



Technical Activities

Transposition of 3GPP "Series 33" Release 15 and 16 Documents: TSDSI transposed 126 Standards and Technical Reports of 3GPP "Series 33" Release 15 and 16. These standards will be used/referred in Indian Telecom Security Requirements (ITSARs) that are being developed at NCCS.

Technical Report on Service Delivery using 5G Broadcast for TV, Radio, IPTV and File-casting (<https://bit.ly/3G3u9YT>): An instantiation of a 5G Broadcast System is presented in this technical report, referred to as LTE-based 5G Broadcast. LTE-based 5G Broadcast is a profile of existing 3GPP specifications that addresses all requirements of a 5G Broadcast System. The 3GPP-based 5G Broadcast System along with associated features, the reference architecture, deployment model, and informative implementation guidelines of such a system are also provided in this document. This technical report also provides the description of 3GPP solutions that may be utilized to deploy linear television, radio services, IPTV and file-casting.

Global Standards Roundup

3GPP: TSDSI's 5G standard has been formally merged with the 3GPP 5G Standard and implemented into the 3GPP Rel-17 NR specifications in the March RAN#95-e Meeting. 3GPP RAN approved two Rel-17 Change Requests (CRs) that enables Pi/2-BPSK waveform with filtering to be implemented in the 5G Networks. This indigenously developed technology enables the deployment of 5G cell sites with long range – an important requirement for improving cellular and IoT connectivity in rural India.

The PCG#48e and OP#47e was held on 26 - 27 April 2022 with Mr NG Subramanian as Chair. TSDSI LS to PCG and RAN LS to TSG regarding merger of 5Gi and 3GPP 5G was noted in this meeting.

ITU-T: Spectrum Aspects and WRC-23 Preparation Working Group Interim meeting was held from 19–22 April 2022 in Geneva. The meeting was in hybrid mode. A total of 6 members from TSDSI registered for the meeting.

A Workshop on "IMT for 2030 and Beyond" is being organised on 14 June 2022 during the 41st meeting of WP 5D to be held from 13-24 June 2022. ITU-R has invited contributions for the workshop.

ITU-T: ITU-T Workshop on Vehicular Multimedia Implementation Aspects (<https://bit.ly/3M2X3KI>): ITU-T organized a workshop on "Vehicular Multimedia Implementation Aspects" on 27 Apr 2022 the workshop was held virtually and was followed by the 16th Meeting of the ITU-T Focus Group on Vehicular Multimedia (FG-VM) on 28 Apr 2022. Dr Pradipta Biswas from IISc Bangalore gave a presentation in the workshop on "Eye gaze tracking for Automotive HMI".

ITU-T Focus Group on Testbeds Federation for IMT-2020 and beyond (<https://bit.ly/3MrlEcy>): ITU-T Focus Group on Testbeds Federations for IMT-2020 and beyond (FG-TBFxG) was established by ITU-T Study Group 11 at its virtual plenary on 10 December 2021. The 1st Meeting of this FG was held between 4-7 Apr 2022.

ITU-T Focus Group on Autonomous Networks has launched the 2022 edition of its proof-of-concept initiative called "Build-a-thon 2022" (<https://bit.ly/39AjpVb>) in collaboration with ITU AI/ML Challenge.

Build-a-thon 2022 will host a problem statement named "Build your own closed loops".

ITU-T Q20/13 reviewed Y.Supp-AN-Use cases as a high priority item during the 26–28 April 2022 e-meeting. This includes 3 use cases from TSDSI members.

oneM2M: oneM2M Sustainability Sub Committee Meeting held its virtual meeting on 28 Apr 2022.

Partner Engagements

TSDSI and SIA-India signed an MoU for co-operation in development of standards in India and International Standard Development Organizations that address the common interests.

Ecosystem

DoT-TSDSI Webinar Series on IoT/M2M Applications for Verticals: Webinar on Transportation: A webinar series on "IoT/M2M applications for Verticals" (<https://bit.ly/3vPqWZs>) is being jointly organized by DoT & TSDSI in order to strengthen the M2M Ecosystem in the country and facilitate wider proliferation and innovation in the sector. The first webinar in this series focussing on Transportation vertical (<https://bit.ly/3uSCwRV>) was held on 7 April 2022. Transportation Experts from global and Indian industry showcased IoT/M2M based solutions that have been implemented or passed field trials in India successfully.

TSDSI-ITU Digital Technology Innovations Series Webinar#5: The 5th Webinar of the TSDSI-ITU Webinar Series on "Digital Technology Innovations - Case Studies from India and the Asia-Pacific Region" (<https://bit.ly/3gDyruy>) on Terrestrial/NTN Technologies for Rural and Remote Areas was held on 18 April 2022. Mr Supree Tientamnoon, Division Director of Plan and Policy Division, Universal Service Bureau, National Broadcasting and Telecommunications Commission (NBTC), Thailand gave the Invited Talk.

DoT-TEC-TSDSI Joint workshop on "5G Advanced and Beyond (6G) Including for IMT for 2030: A joint workshop was organized by DoT, TEC and TSDSI on "5G Advanced and Beyond (6G) Including for IMT for 2030 on 25 April 2022. The objective of the workshop was to formulate a strategy for participation in Release 18 of 3GPP and future releases and other relevant ITU and other global forums so that we have our contributions in 5G Advanced and beyond (6G), including for IMT for 2030.

TSDSI-NTIPRIT webinar on "5G Use cases in Power Sector" (<https://bit.ly/3kKdyzu>): TSDSI in collaboration with NTIPRIT organized a webinar on "5G use cases in Power sector" on 27 April 2022. This webinar brought together the leading minds of Government, Industry, OEMs, Academia cutting across sectors to discuss 5G key capability and technologies to support potential use cases in Power Sector. During the Webinar, Speakers from Industry and Startups showcased 5G Use cases in Power Sector.

Mr Satish Jamadagni, Vice Chair TSDSI (Reliance Jio), made a presentation on behalf of TSDSI, in the Standardization Workshop on

"Guidelines on setting up National ICT Standardization Regime" and ASTAP-34 held on 18 April 2022.

Mr Akhilesh Srivastava, Former Chair SGSS (TCS), conducted a session on 'Support Policies of TSDSI for IPR and facilitation for Start-Up' at the NTIPRIT Workshop on "Protecting your IDEA - IPR for Start-Ups" on 13 April 2022.

Capacity Building: Mr AK Mittal, Advisor – Networks conducted a session on Role of TSDSI at the NTIPRIT Technical Component of Mid-Career Training Programme (Phase III) for ITS officers (with 26 to 28 years of service seniority) on 6 April 2022.

TSDSI Scorecard

| Description | For the Month (FTM) | | Cumulative Total | |
|-----------------------------------|---------------------|------|------------------|------|
| | SGN | SGSS | SGN | SGSS |
| Technical Activities | | | | |
| No. of Technical Reports Released | 0 | 39 | 6 | 127 |
| No. of Standards Released | 0 | 88 | 2,633 | 222 |
| Membership Status | | | | |
| No. of Members | 1 | | 92 | |

SGSS transposed 86 standards and 38 technical reports of 3GPP "Series 33" Release 15 and Release 16 1 TR on Service Delivery using 5G Broadcast for TV, Radio, IPTV and File-casting was published by SGSS VVDN Technologies Private Limited joined as Observer Member in Apr 2022

Participation in Meetings of Global Forums

| Meeting Name | No. of Meetings | No. of Member Organizations | No. of Contributions |
|--------------|-----------------|-----------------------------|----------------------|
| 3GPP | 12 | 21 | 63 |
| ITU | 1 | 5 | 0 |
| oneM2M | - | - | - |

Upcoming Events

| Event Name (Meetings/Workshops/Conferences/Webinars) | Date & Time | Location |
|---|---|---------------------------------|
| DoT- TSDSI Webinar Series on "IoT/M2M Applications for Verticals#2: Webinar on Utilities | 4 May 2022 14:30-17:30 IST | Online |
| 2nd Virtual Meeting of ITU-T Focus Group on Artificial Intelligence & IoT for digital Agriculture (ITU-T FG AI4A) | 9-10 May 2022 | Online |
| The 3rd Meeting of the APT Preparatory Group for PP-22 (APT PP22-3) | 9-12 May 2022 | Tokyo, Japan |
| oneM2M TP#54 | 9-13 May 2022 | Sophia Antipolis, France+Online |
| WWRF Huddle 2022 | 10-11 May 2022 | Ottawa, Canada |
| TSDSI-ITU Webinar#6: Data Protection & Privacy | 12 May 2022 09:30-11:30 IST | Online |
| TSDSI GBM#18 | 20 May 2022 | Online |
| TSDSI Standards Driven Research Workshop@NCC 2022 | 24 May 2022 | Online |
| SGN TP#27 | 2 nd & 3 rd June 2022 | Online |

Click <https://tsdsi.in/events/> to view the list of upcoming events.

Click <https://bit.ly/3sBb9dQ> to read our regular newsletter which shares news about our activities.