Project 25 (P25)
Steering Committee
Representative Handbook

FOR ADDITIONAL INFORMATION PLEASE EMAIL: Project25SC@CISA.DHS.gov

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HANDBOOK PURPOSE

This handbook is provided to newly appointed Project 25 (P25) Steering Committee representatives as a guide to the committee's history, structure, goals, and procedures.

P25 BACKGROUND

P25 was formed in 1990 in an agreement among the Association of Public-Safety Communications Officials (APCO), the National Association of State Technology Directors (NASTD), and agencies of the U.S. Federal Government. This agreement is known as the APCO/NASTD/FED Agreement and provided for the creation of APCO/NASTD/FED Project 25. The goal was to create a unique user-driven process of working with equipment manufacturers to establish wireless land mobile radio (LMR) communications standards that meet the requirements of the public safety community. **Project 25 is the only known user-driven emergency communications standards process in the U.S.**

Following the terrorist attacks on September 11, 2001, P25 took on more immediate significance as the need for reliable, interoperable emergency communications was realized. SAFECOM, a joint venture of the Federal Emergency Management Agency (FEMA) and the newly formed Department of Homeland Security (DHS), was established specifically to improve interoperable communications within the public safety community. Today, the DHS Cybersecurity and Infrastructure Security Agency (CISA) contributes directly to P25 Standards development and supports SAFECOM and other public safety organizations' recommendations related to emergency communications standards development.

P25 STEERING COMMITTEE

The P25 Steering Committee is the governing authority of Project 25 and the sole authority for approving standards proposals, telecommunications system bulletins (TSB),[1] and white papers as Project 25 Standards. The committee works closely with manufacturers to develop and maintain a suite of standards that best serves the continually evolving needs of the public safety community.

The Steering Committee was formed as an independent body in 1990 in accordance with the APCO/NASTD/FED Agreement mentioned above to provide leadership in developing necessary standards. In 1992, the committee entered into a Memorandum of Understanding (MOU) with the Telecommunications Industry Association (TIA). This MOU defines the roles, responsibilities, and authority of the committee. Under the MOU, the committee agreed to identify and select voluntary Common System Standards for digital public safety radio communications (cumulatively the "P25

[1] Telecommunications System Bulletins differ from TIA Standards and Documents in that they are compilations of engineering data or other information useful to the technical community. They are guides to good engineering practices as suggested by the formulating committee. TSBs do not preclude or discourage other equally valid engineering practices acceptable to appropriate bodies.

Standards" or simply the "Standard") and TIA agreed to provide technical assistance for developing documentation for the Standard in accordance with TIA's usual procedures and policies.

To aid in the development of the standards, the P25 Steering Committee developed the P25 Statement of Requirements (SoR), which provides a list of features and functions LMR users expect from their radio systems. The SoR initially served as the basis for the standards developed by TIA and approved by the Steering Committee. In 2020, the Steering Committee developed the Statement of P25 User Needs (SPUN), which defines the current P25 systems model, system components, interfaces, services, capabilities, and features from a user needs perspective. It also includes descriptions of P25 voice, data, security, location, and subscriber management services as well as interfaces, infrastructure, consoles, and subscriber units. A series of appendices list specific identified P25 user needs by capability and hardware type. The SPUN supersedes the SoR, and the SoR is now obsolete. It will no longer be maintained or updated and thus should not be referenced for any information related to P25.

P25 STEERING COMMITTEE MEMBERSHIP

The Project 25 Steering Committee is an independent body comprised of representatives from a broad range of organizations at all levels of public safety. In accordance with the committee's bylaws, four members are appointed by APCO, four by NASTD, five by various federal agencies, and up to eight from public safety organizations approved by the committee. At its full complement, the committee has twenty-one members.

P25 STEERING COMMITTEE VOTING

Per the P25 Steering Committee Bylaws, voting shall be in accordance with Robert's Rules of Order Newly Revised, latest edition[2]. Unless otherwise specified within the bylaws, action shall be based on simple majority of the members present once a quorum has been established.

Actions that require a two-thirds (2/3) majority vote of a quorum of the P25 Steering Committee members include:

- Acceptance of Ex Officio and Associate Members
- Acceptance/Revisions of Staff Scope of Work
- APCO/NASTD/FED Project 25/34 PROCESS (P25 guidelines)
- Creation/Abolishment of Subcommittees
- P25 Steering Committee Bylaws Revisions
- Approval of Proposed Standards/Specifications to be forwarded to TR-8

[2] https://robertsrules.com/

P25 STEERING COMMITTEE EXECUTIVE SESSIONS

- In general, Steering Committee meetings are open to both members and observers. However, the P25 Steering Committee can initiate an executive session in order to meet privately with its members
- During an executive session, Steering Committee members and others specifically invited to participate by the committee may be present
- Meeting summaries, notes, and other meeting materials provided or developed during an executive session will be distributed only to members of the P25 Steering Committee

THE P25 STANDARDS DEVELOPMENT PROCESS

The process of identifying, selecting, approving, maintaining, and updating the P25 Standards involves several groups organized as shown in Figure 1 below. The "User Voice" group consists of public safety practitioners and end users of LMR technology. This group, headed by the P25 Steering Committee, includes the SAFECOM P25 User Needs Working Group (UNWG) and various user needs task groups established as needed under the UNWG. Together these entities determine what interoperable communications standards are needed by the public safety community and should be included in the P25 Suite of Standards.

The "Industry Voice" group consists of representatives of the communications manufacturing industry—entities that design and produce equipment that meets the P25 Standards. Headed by the TIA TR-8 Mobile and Personal Private Radio Standards Committee, which formulates and maintains standards for voice and data radio communications systems, the group also includes the appropriate TR-8 subcommittees and various subcommittee working groups focused on topics relevant to P25 standards development.

Bridging these two groups is a joint APCO Project 25 Interface Committee (APIC), comprised of representatives from TIA TR-8 and the P25 Steering Committee. Within APIC, members mesh their ideas and resolve issues to arrive at standards acceptable to both the user community and the manufacturing community. APIC in-person meetings are usually held three times a year in conjunction with the TR-8 and P25 Steering Committee. Conference calls are scheduled as needed to accomplish the APIC's business.

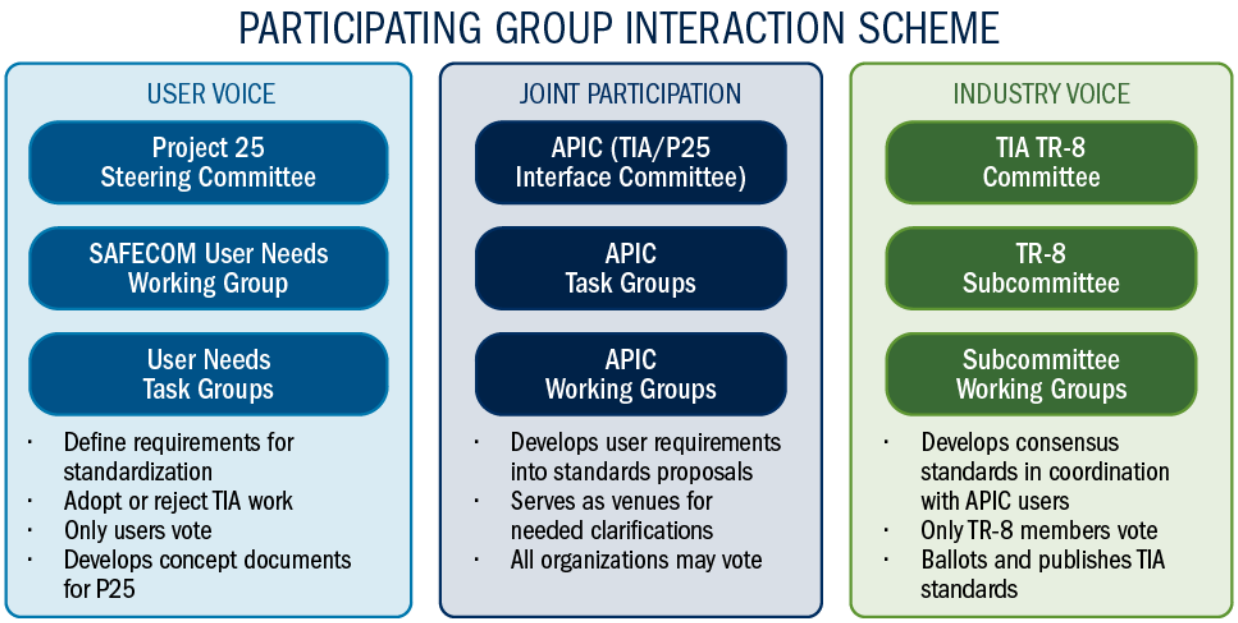

Figure 1 – Group Interaction in the P25 Standards Process

Figure 2 illustrates the process through which a user need related to LMR functionality or interoperability becomes part of the standard. In most cases, the UNWG identifies the need, often because one or more public safety agencies have communicated that need to one or more members of the subcommittee. Through agreement of its members, the UNWG submits the user need to the P25 Steering Committee, which decides if it merits inclusion in the standard. If it does, the Steering Committee proposes it to APIC and its subgroups, which work together with TIA TR-8 and its subcommittees to develop a standard that satisfies the user need. The TIA-102 Standard is the series of documents that address LMR interoperability and define tests and test methodologies to assess implementation of LMR functions and performance. These documents make up the P25 Standards.

The candidate standard draft is submitted to the P25 Steering Committee, which, as an organization of LMR end users, is the sole authority for approving the standard. Upon approval, the new standard becomes part of the P25 Standards and is published by the TIA TR-8 Engineering Committee.

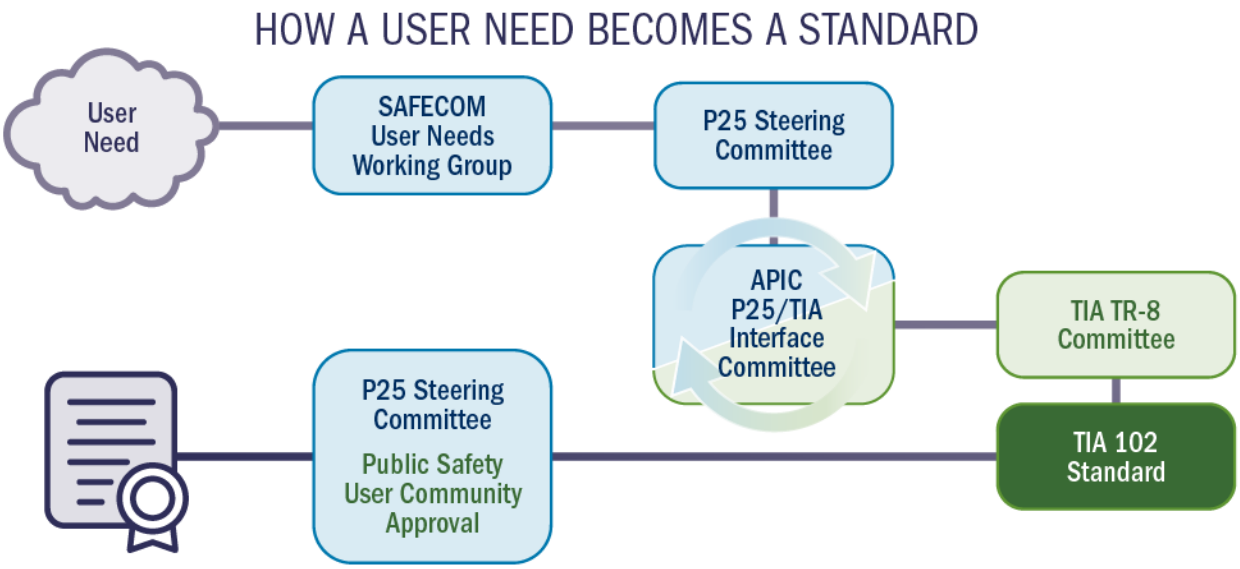

Figure 2 – Process by Which a User Need Becomes a P25 Standard

JOINT SAFECOM/NCSWIC P25 USER NEEDS WORKING GROUP (UNWG)

In addition to its ad hoc working groups, the P25 Steering Committee has an informal advisory group, the P25 UNWG. The UNWG is subordinate to the Joint SAFECOM/NCSWIC Technology Policy Committee. It provides a forum for education, discussion, and input from a broad range of public safety users and subject matter experts on issues related to the Project 25 Suite of Standards. The UNWG has two co-chairs; one is a member of NCSWIC, the other a member of SAFECOM. A federal representative from CISA provides administrative support and oversight.

Any employee of a bona-fide public safety agency or government agency with a role in public safety may participate in the UNWG, even if they are not a member of SAFECOM or NCSWIC. Subject matter experts in relevant fields, including equipment manufacturer representatives, may also participate in the UNWG on a case-by-case basis at the request of the UNWG Co-Chairs.

A UNWG participant serves as a liaison between the UNWG and the Project 25 Steering Committee to facilitate the flow of information and coordination of efforts between the two bodies. The liaison attends the P25 Steering Committee in-person meetings and conference calls.

TIA TR-8

Overview

TIA is the leading trade association representing the global information and communications technology industry through standards development, policy initiatives, business opportunities, market intelligence, and networking events. TIA is a Standards Development Organization (SDO) accredited by the American National Standards Institute (ANSI).

The TIA TR-8 Engineering Committee, the primary committee involved in the P25 Standards process, has 14 subcommittees, each focused on a specific aspect of radio communications.

Table 1 – TIA TR-8 Engineering Committee

Subcommittee	Subcommittee Focus
TR-8.1	Equipment Measurement Procedures
TR-8.3	Encryption
TR-8.4	Vocoders
TR-8.5	Signaling and Data Transmission
TR-8.8	Broadband Data Systems
TR-8.10	Trunking and Conventional Control
TR-8.11	Antenna Systems
TR-8.12	Two Slot TDMA
TR-8.15	Common Air Interface
TR-8.17	Radio Frequency Exposure
TR-8.18	Wireless Systems Compatibility - Interference and Coverage
TR-8.19	Wireline System Interfaces
TR-8.21	Land Mobile Radio (LMR) Intrinsic Safety (IS) Consideration
TR-8.25	Compliance Assessment

TIA TR-8 Committee Membership and Voting

TIA encourages all interested parties to join the U.S. standards development process. Membership in TIA Standards Committees are open to all persons, including non-members, who are or might reasonably be expected to be affected by the committees' activities. Care is taken to avoid membership dominance by any single interest.

Committee membership provides individuals and their organizations access to in-person and teleconference-based committee meetings; the ability to submit, vote, and comment on technical contributions; access to committee distribution lists and project tracking tools; membership discounts on general standards purchases; and opportunities to participate in conferences and events hosted by TIA.

An Engineering Committee membership fee is required and charged on an annual basis. Voting members are those whose organizations have paid their annual fees. Membership on a committee carries with it an obligation to participate actively in the work of the committee by contributing technical information, replying promptly to requests for ballots or comments on draft committee reports, and attendance at committee meetings. Members should email their committee chair to request to be added to meeting invites and other notifications.

Committee applications are available at: http://standards.tiaonline.org/standards/tia-engineering-committee-application.

Anyone can request to join a committee as a non-TIA member by emailing the committee chair. This allows them access to the meetings, document drafts, etc., but not the authority to vote.

TIA TR-8 Role in P25

As described in a previous section, the TIA TR-8 Mobile and Personal Private Radio Standards Committee develops TIA-102 Standards to meet user needs identified by the P25 Steering Committee. When the Steering Committee approves and adopts the standard, TIA TR-8 publishes it.

TIA maintains engineering subcommittees to develop and update P25/TIA-102 Standards and develops standardized test procedures for P25/TIA-102 Standards, which are referenced in Recommended Compliance Assessment Tests (RCATs) documents. The P25 Compliance Assessment Program (CAP) Compliance Assessment Bulletins (CABs) use the test procedures published by TIA for P25 CAP testing, performed under the auspices of the DHS Science and Technology Directorate (S&T). Having defined test procedures enables manufacturers and users to validate P25 equipment standards. However, it should be noted that equipment is not tested against all standards.

Availability of P25 Standards Documents

A public safety user can request a copy of any TIA-102 Standard free of charge from TIA. The TIA web page "P25 Downloads for Government Entities" (https://standards.tiaonline.org/all-standards/p25-downloads-application) describes how to request a copy of a TIA-102 Standard. A good introductory document is the *TSB-102-D Project 25 TIA-102 Documentation Suite Overview*, a detailed (100+ pages) overview of the P25/TIA-102 Standards with feature descriptions that provide titles and short summaries of all the TIA-102 Standard documents.

P25 Standards Naming Scheme

All P25 Standards follow a naming scheme that helps to structure and designate groups of documents within the P25 Suite of Standards. Figure 3 explains the sections of the P25 Standards naming convention.

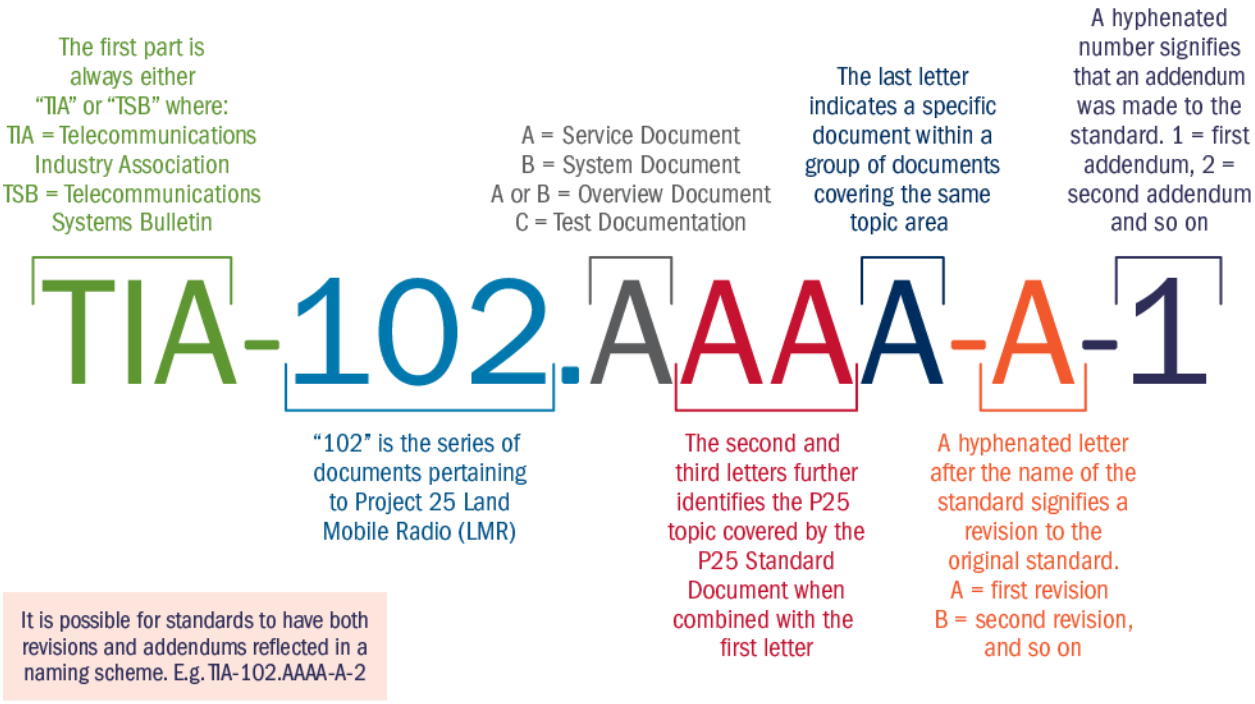

Figure 3 – P25 Standards Naming Scheme

Although this naming scheme provides a general structure for finding relevant standards documents, the best approach to finding a specific document is to consult the P25 Steering Committee Approved List of Standards on the Project 25 Technology Interest Group (PTIG) webpage or Section Four of the Project 25 TIA-102 Documentation Suite Overview (TSB-102-D). Additional information on the TIA naming scheme can be found in the table below.

Table 2 – Additional TIA Naming Scheme Information

Document Title	Series	First	Middle	Last
TIA-102 Documentation Suite Overview	TSB-102	C		
Security Services Overview	TIA-102	A	AA	B
Trunking Overview	TIA-102	A	AB	A
Inter-RF Subsystem Interface (ISSI) Overview	TSB-102	B	AC	C
Telephone Interconnect Overview (Voice Service)	TSB-102	B	AD	A
Data Overview	TIA-102	B	AE	A
Console Subsystem Interface Overview	TSB-102	B	AG	A
Fixed Station Subsystem Interface Overview	TIA-102	B	AH	A
Key Management Facility (KMF) to KMF Interface Overview	TIA-102	B	AK	A
Network Management Interface Overview	TSB-102	B	AF	A
Two-Slot Time-Division Multiple Access (TDMA) Overview	TSB-102	B	BA	A
Block Encryption Protocol	TIA-102	A	AA	D

Document Title	Series	First	Middle	Last
Trunking Control Channel Formats	TIA-102	A	AB	B
Trunking Control Channel Messages	TIA-102	A	AB	C
Trunking Procedures	TIA-102	A	AB	D
Link Control Word Formats and Messages	TIA-102	A	AB	F
Conventional Control Messages	TIA-102	A	AB	G
Dynamic Regrouping Messages and Procedures	TIA-102	A	AB	H
Over the Air Rekeying (OTAR) Protocol	TIA-102	A	AC	A
Key Fill Device Interface Protocol	TIA-102	A	AC	D
Link Layer Authentication	TIA-102	A	AC	E
Frequency-Division Multiple Access (FDMA) Common Air Interface	TIA-102	B	AA	A
Common Air Interface (CAI) Reserved Values	TIA-102	B	AA	C
Conventional Procedures	TIA-102	B	AA	D
Vocoder Description	TIA-102	B	AB	A
ISSI Messages and Procedures for Voice Services, Mobility Management, and Radio Frequency Subsystem (RFSS) Capability Polling Services	TIA-102	B	AC	A
ISSI and Procedures for Supplementary Data Services	TIA-102	B	AC	D
ISSI Messages and Procedures for Conventional Operation	TIA-102	B	AC	E
ISSI Messages and Procedures for Packet Data Services	TIA-102	B	AC	F
Telephone Interconnect Overview (Voice Service)	TSB-102	B	AD	A
Data Overview and Specification	TIA-102	B	AE	A
Internet Protocol (IP) Data Bearer Service Specification	TIA-102	B	AE	B
Packet Data Logical Link Control Procedures	TIA-102	B	AE	D
Radio Management Protocols	TIA-102	B	AE	E
Packet Data Host Network Interface	TIA-102	B	AE	F
Mobile Data Peripheral Interface	TIA-102	B	AE	G
Conventional Management Service Specification for Packet Data	TIA-102	B	AE	J
Network Management Interface	TSB-102	B	AF	A
Fixed Station Interface Messages and Procedures	TIA-102	B	AH	A
Location Services	TSB-102	B	AJ	A
Tier 1 Location Services Specification	TIA-102	B	AJ	B
Tier 2 Location Services Specification	TIA-102	B	AJ	C
Transmission Control Protocol (TCP)/User Datagram Protocol (UDP) Port Number Assignments	TIA-102	B	AJ	D
KMF to KMF Interface	TIA-102	B	AK	A

Document Title	Series	First	Middle	Last
Phase 2 Two-Slot TDMA Physical Layer Protocol Specification	TIA-102	B	BA	B
Phase 2 Two-Slot TDMA Media Access Control Layer Description	TIA-102	B	BA	C
Conformance Test for the Data Encryption Standard (DES) Encryption Protocol	TIA-102	A	AA	C
Conformance Tests for OTAR Protocol	TIA-102	A	AC	C
CAI Conformance Test	TIA-102	B	AA	B
Vocoder Mean Opinion Score Conformance Test	TIA-102	B	AB	B
Enhanced Vocoder Methods of Measurement for Performance	TIA-102	B	AB	G
Phase 2 Two-Slot TDMA Trunked Voice Services CAI Conformance Specification	TIA-102	B	CA	D
Phase 2 Two-Slot TDMA Trunked Voice Services Message and Procedures Conformance Specification	TIA-102	B	CA	E
Trunked TDMA Voice Channel Conformance Profiles	TIA-102	B	CA	F
Digital C4FM/CQPSK Transceiver Measurement Methods	TIA-102	C	AA	A
Land Mobile Radio Transceiver Performance Recommendations Project 25 Digital Radio Technology C4FM/CQPSK Modulation	TIA-102	C	AA	B
Mobile Radio Push-to-Talk and Audio Interface – Definitions and Methods of Measurement	TSB-102	C	AA	C
Interoperability Testing for Voice Operation in Conventional Systems	TIA-102	C	AB	A
Interoperability Test Procedures – Over-the-Air-Rekeying	TIA-102	C	AB	B
Interoperability Testing for Voice Operation in Trunked Services	TIA-102	C	AB	C
ISSI Measurement Methods for Voice Services	TIA-102	C	AC	A
ISSI Performance Recommendations for Voice Services	TIA-102	C	AC	B
ISSI Conformance Test Procedures	TIA-102	.	CA	CC
ISSI Interoperability Test Procedures for Trunked Voice Operation Involving the ISSI	TIA-102	C	AC	D
Fixed Station Interface Conformance Test Procedures	TIA-102	.	CA	DA
Conformance Profile Level One - Basic Conventional Operation	TIA-102	C	AE	A
Conformance Profile Level Two - Advanced Conventional Operation	TIA-102	C	AE	B
Conformance Profile – Basic Trunked Operation	TIA-102	C	AE	C
Conformance Profiles for Advanced Trunked Operations	TIA-102	C	AE	D
Two-Slot TDMA Transceiver Measurement Methods	TIA-102	C	CA	A
Two-Slot TDMA Transceiver Performance Recommendations	TIA-102	C	CA	B
Product Compliance Assessment Overview	TSB-102	C	BA	A

Document Title	Series	First	Middle	Last
Supplier's Declaration of Compliance (SDoC) Template	TSB-102	C	BA	B
Compliance Assessment Summary Test Report Guidelines – Transceiver Performance	TSB-102	C	BA	C
Compliance Assessment Summary Test Report Guidelines – Trunking Interoperability	TSB-102	C	BA	F
Recommended Compliance Assessment Tests – Transceiver Performance - Conventional Mode Subscriber	TSB-102	C	BB	A
Recommended Compliance Assessment Tests – Transceiver Performance - Conventional Mode Fixed Station	TSB-102	C	BB	C
Recommended Compliance Assessment Tests – Conventional Operation	TSB-102	C	BB	E
Recommended Compliance Assessment Tests – Transceiver Performance - Trunking Mode Subscriber	TSB-102	C	BB	F
Recommended Compliance Assessment Tests – Performance - Trunked Mode Fixed Station Transceiver and Related Infrastructure	TSB-102	C	BB	H
Recommended Compliance Assessment Tests – Trunking Operation	TSB-102	C	BB	J
Recommended Compliance Assessment Tests – Trunking ISSI	TSB-102	C	BB	K
Recommended Compliance Assessment Tests – Two-Slot TDMA Trunking Voice Channel Air Interface	TSB-102	C	BB	L

Public Documents

TIA makes all notices, agendas, and approved meeting reports available to the public. These documents can be located by clicking "Archived Meeting Reports" from the TR-8 Menu on the right side of the general TIA TR-8 page. No log in credentials are required to view the prior meeting materials.

General TIA Link: https://tiaonline.org/what-we-do/standards/

JOINT MEETINGS OF TIA TR-8 AND P25 STEERING COMMITTEE

TIA hosts the TIA TR-8 meetings in conjunction with the P25 Steering Committee meetings three times a year (February/June/October) at various locations across the United States. The TIA TR-8 meetings are scheduled for Tuesday and Wednesday, followed by the P25 Open User Sessions, and P25 Steering Committee meetings are held on Wednesday and Thursday.

Figure 4 illustrates the various committees within the P25 Steering Committee, APIC, and TR-8 and the interrelationships they share.

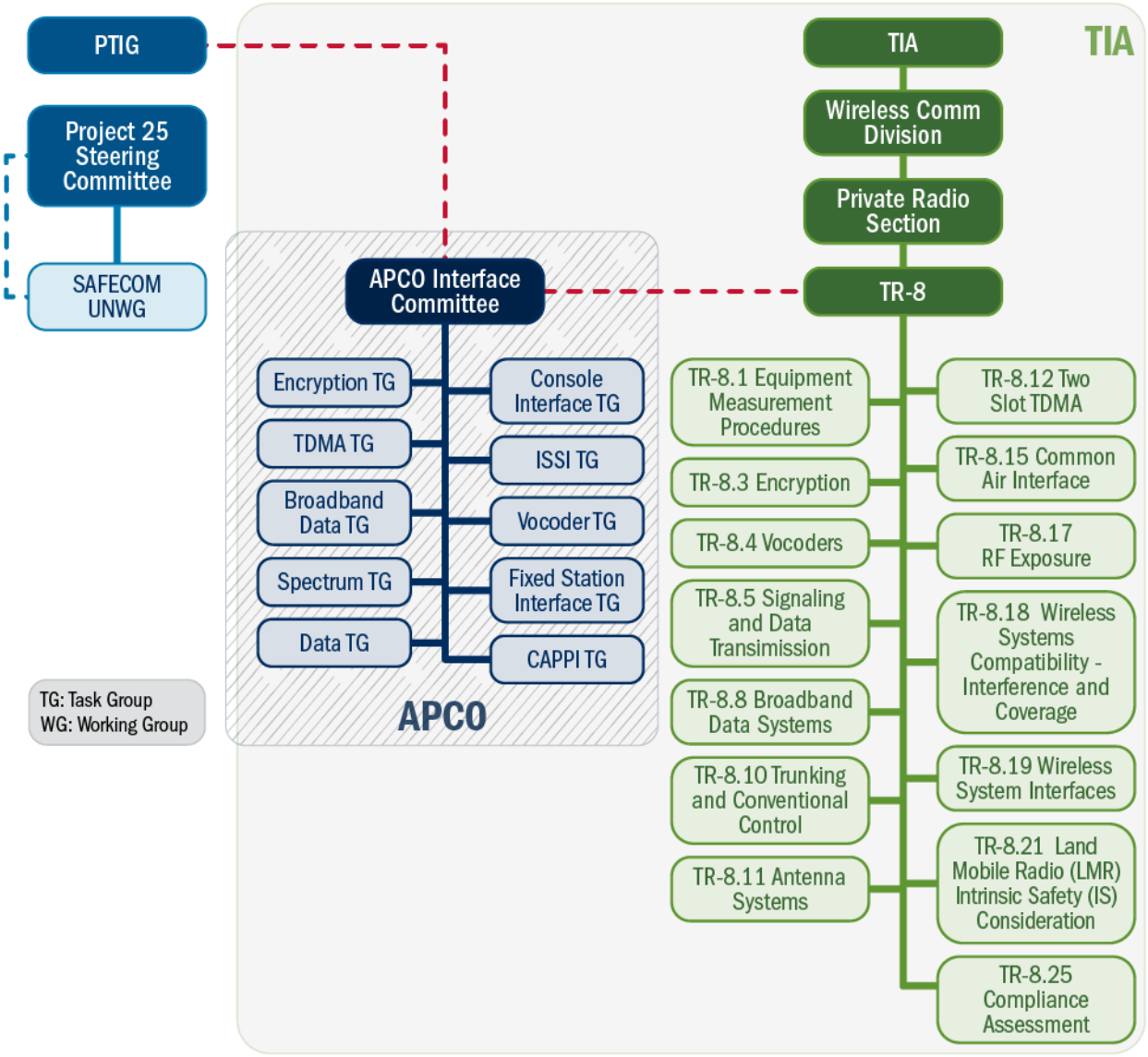

Figure 4 – Committees and Subcommittees Involved in Joint TR-8/P25 Steering Committee Meetings

Potential locations for future meetings are discussed at each meeting, with consideration to areas with high user populations or locally implemented P25 systems. TIA makes the final determination based on contract costs for conference room use and other factors.

TIA TR-8 and P25 Steering Committee Sessions Logistics

Meeting Attendance

A roll call of voting members is conducted at each meeting to establish a quorum. Attendance is recorded online or with a paper sign in.

Document Sharing

TIA committees do not use projectors to share files at meetings. Instead, TIA leadership and subcommittee chairs upload meeting documents to TIA Connect and participants download the files via a WiFi connection to view them on their own laptops/tablets. WiFi is provided in the meeting rooms; however, participants must bring their own laptops to access the files.

Working documents are assigned tracking numbers specific to the subcommittees. Participants who are physically present have access to relevant subcommittee documents during the meeting week. At all other times, access to working documents requires TIA Connect membership credentials.

Connecting to TIA Connect

- ☑ Log in to TIA Connect at: https://connect.tiaonline.org/home
- ☑ Once logged in, follow the steps to set up your profile and to customize your settings: https://connect.tiaonline.org/help-faqs/community-tutorial
- ☑ Set up your TIA communities (My Communities) for access to meeting materials:
  - TR-8 Mobile and Personal Private Radio Standards (https://connect.tiaonline.org/communities/stdshome?CommunityKey=4827390c-55a1-49b0-ac91-6d1a71893889)
  - P25 Committee (https://connect.tiaonline.org/communities/stdshome?CommunityKey=32f22b76-g947e-4141-a30c-c7b4db1be830)

NOTE: The P25 Committee Community site contains the P25 Steering Committee and APIC folders, including all the subcommittees.

TR-8 and Subcommittee Meetings

TR-8

- Working Group conference calls are used to progress work items
- Face-to-face meeting time is available for work item discussions as needed
- A subcommittee quorum is required for work status updates, new project approvals, document ballots, and publication approvals
- Only TIA members and Engineering Committee participants may vote
- Non-members may participate with permission, although this is not standard TIA policy

APIC

- Meetings are held in conjunction with in-person TIA TR-8 meetings and via conference call as needed
- APIC committee and task group membership is voluntary, free, and open to any industry member organization, public safety user, or interested parties willing to participate
- Documents developed by the APIC are reviewed by users and industry representatives, and decisions on these documents are made based on consensus

HELPFUL RESOURCES

CISA

CISA plays a key role in ensuring federal, state, local, tribal, and territorial agencies have the necessary plans, resources, and training needed to support operable and advanced interoperable emergency communications.

- **CISA and P25:** CISA participates on the P25 Steering Committee
- **Link:** www.cisa.gov/emergency-communications
- **Link:** www.cisa.gov/safecom/technology

DHS S&T Office for Interoperability and Compatibility (OIC)

S&T's OIC plays a key role in support of public safety's use of P25 radio systems.

- **OIC and P25:** OIC established and oversees the P25 CAP, a partnership among OIC, industry, and the emergency response community. P25 CAP is a formal, independent process that tests communications equipment against the P25 Standard to ensure it meets specific performance criteria within the standard. Test results are available to the public on the S&T CAP website
- **Link:** www.dhs.gov/science-and-technology/p25-cap

PTIG

PTIG is a group of individuals and organizations who share an interest in advancing the development, refinement, deployment, and application of the digital communications technology represented by Project 25. PTIG members include two-way radio communications experts, public safety professionals, and equipment manufacturers.

- **PTIG and P25:** PTIG promotes the success of Project 25 and educates interested parties on the benefits the standard offers
- **The PTIG Director often attends the in-person** TR-8 and P25 Steering Committee but does not have voting rights
- **Membership:** To become a member, register at http://www.project25.org/index.php/membership/member-login
- **Link:** http://www.project25.org

Federal Partnership for Interoperable Communications (FPIC)

The FPIC is a coordination and advisory body addressing technical and operational wireless issues relative to interoperability within the public safety emergency communications community. FPIC

membership includes voluntary representatives from federal, state, local, territorial, and tribal organizations and serves as:

- A collaborative partner to the SAFECOM-National Council of Statewide Interoperability Coordinators (NCSWIC) Joint Technology Policy Committee
- A technical advisory group to the NCSWIC Executive Committee
- A liaison advisory group to National Public Safety Telecommunications Council (NPSTC)

The FPIC develops products that address topics and questions concerning interoperable communications, security services, spectrum, and standards. In particular, its Encryption Subcommittee has published several documents found at www.cisa.gov/publication/encryption.

Link: https://www.cisa.gov/safecom/fpic

APCO

APCO serves federal, state, local, tribal, and territorial government entities that provide public safety communications services in areas ranging from law enforcement, fire service, emergency rescue and medical services, and emergency management to forestry, conservation, and highway maintenance. As a founding member of P25, APCO provides up to four representatives to the Steering Committee, and either the Chair or Vice Chair must be a representative from APCO or NASTD. The primary purposes of APCO are to:

- Foster development and progress of public safety communications and supporting information technologies
- Promote rapid and accurate collection, exchange, and dissemination of information relating to emergencies and other vital public safety communications
- Represent public safety communications and supporting information technology interests before regulatory and policy-making bodies
- Strive to protect citizens and their property and provide for their welfare by these and other appropriate means
- **Link:** https://www.apcointl.org/

NASTD

NASTD is a member-driven organization whose purpose is to advance and promote the effective use of information technology and services to improve the operation of state government. The association represents information technology professionals from the 50 states. State members provide and manage state government information technology services and facilities for state agencies and other public entities, often including hospitals, prisons, colleges, and universities. These members also play a strategic role in planning and shaping state government technology infrastructures and policies. Corporate members provide information technology, services, and equipment to state government.

As a founding member of P25, NASTD holds up to four positions on the Steering Committee, and either the Chair or Co-Chair must be a representative from NASTD or APCO.

Link: https://www.nastd.org

SAFECOM

Managed by CISA, SAFECOM works to improve inter-jurisdictional and interdisciplinary interoperability within emergency communications at all levels of public safety. SAFECOM collaborates with existing federal communications programs and key emergency response stakeholders to further development of improved technologies and processes for coordinating existing and emerging communications systems. Through these partnerships, SAFECOM has created key documents including the Interoperability Continuum and the Statewide Communication Interoperability Plan (SCIP) Methodology.

The goals of SAFECOM are to:

- Champion and promote effective integration of technologies, resources, and processes related to emergency communications and interoperability
- Educate policymakers, stakeholders, and constituents about emergency communications technologies and interoperability-related issues
- Provide accurate, reliable information about the challenges facing emergency communications and the technical requirements and best practices needed to overcome them
- Support implementation of the National Emergency Communications Plan and SCIP
- Support and provide guidance to CISA, OIC, and DHS regarding legislation, regulatory policy, rules, and regulations needed to support the public safety community
- Provide feedback and guidance to DHS and the public safety community regarding future technologies
- Encourage development of local and regional Tactical Interoperable Communications Plans and matching field operations guides
- **Link:** https://www.cisa.gov/safecom

NCSWIC

Established by CISA in 2010, NCSWIC supports Statewide Interoperability Coordinators (SWIC) from the 56 states and territories by developing products and services to help them leverage their relationships, professional knowledge, and experience to assist public safety partners at all levels of government with their interoperable communications.

Link: https://www.cisa.gov/safecom/NCSWIC

List of Approved P25 Standards

The full list of approved P25 Standards can be found on the PTIG website.

Link: http://www.project25.org/index.php/documents/p25-standards-documents-specs

Video: Introduction to Project 25

Link: https://www.youtube.com/watch?v=2GTAptVOpkE