



# tsdsi NEWSLETTER

Volume 09 | Issue 04 | December 2025

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## HIGHLIGHTS (October-December 2025)



TSDSI  
releases Technical Reports on

- Study on Security enabler for 6G (TSDSI TR 6051 V1.0.0)
- Solar Panel Based Optical Wireless Communication (TSDSI TR 6050 V1.0.0)
- Implications of Network Slicing on Unified Communication as a Service (UCaaS) (TSDSI TR 6049 V1.0.0)
- Study of Multiple Access for 6G Communication (TSDSI TR 6048 V1.0.0)
- Radiative Near Field Communication with Extreme MIMO (TSDSI TR 6047 V1.0.0)
- Interoperability of Multi-vendor QKD Hardware using SDN for 6G (TSDSI TR 6046 V1.0.0)

\* Details Overleaf

MoUs

TSDSI signs MoU with Fiware Foundation

## Podcast interview with Chair TSDSI

Mr Satish Jamadagni, Chair TSDSI, in a podcast interview with Trending Diaries talked about the emerging technology trends and role of TSDSI in the Telecom Industry. The podcast can be viewed at the link here (Youtube -<https://bit.ly/YTChairTSDSI> & Spotify -<https://bit.ly/chairTSDSI>)

## DG TSDSI video interview

Mr A K Mittal, Director General-TSDSI, spoke to Communications Today on "How TSDSI is driving India's telecom standardization journey by developing indigenous technologies, influencing global standards, and enabling India's leadership in 5G, 6G, and beyond" during the India Mobile Congress (IMC)2025. Click [here](#) to view the same.

## INVITED ARTICLE



As Cloud based applications, services and data transfer gain ground across multiple user domains and increase in volume, the need for their interoperability and portability is increasingly being felt by users, service providers and regulators. TSDSI has published a set of technical standards to meet these requirements. TSDSI has further initiated activities to develop a monetizable data annotation platform based on for India to act as intelligent broker with reliable, and efficient AI data models for high quality and secure data exchange. This edition carries an "Article" from Mr Satish Jamadagni, (Reliance JIO) Chair TSDSI and Mr Vijay Madan, Mentor and advisor, Services & Solutions, TSDSI on "Cloud Interoperability and Portability –Importance of Standards and TSDSI Initiatives".

## Call for Sponsorships

Support 3GPP SA & CT WG Meetings being hosted by TSDSI in February 2026 by becoming a sponsor or advertise at the airport. Click the links below for details:

**3GPP SA & CT WG Sponsorship**  
**Airport advertisement opportunity**



## Standardization Activities

### TSDSI has released the following new Technical Reports:

#### Networks Study Group:

- **Solar Panel Based Optical Wireless Communication (TSDSI TR 6050 V1.0.0):** The report investigates the feasibility of employing solar panels as dual-purpose devices for visible light communication (VLC) receivers, with simultaneous energy harvesting capability. It outlines an architecture for an optical receiver comprising solar panels and associated circuitry, enabling energy-efficient, cost-effective, and high-speed optical wireless communication. Potential applications include last mile rural broadband connectivity, intelligent transportation systems, ambient IoT applications, Control Information and powering up Reconfigurable Intelligent Surfaces.
- **Implications of Network Slicing on Unified Communication as a Service (UCaaS) (TSDSI TR 6049 V1.0.0):** UCaaS (Unified Communication as a Service) is a cloud-based platform that bundles VoIP calling, SMS texting, team chats and video conferencing, moving from a voice centric phone system to a collaborative communication system for businesses/organisations. The report has identified current challenges in use of slices for UCaaS and suggests certain benchmarks in terms of 5G QoS (Quality of Service) and SLA's (Service Level Agreements) for enterprise grade UCaaS. It recommends further research on tailoring slices at the network and application layers, enabling UCaaS platforms to request adaptive resources on-demand, based on user activity and workload patterns. UCaaS slices should support seamless integration across different networks and cloud infrastructures to ensure portability and resilience.
- **Study of Multiple Access for 6G Communication (TSDSI TR 6048 V1.0.0):** The report provides insights from a study of Orthogonal Time Frequency Space (OTFS), Orthogonal Time Sequence Multiplexing (OTSM) and Single-Carrier (SC) modulations. It recommends a Novel Multiple Access scheme for simplifying the processing of received signals from multiple users by utilizing single-user receivers. It notes that OTFS is uniquely positioned to enable critical 6G use cases such as Massive Machine-Type Communication (mMTC), Ultra-Reliable Low-Latency Communication (URLLC), Ubiquitous Connectivity, Integrated Sensing and Communication (ISAC).
- **Radiative Near Field Communication with Extreme MIMO (TSDSI TR 6047 V1.0.0):** As extremely Large Antenna Arrays (ELAA), a natural extension of the current Massive MIMO technology, gain prominence in the Ultra MIMO communication and Reconfigurable Intelligent Surfaces (RIS) based communications scenarios, near field will emerge as a dominant operational region for a significant number of users. The unique physics of the NF channel gives it the ability to perform beam focusing, which enables highly efficient spatial multiplexing of users even in line-of-sight (LoS) conditions, a feat not possible in the far-field. The report focuses on defining a channel model for near-field communication including long-term and short-term fading components. The report recommends further research into NLoS scenarios and diverse architectures.

#### Services and Solutions Study Group:

- **Study on Security Enabler for 6G (TSDSI TR 6051 V1.0.0):** This report identifies various security threats introduced by emerging 6G technologies and suggests important security enablers that ensure protection, resilience and trustworthiness of next-generation communication networks, while aligning with global 6G security standardization efforts. Security challenges arising from distributed AI/ML architectures, attack surfaces, coexistence with legacy networks are analysed. It highlights security risks in AI-driven telecom systems such as Telco LLMs, RAG. It recommends controls with strong authorization and encryption, regulatory verifications with monitoring mechanisms.

- **Interoperability of Multi-vendor QKD Hardware using SDN for 6G (TSDSI TR 6046 V1.0.0)**

This report examines interoperability aspects of classical communication channels and SDN-based networks with practical integration approaches for multi-vendor Quantum Key Distribution (QKD) hardware. Two architectures: a centralized SDN controller model offering unified control and policy enforcement, and a controller orchestrator model providing distributed control with improved scalability and fault tolerance are evaluated. Evaluation criteria include secure key exchange across heterogeneous QKD systems through standardized APIs supporting key provisioning, relay and routing.

#### Technical Activities

TSDSI members are currently conducting technical studies and developing standards in the areas of 6G, 5G enhancements, broadcast offload, spectrum studies, wireless backhaul, VLC, quantum communications, Security, application layer interfaces and related protocols, services architecture and frameworks. New proposals on topics in these areas from the TSDSI Standardization Roadmap 3.0 are being deliberated in the Networks, and Services & Solutions Study Groups.

Following new technical activities have been initiated in October-December 2025 period:

#### Networks Study Group:

##### Development of Standards:

- Transposition of ETSI - DECT-2020 NR Standard as TSDSI Standard (WI1-NIP403)

##### Technical Studies:

- Study on scalable and energy-efficient synchronization in digital broadcasting systems (SI 167)

#### Services and Solutions Study Group:

##### Development of Standards:

- QLESS: Quantum-Safe Lightweight Secure Session for mMTC in 6G (WI1-NIP405)
- Data Management using Cloud Interoperability & Portability (CIP) Platform (WI1-NIP410)
- Recommendations for Network architecture and requirements for enabling AI-powered seamless operation and tracking for mine supply chains leveraging non-public and public networks (WI1-NIP412)
- AI-Native Digital Twin Architecture for Massive Digital Twinning in 5G/6G (WI-NIP418)

##### Technical Studies:

- Prioritized Role Based Service Delivery for UAV/UAM (SI163)
- Extension of SEAL for Authentication, Authorization, and Key Exchange of UAV/UAM-Hosted Applications and AI/ML Workloads in 5G/6G Networks (SI164)
- AI Explainability framework for 5GS/6GS (SI165)

Please visit [here](#) for a full list of ongoing technical activities.

Please reach out to [sweta.singh@tsdsi.in](mailto:sweta.singh@tsdsi.in) and [Chandrakanta@tsdsi.in](mailto:Chandrakanta@tsdsi.in) for details of our technical activities in the Networks and Services & Solutions Study groups respectively.

## ACTIVITIES



## Liaisons

TSDSI has received following liaison statements (LS):

- From ITU-T JCA-IMT 2020 inviting inputs on IMT-2020 and beyond related standardization work being carried out for updating its Roadmap to support IMT-2020 and beyond standardization coordination
- From TEC requesting TSDSI to develop a technology standard for Access Point (AP)-Station (STA) operation in the licensed mmWave band (26 GHz band allotted to TSPs in India)
- From ITU-T Focus Group on Artificial Intelligence Native for Telecommunication Networks (FG-AINN) giving information about the group's workplan and inviting contributions
- From DoT seeking inputs on a proposal from SVURG on its patented communication technology called Z-Mod
- From 3GPP SA5 regarding Reply on Invitation to update the information in the IMT-2020 and beyond roadmap
- From ATSC regarding recent ATSC updates of potential interest to TSDSI

TSDSI sent the following Outgoing Liaison Statement:

- To TEC responding to its LS regarding the matter for Development of Technology Standards for using Wi-Fi over mmWave in IMT spectrum (26GHz band) allotted to TSPs in India-Regarding

*List of Liaisons received and sent by TSDSI can be viewed at <https://tsdsi.in/liaison-statements/>*

## Strategic Initiatives

### 6G Workshop

TSDSI Study Group Networks conducted a hybrid 6G workshop at C-DOT Bengaluru on 26 November 2026 to come out with a strategy and workplan to publish deliverables for 6G standards (IMT2030) in a phased manner, aligning with the timeplans of global SDOs. It also brainstormed on how to position TSDSI as a central platform for developing standards for 6G, strengthening internal study group coordination and external collaboration with Bharat 6G Alliance, 3GPP, IEEE etc.



## Pre-standardization Activities

### TSDSI Technology Roadmap Item Forums:

TSDSI has constituted Technology Roadmap Item Proposal (TRIP) Forums to carry out discussions with stakeholders in select areas of its Standardization Roadmap with the objective of recommending topics that can potentially be taken up for developing standards within TSDSI. The forums are open to participation by non-members.

Currently, the TRIP forum IoT/M2M is active.

A White paper developed by the AERT TRIP Forum on "Automated Electric Road Transportation (AERT) - Use Case based approach for Indian Context" has been released. It enumerates 12 AERT related use cases that can address the significant challenges related to road safety, congestion, sustainability, and logistics, necessitating innovative and future-ready mobility solutions in India. These cover areas such as Platooning, ADAS-specific applications, and Satellite Communications. It also identifies gaps in current standards and infrastructure, along with suggested solution directions.

## GLOBAL STANDARDS ROUNDUP



### ITU-R:

TSDSI's contribution on "support for acceptance of Extended Connectivity as a minimum Technical Performance Requirements for IMT2030" was discussed in the ITU-R WP5D meeting (#50) held from 7 to 16 October 2025 in hybrid mode in Geneva, Switzerland.

### ITU-T SG 13:

A meeting of the ITU-T Study Group 13 meeting was held from 28 October to 6 November 2025 in Tashkent, Uzbekistan. A contribution from TCS (Member TSDSI) on "Network Configuration Requirements for Application-Driven Multi-User Telerobotics Solutions for Developing Countries," has been accepted as a new Work Item. A contribution on "Use Cases for SDN-Based Secure and Scalable Quantum Key Distribution in Multi-Site Communication Networks" made by CDAC and ERNET jointly is under consideration of the group.

These contributions are based on work being carried out in TSDSI Services and Solutions Study Group.

### 3GPP

TSDSI members participated in the TSG and Working group meetings of 3GPP held during the reporting period. Mr Satish Jamadagni has been appointed Vice-Chair of 3GPP PCG for CY2026 in the PCG meeting held in November 2025.

TSDSI is hosting the SA and CT working group meetings in Goa from 9 to 13 February 2026.

### oneM2M:

9 representatives from 6 TSDSI member organisations participated in the oneM2M Technical plenary meeting #72 held in Kuala Lumpur, Malaysia from 10 to 14 November 2025. An Industry Day was held on 12 November 2025 to enable exchange of information related to oneM2M and the IoT related works being carried out in Malaysia. It included a discussion on how to accelerate adoption of standards based IoT solutions and interoperability in Malaysia

The 5<sup>th</sup> International oneM2M Hackathon 2025 was organized online from 13 October to 17 November 2025. 11 teams, including three from India completed the hackathon successfully. Team Nexus from IIIT Hyderabad was awarded the 3<sup>rd</sup> prize for their project titled "Smart Edge AI for Energy-Efficient and Resilient Building Management." Ms Poornima Shandilya, oneM2M expert from CDOT (TSDSI Member) contributed to the hackathon as a mentor.



## PARTNER ENGAGEMENTS



TSDSI signed an agreement with Fiware Foundation on 31 October 2025 to collaborate in the areas of secure and interoperable data spaces, smart data models, AI governance and digital platforms, leveraging open-source repositories and mutually sharing of evolving techniques for management of data and its secure exchange. The agreement also includes joint studies and enhancement of API-driven digital platforms in smart cities and utilities, and applications across multiple vertical sectors.

## OUTREACH



## TSDSI@IMC2025

India Mobile Congress (IMC) 2025 was held in New Delhi from 8 to 11 October. TSDSI participated actively in the conference, as partner to the 2<sup>nd</sup> International Bharat 6G Symposium.

### TSDSI@IMC: Bringing the Indian Ecosystem Together to Drive 6G Standards



Mr A K Mittal, Director General TSDSI, delivered a talk on "Channelizing Research into Global Standards" in the NCA-T Workshop for Academicians of 5G Use Case Labs on 9 October 2025. He also gave an overview of "Standardization activities at TSDSI, 3GPP, ITU, oneM2M etc." in the ASPIRE Conference on 10 October 2025.

**Cyber Security Summit on 9 October 2025:** Mr C V Sridhar, Vice Chair of the Security Working group in TSDSI, joined a panel discussion on "Current Standardisation processes relevant to cyber threat" on 9 October 2025. Further, Mr Vijay Madan, Mentor and Advisor - Services & Solutions, TSDSI moderated a session on "Standardisation and Certification supporting Policy/Regulation" in this workshop.



Several meetings with key stakeholders were held at the TSDSI Exhibit stall during the conference.



TEC Officials



N G Subramaniam, Former Chair TSDSI & Chair CDOT Officials



Bharat 6G Alliance, DG  
TSDSI Chair, Vice-chair & TSDSI Secretariat



Former Study Group Networks & TSDSI Chair, Vice-chair & TSDSI Secretariat

## TSDSI Media Coverage

### Chair TSDSI Interview



Mr Satish Jamadagni, Chair TSDSI, in a podcast interview with Trending Diary talked about the emerging technology trends and role of TSDSI in the Telecom Industry. The podcast can be viewed at the link here (YouTube - <https://bit.ly/YTChairTSDSI> & Spotify - <https://bit.ly/chairTSDSI>).

### DG TSDSI Interview

A short video on TSDSI was featured in The Leadership Lens, a video initiative by Communications Today, the conference media partner, showcasing interviews with leading industry figures and business visionaries. The video may be viewed [here](#).



Mr A K Mittal, Director General TSDSI, spoke to Communications Today on "How TSDSI is driving India's telecom standardization journey by developing indigenous technologies, influencing global standards, and enabling India's leadership in 5G, 6G, and beyond" in the India Mobile Congress (IMC)2025. The interview features in "The Leadership Lens", a compilation showcasing interviews with leading industry figures and business visionaries at the conference and can be viewed at the link [here](#).

## Partnered Events

TSDSI supported the IEEE Future Networks World Forum (FNWF) 2025 held in Bengaluru from 10-12 November 2025 as the technical co-sponsor and conducted a workshop on "Standardization Trends in 6G and Beyond" in the conference. The workshop deliberated on emerging standardization imperatives that will shape 6G technologies into sustainable, intelligent, and globally interoperable networks. It examined future-ready approaches in improving network energy efficiency, architectural evolution, and the role of AI/ML in achieving sustainability objectives. Apart from discussing the currently ongoing technical activities at TSDSI, ITU and 3GPP, participants shared valuable insights from practical operator perspectives.





Mr Satish Jamadagni, Chair, TSDSI, delivered **keynote addresses** in the following sessions in the Forum:

- **IEEE World Industry Forum (WIF) on 11 November 2025:** Keynote address in the session on "Status of 5G & 5G Evolution: Learnings for 6G"
- **IEEE Future Cities Summit, 2025 on 11 November 2025:** Keynote address in the session on "Role of Future Networks & Technologies for Future Urban India"
- **IEEE Connecting the Unconnected 2025 (CTU) Summit on 12 November 2025:** Keynote address in the inaugural session.



**IEEE Connecting the Unconnected 2025 (CTU) Summit,**  
Keynote address by **Mr Satish Jamadagni, Chair, TSDSI**

### 11<sup>th</sup> Annual Cloud & Data Centre India 2025 Conference:

TSDSI supported this conference held on 12 November 2025 as the **Standards Partner**. Mr Vijay Madan, Advisor & Mentor, Services & Solutions, delivered a talk on Interoperability of Services & Secure Data Management on Cloud Platform in the session on "Fortifying the Future: Safe & Secure Data Centers for a Hyperconnected World". He showcased TSDSI's Cloud Interoperability and Portability Standards which provide a multi-cloud reference architecture with APIs, broker systems, microservices, and strong security (MFA, encryption, access tokens) to enable seamless interoperability. These standards aim to establish national cloud interoperability, support 5G/6G and AI-driven services, and position India as a global leader in cloud and data management.



**IEEE International Conference on Advanced Networks and Telecommunications Systems, ANTS 2025:** TSDSI supported the IEEE ANTS 2025 conference held in IIIT Delhi from 15-18 December 2025 as the technical partner. Mr Parag Balwant Naik from Tejas Networks Ltd, (Member TSDSI) delivered a keynote address titled "Towards a Democratic 6G: The UPI Way" on 16 December 2025 in the opening session. He advocated extreme openness as a catalyst for scale and innovation, recommending a shift towards cognitive, AI-native networks capable of self-optimization through policy-driven, ML-enabled OODA loops, with reduced technology refresh cycles and dynamic resource utilization.



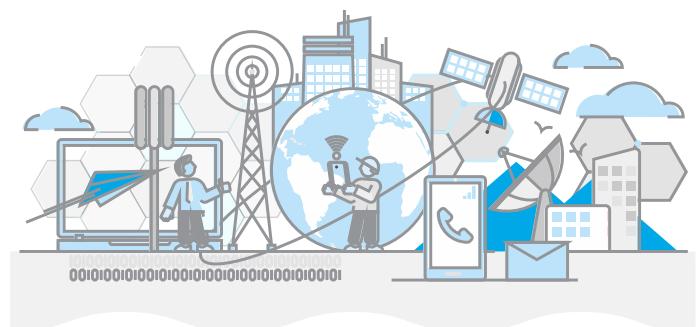
### Speaking opportunities:

**Webinar on "Awareness about Strengthening Telecom Standardization in India":** Mr Vijay Madan, Mentor and Advisor - Services & Solutions delivered a talk on "Telecom & ICT Standardization and Future Vision" in webinar on "Awareness about Strengthening Telecom Standardization in India" organized by TEC & IEEE-SA on 11 November 2025.

**NGMN Board Event 2025 (27 November 2025):** Mr Satish Jamadagni, Chair TSDSI made an invited presentation to the NGMN Board on 27 November 2025 on 6G strategy.

### Capacity Building:

**NCA-T Training course in Standards and Testing:** Mr Pawan Jaswal, Consultant – Process, Quality, IT & Membership Development, TSDSI, delivered lectures on TSDSI's organizational setup, working processes, standards developed and technical activities in the NCA-T Training Course on Standards and Testing for JTO 2023 (RL) and JTO 2024 batches on 10 December 2025.





# Cloud Interoperability and Portability Importance of Standards and TSDSI Initiatives

- **Satish Jamadagni**, (Reliance Jio), Chair TSDSI
- **Mr Vijay Madan**, Mentor and advisor, Services & Solutions, TSDSI

## 1. Digital transformation in India

India's digital transformation is an inclusive revolution driving a rapidly expanding economy. Supported by high-speed internet and innovative platforms such as UPI for low-cost instant payments, it is empowering citizens through e-governance and positioning India as a global digital leader with a focus on accessibility, financial inclusion and a skilled, future-ready workforce. Key enablers include digital infrastructure such as BharatNet connecting villages, Aadhaar-based services, DigiLocker, e-Shram, Direct Benefit Transfer, and financial inclusion initiatives like Jan Dhan Yojana and authenticated bank accounts.

Cloud-based platforms form the core architecture for delivering such services and applications. The cloud is also the basis for several important programs like Smart Cities, smart healthcare and agriculture, highways, pollution control, disaster management, passport ecosystem among others.

## 2. Need for Cloud Interoperability

The above use cases require smooth and seamless data exchange within and among different government departments, service providers and citizens, over the cloud-based applications in a secure and cost-effective manner.

This requires that the cloud systems of different service providers, be they public, private, hybrid, or multi-cloud systems should be interoperable. However, the hosting and data services are currently provided by a few major cloud service providers, with platforms that operate in silos using proprietary APIs, resulting in limited interoperability. Further, the rapid emergence of new use cases and services is leading to challenges in scalability, escalation of storage and processing costs, and increasing energy consumption requirements.

As user organizations evolve their use cases progressively, they need to store, access and share data and services in an agnostic manner from hosting and provisioning ecosystems. They may also want to switch to one or more of preferred service providers based on their experience and for their multiple service requirements without getting locked to a single vendor. Cloud Interoperability and portability is essential to give users freedom of choice, move workloads easily, combine multiple services across multiple cloud ecosystem and optimise costs.

At the global level also, cloud interoperability and portability have become key focus areas for regulators, standards bodies, and industry forums. Regulatory authorities across regions such as the European Union, United States, China, India, and others are increasingly mandating requirements related to data portability, open APIs, standardized data formats, identity management, and sovereign cloud controls to reduce vendor lock-in and ensure secure, compliant cloud operations. European Union's Data Act, The United States federal cloud requirements, China's trusted Cloud rules, Telecommunications Regulatory Authority of India (TRAI) all emphasize cloud strict security, identity, outbound API compliance and standardised cloud operations.

## 3. Recent Initiatives by Global Service Providers

Offering migration and seamless exchange of data and provisioning for all types of services across clouds poses technical, operational, and economical challenges. The global cloud services industry has recently initiated efforts to develop techniques for interoperability and portability across multi-cloud operations, with better cost control and secure data exchange services. They have initiated work on standardising interworking mechanisms, services access and delivery protocols etc.

Architectures initially designed for single operator are now being revisited for multi-provider workload distribution, including AI/ML mobility with involvement of a few global Standards Development Organizations (SDOs) and Open-Source Foundations (OSFs). Some organizations like Cloud Native Computing Foundation (CNCF), Linux Foundation, Open Container Initiative (OCI) are also considering interoperable cloud-native technologies, standardized

orchestration, container runtimes, service meshes, and security frameworks. Concepts like Data formats of Lakehouse, ONNX for ML models are also being explored as part of Standardization efforts for interoperability across distributed networks, multiple storage facilities with some sort of AI capabilities. These initiatives aim to establish consistent operational models across heterogeneous cloud infrastructures to enable both public and private system constituents from different vendors, thus creating an interoperable cloud ecosystem.

## 4. TSDSI Work on CIP Standards

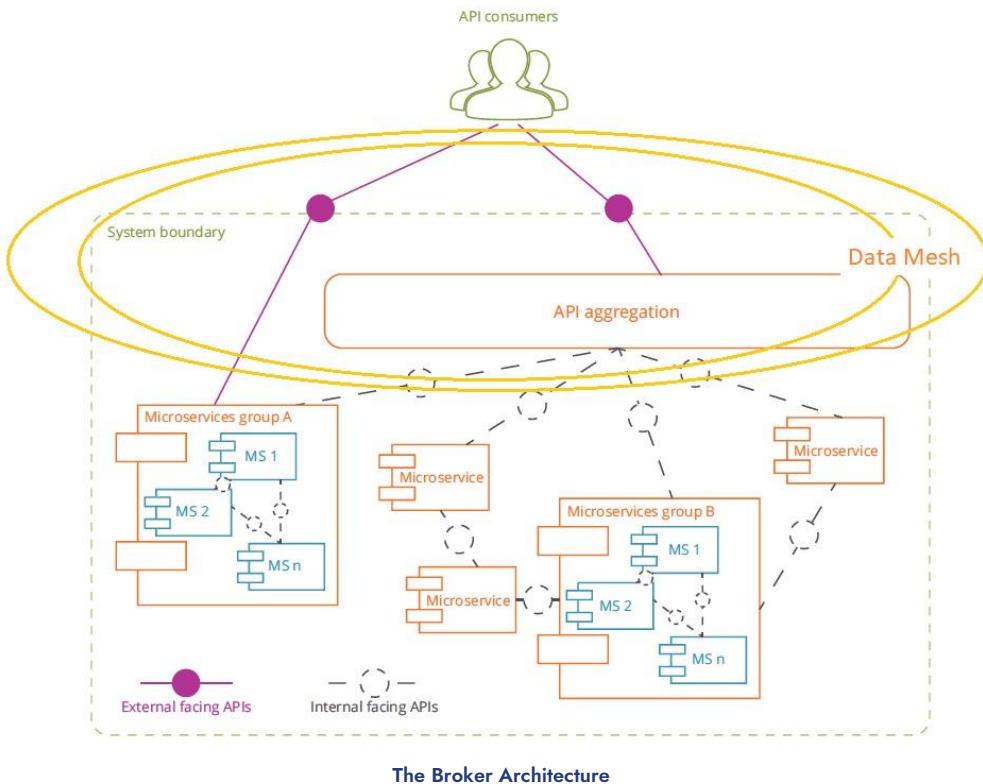
Indian Telecom Regulator (TRAI) with a foresight as early as in 2017, ahead of other global regulators, recommended Department of Telecommunications, Govt. of India to request TSDSI for developing Cloud Interoperability & Portability (CIP) Standards covering interoperability of secure cloud services & data portability seamlessly across multiple cloud service providers.

Consequently, TSDSI has developed Cloud Interoperability and Portability (CIP) Standards in three stages following a detailed technical study of Indian requirements and global gap analysis.

These standards are based on broker-based data platform with API gateways, Data Mesh architecture, standardised data models and APIs, secure data transfer, microservices, data spaces enabling seamless data exchange, workload migration, and Interoperable services across diverse platform. The broker enables interoperability by handling API translation, aggregation, and routing between different clouds. TSDSI standards define common APIs for services discovery, lifecycle management, monitoring, data storage, and file operations. It also addresses critical aspects like cloud security in complex, multi-cloud environments. Such techniques enable applications and services, whether stateful or stateless, to be deployed and scaled across both central cloud systems and edge environments. Security is integrated by design through token-based authentication, Multi-Factor Authentication (MFA), and

encryption mechanisms based on AES and RSA, ensuring trust and resilience in cloud operations. This also aligns with the principles used by global bodies such as the FIWARE Foundation.

This enables support for features like multi-layer interoperability, open compute, secure data management, data sovereignty and avoidance of vendor lock-in even for integrated multi-cloud environments. There is also an emphasis on strict security controls, identity, outbound API compliance and standardised cloud operations.



**Further Work:** TSDSI is further working on advanced data models, X-cloud orchestration policies, compliance-ready interfaces for government and enterprise workloads. It is also taking up development of technical specifications for a nationwide platform for data annotation, tagging, using the CIP architecture. This initiative aims to ensure scalable, standards-aligned and secure exchange of both government & citizen-level data, strengthening India's digital ecosystem and supporting long-term national digital transformation goals.

## About the Authors:



**Satish  
Jamadagni**

Satish Jamadagni is a Senior Vice President and head of Global Standards at Reliance Jio. He has about 25 years of industry experience in the telecom domain. He is the current Chair of TSDSI. He has around 200 granted patents in the wireless and network domain and around 30+ published papers.



**Vijay  
Madan**

Vijay Madan is currently associated with TSDSI as Full time Advisor & Mentor with special focus on standardization in Services & Solutions relating to evolving technologies & applications, vertical sectors use cases. He started his 56 Years long Professional career in R&D at Telecommunications Research Centre, Department of Telecom (DoT).

## ANNOUNCEMENTS



### Invitation to support hosting of the 3GPP SA & CT WG Meetings in Goa by sponsorship and advertisement

TSDSI invites proposals from members, partners, and associates to support 3GPP SA & CT Working Group meetings being hosted by TSDSI from 9-13 February 2026 in Goa through sponsorship. Sponsorship details are available at the link [here](#).

Airport Media Advertising at Goa Airports (MOPA & Dabolim) is also available for 7–9 February 2026 (arrivals) and optionally 14–16 February (departures), for one or two organizations. Details at the link [here](#).

### TSDSI Tech Deep Dive 2026



The 9<sup>th</sup> edition of the conference will be held from 7 to 10 July 2026. For more information click at the link [here](#).

## MEMBERSHIP UPDATES



TSDSI welcomes following organisations that joined us as members in October-December 2025:

**New Corporate Members:** Paravani Business Solutions Private Limited, Sooktha Consulting Private Limited, SRM Institute of Science & Technology

**New Guest Members:** Centre for Railway Information Systems (CRIS)

The full member list can be viewed here [https://tsdsi.in/present\\_members/](https://tsdsi.in/present_members/).

To apply for TSDSI membership, please visit <https://tsdsi.in/membership/>.



## About TSDSI

Telecommunications Standards Development Society, India (TSDSI), aims at developing and promoting India-specific requirements, standardizing solutions for meeting these requirements and contributing these to international standards, contributing to global standardization in the field of telecommunications, maintaining the technical standards and other deliverables of the organization, safe-guarding the related IPR, helping create manufacturing expertise in the country, providing leadership to the developing countries (such as in South Asia, South East Asia, Africa, Middle East, etc.) in terms of their telecommunications-related standardization needs.

TSDSI is recognised by the Department of Telecommunications as India's Telecom Standards Development Organisation (SDO).

TSDSI is registered as a Society under the Societies Registration Act (Act XXI of 1860).