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Thursday, September 1, 2016

P25 CAP is out of the ICU, but still in Recovery

The P25 Compliance Assessment Program (P25 CAP) Advisory Panel (AP) held its second in-person meeting on August 17, 2016, in Orlando, FL, during the APCO International Conference. The stated purpose was to implement P25 policies, identify priorities, establish the path forward, increase awareness of the P25 CAP AP and how it can positively impact P25.

The room was “packed” with 57 users, manufacturers, associations, Public Safety agency representatives, other interested parties and Department of Homeland Security (DHS) Science and Technology Directorate (S&T) officials and staff who convened the meeting. The morning session included presentations by Sridhar Kowdley, DHS-S&T Program Manager, and by Fire Chief Gerald Reardon, City of Cambridge Massachusetts Fire Departments, P25CAP AP Chair. In the afternoon a lively and substantive Q&A session involved the P25 CAP panel members, those attending in-person and on the phone and questions submitted prior to the meeting were answered too.

Many thought the P25 CAP was “dead” a couple of years ago. After a transfusion of DHS-S&T leadership, new energy, additional staff, appointment of a well-qualified Advisory Panel and continued strong support from industry, the P25 CAP is out of the “ICU.” Showing strong signs of life now, P25 CAP has definitely moved to “Recovery,” but much work is remaining to get the patient fully back on its feet.

Existing P25 CAP Documents

Summary Test Reports (STRs) and Suppliers’ Declaration of Compliance (SDoCs) previously available at FirstResponder.gov are being migrated to <https://www.dhs.gov/science-and-technology/p25-cap>. However, no docs are currently available at the new site “We are working to post all previously published P25 CAP materials ... as soon as possible,” according to DHS-S&T.

The delay is due to pending compliance of Section 508 of the Rehabilitation Act of 1973, strict guidelines for colors, fonts, tables, forms, images and other formatting options. In the interim, a spreadsheet listing all previously published STRs and SDoCs, is available at <https://www.dhs.gov/sites/default/files/publications/P25-CAP-tested-equipment-list-508.pdf>.

New Compliance Assessment Bulletins (CAB's)

New CABs have replaced those published in March 2010 and may be found at <https://www.dhs.gov/science-and-technology/p25-cap>

P25-CAB-LAB_BASE_REQ	Baseline requirements for attaining recognition as a P25 CAP laboratory.
P25-CAB-LAB_EQP_REQ	Laboratory equipment requirements for attaining recognition as a P25 CAP laboratory
P25-CAB-TEST_REQ	P25 interfaces covered by CAP and when SDOC's and STR's are required.
P25-CAB-CAI_TEST_REQ	Common Air Interface Baseline Testing Requirements.
P25-CAB-ISSI_TEST_REQ	Inter-RF Sub-System Baseline Testing Requirements
P25-CAB-SDOC_REQ	Supplier's Declaration of Compliance Requirements
P25-CAB-STR_REQ	Summary Test Report Requirements

Existing STRs/SDoCs will stay on the DHS website until 8/17/16. Labs may continue testing to the March 2010 CAB's until 8/16/17 and vendors may post documents. However, new STRs/SDoCs but must be resubmitted by 8/16/17. No retesting is needed if a test and the product has not changed, however if a retest is required if the test has changed, or has an addition and/or the product has changed. It is the vendor's responsibility to analyze the delta and determine if a retest is needed. NIST staff will review each new submission and will not approve if they feel a full test should have been run.

You must test all the P25 features and services within the radio. DHS said "if the radio is capable of the thing you must test the thing."

All test results submitted must be 508 compliant or they will be delayed or returned. DHS will conduct webinars to train SDOC/STR submitters to follow the correct style and format. Please e mail p25CAP@hq.dhs.gov if you are interested in attending. Previously posted STRs/SDoCs on the DHS website will be taken down if they are not resubmitted by 8/16/17.

Problems with the New Cabs

The P25 CAP AP has discovered some problems with dates and specific language in the new CAB's. They plan to revise them prior to re-accreditation of the labs. Although these are "governing CAB's now", we should expect them to change. According to DHS-OIC "This CAB will be replaced with another using some of the language of the 2008 version. This one is not correct in its current version." And "Many dates in the CABS are not synchronized, but all dates will be synchronized soon."

These CAB's were published without industry collaboration due to time pressures on DHS. "We have been trying to get these out for several years. ...we are going back to pull back the 2008 version ... this is not an end run on the manufacturers." Many attendees expressed the desire for more transparent collaboration in the future to produce a better result for all stakeholders.

How to Create New CAB's

Any interested party may propose new CAB's to the P25 CAP AP. One manufacturer has already submitted a draft CAB for CSSI, and TIA TR8 is continuing to submit Recommended Compliance Assessment Tests (RCAT's). DHS-OIC said they will make the final decision on new CAB's "with the advice and counsel of the CAP AP." This drew an immediate response from a prominent member of the Public Safety community, "If the TIA CAP AP recommends something and DHS goes the other way it will be a disaster."

New P25 CAP Advisory Panel

Fire Chief Gerald Reardon (Chair) - City of Cambridge Massachusetts Fire Department
Roger Strobe (Vice Chair) - State of Missouri
Jason Ervin – Lower Colorado River Authority, Texas
John Evanoff - Federal Communications Commission
Joseph Heaps - National Institute of Justice
Arnold Hooper - State of Tennessee
Chris Kindelspire - Grundy County, Illinois
Mike Kionka - State of Colorado
Morton Leifer - Town of Clarkstown, New York
Dan Robinson - State of Michigan

P25 CAP AP Priorities

1. Outreach and education
2. Resolve confusion on P25 CAP, Statement of Requirements and P25 Standards
3. Enhance the P25 CAP dialogue among all stakeholders
4. Publish a minimum required P25 CAP feature set as a CAB
5. Engage end users in development of requirements
6. Determine receive-only P25 CAP testing approach
7. CAB's to support Phase 2 TDMA
8. Encourage ISSI and CSSI lab assessments
9. Update ISSI/CSSI CAB's
10. CAB's for conventional conformance testing
11. P25 CAP testing under FCC 700 MHz rules
12. Strengthen SAFECOM grant guidance

ISSI/CSSI lab assessments

This was a hot topic since there are no recognized labs for ISSI CAP testing. A priority for the Panel, they asked for suggestions on how to conduct ISSI CAP testing in lieu of a permanent test lab. Several technical, compliance, accreditation and regulatory issues when considering ISSI CAP testing at remote locations were discussed.

CSSI CAB's

A vendor has offered a draft CAB for the CSSI and the CAP AP will offer it to all for review. It will be posted on the website followed by "mass" emails sent out for review and comment. Currently, TIA TR-8.25 is working on updating the Trunking ISSI RCAT to include Trunking CSSI testing and TIA TR8:19 is working on a trunking ISSI/CSSI messaging doc errata revision. Developing these new CAB's offers another opportunity for collaboration between TIA and the P25 CAP AP which could benefit all stakeholders.

Model Class Issues

If a manufacturer offers several versions of a P25 radio with a hierarchy of features, how many versions should they test? Increased cost would result from testing every version and all the tests can't be done anyway if the hardware does not support a feature i.e. display.

Manufacturers don't need to test multiple devices if test results would be the same across all. If you have a feature limited model submit a separate SDOC and STR for that limited model. Sridhar stated that "the Model Class definition in the published CABs does not address the current issue about Model Class test result reporting. DHS intends to work with stakeholders to improve this. Ideally, this would be completed before manufacturers are ready to post new SDoCs/STRs."

P25 CAP AP Vice Chair Roger Strobe added "one document should not show different test results, one document for each model-class."

Model class definitions were being worked by TIA but this input may not have been available when the new CABs were released. Resolving the model class issue could be another great opportunity for TIA and P25CAP AP collaboration.

Compliance Testing is a full service test lab please contact us if you need additional information about P25 testing or if you have another product certification need like FCC, IC, CE or SAR.