



**Telecommunications
Standards Development
Society, India**

tsds

India's Telecom SDO



The Indian Telecom Industry, comprising operators and manufacturers, Academia and R&D organizations came together to form Telecommunications Standards Development Society, India (TSDSI) on 7th January 2014, as an embodiment of the Govt.'s resolve, expressed in the National Telecom Policy 2012 (NTP 2012), to create an Indian Telecom Standards Development Organization (TSDO), for contributing to next generation telecom standards and drive the eco-system of IP creation in India.



Who are we?

TSDSI is an autonomous, membership based, standards development organization(SDO) for Telecom/ICT products and services in India. We develop standards for access, core, back-haul, and infrastructure systems, solutions and services that best meet India specific Telecom/ICT needs, based on research and innovation in India. We work closely with global standards' bodies to reflect Indian requirements into International telecom/ICT standards. We play an important role in encouraging generation of Indian IPRs in this technology intensive field and get them incorporated into International standards. This in turn promotes indigenous research, product development and manufacturing. Department of Telecommunications & Ministry of Electronics and Information Technology, Govt. of India are jointly supporting TSDSI as India's Telecom/ICT SDO.

TSDSI is registered as a not for profit Society, under the Indian Societies Registration Act XXI of 1860.

Our Objectives

Developing, promoting and standardizing India-specific Telecom/ICT requirements and solutions

Taking Indian requirements to global standards organizations

Providing a platform to declare IP and commit for sharing on FRAND terms

Helping create standards based manufacturing expertise in the country

Providing guidance and leadership to developing countries

Our Philosophy

Follow a consensus-based approach, enforcing a methodical and transparent, open-to-all-members (Industry, Government and Academia) process while generating standards.

Adhere to the principles of Openness, Transparency, Fairness, Consensus and due Process in conducting its activities.

Maintain technology neutrality and provide a uniform playing field for its members.

Represent the views of our members to DoT and other Government bodies on matters concerning policy, regulatory and standardization issues in the field of telecom.

TSDSI has a sound Intellectual Property Rights (IPR) policy in place. Scan the QR code to view it.



Our Membership

TSDSI attracts members from all sections of Telecom/ICT eco-system of the country. Representatives of Government Departments also participate in Technical activities of TSDSI.

Key Industry Associations are associate members of TSDSI. We also welcome foreign companies and industry associations, especially those from emerging economies, to join TSDSI to bring the perspectives of their geographies. There are different types of memberships, namely, corporate, associate and guest members and observers. Our corporate members are entities registered in India and engaged in telecom related activities, who participate in technical activities, decision making and voting and also hold office bearer positions. Associate members are the industry associations, foreign entities, foreign industry associations, which only contribute to our technical activities. Guest member/ Observers could be professional experts, researchers in their individual capacity as observers or companies wishing to explore before becoming full members are granted Guest Membership for six months.



TELECOM OPERATORS
& VAS PROVIDERS



MANUFACTURERS



GOVERNMENT/
PUBLIC SECTOR
UNDERTAKINGS



INDUSTRY
ASSOCIATIONS



R&D/
TEST LABS



ACADEMIA

Organization Structure

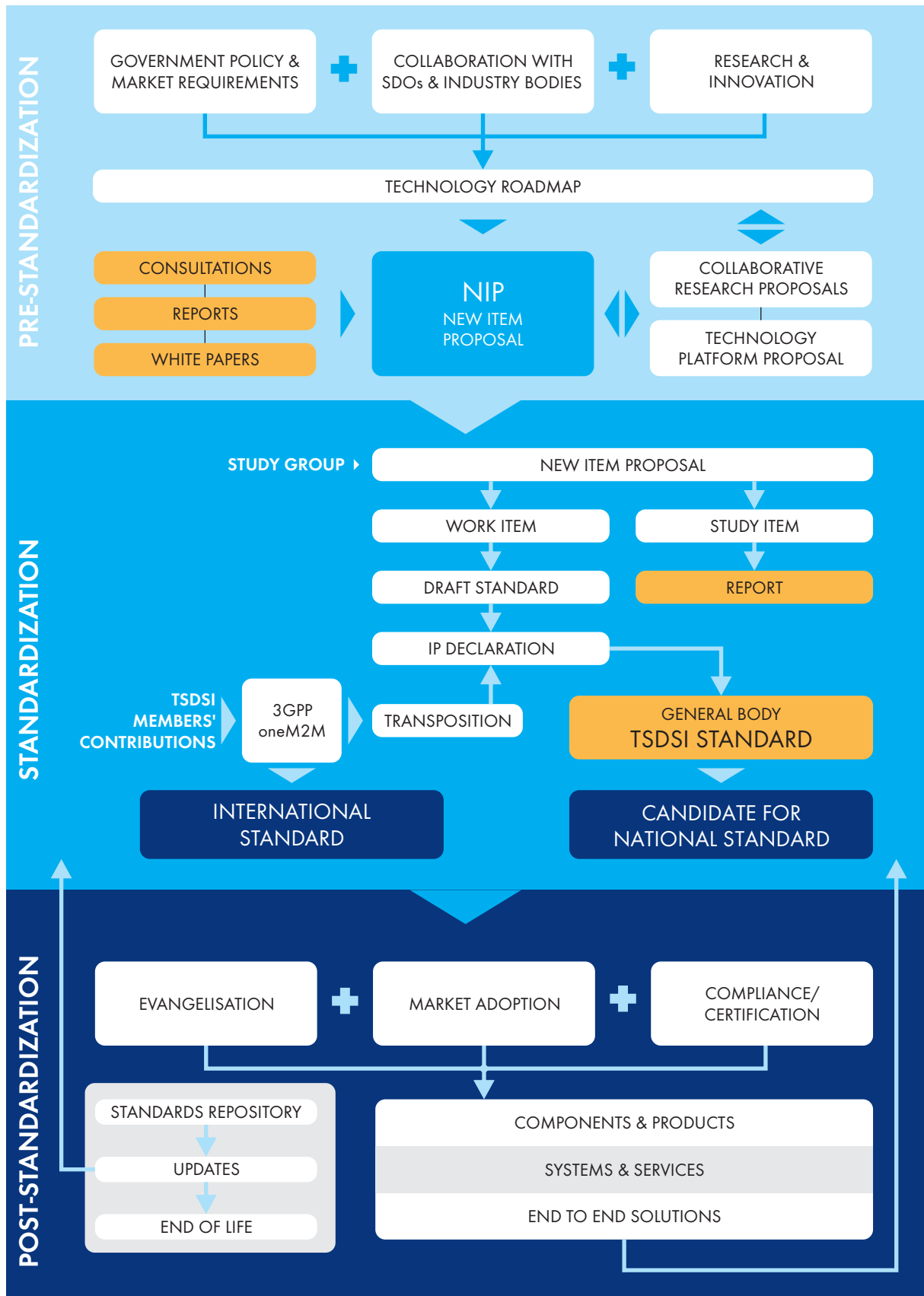
TSDSI is registered as a Society under Societies Registration Act, 1860. It is a membership-based organization.

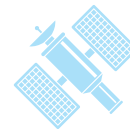
The General Body, constituting the authorised representatives of all member organisations of TSDSI, is the apex decision making body of TSDSI. It elects a Governing Council (GC), which acts on behalf of the General Body to steer the activities of TSDSI. The GC has members from all sectors of telecom, to make it as representative as possible. GC also includes Government of India nominated members from DoT and MeitY. However, only corporate members can elect, and seek election to the membership of the Governing Council. Each Corporate member has one vote, which is exercised by its authorised representative. The General Body also elects a Chairperson and a Vice Chairperson to preside over the GB and the GC meetings. The GC constitutes standing committees to address matters related to Budget & Finances, Rules and Regulations, IPR, Outreach, Standardization, Roadmap, Transposition and IT support.

A member organization can participate in any technical activity through its representatives. Technical activities are carried out in specific technical study groups. The work of a Study Group may be carried out in dedicated working groups, to facilitate closer interaction of the subject experts in that area. Study Groups and their constituent Work Group(s) have a Chair and a Vice Chair each, elected in their individual capacities by the members to conduct the activities of the group. The Chairs follow principles of openness, transparency, fairness, consensus and due process to conduct the affairs of the groups. All technical standards developed by the technical groups have to be approved by the General Body.

A Secretariat, headed by Director General (DG), supports the technical groups in carrying out their activities, manages member services, partnerships and alliances on behalf of TSDSI, and takes care of the overall functioning of the society. It has dedicated teams to provide program management support team to the technical groups; Marketing & Communications (MARCOM) and Partner Relations, and overall operations. A team of eminent subject matter experts guide the technical activities of the technical groups, and for the website and collaboration portal.

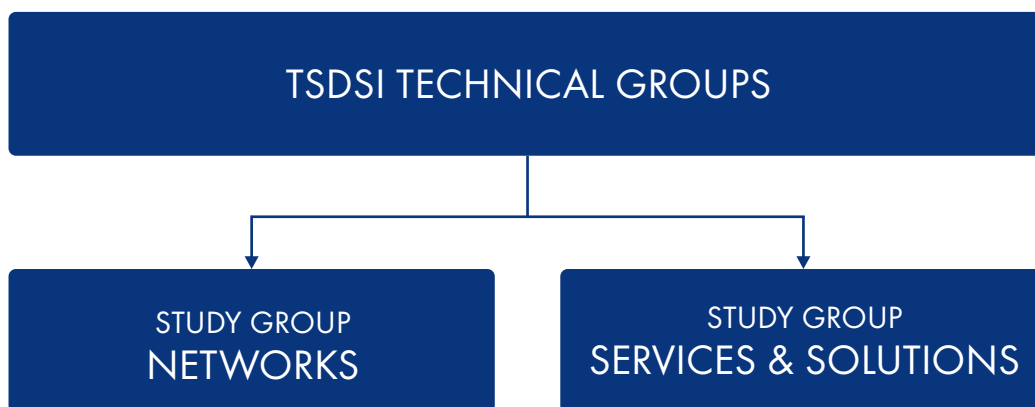
STANDARDIZATION @ TSDSI





TECHNICAL ORGANIZATION

Technical work in TSDSI is done in two Study Groups, namely Study Group - Networks and Study Group - Services and Solutions. Standing Committees for Roadmap, Standardization and Transposition are there to focus on specific aspects.



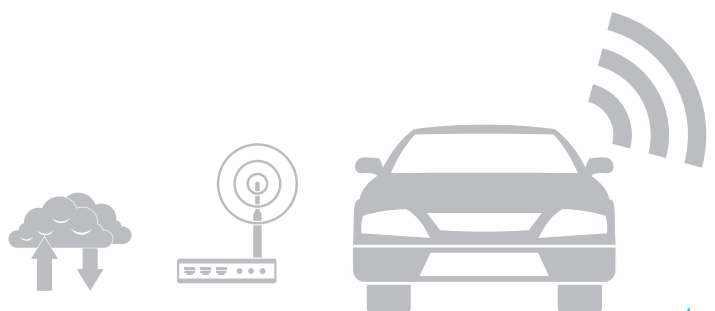
The Networks Study Group is responsible for Wireless and Wired Communication systems covering access, user equipment, aggregation, core including the underlying transport systems, functional elements and the interfaces; overall system architecture and protocol interfaces; spectrum and interference matters; Backhaul using wireless & wireline, microwave, optical and/or packet based transport networks and related SDN & NFV aspects, systems, equipment, optical fibre cables, along with the related control plane, network management, performance monitoring & reporting, synchronization, interfaces, multi-layer optimization techniques and testing aspects.

The Services and Solutions Study Group looks after Functional and Performance Requirements of services and applications based on telecom technologies, development of end-to-end service capabilities and architecture, based on the requirements, including interoperability, data management aspects, localization, security and privacy, energy efficiency; recommendations of test requirements and evaluation methodologies for any service level conformance testing activities.

Terms of Reference of the Groups can be viewed at <https://tsdsi.in/term-of-reference-2/>.

Current Focus areas of the Technical groups can be viewed at <https://tsdsi.in/members/>.

There are specific committees of the Governing Council to address matters related to Standardization Roadmap, Standardization Strategy and Transposition.



ALLIANCES



Organisational Partner (OP) of 3GPP

3GPP (3G Partnership Project) is a prestigious International standards body. Initially mandated to come out with standards for 3G technologies, it has developed standards for LTE (4G), IMS and is currently engaged in working on scope and requirements of 5G technologies. 3GPP also maintains 2G and 2.5G standards. TSDSI became the seventh Organizational Partner of 3GPP in January, 2015. This entitles TSDSI members to become Individual Members of 3GPP through TSDSI and take their IP into the global arena. TSDSI members are actively contributing to the development of 5G specifications in this forum.



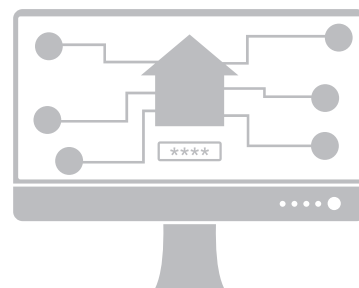
Partner Type1 of oneM2M

TSDSI is Partner Type I of oneM2M, one of the leading forums driving M2M service layer standards. This entitles TSDSI member organizations to become Individual Members of oneM2M and contribute to standards development in M2M space. A few TSDSI members have already developed prototype oneM2M framework compliant platforms and are actively engaged in contributing to further refinement of the oneM2M framework.



Member of Global Standards Collaboration (GSC)

GSC is an unincorporated voluntary forum dedicated to enhancing global cooperation and collaboration regarding telecom standards and the related standards development environment. This forum meets approximately once a year to deliberate upon strategic topics in the area of ICT standardization that have a global impact. These events provide a strategic opportunity for dialogue among senior officials from national, regional and international standards bodies in support of the work of ITU. Membership in GSC is open to member-based organizations that are recognized or accredited to develop telecom standards. TSDSI became a member of GSC in July 2014.



PARTNERSHIPS

Collaboration with International SDOs and other Forums

TSDSI's charter includes contribution to global telecommunications standardization process by facilitating representation of Indian requirements in international SDOs and to act as a catalyst for adoption of indigenously developed IP in global Standards

Cooperation Agreement

European Telecommunications Standards Institute (ETSI)

MoU

5G Infrastructure Association (5G IA)
Advanced Television Systems Committee (ATSC)
Broadband India Forum (BIF)
Cloud Computing Innovation Council of India (CCICI)
Global Certification Forum (GCF)
The Institute of Electrical and Electronics Engineers Standards Association (IEEE-SA)
Taiwan Association of Information and Communication Standards (TAICS)
Telecommunications Industry Association (TIA)
Telecommunications Technology Association (TTA)
Telecommunications Technology Association (TTA), Korea

Member

ITU-R SG5 (Terrestrial Communications)

LoIs to co-operate

Association of Radio Industries and Businesses (ARIB), Japan
Alliance for Telecommunications Industry Solutions (ATIS), US
China Communications Standards Association (CCSA)
Telecommunication Technology Committee (TTC), Japan

A 3-year Indo-EU Cooperation Project on “ICT related Standardization, Policy and Legislation” is being anchored by TSDSI and ETSI with the objective of facilitating closer alignment between the regions on standardization activities.

Partner with us

TSDSI welcomes partnerships with like-minded organizations and forums, within and outside India to collaborate in the area of Telecommunication technologies.

Join Us

An organization can join TSDSI as a
Corporate member / Associate member / Guest member

Membership type	Description	Privileges
CORPORATE MEMBER	Entities registered in India and engaged in telecom related activities e.g.: Telecom Equipment Manufacturers, Mobile Phone/CPE Manufacturers, Service Providers, R&D, Academic Institutions, Value Added Service Providers/ Software Developers, Govt., Societies of Govt., PSUs, Regulatory Bodies etc.	Contribute to Technical Activities Participate in Decision making and voting Hold office bearer positions
ASSOCIATE MEMBER	Industry Associations, Foreign Entities, Foreign Industry Associations.	Contribute to Technical Activities
GUEST MEMBER/OBSERVER	Professional experts, researchers in their individual capacity as observers. Companies wishing to explore before becoming full members are granted Guest Membership for six months.	Participate in Technical Activities and contribute on invitation

For membership details refer to our website.
Our IPR Policy document is available at <https://tsdsi.in/rules/>



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