

INTERNATIONAL TELECOMMUNICATION UNION



Radiocommunication Bureau
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Administrative Circular
CAR/210

16 February 2006

To Administrations of Member States of the ITU

Subject: Radiocommunication Study Group 4

- **Proposed approval of 2 draft revised ITU-R Questions**
- **Proposed suppression of 3 ITU-R Questions**

At the meeting of Radiocommunication Study Group 4 held on 17 and 18 November 2005, 2 draft revised ITU-R Questions were adopted and it was agreed to apply the procedure of Resolution ITU-R 1-4 (see § 3.4) for approval of Questions in the interval between Radiocommunication Assemblies. Furthermore, the Study Group proposed the suppression of 3 ITU-R Questions.

Having regard to the provisions of § 3.4 of Resolution ITU-R 1-4, you are requested to inform the Secretariat (brsgd@itu.int) by 17 May 2006, whether your Administration approves or does not approve these Questions.

After the above-mentioned deadline, the results of this consultation will be notified in an Administrative Circular. If the Questions are approved, they will have the same status as Questions approved at a Radiocommunication Assembly and will become official texts attributed to Radiocommunication Study Group 4 (see: <http://www.itu.int/ITU-R/publications/download.asp?product=que04&lang=e>).

Valery Timofeev
Director, Radiocommunication Bureau

Annexes: 3

- 2 draft revised ITU-R Questions and the proposed suppression of 3 ITU-R Questions

Distribution:

- Administrations of Member States of the ITU
- ITU-R Associates participating in the work of Radiocommunication Study Group 4
- Radiocommunication Sector Members participating in the work of Radiocommunication Study Group 4

ANNEX 1

Source: Document 4/59

DRAFT REVISION OF QUESTION ITU-R 73-1/4*

Availability and interruptions to traffic on digital paths ~~or circuits~~ in the fixed-satellite service

(1992-1993)

The ITU Radiocommunication Assembly,

considering

- a) that unwanted interruptions, including high-level bursts of noise, occur in satellite ~~circuits~~links;
- b) that such interruptions ~~lead to reduced~~contribute to unavailability when they exceed 10 consecutive seconds, and are regarded as “short breaks” if they last for shorter periods;
- c) that the ITU-T and ITU-R objectives for availability and short breaks have a major bearing on the economics of satellite systems;
- d) that the duration of some interruptions may depend on the configuration of the satellite network; they may also depend on whether earth stations are always attended or unattended at the onset of an interruption, and on whether or not earth station antennas are readily steerable to point from one satellite to another;
- e) that Telecommunication Standardization Study Group 13 will continue to provide guidance and interpretation on overall network performance characteristics to Radiocommunication Study Group 4 as it relates to the fixed satellite service;
- ~~f) that the ITU-T will need assistance from appropriate experts within Radiocommunication Study Groups in providing an appropriate response to this Question;~~

decides that the following Question should be studied

- 1 What are the important factors within the satellite portion of hypothetical reference digital paths affecting ~~circuit or digital path~~their availability and short interruptions such as breaks in transmission, ~~or bursts of bit errors and baseband level variations?~~
- 2 What should be the objectives, given the overall network objectives, for satellite radio digital path availability for satellite systems which are not included under Recommendation ITU-R S.579?

* This Question should be drawn to the attention of Telecommunication Standardization Study Group 13.

3 What should be the satellite system objectives, given the overall network objectives, for the duration, distribution, and frequency of occurrence of short breaks in transmission, and of short duration bursts of errors ~~and sudden baseband level variations~~, between points defined by the satellite radio hypothetical reference digital path?

further decides

4 that the results of these studies should lead to the formulation of an appropriate Recommendation by ~~2006~~2007.

~~NOTE 1—See Recommendation ITU-R S.579.~~

Category: S2

ANNEX 2

Source: Document 4/62

DRAFT REVISION OF QUESTION ITU-R 263/4

Performance objectives of digital links in the fixed-satellite service for transmission of Internet or higher layer Protocol packets

(1999)

The ITU Radiocommunication Assembly,

considering

- a) that fixed-satellite systems ~~must be~~are part of the new global information infrastructure (GII);
- b) that availability and performance criteria for transmission of Internet Protocol (IP) packets may have an impact on satellite link design;
- c) that new requirements for IP or higher layer protocols and applications are constantly appearing which may have an impact on satellite link design;
- d) that transmission of IP packets on satellite links may require performance objectives different from those contained in ITU-T Recommendation G.826 and Recommendations ITU-R S.1062 and ITU-R S.1420;₂
- e) that the required system capacity and access schemes must be considered in the design and planning of IP-based networks in the FSS.

decides that the following Question should be studied

- 1 What are the reference satellite network architectures required to support IP?
- 2 What is the performance required of satellite links to support network layer protocols (~~for example RSVP, OSPF and IP multicast, ARP and inverse ARP~~), the Internet specific protocols (~~for example DHCP, IGP and BGP~~) and transport layer protocols (~~for example TCP/IP, UDP/IP and their variants~~) running over IP?
- 3 What is the performance required of satellite links to support, for example voice, video, videotelephony and file transfer running over IP?
- 4 What are the needs for potential improvements to IP or higher ~~level~~layer protocols within the IP layer model that enhance their performance over satellite links?
- 5 What impact do IP privacy and security protocols and related issues have on satellite link requirements?

6 What arrangements should be made by the ITU-R to offer the most appropriate liaison with the ITU-T and other standards bodies (for example the IETF)?

7 What are the required system capacity and access schemes that must be considered in the design and planning of IP-based networks in the FSS?

further decides

1 that the above studies should be completed by 20068.

Category: S1

ANNEX 3

Source : Document 4/74

PROPOSED SUPPRESSION OF 3 STUDY GROUP 4 QUESTIONS

During its November 2005 meeting, Working Party 4B reviewed the Questions assigned to it. As a result of that review, it was determined that the work called for by the Questions listed below had been completed. In light of this, the following Questions have been proposed for suppression:

- **Question 76-1/4:** Voice and data signal processing for international digital transmission links in the fixed-satellite service.
- **Question 201-1/4:** Digital satellite systems in the fixed-satellite service in synchronous transport networks based on the Synchronous Digital Hierarchy.
- **Question 262/4:** Allowable error performance and availability degradations of fixed-satellite service systems due to long and short-term effects.

These Questions have resulted in a number of Recommendations including ITU-R S.1522 on the effects of synchronization loss, ITU-R S.1149, ITU-R S.1250, ITU-R S.1251 and ITU-R S.1252 on Synchronous Digital Hierarchy (SDH) applications in fixed satellite service systems and ITU-R S.1432 on the effects of interference on error performance and availability.

In view of the work completed, it is proposed that the Questions listed above be suppressed.
