infrastructure Blueprint.

1.1.8. This information memorandum comprises the following:

- (i). The available spectrum for assignment in the subject bands and associated bandwidth;
- (ii). Information on the spectrum award process including application, qualification, application processing, selection, spectrum reservation, and authorization.

1.2. The ICT Policy Objectives and Goals

1.2.1. In recognition of the catalytic role of ICTs in the realization of the UN Sustainable Development Goals, the UN aspiration targets seek to have everyone aged 15 years or older using the Internet, all households having Internet access, all businesses using the Internet, and all schools connected, while 100 percent of the population covered by the latest mobile networks, and everyone 15 years or older owning a mobile phone;

1.2.2. The Government of Uganda has also set out national objectives that include the following;

- (i). The Uganda Vision 2040 identifies ICT as one of the fundamentals for the realization of Uganda's vision of "a transformed Ugandan society from a peasant to a modern and prosperous country within 30 years". The Vision recognizes that ICT provides an opportunity to improve national productivity by making Government and business enterprises more efficient, effective, and globally competitive. The Vision seeks to continuously build robust ultra-high speed, pervasive, intelligent, and reliable high-speed ICT infrastructure all over the country in line with the changing technologies. The ICT infrastructure is also to be extended to all major tourism attractions.
- (ii). The National Broadband Policy 2018 seeks to, among others, realize;

- (1) Connectivity for all while ensuring, that all parts of the country are connected to broadband;
  - (2) Affordability and digital inclusion through the adoption of alternative broadband infrastructure technologies;
  - (3) Increased broadband rollout and quality of service improvement with spectrum utilized efficiently, optimally, and rationally;
- (iii). The overall development strategy of the National Development Plan III 2020 is hinged on the need for, among others, nurturing the potential of the ICT sector towards the realization of “increased household incomes and improved quality of life of Ugandans”. The Digital Transformation Programme of the plan, therefore, aims to increase ICT penetration and use of ICT services for social and economic development. The key results sought include increasing ICT penetration and reducing the cost of ICT services;
- (iv). The National Strategy on the Fourth Industrial Revolution (2021) seeks “to transform and accelerate Uganda’s development into an innovative, productive and competitive society using 4IR technologies by 2040”. One of the critical enablers identified for the realization of this is 4IR Connectivity to enable all Ugandans to participate fully in the 4IR economy by establishing cost-effective and fast interaction between the digital and physical worlds. The targets identified for this include;
- (1) National broadband access at 100% geographical coverage of a minimum speed of 4Mbps, and 80% population coverage of a minimum speed of 8Mbp by 2025;
  - (2) Coverage of an average of 15 Mbps in each district capital by 2030;
  - (3) Coverage of an average of 25Mbps in the Kampala Central Business District by 2030;
  - (4) Lowering the costs of 1GB of data by 30% by 2023.
- (v). The Digital Uganda Vision seeks “to transform Uganda into a digitally enabled society that is innovative, productive and competitive”. Its objectives include promoting and stimulating domestic and foreign investment in ICT infrastructure,

manufacturing, services, content, research, development, and innovation. One of the pillars of the Vision is an integrated Digital Infrastructure and Connectivity which underpins the need for integrated, improved, affordable and secure access and utilization of digital infrastructure to facilitate the exploitation of national development priorities.

### 1.3. Applicable Regulatory Tools

The relevant provision of the following tools shall apply;

- 1.3.1. The Uganda Communications Act 2013;
- 1.3.2. The Uganda Communications (Licensing) Regulations 2019;
- 1.3.3. The Uganda Communications (Fees and Fines) (Amendment) Regulations, 2023;
- 1.3.4. The National Table of Frequency Allocations (NTFA), 2021;
- 1.3.5. The Framework for Spectrum Assignment to Telecommunications Services in Uganda 2019, and;
- 1.3.6. The respective subject spectrum band policies;
  - (i). The 700MHz band Policy 2021;
  - (ii). Authorization and Usage Requirements of the 71-76/81-86 GHz Band (E-Band), 2021;
  - (iii). The 800MHz and 2600MHz band Plan, 2015;
  - (iv). Guidelines for the use of the 5GHz band for wireless access networks in Uganda, April 2022;
  - (v). The band policy for the Access 3300-3600MHz Spectrum band 2021;
  - (vi). The review of the 2300-2400MHz access spectrum band 2021.

## 1.4. Objectives of the Spectrum Award

1.4.1. The award and the optimal use of the subject spectrum are expected to, among others, facilitate the following:

- (i). Enhancement of digital transformation including the provision, access, and use of e-services across the economy to stimulate economic growth and improve Uganda's global competitiveness;
- (ii). The expansion of affordable and reliable broadband coverage;
- (iii). The advancement of local innovation;
- (iv). Improvement of the quality of broadband Services across the country;
- (v). Acceleration of the bridging of the digital divide.

## **2.0 The Spectrum for Award**

### 2.1. Spectrum Channel Arrangement

2.1.1. The spectrum in the bands highlighted in Table 1 and in the sections that follow below has been allocated for the provision of broadband service on a technology-neutral basis<sup>1</sup> (unless otherwise specified) and in accordance with the provisions of the national table of frequency allocation (NTFA). The development of the respective band policies followed a wide consultation with stakeholders.

---

<sup>1</sup> *Except satellite communications*



Table 1: Applicable Spectrum

Band	Available blocks	Block size (MHz)	The total spectrum available (MHz)	Maximum allowable spectrum per applicant in blocks <sup>2</sup>
700MHz (FDD)	4	2x5	40 (2x20)	2
800MHz (FDD)	2	2x5	20(2x10)	2
2300MHz (TDD)	10	1X10	100	10
3300MHz (TDD)	10	1x10	100	10
3500MHz (TDD)	20	1x10	200	10
5GHz (TDD)	25	1x5	125	5
2600MHz (FDD)	1	2x10	10	1
2600MHz (TDD)	5	1x10	50	N/A
E-band (FDD)	10	2x250	5000(2x2500)	2

2.1.2 From the above table, the twenty-five (25) blocks of 1x5MHz available in the 5GHz and the ten (10) blocks of 2x250MHz in the E-Band are in blocks C and B respectively as highlighted in sections 2.1.8 and 2.1.9 herein;

2.1.3 The details of the four (4) blocks of 2x5MHz in the 700 MHz band are shown in *Figure 3a* below. The frequencies to be awarded in this band are in the range of 703 – 723 MHz (*Uplink*) and 758 -778 MHz (*Downlink*).

703	708	713	718	723	728	733	Duplex Gap	758	763	768	773	778	783	788
-	-	-	-	-	-	-		763	768	773	778	783	788	791
708	713	718	723	728	733	736		763	768	773	778	783	788	791
<i>Uplink (UL)</i>							Duplex Gap	<i>Downlink (DL)</i>						
Available			Not Available		BBPPDR			Available			Not Available		BBPPDR	
703			723		733	736		758				778	788	791

Figure 3a: The 700MHz Channel Arrangement

2.1.4 The details of the two (2) blocks of 2x5MHz in the 800 MHz band are shown in *Figure 3b* below. The frequencies to be awarded in this

<sup>2</sup> There is a restriction on grant of substitutable spectrum. An applicant shall therefore not be assigned (or hold) spectrum in more than one substitutable spectrum bands as explained under section 2.2

band are in the range of 801 – 811 MHz (Uplink) and 842 -852 MHz (Downlink).

791	796	801	806	811	816	Duplex Gap	832	837	842	847	852	857					
-	-	-	-	-	-		-	-	-	-	-	-	-				
795	801	806	811	816	821		837	842	847	852	857	862					
Downlink (UL)							Uplink DL)										
Assigned			Available			Assigned			Assigned			Available			Assigned		
<b>791</b>	<b>801</b>	<b>811</b>	<b>821</b>				<b>832</b>	<b>842</b>	<b>852</b>	<b>862</b>							

Figure 3b: The 800MHz Channel Arrangement

2.1.5 The details of the ten (10) blocks of 1×10MHz in the 2300 MHz band are shown in Figure 3c. The frequencies to be awarded in this band are in the range of 2300 MHz – 2400 MHz.

Channel number	1	2	3	4	5	6	7	8	9	10
Bandwidth	10 (1x10) MHz available									
Frequency blocks	2300 - 2310	2310 - 2320	2320 - 2330	2330 - 2340	2340 - 2350	2350 - 2360	2360 - 2370	2370 - 2380	2380 - 2390	2390 - 2400
	<b>2300</b> <span style="float: right;"><b>2400</b></span>									

Figure 3c: The 2300MHz Channel Arrangement

2.1.6 The details of the ten (10) blocks of 1×10MHz in the 3300 MHz band are shown in Figure 3d. The frequencies to be awarded in this band are in the range of 3300 MHz – 3400 MHz.

Channel number	1	2	3	4	5	6	7	8	9	10
Bandwidth	10 (1x10) MHz available									
Frequency blocks	3300 - 3310	3310 - 3320	3320 - 3330	3330 - 3340	3340 - 3350	3350 - 3360	3360 - 3370	3370 - 3380	3380 - 3390	3390 - 3400
	<b>3300</b> <span style="float: right;"><b>3400</b></span>									

Figure 3d: The 3300MHz Channel Arrangement

2.1.7 The details of the twenty (20) blocks of 1×10MHz in the 3500 MHz band are shown in Figure 3e. The frequencies to be awarded in this band are in the range of 3400 MHz – 3600 MHz.

Channel number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Bandwidth	20(1x10) MHz available																			
Frequency blocks	3400 - 3410	3410 - 3420	3420 - 3430	3430 - 3440	3440 - 3450	3450 - 3460	3460 - 3470	3470 - 3480	3480 - 3490	3490 - 3500	3500 - 3510	3510 - 3520	3520 - 3530	3530 - 3540	3540 - 3550	3550 - 3560	3560 - 3570	3570 - 3580	3580 - 3590	3590 - 3600
	3400										3600									

Figure 3e: The 3500MHz Channel Arrangement

2.1.8 The details of the twenty-five (25) blocks of 1x5 MHz in the 5 GHz band (*block C*) are shown in *Figure 3f*. The frequencies to be awarded in this band are in the range of 5725 MHz – 5850 MHz.

Channel number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Band width	25 (1x5) MHz Available																								
Frequency blocks	5725 - 5730	5730 - 5735	5735 - 5740	5740 - 5745	5745 - 5750	5750 - 5755	5755 - 5760	5760 - 5765	5765 - 5770	5770 - 5775	5775 - 5780	5780 - 5785	5785 - 5790	5790 - 5795	5795 - 5800	5800 - 5805	5805 - 5810	5810 - 5815	5815 - 5820	5820 - 5825	5825 - 5830	5830 - 5835	5835 - 5840	5840 - 5845	5845 - 5850
	5725										5850														

Figure 3f: The 5GHz Channel Arrangement

2.1.9 The details of the ten (10) blocks of 2x250MHz in the E-Band (Block B) are shown in *Figure 3g*. The frequencies to be awarded in this band are from 73.325-75.825 GHz (*uplink*) and 83.325-85.825 GHz (*downlink*);

Channel number	1	2	3	4	5	6	7	8	9	10	Duplex Gap										1	2	3	4	5	6	7	8	9	10										
Frequency blocks (GHz)	Uplink (available)										Downlink (available)																													
	73.325-73.575	73.575-73.825	73.825-74.075	74.075-74.325	74.325-74.575	74.575-74.825	74.825-75.075	75.075-75.325	75.325-75.575	75.575-75.825											83.325-83.575	83.575-83.825	83.825-84.075	84.075-84.325	84.325-84.575	84.575-84.825	84.825-85.075	85.075-85.325	85.325-85.575	85.575-85.825										
	73.325										75.825										83.325										85.825									

Figure 3g: The E-Band (block B) Channel Arrangement

2.1.10 The details of the one (1) block of 2x10MHz and five (5) blocks of (1x10) MHz in the 2600MHz Band are shown in *Figure 3h* below. The

frequencies to be awarded in this band are in the range 2530-2540MHz (uplink) paired with 2650-2660MHz (downlink) and 2570 – 2620MHz;

Channel number	Assigned			avail able	Assigned			TDD Duplex Available					Assigned		avail able	Assigned			
	Uplink						TDD Duplex					Downlink							
Frequency blocks (MHz)	2500-2510	2510-2520	2520-2530	2530-2540	2540-2550	2550-2560	2560-2570	2570-2580	2580-2590	2590-2600	2600-2610	2610-2620	2620-2630	2630-2640	2640-2650	2650-2660	2660-2670	2670-2680	2680-2690
	2500		2530	2540		2570					2620				2650	2660			2690

Figure 3h: The 2600-Band Channel Arrangement

## 2.2. Applicable Spectrum Caps

2.2.1. Due to the need to ensure rational and equitable distribution of spectrum in all bands (i.e. sub-1GHz, Mid and High bands), the following spectrum caps were instituted and shall apply;

- (i). The total spectrum holding in the sub (below) 1GHz spectrum band(s) of a successful applicant of the 700MHz or 800MHz band after this process shall not exceed 2x20MHz. This provision applies especially to licensees with existing spectrum holdings in the sub-1GHz band;
- (ii). The total spectrum holding<sup>3</sup> of a successful applicant of the 2300MHz, 2600MHz, 3300MHz, and 3500MHz bands after this process shall not exceed 220MHz;
- (iii). Noting the need to ensure equitable distribution of radio frequency spectrum bands, under this process;
  - (1) No Person shall hold an Assignment in both the 700MHz and the 800MHz.
  - (2) No person should apply for spectrum in more than two (2) bands of the following mid-bands 2300 MHz, 2600MHz, 3300MHz, and 3500MHz,
  - (3) No person shall hold spectrum in both 2300 and 3300MHz

<sup>3</sup> Including the current spectrum held in the 1800MHz and 2100MHz band

- (iv). The maximum assignable amount of spectrum per applicant in the 700 MHz bands shall not exceed two (2) blocks of 2x5 MHz usable in FDD mode;
- (v). The maximum assignable amount of spectrum per applicant in the 800 MHz bands is two (2) blocks of 2x5 MHz usable in FDD mode;
- (vi). The maximum assignable amount of spectrum per applicant in the 2300 MHz band shall be ten (10) blocks of 1x10 MHz usable in TDD mode;
- (vii). The assignable spectrum per applicant in the 2600 MHz band is one (1) block of 2x10 MHz usable in FDD mode.
- (viii). The assignable spectrum per applicant in the 2600 MHz band is five (5) blocks of 1x10 MHz usable in TDD mode. Capping restrictions do not apply to this portion of the band at the moment;
- (ix). The maximum assignable amount of spectrum per applicant in the 3300 MHz band is ten (10) blocks of 1x10 MHz usable in TDD mode;
- (x). The maximum assignable amount of spectrum per applicant in the 3500 MHz band is ten (10) blocks of 1x10 MHz usable in TDD mode;
- (xi). The maximum assignable amount of spectrum per applicant in the 5GHz band is five (5) blocks of 1x5 MHz usable in TDD mode;
- (xii). The maximum assignable amount of spectrum per applicant in the E-band is two (2) blocks of 2x250 MHz usable in FDD mode.

2.2.2. The amount of spectrum assigned to a successful applicant shall be determined from the justification provided by the applicant in its value proposition and associated technical plans submitted in respect of the obligations outlined in section 3 herein and the associated telecommunications license.

### 2.3. Applicable Spectrum Fees

2.3.1. Applicants shall be required to pay the applicable fees in full, as outlined in the Uganda Communications (Fees and Fines) (Amendment) Regulations, 2023, S.I. No. 24 of 2023;

2.3.2. The Commission reserves the right to review the applicable spectrum fees during the term of the radio frequency spectrum authorization where deemed necessary.

### 2.4. Geographical Scope

2.4.1. Successful applicants holding a National Telecommunications Operator (NTO) license are eligible for the grant of the right to use the respective spectrum across the entire national geographical territory of Uganda, including land and water bodies. An NTO license holder may, however, opt and is eligible to apply for spectrum on a regional basis;

2.4.2. Successful applicants holding Regional Public Infrastructure Provider licenses (RPIP) shall be granted the right to use the respective spectrum in the respective geographical region(s) specified in the respective RPIP licenses.

### 2.5. The Authorization Tenure

2.5.1. The radio frequency spectrum authorization granted arising from this process shall remain valid from the assignment date and shall continue in parallel to and not exceed the duration of the associated Public Infrastructure Provider or the National Telecommunications Operator licenses. However, this is subject to the continued compliance of the assignee with all the terms and conditions of the respective radio frequency spectrum authorization;

2.5.2. The Commission reserve the right to vary or withdraw the radio frequency spectrum authorization in accordance with the Guidelines on Variation and Withdrawal of Radio Spectrum Authorization.

## **3.0 Applicable Spectrum Authorization Terms and Obligations**

### 3.1 Operational requirements

3.1.1 The use of the spectrum assigned under this process shall be on a technology-neutral basis subject to compliance with the technical

requirements specified under the respective band policy unless otherwise specified;

3.1.2 While the radio frequency spectrum is assigned on a technology-neutral basis, applicants acknowledge and shall conform with the following for efficient utilization:

(i) The assignee shall notify the Commission of the technology (ies) to be deployed in the subject spectrum bands, or any future changes in this regard. In this case, the Commission should be notified at least three (3) months prior to effecting such changes;

(ii) The Commission reserves the right to require the assignee to establish technical requirements and standards to ensure the spectrum is utilized optimally or efficiently.

3.1.3 Successful applicants to whom spectrum authorization is granted shall use any combination of its entire spectrum holding (*including that granted prior to or post this process, through other spectrum award/assignment processes*) to meet all commitments and obligations specified in the radio frequency spectrum authorization issued out of this assignment process.

### 3.2. Throughput Requirement

3.2.1. The measurement of the obligations in respect of the throughput requirements highlighted in section 3.4. and 6.1.4 shall be as per the methodology prescribed by the Commission.

### 3.3. Spectrum Trading

3.3.1. The radio frequency spectrum authorization shall only grant to the successful applicant the right to use, and not confer ownership of the resources. Successful applicants to whom spectrum authorization is granted shall therefore not claim ownership of the spectrum;

3.3.2. The sale and transfer of the rights to use of radio frequency spectrum either directly or through mergers & acquisitions is prohibited.

### 3.4. Specific obligations associated with Specific Bands

The radio frequency spectrum authorization shall carry the following specific obligations;

- (i) 700MHz and 800MHz

Table 2: Specific Obligations

No.	Obligation	Achievement Date	Requirements	Concerned Applicants
1.	Indoor Broadband Coverage Within Kampala district; including, Central, Kawempe, Nakawa, Makindye, and Rubaga Divisions	Twelve (12) months effective the date of spectrum assignment	Signal levels -95dBm	Existing Licensees
		Thirty-Six (36) Months effective the date of spectrum assignment.		New Entrants
2	Broadband Coverage for the Karamoja region, including; Kaabong, Abim, Nopak, Moroto, Kotido, Nakapiripirit, and Amudat (see map in Figure 4 below.	By December 2025	90% geographical area coverage	For existing National licensees
				New entrants; applicable to licensees with national spectrum usage requirements or regional PIP licensees covering the Northern region.
4	Broadband Coverage in the areas with a poverty index of above 10%, as highlighted under the current Uganda Bureau of Statistics "Uganda National			New entrants; applicable to regional PIP licensees covering the Central, Western, or



Household Survey Report” 2019/2020.			Eastern regions.
-------------------------------------	--	--	------------------

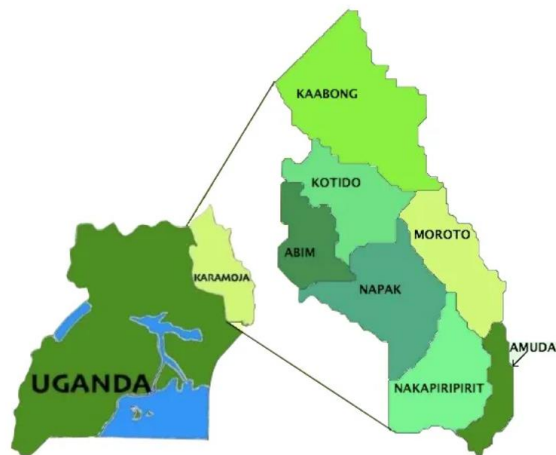


Fig 4: A map of the Karamoja Region<sup>4</sup>.

(ii) 2300MHz, 2600MHz, 3300MHz and 3500MHz

No.	Obligation	Achievement Date	Requirements	Concerned Applicants
1.	Throughput	Twelve (12) months effective the date of spectrum assignment	Average Street level Downlink (DL) speeds of 50Mbps in Kampala district; including Central, Kawempe, Makindye, Nakawa & Rubaga).	Existing Licensees
		Thirty-Six (36) Months effective the date of grant of the associated Telecommunications License under which the Radio Frequency Spectrum Authorisation is being granted		New entrants

<sup>4</sup> (source: <https://www.ugandapartners.org/tag/karamoja/>)

3.5 The above specific obligations are in addition to the conditions outlined in section 7.1.2 and shall jointly, constitute the obligations due under the license.

#### **4.0 Eligibility**

4.1 An application shall only be considered where the respective applicant is;

4.1.1. An existing holder of either an NTO or PIP license issued under Section 22 of the Uganda Communications Act of 2013;

4.1.2. A person whose application for either an NTO or PIP license is under consideration by the Commission by the time of publication of this information memorandum. In this case, spectrum authorization shall be granted only after the grant/issuance of the applicable telecommunications license, and;

4.1.3. Any other eligible person(s) for the respective telecommunications licenses. However, the grant of radio frequency spectrum authorization can only be done after the issuance of the associated requisite licenses.

#### **5.0 Application requirements**

5.1 Deposit requirements: potential applicants shall be required to submit a bank guarantee of the amounts in Table 3 below, as applicable, which should be valid until 30<sup>th</sup> September 2023. The intent is to prevent speculative applications and engagement in inappropriate behavior during this process;

Table.3 Applicable Bank Guarantees

No.	Band Cluster	Applicable Amount of Bank Guarantee ((USD)
1.	700MHz and 800MHz	1000000
2.	2300MHz, 2600MHz, 3300MHz and 3500MHz	500000

5.2 An applicant shall submit a bank guarantee of USD 1,500,000 if they apply for spectrum in both clusters 1 and 2. Otherwise, the individual guarantee for each cluster shall apply.

- 5.3 Applications exclusive to the 5GHz and E-band, shall not be required to submit a bank guarantee.
- 5.4 Applicants shall not engage in conduct that would distract the smooth running of this process including but not limited to:
- 5.4.1 Engaging Commission officials *informally* to discuss issues related to the spectrum award process after the publication of *the invite to apply the notice* and during the entire process.
- 5.4.2 Colluding or associating with other potential applicants with the intent to influence the process or its outcome.
- 5.4.3 Sharing confidential information related to the process, outside of the specified channels of the process, including their own application and business plan.
- 5.4.4 Should the Commission establish any evidence of inappropriate behavior, as described herein, it may at its discretion take either or both of the following measures;
- (1) Drop the respective applicant from the process for no longer being eligible; and/or;
- (2) Execute a percentage reduction of 25% off the applicant's bank guarantee.
- 5.4.5 The Commission may also take additional legal and regulatory actions outside this process, such as but not limited to excluding the applicant from participation in future spectrum award processes.
- 5.4.6 All applicants shall be required to provide evidence of payment of a non-refundable spectrum application processing fee in accordance with the spectrum fees schedule as per fines and fines regulations.

## **6.0 Application Documents**

6.1. Potential applicants shall be required to submit an Application that includes the following mandatory sections;

6.1.1. Company information: This should highlight in the case of a new entrant, the company ownership including its structure and relevant

experience in the industry, and for an existing licensee, a copy of the current annual license compliance certificate;

- 6.1.2. Roll-out plan: a five (5) year roll-out plan, highlighting the specific milestones, timelines, and indicators to measure progress for the realization of the proposed network and/or expansion, which should ensure the realization of specific objectives highlighted in section 3.4 and the following attached to the right of use of the subject spectrum.
- 6.1.3. Optimal use of radio frequency spectrum: The applicant should set out a plan of how the sought radio frequency spectrum resources in each of the bands applied for are to be used to enhance the achievement of the obligations in section 3.0 above. The plan should highlight the network architecture and clarify the radio network access technologies planned to be deployed, the frequency use plan, and spectrum efficient technologies and/or techniques to be used. The plan should also describe the operations, maintenance, performance levels, and network availability. This information shall be provided in MS Excel and the format of the tables in Annex B. The technical specifications associated with the use of the subject frequency bands shall be as highlighted in the band policy documents under Section 1.3.2 above and as shall be specified in the spectrum authorization documents that shall be issued to successful applicants;
- 6.1.4. The Roll-out plan should also explain to what extent the existing network infrastructure shall (in the case of existing licensees) be re-used to among others achieve the following;
  - (i). at least 90% geographical coverage of broadband internet within the geographical area associated with the telecommunications license held/sought (including water bodies) by the 5<sup>th</sup> anniversary of the date of grant of the telecommunications License under which the Radio Frequency Spectrum Authorisation is being granted.;
  - (ii). an average street-level (outdoor) downlink internet speed on handheld mobile terminals of 25Mbps in the Great Kampala Metropolitan Area by 2025, see Figure 4 below, and;

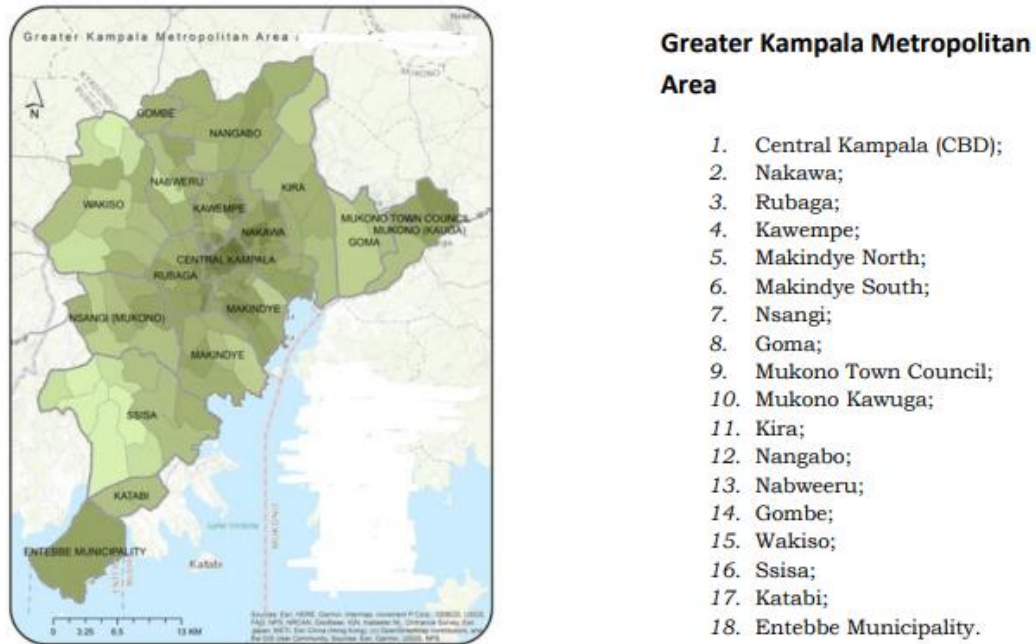


Fig 4: Map of Greater Kampala Metropolitan Area (Source: Journal of Geographic Information System > Vol.12 No.4, August 2020)

(iii). an average street-level (outdoor) downlink internet speed on handheld mobile terminals of 15Mbps in all district centers (in coverage radius of over 8km) achievable by the 5<sup>th</sup> Anniversary of the date of grant of the associated telecommunication license.

#### 6.1.5. Business plan:

- (i) Applicants shall submit a five (5)-year business plan highlighting milestones in 7.1.2 based on practical and implementable strategies. The business plan should include service demand analysis, an investment and financing plan, information on project management, and an expansion forecast to address growth in demand. The business plan should also include proof of sufficient financial means for the investments necessary to support the Roll-out plan in 7.1.2 above.
- (ii) This should demonstrate the capability to make use of the required spectrum within six (6) and twelve (12) months for existing and new entrants respectively, from the date of assignment vide a radio frequency spectrum authorization. This information should include;

- (a) Proof of adequate finances to support the investment necessary to achieve the proposed roll-out plan. The proof should be in the form of annual financial reports or capital expenditure secured to substantiate the investment claims;
  - (b) Broadband coverage maps (strictly in shapefile format) of the projected new/additional coverage footprint to be achieved with the spectrum applied for (as applicable).
- (iii) Additionally, the Business plan should highlight how the applicant will address the requirements below, as well as any further investment commitments;
  - (a) In consideration of the value of the subject spectrum;
    - (1) reducing the cost of 1GB of mobile internet to less than Uganda Shilling Shillin2100 by 2025;
    - (2) reducing the cost of 1Mbps of fixed wireless internet connection to less than Uganda Shilling 106,400 by 2025;
  - (b) Coverage and throughput requirements are highlighted in Section 3.0 and Table 2 thereunder.
- (iv) Commitment to authorization and license obligation. A clear statement of the undertaking of the applicant's commitment to fulfil the obligations under the radio frequency spectrum to be issued in respect of this process and the associated telecommunications licenses.
- (v) Additional commitments: A description of additional commitments the applicant is making for each band of interest over and above those specified in Table 2 and section 6.1 towards addressing the ICT objectives in section 1.2, and the authorization and license obligations. The applicant should then set out in this section how it will achieve these additional commitments with appropriate references to Sections (6.1.2) – (6.1.5) above. These additional commitments together with the other requirements herein will be jointly evaluated and scored accordingly;

## **7.0 The Spectrum Award Process**

7.1 The award process shall comprise the steps below:

7.1.1 Application step;

- (i) Under this step, the eligible applicant(s) is required to submit the application document and signed the declaration to abide by the terms and conditions of this process and a bank guarantee. The application document should be in the format specified in Section 6.0 and should include all the required information as set out therein. A template for the declaration is provided in Annex C;
- (ii) The declaration form must be signed by the applicant's authorized representative and the bank guarantee must be valid until 30th September 2023;
- (iii) The Commission shall review all applications for non-completeness, errors, ambiguities, and/or irrelevant information to inform its treatment of the subject submission(s). In case of evidence of any of the above, the subject application(s) will not be progressed to the next step;
- (iv) The submission must reach the Commission by the close of business, 5:00 PM of the stipulated application submission deadline, and must be submitted via the electronic platform highlighted in Section 9.0 below.

7.1.2 Qualification and Application Processing Step;

- (i) Under this step, the Commission will review all applications that satisfied the requirements of the Application Step to determine those that qualify for further consideration at the Allocation Step;
- (ii) The Commission will review each signed declaration, application document (including amended application documents if any submitted before the stipulated deadline), and bank guarantee(s), together with any other documents that are deemed relevant to this process, to determine if the eligible applicant has provided the following:

- (1) The required information in the stipulated format;
  - (2) A bank guarantee valid until 30th September 2023;
- (iii) The Commission will further determine, based on the information provided in the application document, whether the applicant will be able to meet the radio frequency spectrum authorization obligations, as well as any further commitments made by the applicant in its submission;
  - (iv) Where the eligible applicant(s) satisfies the requirements highlighted in 7.1.2 (ii) and (iii) above, they will accordingly be designated as qualified and the associated application(s) recommended for further consideration in the Allocation Step, otherwise;
  - (v) Where an eligible applicant fails to fulfil one or more of the requirements 7.1.2 (ii) and (iii) above, the respective application will be dropped at this step. Accordingly dropped applications shall not be considered in the Allocation Step. In this case, the affected applicants shall be informed of this decision in writing and have their bank guarantees returned within thirty (30) calendar days effective the date of this communication;
  - (vi) In evaluating qualified applications, the Commission shall take into account;
    - (1) As per the Uganda Communications (Licensing) Regulations 2019;
      - (a) the service for which the subject spectrum is required;
      - (b) the socio-economic benefits associated with the proposed technology to be deployed, and;
      - (c) compliance with the associated spectrum band policies;
    - (2) The extent to which the applicant's submission is responsive to the terms and obligations highlighted in section 3.0 above.



### 7.1.3 Allocation Step;

- (i) Following the completion of the Qualification and Application Processing Steps, successful applications from these two steps will be evaluated on the application requirements;
- (ii) The evaluation of the successful applications shall take into account the provisions of the Framework for Spectrum Assignment to Telecommunications Services in Uganda 2019, particularly;
  - (1) Ensuring that no one person acquires the entire available spectrum in a given band or area except where this is in keeping with the respective band policy;
  - (2) For existing operators, the current amount and usage status of the radio spectrum held by the applicant;
  - (3) The overall distribution of spectrum in the respective frequency bands in the geographical or service area of interest;
  - (4) The current and/or prospective services proposed to be provided as well as the technologies available using the radio frequency bands of interest;
  - (5) For existing operators, the radio spectrum band(s) in which the applicant holds spectrum that has similar properties or propagation characteristics to the radio frequency applied for;
  - (6) The relative utility and substitutability of the respective frequency and other frequency bands in the geographical or service area of interest;
  - (7) For existing operators, the degree to which the applicants have deployed networks and the capacity of those networks;
  - (8) The characteristics of the region, including urban/rural status, population levels, density, or other factors that impact spectrum capacity or congestion;

(9) Factors relevant to National ICT policy objectives.

- (iii) The Commission shall score the qualified applications based on the application requirements and commitments made by the applicant(s). Applications with the highest overall score will be declared successful.
- (iv) Using the information provided, the criteria in the table 3 below shall be used to score each qualified and assessed application.

Table 3: Scoring criteria

Scoring Criteria	Maximum score (%)	Applicant's score
Responsiveness of the application, including the business plan (the value proposition) to the objectives of the spectrum award.		
<p>i. <u>Enhancement and improvement of broadband coverage to facilitate digital transformation including the provision, access, and use of e-services across the economy to stimulate economic growth and improve Uganda's global competitiveness.</u></p> <p>This shall include consideration of the applicant's substantiated commitment in respect of the realisation of high-speed, ubiquitous broadband infrastructure:</p> <ul style="list-style-type: none"> <li>- Mobile: Geographical coverage and the timescales over which this will be delivered.</li> <li>- Fixed Wireless Access (FWA): Substantiated commitment to deliver FWA services to a specified number of households in every district centre in the regions in which the applicant holds a licence.</li> </ul> <p><i>The maximum score will be attained for a substantiated</i></p>	30	

	<p><i>commitment to deliver towards 100% population and geographic broadband coverage including achieving the same within the shortest time.</i></p>		
ii.	<p><u><i>The provision of affordable and reliable broadband services;</i></u>  This will include consideration of commitments to reduce the cost of voice and data services to consumers. For both mobile &amp; FWA, substantiated commitments to reduce the cost of broadband internet in Uganda. consumers. For both mobile &amp; FWA, substantiated commitments to reduce the cost of broadband internet in Uganda.</p> <p><i>The maximum score will be attained for a substantiated commitment to deliver broadband services for less than UGX 19,000 (FWA) and UGX 1,900 (for mobile) to majority of the subscribers including achieving the same within the shortest time</i></p>	20	
iii.	<p><u><i>Advancement of local innovation to facilitate the rapid deployment of new technologies and services;</i></u> This shall include consideration of planned deployment of new technologies, services and techniques to foster efficient utilisation of spectrum.</p> <p><i>The maximum score will be attained for substantiated commitment to deploy the latest technologies and techniques within the shortest time</i></p>	20	
iv.	<p><u><i>Improvement of the quality of broadband Services across the country;</i></u>  This shall involve considerations of the substantiated commitments on quality of service</p>	20	

	to ensure reliable broadband connectivity to users.  <i>The maximum score will be attained for the highest minimum, average, and peak throughput, reliability and other data quality of service levels to be provided, in shortest timelines.</i>		
v.	<u>Acceleration of the bridging of the digital divide;</u> Substantiated additional Commitments towards the specific National ICT policy objectives in Section 1.2 in the Information Memorandum.	10	
<b>Total Score</b>		<b>100</b>	

#### 7.1.4 Spectrum Reservation Step

- (i) Upon completion of the Allocation stage, the Commission will make public the results of the process and subsequently;
- (ii) Notify the Successful applicants of their respective radio frequency spectrum reservations. Similarly unsuccessful applicants will be notified accordingly;
- (iii) The spectrum reservation shall be valid for a period not exceeding;
  - (1) One hundred twenty (120) calendar days from the date of notification of successful application for new entrants, and;
  - (2) Sixty (60) calendar days for existing licensees effective the date of notification of successful application;

7.2 The table below highlights the schedule for the activities associated with the spectrum award process unless advised otherwise by the Commission.

Table 2: Spectrum Processing Schedule

<b>No.</b>	<b>Activity Descriptions</b>	<b>Tentative Date</b>
1.	Invite to Apply- Public Notice.	May 25 <sup>th</sup> , 2023
2.	Deadline for Application Submission.	June 7 <sup>th</sup> , 2023; 5:00 PM (East African Time)
3.	Communication of the application Assessment outcomes.	July 07 <sup>th</sup> , 2023
4.	Communication of spectrum reservation to successful applicants	July 21 <sup>st</sup> , 2023
5.	Issuance of Radio Frequency Spectrum Authorization(s)	Shall be after the payment of respective spectrum fees, in any case not later than thirty (30) days from the date of payment receipt.

7.3 The Commission may under exceptional circumstances during this process;

7.3.1 Suspend or halt the process until further notice and/or;

7.3.2 Cancel the process.

## **8.0 Issuance of Radio Frequency Spectrum Authorizations**

8.1. The Commission shall upon receipt of the payment in full for the respective spectrum proceed to issue radio frequency spectrum authorization(s) granting the right to use the respective spectrum;

8.2. The payment for the subject spectrum fees shall not exceed 30 days effective the invoicing date;

8.3. The Commission, however, reserves the right to withdraw or vary any issued spectrum authorization (s) for failure by the assignees to fulfil the obligations due, under the respective radio frequency spectrum authorization. This withdrawal or variation shall be done in accordance with the provisions of the Uganda Communications Commission Guidelines on variation and withdrawal of Radio Frequency Spectrum Authorization.

8.4. The Commission shall award bank guarantees of the successful applicants, within 30 calendar days from the date of return of the signed

undertaking associated with the issued radio frequency spectrum authorization(s).

## **9.0 How to Apply**

- 9.1 Application submission, in response to the invitation to apply notice in view of this information memorandum, shall only be done electronically via <https://eservices.ucc.co.ug/web/login> before the stipulated deadline. Any applications submitted else of the electronic system and/or contrary to the procedure stipulated above shall not be considered;
- 9.2. The Commission will publish any additional information deemed relevant to this process on its website, [www.ucc.co.ug](http://www.ucc.co.ug).

## **10.0 Withdrawing an Application**

- 10.1. Applicants may opt out of this process at any time in writing to the Commission;
- 10.2. Any applicable fees that shall have been paid by the time of opting out shall not be refunded.

## **11.0 Liability**

- 11.1 The Commission reserves the right to reject an application at any stage of this process in writing as it deems necessary;
- 11.2 The Commission shall not be held liable for any damages or financial losses incurred by the applicants, before, during, or after this process.

## **Annex A: Glossary of Key Terms**

In this information document, unless stated otherwise or the context otherwise requires: -

- **“The Act”** means the Uganda Communications Act 2013;
- **“The Commission”** means the Uganda Communications Commission established under section 4 of the Uganda Communications Act 2013;
- **“Licence”** means a license issued under this Act;
- **“Operator”** means a person licensed to provide a communication or broadcasting service;
- **“Person”** includes any individual, company, association, or body of persons corporate or unincorporated.

**Annex B: Application Form(s)**

**Network deployment plan <sup>5</sup>**

**Table 1: 5-year network deployment plan**

Number of Sites	Year 1		Year 2		Year 3		Year 4		Year 5		Total Number of sites at the end of the 5 years	
	ES	GF	ES	GF	ES	GF	ES	GF	ES	GF	ES	GF
Progress Reporting Indicator (Milestone)												Target should yield at least 90% of geographical coverage of the area affected by the respective license by the fifth anniversary of the associated Telecommunications license

NB: indicate the number of sites to be deployed each year.

**Where:** ES: Existing sites to be used in densifying existing coverage (on which additional spectrum shall be deployed to enhance coverage and capacity)

GF: green field sites to be used to extend or deployment of new coverage

**Table 2: Network deployment plan and site configuration**

Site Name	Site ID	Site Geographical Coordinates (DDMMSS)		District* Name	BTS or NodeB type & Technology (i.e. 2G, 3G, 4G,5G e.t.c)	Frequency Channel Plan (Channel spacing and duplex separation)/frequency band (MHz)	Network design and capacity (i.e., Data rates, No. of subscribers/sites that are to be supported simultaneously)		Calendar Year of deployment
		Lat	long				Data rates (Mbps)	No. of Subs/site	

\* Provide the names of the district(s) for each site to be deployed

<sup>5</sup> This information shall be submitted in MS Excel (soft copy)



**Annex C: Declaration**

I ..... (Authorised Person) on behalf of ..... (Company Name) have read and understood in totality the requirements and obligations associated with the award of the subject radio frequency spectrum in this Information Memorandum.

I, therefore, undertake and confirm that ..... (Company Name) shall abide by the requirements and obligations associated with the spectrum award as highlighted in this information memorandum and failure to do so shall lead to disqualification of my application and/or the Commission shall apply the provision of 7.1.3 (v) accordingly.

**Affiliation to the applicant (position/Title):** .....

**Signature:** .....

**Date:**...../...../2023

**Annex D: Application Checklist**

#	Item	Submission status (Yes/No)
1	Proof of payment of application processing fees	
2	Bank Guarantee (as applicable)	
3	Application Document including but not limited to; Detailed Business plan or Value Proposition, clearly demonstrating measures to realize the utmost spectrum value, social benefit, and stipulated throughput Broadband Coverage Maps (current and projected) for years in the format specified.	
4	List of sites planned for deployment using the application forms (incl. five (5) year technical deployment plan & network site configuration) must be provide in MS Excel	
5	Signed Declaration	
6	Any other information as requested in this information memorandum	

