|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| The International Teleocmmunication Union - Connecting the World. | | **International telecommunication union**  **Telecommunication Standardization Bureau** | |  |
|  | | | Geneva, 17 August 2023 | |
| **Ref:** | **TSB Circular 131**  **SG13/TK** | | **To:**  - Administrations of Member States of the Union;  **Copy to:**  - ITU-T Sector Members;  - ITU-T Associates of Study Group 13;  - ITU Academia  - The Chairmen and Vice-Chairmen of Study Groups;  - The Director of the Telecommunication Development Bureau;  - The Director of the Radiocommunication Bureau  - Regional Telecommunication Organizations: ATU; APT; CEPT; CITEL; LAS and RCC. | |
| **Tel:** | +41 22 730 5126 | |
| **Fax:**  **E-mail:** | +41 22 730 5853  [tsbsg13@itu.int](mailto:tsbsg13@itu.int) | |
| **Subject:** | **Questionnaire on Use of Satellite Communications by Developing Countries** | | | |

Dear Sir/Madam,

ITU-T Working Party 3/13 (of Study Group 13 on future networks) at its last meeting (Geneva, 26 July 2023) agreed to disseminate the questionnaire *on Use of Satellite Communications by Developing Countries*. This questionnaire is primarily targeted at Member States from Developing Countries; however, responses from all Member States are encouraged.

Study Group 13, Question 5/13 (*Applying Future Networks and innovation in developing countries*), is developing a Supplement on *Use cases of satellite communications in Developing Countries.*

The survey will help to collect data on the usage, requirements, standardization, opportunities and challenges for satellite communications in developing countries with the objective of identifying issues that could be addressed by standards and propose some guidelines that could accelerate the application of satellite communications in these countries. Analysis of the answers to this questionnaire, collection of experiences on usage and requirements of satellite communications in developing countries will serve as a good basis for this Supplement.

I invite you to participate in this survey and would appreciate it if you would complete the questionnaire reproduced in **Annex 1** no later than **10 October** **2023**. Please note, however, that for more efficient reply consolidation and analysis we kindly request that the following online version of the questionnaire be used: [https://www.research.net/r/satellite\_communications](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.research.net%2Fr%2Fsatellite_communications&data=05%7C01%7Ctsbsg13%40itu.int%7Cd5e0ed1dc3ab4bf97ad008db8f53a132%7C23e464d704e64b87913c24bd89219fd3%7C0%7C0%7C638261361581176482%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=bXQ%2BAkQnSiT102i2ZsTkzr9qNWj6V0f20cHaN3GqC0E%3D&reserved=0). The form in Annex 1 could be used in case there are difficulties in using the online one.

I wish to thank you in advance for your participation in this survey. We value your opinion.

|  |  |
| --- | --- |
| Yours faithfully,  Seizo Onoe Director of the Telecommunication Standardization Bureau |  |

**Annex:** 1

**ANNEX 1  
Questionnaire on Use of Satellite Communications by Developing Countries**

Responder’s information

|  |  |
| --- | --- |
| Country: |  |
| Sector: |  |
| Organization: |  |
| Name: |  |
| Title: |  |
| Address: |  |
| Telephone: |  |
| Fax: |  |
| E-Mail: |  |

**1- Usage of satellite communications**

**1.1** Are there satellite communications services currently been provided in your country?

Yes

No, but on the roadmap

No

**1.2** Which use case is the most using satellite communications in your country?

There is no land-based network in specific region (such as ocean, sea, desert, deep mountain, deep forest and polar region)

The data rate of land-based network is not enough (such as remote village, remote settlement, ecoregion and small isle)

The capacity (volume) of land-based network is not enough (such as remote IoT, remote industrial network and remote vehicular network)

There is no land-based network of the serving operator (such as domestic roaming, international roaming and global communications)

There are requirements to use satellite communications for emergency communications

Other (please specify):

Not used

Do not know

**1.3** Are there requirements for using satellite communications in your organization?

Yes

No, but foreseeable

No

**1.4** How important is the use of satellite communications for your organization?

Mission-critical

Important

Quite important

Least important

Not needed

**1.5** Have your organization already used satellite communications?

Yes

No, but planning to use

No, not on our technology roadmap

**2- Requirements of satellite communications**

**2.1** Which types of services are required for satellite communications in your country (one or multiple choices)?

Voice service

Video service

Message service

Data service (data traffic)

Broadcast/multicast service

Multi-access edge computing service

Vertical industry service

Domestic/international roaming service

Global communications service

Other (please specify):

**2.2** Which types of satellites are required for satellite communications in your country (one or multiple choices)?

Low Earth Orbit

Medium Earth Orbit

Geostationary Earth Orbit

Highly Elliptical Orbit

**2.3** Which types of terminal equipment are required for satellite communications in your country (one or multiple choices)?

Handset terminal

Portable terminal

Vehicular terminal

Satellite earth station/satellite gateway

Other (please specify):

**2.4** Which types of network capabilities are required for satellite communications in your country (one or multiple choices)?

Hybrid network (land-based network and satellite-based network integration)

Multi-access convergence (fixed, mobile and satellite convergence, FMSC)

Service continuity

Quality of service (QoS)

Network slicing

Multi-access edge computing

□ Artificial intelligence (AI) / machine learning (ML)

Distributed ledger technology (DLT)

Capability exposure

Network sharing

Other (please specify):

**3- Standardization of satellite communications**

**3.1** Which standards development organizations (SDOs) on satellite communications you have good knowledge of (one or multiple choices)?

ITU-T

ITU-R

3GPP

ETSI

IETF/IRTF

Other (please specify):

**3.2** Which SDOs on satellite communications you have participated in, including attending a meeting and/or submitting a contribution (one or multiple choices)?

ITU-T

ITU-R

3GPP

ETSI

IETF/IRTF

Other (please specify):

**3.3** Which areas of standardization do you consider important for satellite communications?

Use cases

Requirements

Framework/Architecture

Network capabilities

Enabling technologies

Service enhancements

Management and orchestration

Security and privacy

Energy efficiency

Other (please specify):

**4- Opportunities & Challenges of satellite communications**

**4.1** What are the opportunities of satellite communications in your country?

**4.2** What are the challenges of satellite communications in your country?

*Thank you for your active participation in this survey!*

If you have questions, please, contact us at [tsbsg13@itu.int](mailto:tsbsg13@itu.int).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_