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**GUIDELINES N°003/ICT/RURA/2014 OF 16/04/2014 ON
MINIMUM BANDWIDTH AND OTHER REQUIREMENTS FOR
INTERNET CONNECTIVITY IN HOSPITALITY INDUSTRY**

Version 1.0.

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INTRODUCTION

The main missions of Rwanda Utilities Regulatory Authority (RURA) includes among others to promote efficient development of regulated sectors in accordance with Government economic and financial policy and to protect and promote consumers' interests;

These guidelines are a complement to efforts being undertaken by the Ministry of Youth, Information and Communication Technology in conjunction with Rwanda Development Board to improve the quality of internet access in hospitality industry in Rwanda.

One of the resolutions of the 9th leadership retreat held in Gako in March 2013 was to improve quality of service delivery;

It is in this regard that hospitality service providers are urged to strengthen internet connectivity in order to improve service delivery in the hospitality industry due to the persistent complaints from guests that connectivity remains low.

Rwanda Utilities Regulatory Authority (RURA) by adopting these guidelines seeks how to standardize Internet connectivity in hospitality industry by setting minimum requirements for bandwidth in hospitality industry in Rwanda in order to improve service delivery in a bid to attain high-speed internet access in hospitality premises.

Based on the Law N° 44/2001 of 30/11/2001 governing telecommunications especially in its Article 46;

In exercise of the mission conferred upon to Rwanda Utilities Regulatory Authority under Article 4 of the law N°09/2013 of 01/03/2013 establishing Rwanda Utilities Regulatory Authority (RURA) and determining its mission, powers, organization and functioning;

The Regulatory Board after consideration and deliberation in its meeting of 16/04/2014 hereby issue the following Guidelines:

I. GENERAL PROVISIONS

I.1 Purpose

The Purpose of these guidelines is to provide a framework that governs the provision, operations, maintenance and quality of internet broadband so as to deliver efficient and effective internet services in hospitality industry.

I.2 Scope of the guidelines

These guidelines shall apply to any person carrying out or intending to carry out the activity related to the hospitality industry in Rwanda.

They provide a clear guidance for the quality of internet services and minimum requirements of bandwidth that should be followed by hospitality industry and Internet Services Providers.

I.3 Definitions of terms

For the purpose of these guidelines, the terms hereunder shall have the following meaning:

- a) **"Bandwidth"**: the amount of data transmitted over a network connection during a given time.
- b) **"Broadband"**: A network connection that is always on, available at home, at work and on the move, that delivers progressively higher bandwidths that are capable of supporting innovative and interactive content and services, as to enhance the user-experience;
- c) **"Business centre"**: the object of the business of which is to make available to the targeted group, either for a fee or gratis, access to and use of the Internet for any purpose, including but not limited to, recreation and amusement, the use of PCs, fax and email, high-speed colour printing, binding, laminating, scanning and secretarial services;
- d) **"Co-Channel interference, CCI"**: a phenomenon where transmissions from one access point (AP) covers into the receive range of other APs on the same channel, causing interference and reducing the available spectrum and resulting performance;

- e) **“Effective date”** : the date on which these guidelines have been signed and published on RURA website ;
- f) **“Hospitality industry”**: an industry composed of, but not limited to, Town Hospitality establishment, Vacation Hospitality establishment, Lodge, Tented Camp, Villas and Cottages, Serviced Apartments, Motel, Restaurant, Camping /Caravan Site, Guest House, Home Stay, Hostel, Eco-lodge, Farm Stay and Bars;
- g) **“ISPs”** : Internet service providers authorized for provision of internet services ;
- h) **“Local Area Network (LAN)”**: a group of computers that are connected together in a localized area to communicate with one another and share resources;
- i) **“RS 452:2009”**: a standard adopted by Rwanda Bureau of Standards intended to facilitate international communication in information processing;
- j) **“RSSI”**: The Received Signal Strength Indicator (RSSI) is a measure of the RF power input to the transceiver. It is measured in decibels from 0 (zero) to -120 (minus 120). The closer to 0 (zero) the stronger the signal is which means it's better, typically voice networks require a -65dbm or better signal level while a data network needs -80 dbm or better.

II. GUIDELINES FOR INTERNET CONNECTIVITY IN HOSPITALITY INDUSTRY

II.1 Wireless internet and business centre

Every hospitality facility should have a business centre and wireless internet in public areas, guest rooms, conference room and public space.

II.2 Physical Layout

Business centre and communication network in the hospitality industry shall have standardised structure as per Rwanda Standards, RS 452:2009 ISO/IEC 2382-25:1992 Information Technology – Vocabulary Part 25: Local Area network adopted by Rwanda Bureau of Standards.

II.3 Time of Operation

- i) The Hospitality establishment’s Business centre may operate 24/24h, 7/7.
- ii) The manager of hospitality’s Business centre shall intimate patrons before a quarter of an hour of the closing time to finish the surfing of internet and other activities if it does not operate 24/24.

II.4 Minimum computers for Business centre in hospitality industry

- i) Each hospitality facility shall have at least three (3) computers, 1 printer, 1 photocopier, 1 scanner and a public phone.
- ii) The number of computers shall be at least five percent (5%) of the rooms for the hospitality facilities that have more than hundred (100) rooms.

II.5 Network safety and security

- i) Business centre are prohibited from engaging in activities that are detrimental to information network safety, such as intentional production and dissemination of a computer virus or other destructive programs, and unlawful invasion into a computer information system and destruction of a computer information system's functionality, data, and application program.
- ii) Business centre clients cannot produce, download, duplicate, review, disseminate or otherwise use prohibited information, the scope of which in general, conforms to the scope of the information that is prohibited from being produced, duplicated, publicized or disseminated through the telecommunications network.
- iii) Cyber Crimes (Hacking, Virus Distribution, Port scanning and etc.) and acts against Rwanda culture are prohibited in the Hospitality establishment's business centre.
- iv) Business centre must obtain an Internet connection from licensed Internet connection service providers (ISPs). The computers provided for customer use must be connected to the Internet via a local area network;
- v) Business centre shall procure licensed anti-virus package for all the machines installed in the business centre.
- vi) The Business centre operator should have proper mechanisms or tools to ensure transparency in the calculation of the time spent and the money to be paid by their customers and display tariff of internet and other computer services.
- vii) All software installed in the computers in the Business centre should have proper license. Otherwise only open source software should be installed for the use by customers.

II.6 Bandwidth management software requirements

For the purpose of optimizing the use of available bandwidth, Hospitality establishments should have a unique bandwidth management solution that can help in re-distributing the direct bandwidth from internet service providers into different hourly plans for guests. It should be an obligation for four (4) and five (5) star Hospitality establishments.

II.7 Network stability and performance

The new compliance requirements include the following requirements and adjustments:

- i) The Hospitality establishments that have the videoconference facilities and conference rooms should require additional bandwidth on demand covering the period of events in order to cater for applications that require high bandwidth or accommodate a large number of WIFI connections.
- ii) Login and Password shall be required to be able to log into the system.
- iii) Wireless network for Hospitality establishments must be secured and require a passphrase at the time of connection.
- iv) A Hospitality establishment should start planning to upgrade its circuit when peak utilizations average reach out to around 80% which would allow them a few months of growth to arrange for the circuits to be ordered and installed.
- v) All user cables must remain within a room. Cables cannot be extended through doorways, walls, ceilings, etc.

II.8 Maintenance of the hospitality LAN

- i) The hospitality establishment shall have proper mechanisms for the maintenance of its computer system and LAN.
- ii) It may opt for outsourcing the maintenance company or hiring an IT engineer who will deal with the day to day maintenance of the LAN.
- iii) The hoteliers may opt to contract with ISPs to carry out the maintenance work.

III. MINIMUM BANDWIDTH AND COVERAGE REQUIREMENTS

III.1 Bandwidth for hospitality industry

- i) The hospitality establishments shall abide by the minimum bandwidth that is hereto attached in **appendix A**.

ii) For purposes of monitoring the progress, the Regulatory Authority shall publish in partnership with other stakeholders, on a periodic basis, technical characteristics that take cognizance of relevant technological advancements for a network connection to be deemed a Broadband service.

iii) The Regulatory Authority, in consultation with other stakeholders, may update from time to time the minimum bandwidth capacity standards for hospitality industry in Rwanda.

III.2 Wireless network coverage

- i) Access points and hot spot shall be deployed and well positioned to guarantee acceptable signal strength. The normal range in a network would be -45 dbm to -65 dbm depending on power levels and design.
- ii) The channels shall be well separated in order to avoid Co-Channel Interference (CCI), channel access delays as well as collisions in transmissions.
- iii) The hoteliers shall request to ISPs the client software or web-based tool to monitor the broadband received compared to the broadband subscribed to.
- iv) As per guidelines for broadband internet quality of service in force, the monthly average bandwidth should not go below 95% for dedicated bandwidth and 80% for non-dedicated bandwidth of the subscribed bandwidth.

IV FINAL PROVISIONS

IV.1 Reference tool

These guidelines may be used by other relevant public institutions as reference for the purpose of inspection of the compliance by hospitality industry to the minimum bandwidth and other requirements set herein during the hospitality industry' ranking exercise or any other related activity with regard to their mandate.

IV.2 Monitoring

Rwanda Utilities Regulatory Authority shall monitor the compliance to these guidelines in terms of consumers' protection and compliance with internet broadband quality of services provided by Internet services providers to hospitality industry in Rwanda.

IV.3 Compliance

The existing hospitality facilities have to comply within three (3) months from the effective date of these guidelines. The industry shall negotiate with the ISPs in order to improve the bandwidth.

IV.4 Entry into force

These guidelines shall come into force on the date of its signature by the Chairperson of the Regulatory Board.

Done at Kigali, 16/04/ 2014

**Eng. Coletha U. RUHAMYA
Chairperson of the Regulatory Board**

APPENDIX A: MINIMUM BANDWIDTH FOR HOSPITALITY INDUSTRY IN RWANDA

	Minimum requirement for bandwidth in hospitality industry in Rwanda											
Rooms ranges	Between 450-499 Rooms	Between 400-449 Rooms	Between 350-399 rooms	Between 300-349 rooms	Between 250-299 rooms	Between 200-249 rooms	Between 125-199 rooms	Between 75-124 rooms	Between 50-74 rooms	Between 30-49 rooms	Between 11-29 rooms	Between 5-10 rooms
Internet bandwidth	At least 45 Mbps	At least 40 Mbps	At least 35 Mbps	At least 30 Mbps	At least 25 Mbps	At least 20 Mbps	At least 15 Mbps	At least 10 Mbps	At least 5 Mbps	At least 3 Mbps	At least 2 Mbps	At least 1 Mbps

SEEN TO BE ATTACHED TO THE GUIDELINES N°...../ICT/RURA/2014 OF/...../2014 FOR INTERNET CONNECTIVITY FOR HOSPITALITY INDUSTRY

Done at Kigali, 16/04/ 2014

Eng. Coletha U. RUHAMYA
Chairperson of the Regulatory Board