



**Telecommunications Industry Association**

1320 N. Courthouse Road Suite 200, Arlington, VA 22201

703-907-7700 • tiaonline.org

---

**Approved by General Counsel**

TR-8.12

Meeting Date(s): 4 February 2020

Location: Renaissance New Orleans Pere Marquette French Quarter  
Area Hotel – New Orleans, LA

Approved: 13 February 2020

**Presiding:** Jim Eastwood, Chairman 360-303-3274 / jim.eastwood@motorolasolutions.com  
**Date:** Tuesday, February 4, 2020  
**Place:** Renaissance New Orleans Pere Marquette French Quarter Area Hotel

### **Participation Notice**

TIA is actively seeking participation in projects from the "User" and "General Interest" communities.

### **Important Notice for Participation**

Participation in, or attendance at, any activity of a TIA Formulating Group or any sub-element thereof, constitutes acceptance of and agreement to be bound by all provisions of TIA Standards Development Procedures and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA's web site, in whole or in part, on a non-exclusive basis by TIA or TIA's licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by the head of the TIA Standards Department on a case-by-case basis.

### **Intellectual Property Rights (IPR) Policy and Early Disclosure Request**

TIA's Intellectual Property Rights Policy can be found in Statements of Policy (ANNEX C) and other clauses and annexes of TIA Standards Development Procedures. Participants in the work of the TIA Formulating Groups are urged to review the appropriate sections. Individual participants are encouraged to notify TIA of any patent(s) or published pending patent application(s) of which they are aware that may be essential to the practice of a proposed TIA Publication, including requirements introduced through normative references, early on in the development to reduce the possibility for delays in the development process and increase the likelihood that the proposed TIA Publication will become a Standard. However, a Patent Holder who has provided TIA with a TIA Patent Holder Statement with respect to the applicable proposed TIA Publication need not (but may elect to) identify its specific patent(s) or published pending patent application(s) that may be essential to the practice of the proposed TIA Publication in question. Patent searches are not required to comply with the TIA Intellectual Property Rights Policy.

#### **1. Call to Order:**

The Chair called the meeting to order at approximately 14:02 Central Time (New Orleans local time) and volunteered to act as secretary. The Chair indicated that all relevant documents are on the TR-8.12 FTP site.

#### **2. Record of Attendance:**

Participants were advised to record their attendance with TIA staff and a summary of the attendance is provided later in this report. A quorum was established with 14 of 14 eligible voting organizations present.

#### **3. Review and Approve Agenda:**

The Chair noted that the meeting agenda had been distributed prior to the meeting and that it is available as 20-001. The Chair then called the participants' attention to the Participation Notice and Important Notice for Participation (see above) and asked for a motion to accept the February meeting agenda. Dwight Smith moved, and Jerry Drobka seconded, a motion to accept the February meeting agenda as written. The motion passed unanimously by voice vote.

#### **4. Review and Approve Last Meeting Report:**

The Chair noted that the previous meeting report had been distributed by TIA prior to the meeting and that it is available as 19-033. The Chair then asked for a motion to accept the October meeting report. Dwight Smith moved, and John Lambrou seconded, a motion to accept the June meeting report as written. The motion passed unanimously by voice vote.

#### **5. TIA IPR Policy:**

The Chair called the participants' attention to Note 2 on the meeting agenda for information regarding the TIA IPR Policy (see above) that was read to the participants earlier in the day. The Chair asked the question "is there knowledge of patents, the use of which may be essential to any document being considered during this meeting that anyone would like to disclose at this time"? There was no new IPR identified.

**6. Old Business:**

The Chair called the participants' attention to 20-002 for a summary of the subcommittee activities since the previous meeting. The Chair then called the participants' attention to slide 2, and noted that no conference calls were held since the October meeting.

**a. Work Summary:**

The Chair called the participants' attention to slide 3 for a summary of current and future work items for the subcommittee and provided a brief statement regarding each one.

The Chair provided a brief summary of the following documents that were published in November 2019 with Project 25 on the cover page:

- Two-Slot TDMA MAC Layer Specification 2<sup>nd</sup> Edition – published as TIA-102.BBAC-A
- Two-Slot TDMA MAC Layer Messages 2<sup>nd</sup> Edition – published as TIA-102.BBAD-A
- Two-Slot TDMA MAC Layer Procedures 1<sup>st</sup> Edition – published as TIA-102.BBAE

The Chair indicated that the documents published in November integrate the Control Channel and Voice Channel specifications into a suite of MAC Layer documents and cancel/replace the following documents:

- TIA-102.BBAC Phase 2 Two-Slot TDMA Media Access Control Layer Description (December 2010)
- TIA-102.BBAC-1 Phase 2 Two-Slot TDMA Media Access Control Layer Description – Addendum 1 (February 2013)
- TIA-102.BBAD Two-Slot TDMA Control Channel MAC Layer Specification (August 2017)

The Chair then indicated that anticipated future work is to add Link Layer Encryption (LLE) for the Two-Slot TDMA Control Channel and Voice Channel.

The Chair called the participants' attention to slide 4 for a summary of the TIA-102 documents published by this subcommittee. The Chair indicated that this content is provided for informational purposes.

**7. New Business:**

The Chair indicated that there are two items of new business on the agenda.

**a. Chair Election:**

The Chair indicated that Chair election was announced during the October quorum meeting, and is on the agenda for this meeting. The Chair also indicated that anyone interested in the Chair position was requested to submit statement of qualifications letter and letter of company support per section 6.3 of the TIA Engineering Committee Operating Procedures (ECOP) during the previous meeting. The Chair then indicated that he submitted his nomination documentation to TIA prior to the meeting and that no other nominations were received prior to the meeting. Victoria Mitchell confirmed that TIA did not receive any other nominations.

The Chair then asked if there are any nominations from the floor for Chair. Dwight Smith moved, and Brandon Diemer seconded, a motion to close the nominations for Chair and elect Jim Eastwood as Chair by acclamation since no nominations were received from the floor. The motion passed unanimously by voice vote.

**b. Vice-Chair Election:**

The Chair indicated that Vice-Chair election was announced during the October quorum meeting, and is on the agenda for this meeting. The Chair also indicated that the Vice-Chair position is currently vacant and that anyone interested in the Vice-Chair position was requested to submit statement of qualifications letter and letter of company support per section 6.3 of the TIA Engineering Committee Operating Procedures (ECOP) during the previous meeting. The Chair noted that no nominations were received prior to the meeting. Victoria confirmed that TIA did not receive any other nominations.

The Chair then asked if there are any nominations from the floor for Vice-Chair. None were offered, so the Vice-Chair position remains open.

The Chair then asked if there was any other new business to bring before the TR-8.12 subcommittee. None was offered.

#### 8. Review of Current Assignments:

The Chair was to submit a Publication Authorization form to the TIA Standards Department to publish contribution 18-014-R7 as TIA-102.BBAC-A Two-Slot TDMA MAC Layer Specification after allowing time for the Project 25 Steering Committee to determine the disposition of the document. [Complete]

The Chair was to submit a Publication Authorization form to the TIA Standards Department to publish contribution 18-017-R9 as TIA-102.BBAD-A Two-Slot TDMA MAC Layer Messages after allowing time for the Project 25 Steering Committee to determine the disposition of the document. [Complete]

The Chair was to submit a Publication Authorization form to the TIA Standards Department to publish contribution 19-002-R4 as TIA-102.BBAE Two-Slot TDMA MAC Layer Procedures after allowing time for the Project 25 Steering Committee to determine the disposition of the document. [Complete]

#### 9. Schedule Next Meeting:

The Chair indicated there is no need for a meeting in June.

#### 10. Adjournment:

Dwight Smith moved, and John Lambrou seconded, a motion to adjourn the meeting at approximately 14:16 Central Time (New Orleans local time). The motion passed unanimously by voice vote. An attendance roster is on file with the TIA Standards Department.

This meeting was conducted in accordance with the TIA Legal Guides and the engineering procedures.

Jim Eastwood, TR-8.12 Chair

#### Current Projects

TIA Project Number	Title	Status
None		

#### TIA-102 Published Documents

TIA Number	Title	Date	Status*	
TSB-102.BBAA	Two-Slot TDMA Overview	March 2010	TIA	P25
TIA-102.BBAB	Phase 2 Two-Slot Time Division Multiple Access Physical Layer Specification	July 2009	TIA	P25
TIA-102.BBAC-A	Two-Slot TDMA MAC Layer Specification	November 2019	TIA	P25
TIA-102.BBAD-A	Two-Slot TDMA MAC Layer Messages	November 2019	TIA	P25
TIA-102.BBAE	Two-Slot TDMA MAC Layer Procedures	November 2019	TIA	P25
TIA-102.BCAD	Phase 2 Two-Slot Time Division Multiple Access Trunked Voice Services Common Air Interface Conformance Specification	September 2011	TIA	P25
TIA-102.BCAE	Phase 2 Two-Slot Time Division Multiple Access Trunked Voice Messages and Procedures Conformance Specification	July 2011	TIA	P25
TIA-102.BCAF	Trunked TDMA Voice Channel Conformance Profiles	August 2012	TIA	P25

\* P25 in the 2<sup>nd</sup> Status column indicates the document has been adopted as part of the Project 25 Standard by the Project 25 Steering Committee

## Voting Organizations

The following table shows the voting organization participation for previous meetings and current voting qualification. A check mark (✓) indicates the organization was present for the indicated meeting.

Voting Organizations	San Antonio TX 10-16-2018	Mesa AZ 02-05-2019	Des Moines IA 06-18-2019	Charlotte NC 10-08-2019	New Orleans LA 02-04-2020	Eligible to Vote at Next Meeting
(1) APCO International	✓	✓	✓	✓	✓	Yes
(2) Bird Technologies	✓	✓	✓		✓	Yes
(3) BK Technologies	✓		✓	✓	✓	Yes
(4) E.F. Johnson Technologies	✓	✓	✓	✓	✓	Yes
(5) Etherstack		✓	✓	✓	✓	Yes
(6) FBI	✓	✓	✓	✓	✓	Yes
(7) Icom America Inc.	✓	✓	✓	✓	✓	Yes
(8) ISICSB	✓	✓	✓	✓	✓	Yes
(9) JVCKenwood Corporation	✓	✓	✓	✓	✓	Yes
(10) L3 Harris Technologies	✓	✓	✓	✓	✓	Yes
(11) Motorola Solutions, Inc.	✓	✓	✓	✓	✓	Yes
(12) U.S. DHS CISA	✓	✓	✓	✓	✓	Yes
(13) U.S. DoI	✓	✓	✓	✓	✓	Yes
(14) Zetron	✓			✓	✓	Yes

## Non-Voting Organizations

A check mark (✓) indicates the organization was present for the indicated meeting.

Non-Voting Organizations	San Antonio, TX 10-16-2018	Mesa, AZ 02-05-2019	Des Moines, IA 06-18-2019	Charlotte, NC 10-08-2019	New Orleans, LA 02-04-2020
(1) Codan Radio	✓	✓	✓		✓
(2) Compliance Testing, LLC					✓
(3) CSI Telecommunications			✓	✓	
(4) dbSpectra	✓				✓
(5) Digital Voice Systems, Inc. (DVSI)					
(6) Fairfax County		✓			
(7) FirstNet				✓	✓
(8) Grundy County 911	✓	✓	✓		✓
(9) Harris County Central Tech.	✓				
(10) InterTalk Critical Info Sys.	✓	✓	✓	✓	✓
(11) Iowa DPS	✓	✓	✓		
(12) National Sheriff's Association				✓	
(13) NYSP	✓		✓	✓	
(14) PTIG	✓	✓	✓	✓	✓
(15) Softwright	✓			✓	✓
(16) State of California			✓	✓	✓
(17) State of Connecticut				✓	✓
(18) State of Indiana - IPSC		✓			
(19) State of South Carolina	✓		✓	✓	✓
(20) TX DPS			✓	✓	✓
(21) UL					✓
(22) University of Melbourne Australia					✓
(23) U.S. Coast Guard	✓	✓	✓	✓	✓
(24) Viavi Solutions	✓			✓	✓

## Attendance Roster Summary

Participant	Organization	Participant	Organization
John Mistro	<i>APCO International</i>	Jerry Drobka	<i>Motorola Solutions, Inc.</i>
Chris Wilson	<i>APCO International</i>	Jim Eastwood	<i>Motorola Solutions, Inc.</i>
Tim O'Brien	<i>Bird Technologies</i>	John Lambrou	<i>Motorola Solutions, Inc.</i>
Amy Sanvido	<i>Bird Technologies</i>	Tim Woodward	<i>Motorola Solutions, Inc.</i>
Jim Holthaus	<i>BK Technologies</i>	Stephen Nichols	<i>PTIG</i>
Werner Hoepf	<i>Codan Radio Communications</i>	Todd Summers	<i>SoftWright LLC</i>
Chris Lougee	<i>Compliance Testing, LLC</i>	John Lemon	<i>State of California</i>
John Hardwick	<i>Digital Voice Systems, Inc. (DVSI)</i>	Scott Wright	<i>State of Connecticut</i>
Josh Johnson	<i>E.F. Johnson Technologies</i>	George Crouch	<i>State of South Carolina</i>
Dwight Smith	<i>E.F. Johnson Technologies</i>	Christie Bielby	<i>TX DPS</i>
Doug Chapman	<i>Etherstack</i>	David Malohn	<i>UL</i>
Richard Massie	<i>FBI</i>	Geoff Spring	<i>University of Melbourne Australia</i>
Mike Dolan	<i>FirstNet</i>	Sonia Kendall	<i>U.S. Coast Guard</i>
Chris Kindelspire	<i>Grundy County 911</i>	James Middleton	<i>U.S. Coast Guard</i>
Masaaki Takahashi	<i>ICOM America Inc.</i>	Joshua Black	<i>U.S. DHS CISA</i>
Glenn Shirley	<i>InterTalk Critical Info. Systems</i>	Jim Downes	<i>U.S. DHS CISA</i>
Thomas Lamp	<i>ISICSB (State of Iowa)</i>	Brian Heitman	<i>U.S. DHS CISA</i>
Chris Maiers	<i>ISICSB (State of Iowa)</i>	Britany Higdon	<i>U.S. DHS CISA</i>
Angelina Seay	<i>JVC Kenwood Corporation</i>	April O'Reilly	<i>U.S. DHS CISA</i>
Mac Hartless	<i>L3 Harris Technologies</i>	Brandon Diemer	<i>U.S. DoI</i>
Harrison Reves	<i>L3 Harris Technologies</i>	Chad McAsey	<i>Viavi Solutions</i>
Andy Davis	<i>Motorola Solutions, Inc.</i>	Randy Richmond	<i>Zetron</i>

## Correspondence Log

Number	Date	Author	Subject
17-001-R2	01-19-2017	Jim Eastwood	Combined Comment Matrix for 16-005-R5
17-002	01-18-2017	Roy McClellan	January 19, 2017 Working Group Conference Call Agenda
17-003	01-19-2017	Roy McClellan	January 19, 2017 Working Group Meeting Notes
17-004-R2	05-10-2017	Jim Eastwood	Two-Slot TDMA Control Channel MAC Layer Specification
17-005	01-19-2017	Roy McClellan	January 2017 Meeting Notice-Agenda
17-006	01-19-2017	Roy McClellan	January 2017 Quorum List
17-007	04-05-2017	Roy McClellan	January 2017 Meeting Report
17-008	01-31-2017	Roy McClellan	January 2017 Activity Report
17-009	04-11-2017	Roy McClellan	TIA-PN-BBAD Motorola Ballot Comments
17-010	04-11-2017	Roy McClellan	TIA-PN-BBAD Ballot Summary Report
17-011-R1	05-10-2017	Jim Eastwood	TIA-PN-BBAD Ballot Comment Matrix
17-012	04-11-2017	Roy McClellan	TIA-PN-BBAD Voting Summary
17-013	04-11-2017	Roy McClellan	TIA-PN-BBAD Vote Comments
17-014	05-25-2017	Roy McClellan	June 2017 Meeting Notice-Agenda
17-015	06-20-2017	Roy McClellan	June 2017 Activity Report
17-016	07-24-2017	Roy McClellan	TIA Approved Meeting Report 2017-06-20
18-001	01-09-2018	Jim Eastwood	June 2017 Attendance Log - Next Meeting Vote Eligibility
18-002	01-12-2018	Jim Eastwood	June 2017 Meeting Report
18-003	01-12-2018	Jim Eastwood	February 2018 Meeting Notice-Agenda
18-004-R1	02-06-2018	Jim Eastwood	February 2018 Activity Report
18-005-R2	10-16-2018	Jim Eastwood	Two-Slot TDMA Document Suite Proposal
18-006	03-05-2018	Jim Eastwood	February 2018 Attendance Log -Next Meeting Vote Eligibility
18-007	03-05-2018	Jim Eastwood	February 2018 Meeting Report
18-008	05-16-2018	Jim Eastwood	June 2018 Meeting Notice-Agenda
18-009	06-19-2018	Jim Eastwood	June 2018 Activity Report
18-010	06-26-2018	Jim Eastwood	June 2018 Attendance Log -Next Meeting Vote Eligibility
18-011	06-26-2018	Jim Eastwood	June 2018 Meeting Report
18-012	08-21-2018	Jim Eastwood	October 2018 Meeting Notice-Agenda
18-013-R1	04-02-2019	Jim Eastwood	TIA-102.BBAC comment matrix
18-014-R7	09-23-2019	Jim Eastwood	Two-Slot TDMA MAC Layer Specification draft proposal
18-015	10-16-2018	Jim Eastwood	Comment Template for 18-014
18-016-R1	04-16-2018	Jim Eastwood	TIA-102.BBAD comment matrix
18-017-R9	09-26-2019	Jim Eastwood	Two-Slot TDMA MAC Layer Messages draft proposal
18-018	10-16-2018	Jim Eastwood	Comment Template for 18-017
18-019	10-16-2018	Jim Eastwood	October 2018 Activity Report
18-020	11-05-2018	Jim Eastwood	October 2018 Attendance Log -Next Meeting Vote Eligibility
18-021	11-05-2018	Jim Eastwood	October 2018 Meeting Report
18-022	11-19-2018	Jim Eastwood	Motorola Comments on 18-014
19-001	01-02-2019	Jim Eastwood	February 2019 Meeting Notice-Agenda
19-002-R4	06-11-2019	Jim Eastwood	Two-Slot TDMA MAC Layer Procedures draft proposal
19-003	01-10-2019	Jim Eastwood	Editor's Notes for 19-002
19-004	01-10-2019	Jim Eastwood	Comment Template for 19-002
19-005-R1	02-05-2019	Jim Eastwood	February 2019 Activity Report
19-006	02-08-2019	Jim Eastwood	February 2019 Attendance Log -Next Meeting Vote Eligibility
19-007	02-08-2019	Jim Eastwood	February 2019 Meeting Report
19-008-R1	04-02-2019	Jim Eastwood	Combined Comments on 18-014

Number	Date	Author	Subject
19-009	03-08-2019	Josh Johnson	EF Johnson Comments on 18-017
19-010	03-15-2019	Jim Eastwood	Motorola Comments on 18-007
19-011-R1	04-16-2019	Jim Eastwood	Combined Comments on 18-017
19-012-R2	04-23-2019	Mac Hartless	Harris Comments on 19-002
19-013	04-25-2019	Jim Eastwood	June 2019 Meeting Notice-Agenda
19-014-R1	05-07-2019	Mac Hartless	Harris Comments on TIA-102.BBAD
19-015	05-07-2019	Jim Eastwood	Motorola Comments on 18-017-R3
19-016-R1	06-11-2019	Jim Eastwood	Motorola Comments on 18-014-R4
19-017-R1	06-11-2019	Jim Eastwood	Motorola Comments on 18-017-R4
19-018-R1	06-11-2019	Jim Eastwood	Motorola Comments on 19-002-R3
19-019-R1	06-18-2019	Jim Eastwood	June 2019 Activity Report
19-020	06-28-2019	Jim Eastwood	June 2019 Attendance Log -Next Meeting Vote Eligibility
19-021	06-28-2019	Jim Eastwood	June 2019 Meeting Report
19-022-R2	08-27-2019	Derek Wells	Harris ballot comment on 18-017-R5
19-023	07-26-2019	Jim Eastwood	TIA-PN-102.BBAC-A Ballot Summary Report
19-024	07-26-2019	Jim Eastwood	TIA-PN-102.BBAD-A Ballot Summary Report
19-025	07-26-2019	Jim Eastwood	TIA-PN-102.BBAE Ballot Summary Report
19-026-R2	09-23-2019	Jim Eastwood	Motorola Comments on 18-014-R5
19-027	08-30-2019	Jim Eastwood	October 2019 Meeting Notice-Agenda
19-028	09-25-2019	John Evans	L3Harris Post-Ballot Comments on 18-017-R7
19-029	09-26-2019	Jim Eastwood	Motorola Post-Ballot Comments on 18-017-R7
19-030-R1	10-08-2019	Jim Eastwood	Combined Post-Ballot Comments on 18-017-R7
19-031-R1	10-08-2019	Jim Eastwood	October 2019 Activity Report
19-032	10-28-2019	Jim Eastwood	October 2019 Attendance Log -Next Meeting Vote Eligibility
19-033	10-28-2019	Jim Eastwood	October 2019 Meeting Report
20-001	01-09-2020	Jim Eastwood	February 2020 Meeting Notice-Agenda
20-002	02-04-2020	Jim Eastwood	February 2020 Activity Report