



भारत सरकार
दूरसंचार विभाग
दूरसंचार अभियांत्रिकी केंद्र
खुरशीद लाल भवन, जनपथ,
नई दिल्ली-110001

Government of India
Department of Telecommunications
Telecommunication Engineering Centre
Khurshid Lal Bhawan, Janpath
New Delhi -110001



No. 2-1/2023-QT/TEC

Dated: 27th December, 2024

OFFICE MEMORANDUM

Subject: First meeting of "National Working Group on Quantum Technology" for the ITU-T Study period 2025-2028 - regarding

Telecommunication Engineering Centre (TEC) has re-constituted "National Working Group on Quantum Technology (NWG-QT)" as per enclosed **Annexure-A** to contribute in the ITU-T Study Groups (SG) namely SG 11, SG 13 and SG 17 in the area of Quantum Technology. The National working group on the subject builds consensus and harmonize interests of stakeholders from Industry, startup and Academia.

2. The meetings of Study Group 11 and 13 are scheduled to be held in the Q4 of year 2023-24. The details of the meeting along with the last date of submission of contribution to ITU-T are as below:

Sl. No.	Study Group	Date of Meeting	Last date of submission of contribution in ITU-T
1	ITU-T SG 11 "Signalling requirements, protocols, test specifications and combating counterfeit telecommunication/ICT devices"	19 – 28 February, 2025	06 February 2025
2	ITU-T SG 13 "Future Networks and emerging network technologies"	03 – 14 March, 2025	18 February 2025

3. The details of the various work items on Quantum Technology under study in ITU-T SG 11 and 13 are placed as **Annexure-B**. All members of NWG-QT are requested to examine the above work items and identify the areas where the contributions can be made for submission in the upcoming ITU-T SG11 and SG13 meetings. The members can submit contributions in the form of:

- Contribution to existing work items: The contributions can be made in the track change mode in the existing baseline text of the working document.
- May propose for creation of a new work item.

Members are requested to provide their contributions / inputs to the undersigned by e-mail to adggt.tec-dot@gov.in with a copy to dddgt.tec-dot@gov.in , latest by 10.01.2025 so that the same can be discussed in the proposed NWG meeting before submission to ITU-T.

4. In view of the above, the first meeting of NWG-QT for the study period 2025-2028 is scheduled as follows:

- Meeting Date & Time: 13.01.2025 at 03:00 PM
- Meeting Link: <https://cdotmeet.cdot.in/vmeet/rooms/rak-jhv-pap-xkc/join>

All NWG-QT members are kindly requested to make it convenient to attend the meeting.

Encl: ANNEXURE-A & B

(Rakesh Goyal)
Assistant Director General (Quantum Technology)
TEC, New Delhi - 110001

To,
All Members of NWG-QT

Copy to:

1. Sr. DDG & Head, TEC – for kind information please
2. DDG(QT), TEC & Chair, NWG-QT – for kind information please
3. AD(IT), TEC - for uploading on the website of TEC.

ANNEXURE-B**Work Items on Quantum Technology under Study in ITU-T Study Group 11:**

S. No.	Question of Study Group	Work Item	Title
1.	Q2/11	Q.4164_rev	Protocols for Ck interfaces for quantum key distribution networks
2.	Q2/11	Q.QKDN_Cq	Protocols for Cq interfaces for quantum key distribution networks
3.	Q2/11	Q.QKDN_GC	General control protocols for interfaces on quantum key distribution network controller for quantum key distribution networks
4.	Q2/11	Q.QKDN_Mk	Protocols for interfaces on quantum key distribution network manager for quantum key distribution networks
5.	Q2/11	Q.QKDNI_KM	Protocols for interfaces between key managers for quantum key distribution network interworking
6.	Q2/11	Q.QKDNI_profr	Quantum key distribution networks Interworking - Protocol framework

Work Items on Quantum Technology under Study in ITU-T Study Group 13:

S. No.	Question of Study Group	Work Item	Title
1.	Q6/13	Y.QKDN-da	Quantum key distribution networks - Dependability assessment
2.	Q6/13	Y.QKDNI-qos-fa	Quantum key distribution networks interworking - Functional architecture for quality of service assurance
3.	Q6/13	Y.QKDN-nq-qos-rf	Framework of quality of service assurance for integrated quantum key distribution network and user network supporting end-to-end modern cryptography services
4.	Q6/13	Y.QKDN-QoS-Allo	Quantum key distribution networks - Allocation of the end-to-end quality of service
5.	Q6/13	Y.QKDN-qos-auto-fa	Quantum key distribution networks - Functional architecture enhancement for autonomic quality of service assurance
6.	Q6/13	Y.QKDN-qos-fr-req	Requirements of QoS assurance for QKDN federation
7.	Q6/13	Y.QKDN-qos-mmq	Quantum key distribution Networks - Measurement methodology for QoS parameters

8.	Q6/13	Y.QKDN-qos-sdnc	QoS assurance requirements for quantum key distribution networks enabled by software defined networking control
9.	Q16/13	Y.3804 Rev	Quantum key distribution networks - Control and management
10.	Q16/13	TR.SQKDN	Standardization consideration of satellite-based QKDN
11.	Q16/13	Y.QKDN-GQT	Generic Quantum Key Distribution Network Template
12.	Q16/13	Y.QKDN-nq-fa	Functional architecture for integration of quantum key distribution network and user network supporting end-to-end modern cryptography services
13.	Q16/13	Y.QKDN-orfr	Framework for quantum key distribution network orchestration
14.	Q16/13	Y.QKDN-rsff	Quantum key distribution networks - functional framework of resilience
15.	Q16/13	Y.QKDN-safr	Quantum key distribution networks - Framework for service awareness
16.	Q16/13	Y.QKDN-slicing	Requirements and framework of quantum key distribution network slicing
17.	Q16/13	Y.QKD-TLS	Quantum Key Distribution integration with Transport Layer Security 1.3
18.	Q16/13	Y.suppl.QKDN_sync	Analysis of Synchronization in Quantum Key Distribution Networks
19.	Q16/13	Y.suppl.QKDNmc-UC	Use cases of multi-point coordination in QKDN
20.	Q16/13	Y.suppl.TC-QN	Technical considerations towards Quantum Network
21.	Q16/13	Y.QKD-IPSec-fr	Framework for integration of quantum key distribution and IPSec

Note: The working documents of the work items are attached with the e-mail.

ANNEXURE-A

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