

**Department of Telecommunications
Telecommunication Engineering Centre
Khurshid Lal Bhawan, Janpath, New Delhi -110001
(Convergence & Broadcasting Division)**

No. 4-6/2021-C&B/TEC/CAS-SMS-TSTP

dated November 21, 2022

Subject: Record of Discussions- Open House Session on Role of Standard Setting organization for Broadcasting Sector in India”

An Open House session was organised on 10.11.2022 at 02.30 P.M. onwards through video-conferencing under the Chairmanship of Sr. DDG & Head, TEC for consultation and discussion on – ‘Role of Standard Setting Organization for the Broadcasting Sector in India’ wherein Associations / Federations/ OEMs / Industries from Broadcasting sector, academia, designated Labs, Multiple system operators (MSO), Broadcasters, MIB, TRAI, BIS, CDAC, BECIL, CDOT, TSDSI, the concerned Government Departments / organisations and other stakeholders were invited.

Around 60 participants have attended this open house session. List of participants is placed at Annexure-I.

Welcome address by Sh. Rakesh Desai, Director, TEC

1. Sh. Rakesh Desai, Director greeted and welcomed all the participants to the Open House session. He apprised the participants about the Agenda of the meeting.
2. He briefly explained the importance of standards in trade, technology and quality of life, and further mentioned the role of TEC in standardization of Telecommunication and ICT. He requested Sh. R.R. Mittar, Sr. DDG & Head, TEC to give his keynote address to the participants.

Keynote address by Sh. R.R. Mittar, Sr. DDG & Head, TEC

3. Sh. Mittar, Senior DDG & Head, TEC, in his keynote address, briefly mentioned about the core function and activities of TEC. He informed that TEC formulates technical specifications for telecom equipment, networks, systems and services to be deployed in Indian Telecom Network, in harmony with International Standards after wide stakeholder consultations.
4. He highlighted the significance of Standards in overcoming the technical challenges and in providing access of new markets to Start-ups/ MSMEs. He mentioned that telecommunications and broadcasting are fast converging with rapid advancements in technology and various international standards bodies are working on developing standards for convergence of telecom and broadcasting.
5. He stated that TEC is also working on developing standards for convergence of telecom and broadcasting sectors. TEC formed a separate division specifically to cater to the requirements of the Convergence and Broadcasting sector.
6. He mentioned that TEC is the nodal agency for interacting with ITU-T as well as actively contributing in the standards development organizations, viz., ITU, ETSI, APT, WRC, etc. and also interacts with other international fora, viz., 3GPP, ETSI, IETF, OneM2M, etc. He further

informed that TEC proactively interacts with stakeholders and industry associations, viz., COAI, ISPAI, BIF, TEPC, VSAI, TEMA, CMAI, FICCI, CII, etc.

7. He also highlighted the achievement of TEC stating that it framed almost 600 Standards (GRs, IRs, SRs, ERs) and 400 Test Schedules & Test Procedures. As regards to the Broadcasting sector, TEC has recently released Standards in case of Hybrid Setup Box and Band Pass Filter for C-Band Satellite Earth Receivers.
8. He underlined that Standards facilitate trade by improving systems and business processes as well as help in ensuring environment safety; they reduce waste, cut costs and ensure consistency. He pointed out that Standards bring technological, economic and societal benefits globally.
9. He stated that Standards strengthen the initiatives of Government of India under “Atma Nirbhar Bharat Abhiyan” and “Make in India” mission. He added that conformity to standards can reassure consumers that products and services are safe, efficient and environmentally responsible.

Introductory address and Setting the Context by Sh. Avinash Agarwal, DDG, TEC

10. Sh. Agarwal, in his introductory remarks, stated that TRAI has already designated TEC as a Testing and Certification Agency for Conditional Access System (CAS) and Subscriber Management System (SMS) and TEC Test Guides for testing of CAS and SMS were released by Chairman (TRAI), Secretary (T) and Secretary (I&B) on 15.06.2022 after detailed stakeholder consultations.
11. He informed that D/o Telecommunication consulted the M/o Information & Broadcasting (MIB) to designate the TEC as the Standard Setting Organisation (SSO) for the broadcasting sector and also made a presentation to the Secretary (I&B) on 7th October, 2022 wherein various issues related to standardization in broadcasting sector were discussed.
12. He explained the difference between Standard Development Organization (SDO) and Standard Setting Organization (SSO), saying that SSO may adopt the standards developed by SDOs or may develop its own standards keeping in view the specific needs of the country. He pointed out that TEC has recently released the Standard for Band Pass Filter for C-Band Satellite Earth Receivers in 3700-4200 MHz Guard Band to avoid interference with 5G signals to specifically cater to the India specific frequency allocations and faster rollout of 5G services. He further apprised the participants that at least one firm has started production of such bandpass filter in India, indicating that standards facilitate industry and strengthen the initiatives of Government of India under “Atma Nirbhar Bharat Abhiyan”.
13. He mentioned that TEC has adopted 3GPP and oneM2M standards which were developed internationally. He further informed that there is a mechanism in TEC for preparing standards or accepting standards with wide consultation with all stakeholders at different stages. He further informed that, ITU has three verticals ITU-T, ITU-D, ITU-R and corresponding to each Study Group of ITU, there is a National Working Group consisting of academia, researcher, OEM, Industry, Start-ups, concerned Ministry, Industry associations to safeguard the interest of country and also contribute in the respective work items of ITU. He stated that Study Group-9 of ITU-T deals with Broadband and Cable TV.
14. He requested participants to express their views as to what could be the role of a Standard Setting Organization in broadcasting sector and the areas where adoption of standards may be done. He cited an example of digital radio transmission. He further requested the participants to suggest some products for which standards / specifications need to be framed, covering all

the technology / services in broadcasting sector. He said that participants may also consider the way convergence of telecommunication and broadcasting is happening in next few years after complete launch of 5G, advancements in AI, and other emerging technologies. He emphasized that this session will be interactive and all participants may give their inputs / comments on the subject and identify some areas where TEC may initiate formulation of Standards in consultation with MIB.

All the participants were requested to give their inputs / comments. Brief of discussions is as follows:

15. Manij Chhangani, Secretary General- All India Digital Cable Federation (AIDCF):

- This is a good initiative. The standards should meet the technological advancements going on in the sector.

16. Pallab Dutta, C-DOT:

- C-DOT is already working with TEC in formulation of test guides on CAS & SMS and submitting contribution in ITU-T on recommendation on CAS.
- As the technology is advancing rapidly, some converged solutions like Middleware is being designed for secondary distribution of digital television and audiovisual content to portable devices using Wi-Fi/ wireless LAN, for which standards are required.
- C-DoT would like to associate with TEC in formulation of standards and technical reports.

17. Sanjay Jain, DEV Networks:

- He suggested to keep in view that already millions of STB and equipment are deployed all over and any changes require huge investment. While formulating standards, care should be taken for the migration journey of the respective products / services. He cited the case of BPF wherein huge investment is required for installation of BPF due to roll out of 5G services.
- He suggested that standards in CAS, DVB may be considered. He also suggested that India should examine to adopt International Standards in broadcasting sector.

18. Rajat, SIA India:

- He raised some queries related to BPF and stated that he would like to discuss further in this regard with DDG(C&B), TEC.

19. Shubhanshu Gupta CDAC Pune:

- While working on standards for subtitling, it is noticed that different types of STBs are deployed for Cable TV, DTH and Hybrid TV and their operating range is also varying. Therefore, a standard for subtitling in STBs is required.
- He pointed out that India has enacted Rights of Persons with Disabilities Act, 2016 which laid down the mandate to various entities to offer content to Persons with Disabilities in accessible form. He suggested the requirement for captioning and accessibility standards.
- Standard for generic requirements of CAS is also required to have a wholistic approach.

20. Y K Sharma, Sr.Advisor, BECIL:

- He complimented TEC for touching upon this subject. This area was not getting due attention, leading to proliferation of different standards in broadcasting sector.
- He suggested for Standards in Digital Radio and Digital TV.

- BECIL will extend their expertise, whenever required, in the process of formulation of standardization. He informed that, he will identify more areas for which standardization is required and will intimate the same to TEC in due course.

21. Paritosh Saha, STAR TV:

- He mentioned that BIS is making basic standards but these standards are not dynamic and not incorporating new features. He suggested that the standards formulated should be dynamic keeping in view of future requirement.
- Role of BIS and TEC should not overlap each other. He further suggested that TEC may formulate standards on technology areas.

22. Sunil Mamtani, Siti Networks:

- He flagged the issue of non-standard products available in the market hampering the services of the MSOs and suggested that affordable products based on the standards shall be easily available.

23. Raman Biala Zee TV:

- He suggested that the standards for Head-end, Coder, Mux, DRM may be formulated.

24. Pritam Bishnoi, TSDSI:

- He suggested to formulate Standards keeping in mind the use cases.

25. Subrata Bhattacharya, GTPL Hathway:

- He asked about standards in OTT and broadcasting sectors.

26. Santosh, I.T.I.:

- He asked about the regulatory compliance aspect for the vendors / manufacturers once the standards released by TEC or SSO.

27. Sh. Rajiv Khattar (email):

- He suggested that the standards should be such that they are internationally acceptable as the industry will succeed in manufacturing if they can target international market also and this will help in interfacing with other equipment's easily.
- Standard development should not encourage any proprietary technologies.
- India should try to help on the development of audio codecs etc. as international players charge too much of royalties.

28. Sh. C. Senthil Rajan, Joint Secretary, MIB, Govt. of India :-

- He appreciated the TEC for organizing this open house session. He stated that the standards prepared for broadcasting sector shall be at par with International standards and the same may be accepted at International level.
- Work of TEC and BIS shall not overlap each other in broadcasting sector.
- A separate session on convergence of 5G and broadcast may be held for the better understanding of the broadcasting industry.

Concluding Remarks by Sh. Avinash Agarwal, DDG, TEC:-

29. Sh. Agarwal summarised the major and relevant inputs received from the participants. As regards to the overlapping with BIS, he stated that TEC will coordinate with BIS.
30. He mentioned that there is a consultative process in formulating standards for which consultation with all stakeholders will be made. TEC will cover only those standards which is not yet been framed by any organization.
31. TEC would like to organise a workshop/ webinar jointly with MIB on the convergence of 5G and broadcasting.

Vote of Thanks by Sh. Rakesh Desai, Director, TEC

32. The meeting ended with vote of thanks to the Chairperson, DDG (C&B) TEC, JS (MIB), Industry experts, representatives from Government departments, officers from TEC and all other participants.

Annexure-A

List of participants:

1. Sh. Ritu Ranjan Mittar, Senior DDG & Head, TEC
2. Sh. C Senthil Rajan, Joint Secretary B II, MIB
3. Sh. Avinash Agarwal, DDG (C&B), TEC
4. Ms. Deepali Sharma, MIB
5. Ms. Meenakshi Singhvi, Prasar Bharati
6. Sh. Y K Sharma Sr Advisor, BECIL, MIB
7. Sh. Abhishek Soni, Reliance Jio,
8. Sh. Ashish
9. Sh. Ajay Singh Director, Hathway Digital Limited
10. Sh. Arun Raj
11. Sh. Chetan Masurkar
12. Sh. Dr.A.P.Rao, VP Telecom Division, HPLI, Pune
13. Sh. Girish Buttan - Head Legal & Compliance - Siti Networks Limited
14. Sh. Himanshu Verma
15. Sh. Jaidev Mahesh, Sun Distribution Services Pvt Ltd,
16. Sh. John
17. Sh. Johnson P J
18. Ms. Jyoti Prakash -Scientific Officer, Sameer Kolkata Centre
19. Sh. K K Rao
20. Sh. Kiran Bangera
21. Sh. Kundan Singh
22. Sh. Mohit Jinger (Yadav Measurements)
23. Sh. Manish kumar, Conformity testing labs pvt ltd
24. Sh. Manoj Prakash Chhangani- Secretary General- All India Digital Cable Federation (AIDCF)
25. Sh. Venkatesh Murthy, AD, Distribution technical, Disney star
26. Sh. Neema Sunil Kumar Director - Projects & Committees, BIF
27. Ms. Nandini
28. Sh. Nithin prakash
29. Sh. Nilesh Raut, Sunren Telecom Laboratory Mumbai
30. Sh. Niraj Singla
31. Sh. P. Das
32. Sh. Pallab Dutta C-DOT
33. Sh. Pankaj Giri
34. Sh. Paritosh Saha, STAR TV
35. Sh. Prasham Jain, Technical Manager, AB MSAI Research Labs Pvt. Ltd. Delhi
36. Sh. Prashant Pehekar, Radio
37. Sh. Pritam Bishnoi TSDSI
38. Sh. Rahul CR
39. Sh. Rajat Nigam, Group CTO, Network18 Media
40. Sh. Rajith Ali/SIA-India
41. Sh. Raman Biala, ZEE TV
42. Sh. Ramesh (CNLABS)

43. Sh. Santosh, I.T.I
44. Sh. Sathish P
45. Sh. Sanjay Jain, DEV Networks
46. Sh. Shripad Corporate(R&D)
47. Sh. Shubhanshu Gupta, Principal Technical Officer, C-DAC, Pune
48. Sh. Subrata Bhattacharya (IT) - GTPL Hathway Ltd
49. Sh. Sudesh
50. Sh. Sumeet Ahuja Section Officer, M/o I&B
51. Sh. Sunil Mamtani, Siti Network
52. Sh. Sunil Shenoy - Sunren Telecom Laboratory Mumbai
53. Sh. Ujwala Patil
54. Sh. Vinay Yadav SE, Public Policy, Disney Star
55. Sh.Rajiv Khattar
56. Sh. Rakesh Desai,Dir(C&B-2)
57. Sh. Brajesh Kumar,Dir(C&B-1)
58. Sh. Md. Aftab Alam, ADG (C&B)
59. Sh. Adil Shaharyar
60. Ms. Muskan
