



Department of Telecommunications  
Telecommunication Engineering Centre  
K. L. Bhawan, Janpath, New Delhi - 110001  
(Convergence & Broadcasting Division)



फ़ाइल संख्या: - 4-16/2018-C&B/TEC/NWG-9

दिनांक: 25.04.2022

**विषय:** Reconstitution of National Working Group 9 (NWG-9) corresponding to ITU-T Study Group 9 "Broadband Cable and TV" for the ITU-T study period 2022-2024 - extension of last date.

Telecommunication Engineering Centre (TEC) is the nodal technical agency of Department of Telecommunication for constituting various National Working Groups (NWGs) corresponding to respective International Telecommunication Union-Standardisation Sector (ITU-T) Study Groups (SG). NWG-9, corresponding to ITU-T SG-9, is being constituted in TEC under the chairmanship of DDG (Convergence & Broadcasting) TEC.

In the Study Period 2022-24, title of SG9 is: "*Audiovisual content transmission and integrated broadband cable networks*" and is nicknamed as "Broadband Cable and TV".

The complete mandate of SG9 for the new Study Period is found in ANNEX A of Resolution 2 (pag.32):

<https://www.itu.int/en/ITU-T/wtsa20/Documents/2000V2E5.pdf>

The questions under study in Study Period 2022-2024 of Study Group-9 are as follows:

- Q1/9:** Transmission and delivery control of television and sound programme signal for contribution, primary distribution and secondary distribution
- Q2/9:** Methods and practices for conditional access and content protection
- Q3/9:** AI-enabled enhanced functions over integrated broadband cable network
- Q4/9:** Guidelines for implementations and deployment of transmission of multichannel digital television signals over optical access networks and Hybrid Fibre-Coaxial (HFC)
- Q5/9:** Software components, application programming interfaces (APIs), frameworks and overall software architecture for advanced content distribution services within the scope of Study Group 9
- Q6/9:** Functional requirements for terminal devices of the integrated broadband cable network
- Q7/9:** Transmission control and interfaces (MAC layer) for IP and/or packet-based data over integrated broadband cable networks
- Q8/9:** The Internet protocol (IP) enabled multimedia applications and services for cable television networks enabled by converged platforms
- Q9/9:** Requirements, methods, and interfaces of the advanced service platforms to enhance the delivery of audiovisual content, and other multimedia interactive services over integrated broadband cable networks
- Q10/9:** Work programme, coordination and planning
- Q11/9:** Accessibility to cable systems and services

As the development of contributions to ITU-T is a consultative process, the nominations of concerned subject matter/domain area experts is solicited for inclusion in the NWG-9 being constituted in Telecommunication Engineering Centre, which is the technical arm of Ministry of Communications for formulating Standards & Specifications in this sector & nodal agency to get India Specific concerns addressed in ITU-T Recommendations/Standards.

The nominations were earlier sought vide Letter no. 4-16/2018-C&B/TEC/NWG-9 dated 25.02.2022. However, in view of revised mandate of Study Group-9 for 2022-24,

nominations are solicited again. Those who have already sent their nominations will be considered.

The nominations may kindly be sent by e-mail to: [avinash.70@gov.in](mailto:avinash.70@gov.in), [dircb.tec-dot@gov.in](mailto:dircb.tec-dot@gov.in) and [adic1.tec@gov.in](mailto:adic1.tec@gov.in) latest by 29-04-2022.



(Brajesh Kumar)  
Director (C&B), TEC

To,

All Stakeholders



Department of Telecommunications  
Telecommunication Engineering Centre  
K.L. Bhawan, Janpath, New Delhi – 110001  
(Convergence & Broadcasting Division)



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दिनांक: 25.02.2022

**विषय: Reconstitution of National Working Group 9 (NWG-9) corresponding to ITU-T Study Group 9 "Broadband Cable and TV"**

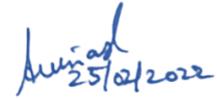
Telecommunication Engineering Centre (TEC) is the nodal technical agency of Department of Telecommunication for constituting various National Working Groups (NWGs) corresponding to respective ITU-T (International Telecommunication Union-Standardisation Sector) Study Groups (SG). NWG-9, corresponding to ITU-T SG-9, is being reconstituted in TEC under the chairmanship of DDG (Convergence & Broadcasting), TEC.

ITU-T Study Group 9 (SG-9) carries out studies on the use of telecommunication systems in the distribution of television and sound programs supporting advanced capabilities such as ultra-high definition and 3D TV. This work also covers the use of cable and hybrid networks – primarily designed for the distribution of television and sound programs to the home – as integrated broadband networks to provide interactive voice, video and data services, including Internet access. In brief, SG-9 focuses on standards on voice, video and data IP applications over cable TV networks (IPcablecom); interactive cable television service; high-speed data services; IP-based television and video-on-demand distribution (IPTV service), next-generation cable modems, interactive content formats, common application programming interfaces (APIs) for broadcasting services, methods for evaluating audio-visual quality, home network, and Internet Protocol (IP) broadcasting.

The broad areas of study for NWG-9 will be same as those of ITU-T SG-9 and it will work to develop contributions from India to SG-9 of ITU-T so as to ensure addressing India specific concerns in ITU-T recommendations & standards.

As the development of contributions to ITU-T is a consultative process, nominations of subject matter/ domain experts are solicited for inclusion in the NWG-9 being reconstituted in Telecom Engineering Centre for formulating Standards & Specifications in this sector and as nodal agency to get India Specific concerns addressed in ITU-T Recommendations/ Standards.

The said nominations and recommendations may kindly be sent by e-mail to: [avinash.70@gov.in](mailto:avinash.70@gov.in) and [adic1.tec@gov.in](mailto:adic1.tec@gov.in) within 15 days i.e. latest by 11-03-2022.



(Avinash Agarwal)

DDG (Convergence & Broadcasting)

To,

1. All Stakeholders

Copy for kind information to:

1. Member (Services)/ Member (Technology)/ DG (Telecom) DoT, New Delhi
2. Sr.DDG & Head TEC, New Delhi
3. DG NTIPRIT Ghaziabad
4. All DDGs in DoT Sanchar Bhawan/ NTIPRIT / NCCS/ TEC