

# DHS SCIENCE AND TECHNOLOGY

## Project 25 Compliance Assessment Program (CAP)

February 7, 2018



**Homeland  
Security**

Science and Technology

**Sridhar Kowdley**

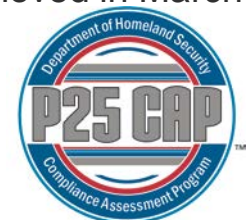
Program Manager

Office for Interoperability and Compatibility

Science and Technology Directorate

# P25 CAP Updates

- Summary Declaration of Compliance (SDOC) and Summary Test Report (STR)
  - Heard from industry and users alike that current P25 CAP documents are too cumbersome and not very useful
  - Developed draft documents that have streamlined reports to improve readability and usefulness, and reduce review and posting times
  - Draft documents have been shared with industry and laboratories; conducted webinars to review approach and solicit comments
  - Draft documents will be posted on P25 CAP website for final comment review period (30 day)
  - Highly recommend manufacturers and laboratories review and provide comments as they become available
- Deadline approaching for retesting equipment to 2016 Compliance Assessment Bulletin (CAB) (February 2018)
  - Laboratories and manufacturers can test to 2017 CAB (i.e., TDMA)
  - Vendors unable to make February 2018 deadline must request waivers documenting reason(s) for not making deadline and request additional time
  - Existing non-508 compliant SDOC/STR on DHS P25 CAP website will be removed in March 2018



# P25 CAP ISSI/CSSI Testing

- Shortfall of the P25 CAP is that there are no laboratories that can conduct Inter RF Subsystem Interface (ISSI)/Console Subsystem Interface (CSSI) testing
  - Cost associated with hosting multiple manufacturers' equipment and return on investment are barriers to entry
- To date, DHS S&T OIC has developed ISSI/CSSI Compliance Assessment Bulletins – these documents need to be updated
- DHS S&T OIC has developed a comprehensive approach to conduct ISSI /CSSI conformance testing by the end of calendar year 2018
- DHS S&T is actively seeking participation and support from users and manufacturers to support this aggressive timeline



# DHS OIC Approach for P25 CSSI/ISSI CAP Testing

- DHS S&T OIC, National Telecommunications and Information Administration (NTIA) Institute for Telecommunications Sciences (ITS), and Department of Interior (DOI) formed a partnership to support ISSI/CSSI P25 CAP testing for 2018-2020
- DHS S&T OIC will fund the establishment of an ISSI/CSSI testing laboratory leveraging DOI's existing P25 testing laboratory
  - DOI laboratory will become P25 CAP accredited laboratory and DHS-recognized accreditation body - same process as all laboratories
  - DOI will conduct pilot testing against ISSI/CSSI implementations
- NTIA will evaluate an ISSI/CSSI conformance test tool for compliance to standard and suitability for ISSI/CSSI P25 CAP testing
  - NTIA will verify test tool results against published TIA-102 ISSI/CSSI messages and procedures documents
  - Test tool shall support the test cases in the P25 CAP CAB at a minimum
  - Must verify messages for defined mobile Subscriber Unit (mSU)/ console Subscriber Unit (cSU) roles and group roles in test cases



# Proposed ISSI Conformance Features to be P25 CAP Tested

- Preliminary features developed and approved by P25 CAP and includes both Frequency and Time Division Multiple Access (FDMA and TDMA)
- CAB documentation will be updated accordingly; comments welcome
- ISSI - Voice Conformance Test Subjects
  - Unit Registration
  - Group Registration
  - Unconfirmed Group Call
  - Emergency Group Call
  - Confirmed Group Call
- ISSI - Supplementary Data Conformance Test Subjects
  - Emergency Alarm
  - Call Alert



# Proposed CSSI Conformance Features to be P25 CAP Tested

- Preliminary features developed and approved by P25 CAP and includes both FDMA and TDMA
- CSSI - Voice Conformance Test Subjects
  - Group Registration
  - Unconfirmed Group Call
  - Emergency Group Call
  - Confirmed Group Call
  - Unit to Unit Call
- CSSI - Supplementary Data Conformance Test Subjects
  - Emergency Alarm
  - Emergency Alarm Cancel
  - Group Emergency Cancel
  - Call Alert



# DHS OIC Requests Updates to TIA Standards

- **Based on the review of the published ISSI/CSSI Conformance Test Documents**
  - Needs TDMA updates to the TIA-102.CACC ISSI Conformance Test Procedures (Jan 2009)
  - Needs P25 CAP Supplementary Data test cases to the DRAFT TIA-102.CACF ISSI Conformance Test Procedures for Supplementary Data Services (Version 3) (Feb 2011)
  - Needs P25 CAP CSSI test cases, including TDMA updates to the DRAFT TIA-102.CACC-2 Project 25 ISSI Conformance Test Procedures Addendum 2 – Trunked Console, RFSS Service Capability Polling, and TIA-102.CACC Erratum (Version 1) (August 2011)
- DHS S&T OIC requests expedited updates to the above documentation; in the meantime, DHS S&T will use available TIA 102 standards document to define test cases



# ISSI/CSSI Conformance Testing Program Timeline

- Conformance Test Requirements CAB – April 2018
- Verified Test Tool – May 2018
  - Test tool information and process for verification and validation will be made available by end of 2018
- Accredited Conformance Test Lab – target 2018
  - Schedule dependent on accreditation bodies and ISO documentation to be developed by DOI
  - Documentation will be available
- Pilot Lab/Field Testing – June through August 2018
- Test Results Available – September/October 2018





# DHS OIC Request for TR-8

- DHS S&T OIC requests review and comment of P25 CAP CABs during the 30-day public comment period
  - Draft P25 CAP CAB for ISSI/CSSI (target date: April 2018)
- DHS S&T OIC requests those interested in participating in the pilot testing and ISSI/CSSI conformance testing reach out to P25 CAP
  - Users with ISSI/CSSI
  - Laboratories
  - Manufacturers of ISSI/CSSI
- Results from pilot testing will be shared with participating agencies
- Cooperative Research and Development Agreement (CRADA) terms and conditions will apply to manufacturers who participate in the pilot program



# P25 CAP Resources

- One-stop shop website: [www.dhs.gov/science-and-technology/p25-cap](http://www.dhs.gov/science-and-technology/p25-cap)
  - Lists of P25 CAP compliant equipment along with supporting documentation
    - Summary Test Reports (STR) and Suppliers' Declaration of Compliance (SDOC)
  - Participating P25 CAP recognized labs
  - Latest Compliance Assessment Bulletins
  - P25 CAP Advisory Panel
- Questions? Contact us:
  - [P25CAP@hq.dhs.gov](mailto:P25CAP@hq.dhs.gov) (for all P25 CAP questions)
  - [P25support@hq.dhs.gov](mailto:P25support@hq.dhs.gov) (for all other P25 issues, questions and concerns)





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