**RWANDA
UTILITIES
REGULATORY
AUTHORITY**

Inspiring development

Date: ...05 SEP 2016.........
Ref:.../960/DG/RURA/016

Chaesub Lee
Director of Telecommunication Standardisation Bureau (TSB)
International Telecommunication Union (ITU)
Place des Nations
CH-1211 Geneva 20

Dear Dr Lee,

RE: Nomination of Yvonne Umutoni as Vice Chair of ITU-T Study Group 12

Pursuant to the TSB Circular 237 dated, 15th August 2016, I have the honour, on behalf of the
Rwandan Administration, of nominating Yvonne Umutoni as a candidate for Vice Chairman of
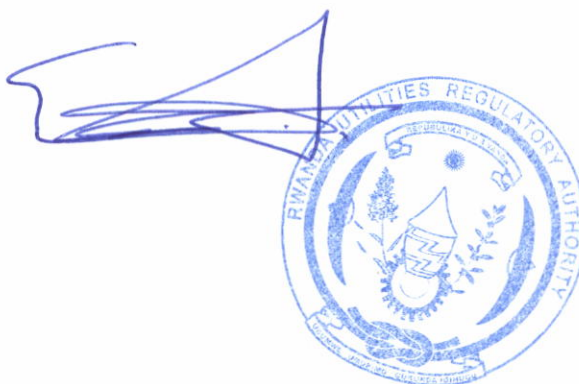ITU-T Study Group 12 for 2017 – 2020 study period.

She has been very active in study group 12 since 2011 and over the last past three years; she has
served as chair of the Quality of Service Development Group (QSDG) in the ITU-T study group
12.

I assure you that Yvonne Umutoni is eligible and will be a great asset to members of study group
12.

Please find attached her detailed biography.

Yours Sincerely,

Patrick NYIRISHEMA
Ag Director General

CC: The Secretary General, ATU, Nairobi Kenya.

CURRICULUM VITAE

1. Personal details:

Name: Yvonne UMUTONI

Citizenship: Rwandan

Marital status: Married

Date of Birth: 17th January, 1983 in Burundi

E-mail: yvonne.umutoni@rura.rw / umutoniyvonne@gmail.com

Phone Number: +250 782052394 / +250 732052394

2. Academic qualifications

March, 2010:   MSc Communications Networks & Software

University of Surrey, Guildford, UK

March, 2007:   BSc Electronics and Telecommunication Engineering

University of Rwanda, College of Science and Technology (former Kigali Institute of Science and Technology, KIST) Kigali, Rwanda.

3. Professional experience

3.1.Rwanda Utilities Regulatory Authority (RURA) from August 2008 – present

In charge of Fixed and Mobile Networks Monitoring   **Rwanda Utilities Regulatory Authority**

(Permanent Role)   February 2016 to present

My responsibilities includes, but not limited to:
  . Monitor the development of Telecommunication/ICT at national, regional and international level.
  . Monitor, audit and analyse the quality of service (QoS) of various ICT networks (fixed internet, cellular mobile networks, etc.).
  . Develop reports in terms of quality of service for all Telecom Operators/ISPs operating in Rwanda.
  . Resolve customer complaints in relation with quality of service of Telecom Operators/ISPs
  . In collaboration with Consumer protection Unit, act as arbitrator in conflicts involving operators or between operators and customers so as to improve quality of service in the country.
  . Keep updating key performance indicators (KPIs) and quality of service monitoring methods of various ICT networks (fixed internet, cellular mobile networks, etc.)

- Develop or review guidelines and technical standards to ensure interoperability, technical compatibility, effective interconnection and quality of service (QoS) between different Telecom Operators/ISPs.
- Active participation in the ITU-T SG12 and East African Communication Organization Working Group 9 (on Quality of Service and Consumer issues)

In charge of ICT Standards, Compliance & QoS Monitoring   **Rwanda Utilities Regulatory Authority**

(Permanent Role)   November, 2011- February 2016

Duties carried out included the followings:

- Developed Regulations of Quality of Service of Cellular mobile and fixed networks services.
- Reviewed Regulations of "Quality of service Measurements of Broadband Internet services": these regulations are still under consultation with all stakeholders.
- Audited and analysed the Quality of Service of Telecom Operators in help of drive test methodologies with the following tools (TEMS Symphony, TEMS Discovery, TEMS pocket tools…).
- Elaborated quality of service reports (quarterly report) of data and voice services.
- In collaboration with Consumer protection Unit, acted as arbitrator in conflicts involving operators or between operators and customers so as to improve quality of service in the country.
- Coordinated with other entities responsible of standardization at national, regional (EACO WG9 on Consumer and QoS Issues) and global level (Quality of Service Development Group, ITU-T Study Group 12, …) to establish technical standards, parameters and measurement methods of quality of service of ICT services and networks.

In charge of Next Generation Networks   **Rwanda Utilities Regulatory Authority**

(Permanent Role)   May, 2010- November, 2011

Duties carried out included the followings:

- Carried out activities in relation with technical aspects of interconnection to ensure interoperability, technical compatibility and effective interconnection between different service providers.
- Under supervision of "*PricewaterhouseCoopers*" Consultant, developed the Interconnection Costing Model for monitoring and enforcement of interconnection rate in Rwanda.
- Carried out consultation on the evolution of the technologies for Next Generation Core Networks (e.g.: IP Multimedia Subsystem, Softswitch, IP & MPLS...) and Next Generation Access Networks (e.g.: FTTB/FTTH, xDSL, WiMAX, UMTS, HSPA) in Rwanda.
- Elaborated guidelines for "Quality of Service (QoS) of Interconnected IP-based Networks".

- Active participation in the ITU-T SG12 (in charge of network performance, QoE and QoS) and ITU-T SG12 Region for Africa.

In charge of Numbering & Technology Update   **Rwanda Utilities Regulatory Authority**

(Permanent Role)   August, 2007 - May, 2010.

Duties carried out included the followings:

- Carried out a study on Numbering and addressing Systems used in Rwanda.
- Developed a National Numbering Plan, taking into account international standards and the need to harmonize with EAC countries.
- Assisted operators during the implementation of the New National Numbering Plan.
- Developed a Signalling Point Code Numbering Plan.
- Elaborated guidelines for the Signalling Point Code and Number Portability.
- Assigned and managed numbering and addressing resources.
- Active participation in the ITU-T Study Group 2 "in charge of all issues in relation with Numbering, addressing and naming".

3.2. International Telecommunication Union (ITU) and other leadership Roles

- **Management Functions:**

- October 2012 to present: Chairperson of the Quality of Service Development Group (QSDG) in ITU-T SG12.
- October 2013 to present: Chairperson of the East African Communication Organisation (EACO) Working Group 9 on Quality of Service and Consumer Affairs.
- 2013 – present: ITU-T SG 12 Liaison Rapporteur for ITU-D SG1 and SG2.
- 7 – 16 June, 2016: Acting Rapporteur of Question 12/12 in the absence of the Rapporteur.
- November 2011 to May 2013: Editor of the ITU-T Recommendation, ITU-T Y.1545:"Roadmap for Quality of Service in Interconnected networks that use the Internet Protocol".
- December 2013 to January 2016: Editor of the ITU-T Supplement E.Suppl.10: "*Quality of Service/Quality of Experience Framework for the transition from Network Oriented to Service Oriented Operations*".
- January 2016 to present: Editor of the ITU-T draft Recommendation Y.FMIPQoS: "*Framework for Monitoring the QoS of IP network services*".
- 2011 to 2012: Rapporteur of Quality of Service, Quality of Experience and Network Performance for Internet Protocol based Networks in the ITU-T Study Group 12 Region for Africa.

- August 2010 to June 2012: Member (Secretary) of the Rwanda National Technical Committee for organising 18th and 19th East African Communications Organisations (EACO) Congress.

- 2012 to present: Member of Editing Committee for Rwanda Utilities Regulatory Authority Annual Reports.

- **Meetings, conferences, forums and workshops organized:**

  - Chairperson: 33rd meeting of ITU-T Quality of Service Development Group (QSDG)". Haarlem-Netherlands, 12-13 May 2016.

  - Program organiser and Speaker: ITU Workshop on Quality of Service and Quality of Experience of Multimedia Applications and Services. Haarlem- Netherlands, 9-11 May 2016.

  - Programme co-organiser and Speaker: ITU Regional Standardization Forum for Africa. Livingstone-Zambia, 16-18 March 2016.

  - Programme organiser and Speaker: EACO and ITU Stakeholders Forum on Quality of Service and Consumer Experience. Nairobi-Kenya, 23-25 November 2015.

  - Programme organiser: ITU Workshop on Performance, Quality of Service and Quality of Experience of Emerging Networks and Services. Athens-Greece, 7-8 September 2015.

  - Chairperson: 32nd meeting of ITU-T Quality of Service Development Group (QSDG). Athens- Greece, 9-11 September 2015.

  - Programme co-organiser and Speaker: ITU Regional Standardization Forum for Africa. Dakar-Senegal, 24 -25 March 2015.

  - Programme organiser and Speaker: ITU Workshop on Quality of Service and Quality of Experience of Multimedia Services in Emerging Networks. Istanbul- Turkey, 9-11 February 2015.

  - Programme organiser: ITU Workshop on "Quality of Service of Regulatory and Operational Issues". Dubai- UAE 2-3 November 2014.

  - Chairperson: 31st meeting of ITU-T Quality of Service Development Group (QSDG). Dubai- UAE 4-5 November 2014.

  - Programme organiser and Speaker: ITU Workshop on Monitoring and Benchmarking of Quality of Service (QoS) and Quality of Experience (QoE) of Multimedia services in Mobile Networks. Buenos Aires - Argentina, 24-25 July 2014.

  - Programme Organiser and Speaker: ITU Regional Standardization Forum for Africa. Kampala, Uganda, 23-25 June 2014.

  - Programme Organiser and Speaker: ITU Workshop on "Monitoring Quality of Service and Quality of Experience of Multimedia Services in Broadband / Internet Networks. Maputo, Mozambique, 14-16 April 2014.

  - Chairperson: 30th meeting of ITU-T Quality of Service Development Group (QSDG). Accra, Ghana 16 – 20 September, 2013.

. Member: Rwandan Delegation to Radio-communication Assembly and World Radio-communication Conference. Geneva, Switzerland, 22 October – 16 November 2007.

. Speaker: 29th meeting of ITU-T Quality of Service Development Group (QSDG). Nairobi-Kenya 8 - 12 October 2012.

4. *Professional Training courses*

. Training on "TEMS Symphony" and "TEMS Discovery" product utilised during auditing and monitoring of the quality of service and performance of Mobile Networks (GSM, WCDMA & LTE): by ASCOM, Dubai, UAE (October, 2014).

. Training on Mobile Networks GSM/GPRS/EDGE/WCDMA/HSPA/LTE technologies: by Omnitele Radio Academy", Helsinki, Finland (October, 2012).

. Training on "Evaluation (Drive testing) and Data Analysis for Quality of Service in Mobile Networks": by Omnitele Radio Academy, Helsinki, Finland (October, 2012).

. Training on Monitoring the Quality of Service of Broadband Internet and Epitiro Broadband QoS Monitoring tools/products (ipQ, ISP-I…) by Epitiro, Kigali – Rwanda, June 2012.

. Training on TEMS Investigation and TEMS Discovery Quality of Service monitoring tools: by ASCOM, Kigali – Rwanda (December, 2011)

. Training (Theory and Test beds) on Scalable Network Infrastructure technologies: Basic routing, OSPF routing, BGP routing, Management of router configuration, NOC, Exchange points between networks and IPv6) by AFNOG and AFRINIC, Kigali – Rwanda (23 May – 4 June 2010).

5. *Publications*

. Quality of Service (QoS) Provision over WiMAX Relay Networks (Master's thesis), University of Surrey (UK), 2009.

. Numbering Plan for Fixed and Mobile Telephone in Rwanda (Dissertation in fulfilment of Bachelor's degree), University of Rwanda, College of Science and Technology (Rwanda), 2007.

6. *Professional Membership*

. Member of the Institution of Engineering and Technology (IET), United Kingdom.

7. *Certificate of Appreciation*

. ITU Certificate of Appreciation: Received the ITU certificate of appreciation in recognition of contributions towards ITU-T SG12 activities as Chairperson of QSDG (2013 – 2016 study period), June – 2016, Geneva Switzerland.

8. Language competences

Kinyarwanda: mother tongue

English: Fluent

French: Fluent

Yvonne UMUTONI, MIET

8. Language competences

Kinyarwanda: mother tongue

English: Fluent

French: Fluent