

Government of India
Department of Telecommunications
Telecommunication Engineering Centre
Khurshid Lal Bhawan, Janpath
New Delhi – 110001
(Mobile Technologies Division)

File No. 40-1/2025-MT/TEC

Date: 25.07.2025

Subject: Inviting nominations for the constitution of Working Group for preparation of Technical Report on “Interworking and Integration of 5G/6G with Non-Terrestrial Networks (NTN)”

Dear Madam/Sir,

Telecommunication Engineering Centre (TEC) is the technical arm and standards setting organization of the Department of Telecommunications (DoT), Ministry of Communications, Government of India. TEC formulates national standards for the telecom products and networks to ensure interoperability, safety, and compliance through rigorous testing and certification. TEC is also involved with the global standardization bodies viz. ITU, APT, ETSI etc. by contributing in the standardization activities.

2. The Non-Terrestrial Networks (NTNs) including satellite systems, High Altitude Platform Stations (HAPS), and other aerial communication platforms are expected to play an important role in the broader evolution of communication technologies particularly 5G Advanced and beyond. Recognizing this as an opportune time, TEC proposes to publish a Technical Report on “Interworking and Integration of 5G/6G with Non-Terrestrial Networks (NTN)”. This report aims to study and provide insights into the seamless integration and interworking aspects of next-generation terrestrial mobile networks (5G/6G) with satellite and other non-terrestrial network components, in line with evolving global standards and deployment scenarios.

3. To have a focused and coordinated approach and to have views/expertise of industry/academia/start-ups etc. working in the field, TEC proposes constitution of a Working Group for this technical report. The duration of Working Group will be six months (till January 2025) from its inception during which the report is expected to be finalized. The technical report may cover the following sub-topics (ST) (may be further expanded, if required):

ST(1) Technical Analysis

- a) Study interworking and integration mechanisms between 5G/6G and Non-Terrestrial Networks (NTN).
- b) Assess architectural frameworks, convergence models, hybrid deployments, and interface requirements.

ST(2) Use Cases & Deployment Scenarios

- a) Identify relevant use cases, deployment scenarios, and potential service requirements.

ST(3) Standards & Global Activities

- a) Review global standards and ongoing activities from 3GPP, ITU, and other international SDOs.

ST(4) Security & Spectrum

- a) Examine security considerations and integration challenges.
- b) Study spectrum requirements, harmonization, and sharing strategies for 5G/6G-NTN integration.

ST(5) Roadmap & Ecosystem Readiness

- a) Outline a phased roadmap for integration, aligned with standardization timelines and ecosystem maturity.

4. In view of the above, TEC invites nominations of subject matter/domain experts from industry, academia, R&D organizations, service providers, startups, Government organizations, etc. for constitution of Working Group for preparation of this Technical Report. Experts willing to contribute in any of the sub-topics mentioned in para 3 or other related topics are requested to share their details.. The details/nominations may kindly be sent by e-mail to adetm.tec@gov.in, adg-mt2.tec@gov.in and ramt.tec-dot@nic.in in the following format **latest by 06.08.2025**:

S. No.	Name	Designation	Organization	Email ID	Contact No.	Area of interest (may choose multiple sub-Topics (STs)) ST(1) to ST (5) If other, please specify

With Regards,

Jyoti Roat
25/07/2025

Jyoti Roat, ITS

Director (MT-II)

TEC, K.L. Bhawan

Janpath, New Delhi-110001.

To,

All Stakeholders through TEC and DoT website/email.

Copy:

1. Sr. DDG, TEC for kind information please.
2. All DDGs TEC
3. AD (IT), TEC for uploading the letter on TEC Website
4. ADG (IT), DoT HQ for uploading the letter on DoT Website