Homeland Security

Science and Technology

U.S. Department of Homeland Security
Washington, D.C. 20528

MEMORANDUM FOR: Nathalie M. Rioux
National Institute of Standards and Technology (NIST)
International Standards Policy & Coordination

FROM: Renee Stevens
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SUBJECT: Annual DHS National Technology Transfer and Advancement Act **(NTTAA)** on Fiscal Year **2023** Standards Activities and Identification of DHS Component Standards Executives

DATE: February 26, 2024

Attached is the annual Department of Homeland Security (DHS) National Technology Transfer and Advancement Act (NTTAA) Report to the National Institute of Standards and Technology (NIST) on Fiscal Year 2023 Standards Activities and the Identification of DHS Component Standards Executives**.** The DHS Science and Technology Directorate (S&T), through the Office of Science and Engineering (OSE), Systems Engineering & Standards (SES), responds to the NTTAA on behalf of DHS regarding the Department's use of voluntary consensus standards and conformity assessment activities. Activities are made public and reported to Congress through the Office of Management and Budget (OMB).

Per the NTTAA and the revised OMB Circular A-119, DHS reports on the following two questions:

> *1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.*
> *2. Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2023. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY).*

In addition to facilitating federal participation in the development of voluntary consensus standards and conformity assessment activities, DHS S&T's FY23 standardization activities

included the coordination of activities in response to the National Standards Strategy for Critical and Emerging Technology and the Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence. DHS S&T Standards coordinated the Department's active involvement in early-stage AI-related standards development with a focus on expanding participation and leadership in AI standards activities where the government serves as the official representative, particularly in areas addressing risk factors (encompassing threats, vulnerabilities, and consequences) and accounting for security considerations.
DHS S&T Standards continues to participate in the Interagency Committee on Standards Policy (ICSP) and co-chairs the AI Standards Coordination Working Group (AISCWG) alongside NIST. DHS S&T facilitated participation of DHS operational components in AI/ML SDO committees/subcommittees by connecting DHS component SMEs with SDOs actively developing AI/ML consensus standards. DHS S&T Standards maintains that standards can be used to support the building of tools, development of methods, and facilitation of community engagement to guide the design of regulatory and enforcement regimes for the mitigation of AI threats. Advancing trustworthy AI technology via standards protects people's rights and safety, making the Nation's progress possible.

All questions or additional requests for information should be communicated to DHS S&T OSE via Standards@hq.dhs.gov and renee.stevens@hq.dhs.gov .

Attachments

1. Attachment 1 FY23 NTTAA DHS Report
2. Attachment 2 DHS Component Standards Executives Update

Attachment 1

Department of Homeland Security (DHS) Fiscal Year 2023 NTTAA Report

DHS's FY2023 NTTAA Agency Annual Report
Component Responses

Department of Homeland Security (DHS) Fiscal Year 2023 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The Department of Homeland Security (DHS) standards policy was established as part of the Homeland Security Act of 2002, incorporating the National Technology Transfer and Advancement Act of 1995 and the Office of Management and Budget Circular A-119. Implementation of the Circular was delegated to the Under Secretary for Science and Technology by the Secretary of Homeland Security.

A summary of DHS Components that were active in FY2023 in carrying out the provisions of OMB Circular A-119 includes multiple divisions and components. For more information about DHS, see www.dhs.gov. Summaries of the received responses are presented in the following pages and categorized by Component.

CBP

The U.S. Customs and Border Protection (CBP) Laboratories and Scientific Services **utilizes** consensus standards from the following groups:

- AAFS – American Academy of Forensic Sciences
- AATCC - American Association of Textile Chemists and Colorists
- ABC - American Board of Criminalistics
- ACS – American Chemical Society
- AIC - Arizona Identification Council (AIC)
- ANAB - ANSI National Accreditation Board
- ANSI - American National Standards Institute
- AOAC – Association of Official Agricultural Chemists
- API - American Petroleum Institute
- ASB - Auditing Standards Board (under American Institute of Certified Public Accountants)
- ASCP - American Society for Clinical Pathology

- ASME - American Society of Mechanical Engineers
- ASTM - American Society of Testing and Materials
- ASTM- ASTM International (formerly American Society for Testing and Materials)
- CFSRE – Center for Forensic Science Research & Education
- CFTT - National Institute of Standards (NIST) Computer Forensics Tool Testing Program
- CSAFE – Center for Statistics and Application in Forensic Evidence
- IACIS - International Association of Computer Forensic Examiners
- IAI - International Association for Identification
- ICUMSA - International Commission for Uniform Methods of Sugar Analysis
- ISO – International Organization for Standardization
- IEEE - Institute of Electrical and Electronics Engineers Standards Association
- NAFTZ - National Association of Free Trade Zones
- NFPA - National Fire Protection Association
- OSAC - Organization of Scientific Area Committees for Forensic Science
- SAE - Society of Automotive Engineers
- SAFS - Southern Association of Forensic Scientists
- SANS - SANS Institute Best Practices (SysAdmin, Audit, Network and Security)
- SWAFS - Southwestern Association of Forensic Scientists
- SWGDE - Scientific Working Group on Digital Evidence
- SWGDRUG – Scientific Working Group for the Analysis of Seized Drugs
- TIC Council - Testing, Inspection, and Certification Council (formerly IFIA – International Federation of Inspection Agencies)
- USP – US Pharmacopeia
- Government Standards:
- CISA – Cybersecurity and Infrastructure Security Agency
- EPA – Environmental Protection Agency
- CBP-LSS is directly involved in the development of consensus standards for the following:
    - ASTM – American Society of Testing and Materials
    - D02 Committee – Petroleum Products, Liquid Fuels, and Lubricants
    - E30 Committee - Forensics
    - API – American Petroleum Institute
    - COPM – Committee on Petroleum Measurement Standards Meeting
    - OSAC - NIST Organization of Scientific Area Committees for Forensic Science Dogs and Sensors Subcommittee (affiliate member)
    - AIC - Member, Board of Directors
    - CBP-LSS uses agency-specific standards under the CBP Lab Methods (CBPL Method) that often "incorporate by reference" consensus standards from ASTM, ANSI, and other groups: Technical Documents: Laboratory Methods | U.S. Customs and Border Protection (cbp.gov)

CISA

The Cybersecurity and Infrastructure Security Agency (CISA) partners with standards organizations, consistent with CISA authorities, strategic intent, and DHS International Cybersecurity priorities, to drive policies and create standards to improve interoperability and automate cybersecurity operations, among other outcomes. CISA works with domestic and international partners and engages in standards development at the national and international levels. CISA participates in the following standards bodies:

- 3rd Generation Partnerships Project (3GPP),
- Institute of Electrical and Electronic Engineers (IEEE)
- International Telecommunication Union (ITU)
- Global Systems for Mobile Communication Alliance (GSMA)
- Internet Engineering Task Force (IETF)
- Alliance for Telecommunications Industry Standards (ATIS)
- Wi-Fi Alliance, O-RAN Alliance
- Wireless Broadband Alliance
- OASIS Open

Within those bodies, CISA participates to monitor, support, and influence standards development activities relevant to agency mission objectives.

	CISA Engagement		
Standards Body	Subcommittees/working groups, etc.	What technology/technologies does the subcommittee/group set standards for?	Other relevant activities or information
3rd Generation Partnership Project (3GPP)	3GPP	Cellular telecommunications technologies, including radio access, core network and service capabilities, and system description for mobile telecommunications.	CISA ECD participates to **influence** standards work in support of mission objectives for NS/EP Priority Services for Voice, Video, and Data in 3GPP Systems (e.g., 4G and 5G mobile systems). Also, to ensure NS/EP Priority Services coexistence with other priority services (e.g., Emergency and Mission Critical Services for Group Type Communications).

	3GPP SA1	Services	CISA ECD participates to **influence** stage 1 (service description) specifications for Multimedia Priority Service (MPS) and to ensure MPS support in evolving 3GPP systems (e.g., 5G) and emerging service features.
	3GPP SA2	Architecture	CISA ECD participates to **influence** stage 2 (architecture requirements) specifications in support of priority features for MPS.
	3GPP SA3	Security	CISA ECD participates to **support** 4G and 5G security solutions benefiting MPS.
	3GPP SA5	Management, orchestration, and charging	CISA ECD **actively monitors** work for MPS interests.
	3GPP SA6	Mission critical applications	CISA ECD **actively monitors** work to ensure MPS coexistence with MCS.
	3GPP CT1	User Equipment - Core Network Protocols	CISA ECD participates to **influence** protocol specifications in support of priority features for MPS.
	3GPP CT3	Interworking with External Networks	CISA ECD participates to **influence** CT3 (e.g., policy, interconnection) specifications in support of priority features for MPS.
	3GPP CT4	Core Network Protocols	CISA ECD participates to **influence** CT4 (e.g., HTTP-based APIs) specifications in support of priority features for MPS.
	3GPP RAN1	Radio Layer 1	CISA ECD participates to **influence** RAN1 work in support of priority features for MPS.
	3GPP RAN2	Radio Layer 3 and Radio Layer 3	CISA ECD participates to **influence** RAN2

			work in support of priority features for MPS.
	3GPP RAN3	UTRAN/E-UTRAN architecture and protocols for the Iu, Iur, Iub, S1 and X2 interfaces	CISA ECD participates to **influence** RAN3 work in support of priority features for MPS.
	3GPP RAN4	Performance and protocol aspects	CISA ECD **passively monitors** work for MPS interests.
Institute of Electrical and Electronic Engineers (IEEE)	IEEE 802 LAN/MAN Standards Committee (LMSC)	Local, metropolitan, and other area networks standards	CISA ECD participates to **influence** work to support NS/EP Priority Services in WLAN access networks (a.k.a WiFi networks).
	IEEE 802.11 WG	Wireless Local Area Network (WLAN) Standards	CISA ECD participates to **influence** work to define a NSEP Priority Access feature for ethernet PHY/MAC protocol.
	IEEE 802.11be (TGbe)	Task group for WLAN enhancement	CISA ECD participates to **influence** work to define a NSEP Priority Access feature for ethernet PHY/MAC protocol.
	IEEE 802.11TGm	Task Group for revising and updating the IEEE 802.11 Standards	CISA ECD participates to **influence** work to define a NSEP Priority Access feature for supporting previous generation of WLAN PHY/MAC protocols.
	IEEE 802.11 UHR (Ultra High Reliability)	Study Group for next generation IEEE 802.11 Amendment	CISA ECD participates to **influence** work to define a NSEP Priority Access feature for next generation WLAN PHY/MAC protocol.
International Telecommunication Union (ITU)	ITU Telecommunication Sector (ITU-T)	Telecommunications Standards	CISA ECD **monitors** ITU-T activities for relevance to mission objectives related to NS/EP Priority Services support in global standards.

	ITU-T Study Group 11	Signaling requirements, protocols, test specifications and combating counterfeit products	CISA ECD **actively monitors** SG11 activities (signaling and protocol) for work on Emergency Telecommunications Service (ETS) (ITU-T term for NS/EP Priority Services).
	ITU-T Study Group 13	Future networks, with focus on IMT-2020, cloud computing and trusted network infrastructures.	CISA ECD **passively monitors** SG13 activities for work on ETS.
	ITU-T Study Group 17	Telecommunications and ICT Security	CISA ECD **passively monitors** SG17 activities for global standards on public network security benefiting NS/EP Priority Services security.
	ITU-T FG-AI4NDM	ITU-T Focus Group on AI for Natural Disaster Management	CISA ECD participates to **passively monitor** work for relevance to ECD mission objectives.
	US State Dept Coordination	US State Dept interagency coordination for ITU	CISA ECD participates in the US State Department interagency coordination process in support of ECD mission objectives.
Global Systems for Mobile Communication Alliance (GSMA)		Mobile network roaming and interoperability	CISA ECD monitors work for relevance to ECD mission objectives.
	GSMA Networks Group	Specifications for 5G Roaming and Interoperability	CISA ECD participates to **influence** work defining an MPS attribute in the GSMA Generic Slice Template specification.
Internet Engineering Task Force (IETF)		Internet Protocol (IP) Standards	CISA ECD participates to **influence** work relevant support of NS/EP Priority Services over IP transport networks.
	Secure Telephone Identity Revisited (stir)	Secure Telephone Identity (STI) Protocols	CISA ECD participates to **influence** work relevant to mission

			objectives for NS/EP Priority Services over IP transport networks.
	Automated Certificate Management Environment (acme)	ACME protocols and API	CISA ECD **actively monitors** work relevant to mission objectives for NS/EP Priority Services over IP transport networks.
	Transport Area Working Group (tsvwg)	IP transport and routing protocols	CISA ECD **influence** work relevant to mission objectives for NS/EP Priority Services over IP transport networks.
	Adaptive DNS Discovery (add)	DNS protocols	CISA ECD **actively monitors** work relevant to mission objectives for NS/EP Priority Services over IP transport networks.
	Traffic Engineering (TE) Architecture and Signaling (teas)	Network Slicing	CISA ECD **actively monitors** work relevant to mission objectives for NS/EP Priority Services over IP transport networks.
	Transport Layer Security (tls)	Transport Security	CISA ECD **actively monitors** work relevant to mission objectives for NS/EP Priority Services security and Privacy
	Messaging Layer Security (mls)	Message security for Groups	CISA ECD **actively monitors** work relevant to mission objectives for NS/EP Priority Services security and Privacy
	Remote Attestation Procedures (rats)	Remote Attestation	CISA ECD **actively monitors** work relevant to mission objectives for NS/EP Priority Services security and Privacy
Alliance for Telecommunications Industry Standards (ATIS)		National Telecommunications Standards	CISA ECD participates to **influence** work to define national specific aspects for NS/EP Priority Services using global standards features (e.g., 3GPP, IETF).

	Packet Technologies and Systems Committee	Services, architectures, and signaling,	CISA ECD participates to **influence** work to define national standards for NS/EP Priority Services for Voice, Video, and Data.
	ATIS/SIP Forum IP-NNI Task Force	IP Network-to-Network Interconnections	CISA ECD participates to **influence** work to allow interconnection and interoperability of NS/EP Priority Services for Voice, Video, and Data.
	Wireless Technologies and Systems Committee	Wireless/mobile telecommunications networks in the U.S.	CISA ECD participates to **influence** work relevant to support of NS/EP Priority Services for Voice, Video, and Data.
	5G North American Needs Focus Group	Coordinate North American Needs in 3GPP	CISA ECD participates to **influence** need for NS/EP Priority Services.
	5G Supply Chain Working Group	Development of ATIS standards on supply chain	CISA ECD participates to **passively monitor** work relevant to ECD mission objectives for NS/EP Priority Services.
	Next G Alliance	Development of the National Roadmap for 6G and Beyond.	CISA ECD participates to **passively monitor** work relevant to ECD mission objectives for NS/EP Priority Services.
WiFi Alliance		Development of requirements and test programs for Wi-Fi interoperability	CISA ECD participates to **influence** work to define a NSEP Priority Access features for WLAN PHY/MAC protocol interoperability.
	Wi-Fi 7 Marketing Task Group (MTG)	Development of use cases, requirements and features for Wi-Fi interoperability	CISA ECD participates to **influence** work to define a NSEP Priority Access feature for WLAN PHY/MAC protocol interoperability.

	Wi-Fi 7 Technical Task Group (MTG)	Development of test-cases, Test and Validation for Wi-Fi interoperability	CISA ECD participates to **influence** work to define a NSEP Priority Access feature for WLAN PHY/MAC protocol interoperability.
	Wi-Fi Optimized Connectivity Experience (OCE) Task Group (Marketing and Technical)	Development of requirements, features and use cases for Wi-Fi QoS interoperability	CISA ECD participates to **influence** WLAN QoS work relevant to ECD mission objectives for NS/EP Priority Services.
O-RAN Alliance		Defining architecture and solution for intelligent, open, virtualized and fully interoperable Radio Access Networks	CISA ECD participates to actively monitor work relevant to mission objectives for NS/EP Priority Services
Wireless Broadband Alliance		Standards and guidelines for NextGen Wi-Fi, OpenRoaming, 5G and IoT.	CISA ECD **monitors** to determine relevance to mission objectives for NS/EP Priority Services support in Wi-Fi access networks and OpenRoaming solution
OASIS Open	Automated Course of Action Operations (CACAO) for Cyber Security TC	Defining the standard for implementing course of action playbooks for cybersecurity operations.	CISA CSD participants to **influence** work relevant to CSD mission objectives.
	Common Security Advisory Framework (CSAF) TC	Standardizing automated disclosure of cybersecurity vulnerability issues	CISA CSD participants to **influence** work relevant to CSD mission objectives.
	Cyber Threat Intelligence (CTI) TC	Supporting automated information sharing for cybersecurity situational awareness, real-time network defense, and sophisticated threat analysis	CISA CSD participants to **influence** work relevant to CSD mission objectives as a co-chair of the Interoperability subcommittee.

CWMD

In 2023, Countering Weapons of Mass Destruction Office (CWMD) continued activities in accordance with OMB Circular A-119 which directs that "agencies must consult with voluntary consensus standards bodies in the development of standards when consultation and participation is in the public interest and is compatible with their missions, authorities, priorities, and budgetary resources." To this end, CWMD continued to sponsor and participate in the development and maintenance of the Institute of Electrical and Electronics Engineers (IEEE) and

American National Standards Institute (ANSI) voluntary consensus standards for radiation and nuclear threat detection systems used in homeland security and American Society for Testing and Materials (ASTM) International voluntary consensus standards for biological threat detection systems. The CWMD Standards Program participated in the development and publication of IEEE N42.62: Standard for Passive Imaging Radiation Devices (PIRDs) for the Localization and Identification of Radioactive and Nuclear Materials. The Program also held initial planning meetings and published an IEEE Project Authorization Request (PAR) to commence the revision of the IEEE N42.35 standard for Radiation Portal Monitors in 2024. CWMD supported the development and publication of a new ASTM Standard developed by a CWMD sponsored ASTM Standards Working Group, the "Standard Specification for Field Screening Devices Used for Identification of Biological Agents" (ASTM E3394-23) and the associated Test Method (ASTM E3395-23). CWMD also supported the establishment of an ASTM Task Group, WK83732, to develop a Data Format Standard for Biodetection Instruments. CWMD participated with the U.S. Committee for International Electrotechnical Commission (IEC) international standards for radiation detection systems. In 2023 the IEC initiated the formation of a Standards Working Group for the development of a standard for radiation detection equipment replay tools. CWMD continued to sponsor free access to IEEE Series N42 standards for radiation detection for homeland security that are available at: https://ieeexplore.ieee.org/browse/standards/get-program/page.

The government-unique standards that are currently in use by CWMD are as follows:

Document Number	*Document Title/Designation*	*Publication Date*	*New in 2023? (Yes or No)*	*Notes*
500-DNDO-117250v2.0	Technical Capability Standard for Handheld Instruments Used for the Detection and Identification of Radionuclides	November 2019	No	These Technical Capability Standards were developed in collaboration with NIST in accordance with Congressional direction in the Safe Port Act of 2006. They were specifically developed to supplement existing voluntary consensus standards and do not duplicate or contradict them.
500-DNDO-119420v0.00	Technical Capability Standard for Backpack Based Radiation Detection Systems	August 2013	No	Same as above
500-DNDO-119430v0.00	Technical Capability Standard for Vehicle Mounted Mobile Systems	August 2013	No	Same as above

500-DNDO-119430v0.00	Technical Capability Standard for Aerial Mounted Radiation Detection Systems	February 2017	No	Same as above
500-CWMD-130170v0.00	Technical Capability Standard for Radiation Portal Monitor Systems with Energy Analysis Capability	November 2019	No	Same as above

FEMA

The Federal Emergency Management Agency (FEMA)/Resilience/Floodplain Management Division staff participate as members of a committee involved in updating ASCE 24-24 Flood Resistant Design and Construction to ensure the consensus standards comply with the minimum standards set forth in Code of Federal Regulations, Part 60 – Criteria For Land Management and Use, Subpart A-Requirements for Flood Plain Management Regulations which sets forth participation requirements for communities for the National Flood Insurance Program, specifically 60.3 (https://www.ecfr.gov/current/title-44/chapter-I/subchapter-B/part-60). Additional information can be obtained at FEMA, Floodplain Management, https://www.fema.gov/floodplain-management. FEMA provides subject matter experts to participate on design standards committees and the update cycles of the ICodes. These standards include:

- ICC 500: Standard for the Design and Construction of Storm Shelters
- ICC 600: Standard for Residential Construction in High Wind Regions
- ASCE 7: Minimum Design Loads and Associated Criteria for Buildings and Other Structures ASCE/SEI/AMS: Wind Speed Estimation Standard
- ASCE 24:Flood Resistant Design and Construction
- ASCE/SEI 41: Seismic Evaluation and Retrofit of Existing Buildings
- ICC 605: Standard for Residential Construction in Regions with Seismic Hazard
- ASTM E3075: Standard Test Method for Water Immersion and Drying for Evaluation of Flood Damage Resistance; ASTM Flood Damage Resistance Rating of Materials and Assemblies
- ICC 1300: Standard for the Vulnerability-Based Seismic Assessment and Retrofit of One- and Two-Family Dwellings; and other applicable standards as needed. FEMA's building code-related resources can be found here: *Building Code Documents | FEMA.gov*."

FLETC

The Federal Law Enforcement Training Centers (FLETC) has reviewed OMB Circular A-119 and DHS Directive 078-04 and has determined that it is currently not involved in, nor actively participating with standards development organizations, to develop voluntary consensus

standards. FLETC will continue to examine its programs to ensure compliance with DHS Directive 078-04.

ICE

The U.S. Immigration and Customs Enforcement (ICE) Office of Firearms and Tactical Programs (OFTP) Ballistics Laboratory (BALLAB) conducts research and testing of ammunition, firearms, and other law enforcement equipment. The work conducted by the BALLAB includes communication with users to collect general requirements, ongoing market research and product testing, solicitation testing to assist the ICE Office of Acquisition Management (OAQ) in the acquisition process, and quality surveillance testing during the contract period of performance. The BALLAB uses standards created and administered by the Sporting Arms and Ammunition Manufacturers' Institute and International Organization for Standardization.

OHSS

Created in 2023, the Office of Homeland Security Statistics (OHSS) provides reports and statistical data covering a range of topics and domains. OHSS is led by the DHS Statistical Official and supported by the DHS Statistical Official Council (SOC), which consists of senior career officials appointed as Statistical Officials for each operational Component that provides data to OHSS. Through consensus of the DHS SOC, common homeland security statistical standards are adopted and applied. Standards are maintained and managed through a digital platform (Matrix by Collibra). OHSS is currently working to expand DHS statistical standards beyond the immigration domain, to include all homeland security domains.

PARM

Program Accountability and Risk Management (PARM) develops and maintains acquisition program management policy, procedures and guidance processes that provide for the use of voluntary consensus standards for engineering, logistics, and sustainment throughout the entire life cycle spectrum.

S&T Standards

S&T Standards (STN) serves to integrate and coordinate standards across DHS via R&D, acquisition, strategic sourcing, grants, regulation and rulemaking for implementation into DHS operational technology and procedures. STN does this in multiple ways:

- Direct consensus standards committee participation (INCITS, ASTM, NFPA, AIA, OASIS),
- Sponsoring foundational research for consensus standards development (IEEE, ASTM, OASIS, IEC)
- Providing standards access subscription services to DHS, and
- Administration of the DHS Standards Council, an intra-agency group chartered to (1) support the responsibility of the U/S of S&T to coordinate standards activities in the Department and (2) support the responsibilities of the agency Standards Executive as identified in OMB Circular A-119.

S&T TCD

S&T Technology Centers Division (TCD) operates and maintains the Project 25 Compliance Assessment Program (P25 CAP). P25 CAP is a voluntary program, which allows P25 radio manufacturers to publicly attest to their products' compliance to the P25 standard through P25 CAP testing at DHS-recognized laboratories. P25 CAP testing includes performance, interoperability and conformance testing. As proof, suppliers are required to submit Summary Test Report (STR) and Supplier's Declaration of Compliance (SDOC) documents. These documents are available on S&T's Approved (Grant-Eligible) Equipment web page. S&T does not develop P25 standards, rather they are developed by the Telecommunications Industry Association. S&T does participate in TIA meetings to promote standards development activities critical to public safety end users. Further, S&T works with stakeholders to develop test cases that are adopted as part of the P25 CAP. For more information on P25 CAP: https://www.dhs.gov/science-and-technology/p25-cap

- S&T TCD proactively promotes Standards for Resilient Positioning, Navigation and Timing (PNT) User Equipment through its involvement in IEEE 1952. This standard specifies technical requirements and expected behaviors for resilient Positioning, Navigation, and Timing (PNT) User Equipment (UE). The scope is limited to the reception, ingestion, processing, handling, and output of PNT data, information, and signals. Based on technical requirements, the standard defines different levels of resilience to enable users to select a level that is appropriate based on their risk tolerance, budget, and application criticality. This standard applies to UE that outputs PNT solutions, including PNT systems of systems, integrated PNT receivers, and PNT source components (such as Global Navigation Satellite System (GNSS) chipsets). S&T partially sponsors this working groups activities and is a voting member. Further information can be found here: https://sagroups.ieee.org/p1952/

- S&T TCD is committed to the continued development of wireless cellular communications standards including 5G/6G and beyond. S&T actively participates in 3GPP meetings, in coordination with DHS CISA and other U.S. Federal Government agencies. S&T has submitted work items to 3GPP working groups to ensure DHS

component equities are considered in new standards development. Further information can be found here: https://www.3gpp.org/

- DHS S&T TCD participates in the INCITS/Biometrics Technical Committee. This committee develops standards to support interoperability and data interchange among biometric applications, systems, and common file frameworks. Areas of focus are Biometric Vocabulary Harmonization, Biometric Technical Interfaces, Biometric Data Interchange Formats, Technical Implementation of Biometric Systems, Biometric Performance Testing, and Cross -Jurisdictional/Societal Aspects of Biometrics. Standardization efforts encompass Governmental and Commercial applications, both domestic and international. Specific activity includes:
- S&T TCD serves as editor for ISO/IEC 19795-10: Biometric Performance Testing and Reporting – Part 10: Quantifying Biometric System Performance Variation Across Demographic Groups. This standard will help establish the appropriate guidance to help government and industry organizations that deploy biometric technology to perform appropriate testing and report results. Most recently, on January 8, 2024, S&T completed a successful adjudication of national body comments received on Draft International Standard (DIS) 19795-10 within SC37 WG5. The accepted disposition of comments has been shared with ISO. Experts from USA, France, Australia, Germany, Japan, and FIDO Liaison contributed to the discussion. The next step is to prepare the Final Draft International Standard (FDIS) document by April which will be discussed at the next ISO meeting in June leading to a published standard by August 2024. https://www.iso.org/standard/81223.html

- DHS S&T TCD participates in ISO/IEC JTC 1/SC 37. The scope of ISO/IEC JTC 1/SC 37 is the "Standardization of generic biometric technologies pertaining to human beings to support interoperability and data interchange among applications and systems." ISO/IEC JTC 1/SC 37 is made up of six working groups (WGs), each of which carries out specific tasks in standards development within the field of biometrics. More specifically, DHS S&T participates in SC37/WG 5, "Biometric Testing and Reporting". Specific activity include:
    - ISO/IEC 30107, Information Technology – Biometric Presentation Attack Detection. This standard established terms and definitions that are useful in the specification, characterization, and evaluation of presentation attack detection methods. https://www.iso.org/standard/83828.html

- DHS S&T TCD participates in ISO/IEC JTC 1/SC17. The scope of ISO/IEC JTC/SC17 is "Cards and security devices for personal identification". DHS S&T actively participates in WG10, "Motor Vehicle Driver License and Related Documents (mDL). Specific projects include:
    - S&T TCD participates in ISO/IEC 23220 Issuance and Provisioning – binding the ID record to mobile devices. This standard specifies generic system architectures

and generic life-cycle phases of mobile eID systems in terms of building blocks for mobile eID system infrastructures. It standardizes interfaces and services for mdoc apps and mobile verification applications. https://www.iso.org/obp/ui/en/#iso:std:iso-iec:23220:-1:ed-1:v1:en.

- Specific activity includes: S&T TCD sponsored NIST development of a reference reader implementation for interoperability testing based on the international standard ISO/IEC 18013-5, which describes the interface, data structure and security protocols for interoperable mDL solutions. The standard established 1) interface specifications between mDL and mDL reader and 2) interface specification between mDL reader and issuing authority infrastructure. https://www.iso.org/standard/69084.html

- S&T TCD sponsored NIST development of a reference reader implementation for interoperability testing based on the international specification ISO/IEC 18013-7, which describes mDL add-on functions including the use online which is expected to the majority of interactions. S&T is partnering with the NIST National Cybersecurity Center of Excellence to accelerate adoption of identities on mobile devices by demonstrating cross-sector use cases cooperatively. Details can be found https://www.nccoe.nist.gov/projects/digital-identities-mdl. This specification can be found at https://www.iso.org/standard/82772.html

- S&T TCD participates in ISO/IEC 30107, Information Technology – Biometric Presentation Attack Detection. This standard established terms and definitions that are useful in the specification, characterization and evaluation of presentation attack detection methods. https://www.iso.org/standard/83828.html

- S&T TCD participates in the ANSI NIST ITL Standards Update, focused on the data format for the interchange of fingerprint, facial and other biometric information. https://www.nist.gov/programs-projects/ansinist-itl-standard

TSA

The Transportation Security Administration (TSA) continues to support and fund the development of the industry supported/sponsor data format standard “DICOS” (Digital Imaging and Communication in Security) through the governing body of NEMA (National Electrical Manufacturers Association). NEMA serves as both the facilitator for the development of the standard (with industry members participating in the development process) and publishing entity of the standard. This process and standard would be considered a “Voluntary Consensus” approach.

USCG

The Coast Guard (USCG) supports the provisions of OMB Circular A-119 and maintains one of the most robust standards programs in the Federal Government to meet our regulatory and research and development objectives. The Coast Guard remains committed to developing and adopting nationally and internationally recognized standards as a means to improve maritime safety, security, and marine environmental protection, and to promote the competitiveness of U.S. businesses in the global marketplace. Incorporating voluntary consensus standards helps the Coast Guard fulfill its regulatory functions more efficiently, develop the Government/industry partnerships crucial to stewardship, and gain valuable public feedback necessary for effective policy development. The Coast Guard aggressively supports a broad range of standards development organizations through funding, active engagement, and membership on numerous committees. This vigorous participation helps us raise and resolve genuine issues related to public safety, national security, and preservation of the marine environment with our industry partners.
The Coast Guard participates in the DHS Standards Council and the Interagency Council on Standards Policy. We also regularly collaborate with the National Institute for Standards and Technology Standards Directorate on training and conformity assessment issues. For additional information, access the link to the Director of Commercial Regulations & Standards, the agency's standards-specific website(s) where information about agency standards and conformity assessment related activities are available: http://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Commercial-Regulations-standards-CG-5PS)

The government-unique standards that are currently in use by USCG are as follows:

Document Number	*Document Title/Designation*	*Publication Date*	*New in 2023? (Yes or No)*	*Notes*
NA	Standard Alphabets for Highways Signs	1966	No	Federal Highway Administration (FHWA)
NA	The Ship's Medicine Chest and Medical Aid at Sea	1984	No	Dept. of Health and Human Services
55DC	Guideline: Codes For Named Populated Places, Primary County Divisions, And Other Locational Entities of the United States and Outlying Areas	1987	No	U.S. Department of Commerce
ZZ-H-451f	Hose, Fire, Woven-jacketed Rubber - or Latex or Rubber-Coated Fabric-lined, with couplings	1984	No	General Services Administration

MIL-C-24640A	Cables, Light Weight, Electric, Low Smoke, for Shipboard Use, General Specification for Supplement 1	1995	No	Department of Defense
MIL-C-24643A	Cables and Cords, Electric, Low Smoke, for Shipboard Use, General Specification for, Amendment 2	1996	No	Department of Defense
MIL-DTL-24640C	Cables, Lightweight, Low Smoke, Electric, for Shipboard Use	2011	No	Department of Defense
MIL-DTL-24643C	Cables, Electric, Low Smoke Halogen-Free, for Shipboard Use, General Specification for	2011	No	Department of Defense
MIL-W-76D	Wire and Cable, Hook-Up, Electrical, Insulated, General Specification for Amendment 1	2003	No	Department of Defense
MIL-HDBK-299(SH)	Cable Comparison Handbook Data Pertaining to Electric Shipboard Cable	1991	No	Naval Sea Systems Command (NAVSEA)
MIL-DTL-24643C	Detail Specification Cables, Electric, Low Smoke Halogen-Free, for Shipboard Use, General Specification for	2011	No	Department of Defense
MIL-C-24640A	Cables, Light Weight, Electric, Low Smoke, for Shipboard Use, General Specification for Supplement 1	1995	No	Department of Defense
MIL-C-24643A	Cables and Cords, Electric, Low Smoke, for Shipboard Use, General Specification for, Amendment 2	1996	No	Department of Defense
MIL-W-76D	Wire and Cable, Hook-Up, Electrical, Insulated, General Specification for Amendment 1	2003	No	Department of Defense

MIL-C-24640A	Cables, Light Weight, Electric, Low Smoke, for Shipboard Use, General Specification for Supplement 2	1995	No	Department of Defense
MIL-C-24643A	Cables and Cords, Electric, Low Smoke, for Shipboard Use, General Specification for, Amendment 3	1996	No	Department of Defense
MIL-HDBK-299(SH)	Military Handbook Cable Comparison Handbook Data Pertaining to Electric Shipboard Cable Notice 1	1991	No	Naval Sea Systems Command (NAVSEA)
FF 4-72.16	Standard for Mattress Flammability	2010	No	U.S. Department of Commerce
None	FCC Type Accepted Category 1, 406 MHz EPIRB	None	No	Federal Communications Commission (FCC)
304-2	Electrical Cable, Ratings and Characteristics	1987	No	Naval Sea Systems Command (NAVSEA)
PHS 84-2024	The Ship's Medicine Chest and Medical Aid at Sea	1984	No	Public Health Service
Federal Test Method Standard No. 191a, Method 5304.1	Abrasion Resistance of Cloth, Oscillatory Cylinder (Wyzenbeek) Method	1971	No	Department of Defense
595C	Colors Used in Government Procurement.	2008	No	General Services Administration
MIL-C-17415F	Military Specification, Cloth, Coated, and Webbing, Inflatable Boat and Miscellaneous Use	1989	No	Department of Defense
MIL-P-17549D(SH)	Military Specification, Plastic Laminates, Fibrous Glass Reinforced, Marine Structural	1981	No	Department of Defense
MIL-R-21607E(SH)	Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant	1990	No	Department of Defense
MIL-C-19663D	Military Specification, Cloth, Woven Roving, For Plastic Laminate	1988	No	Department of Defense
MIL-R-21607E(SH)	Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant	1990	No	Department of Defense

Special Publication 440	Color, Universal Language and Dictionary of Names	None	No	National Bureau of Standards (NIST)
751a	Stitches, Seams, and Stitchings	1965	No	Department of Defense
Federal Test Method Standard No. 191A	Textile Test Methods	1978	No	Department of Defense
Federal Test Method Standard No. 191A, Method 5100	Strength and Elongation, Breaking of Woven Cloth; Grab Method	1978	No	Department of Defense
Federal Test Method Standard No. 191A, Method 5132	Strength of Cloth, Tearing; Falling-Pendulum Method	1978	No	Department of Defense
Federal Test Method Standard No. 191A, Method 5134	Strength of Cloth, Tearing; Tongue Method	1978	No	Department of Defense
TSO-C13d	Federal Aviation Administration Standard for Life Preservers	1983	No	Federal Aviation Administration
Federal Test Method Standard No. 191A, Method 5804.1	Weathering Resistance of Cloth; Accelerated Weathering Method	1978	No	Department of Defense
Federal Test Method Standard No. 191A, Method 5762	Method 5762, Mildew Resistance of Textile Materials; Soil Burial Method	1978	No	Department of Defense
MIL-L-24611	Life Preserver Support Package For Life Preserver, MK 4	1982	No	Department of Defense
42S5	Screws, machine, cap and set, and nuts	1999	No	Navy Department Specifications
43B11	Bolts, nuts, studs, and tap-rivets (and materials for same)	None	No	Navy Department Specifications

EPA/600/R-10/146	Generic Protocol for the Verification of Ballast Water Treatment Technologies	2010	No	US Environmental Protection Agency.
L-S-300 B	Sheeting and Tape, Reflective: Nonexposed Lens, Adhesive Backing	1974	No	General Services Administration
Federal Test Method Standard 141a	Paint, Varnish, Lacquer and Related Materials; Methods of Inspection, Sampling and Testing	1979	No	General Services Administration
Federal Test Method Standard 141a, Method 6141	Paint, Varnish, Lacquer and Related Materials; Methods of Inspection, Sampling and Testing	1980	No	General Services Administration
Federal Test Method Standard 141a, Method 6142	Paint, Varnish, Lacquer and Related Materials; Methods of Inspection, Sampling and Testing	1980	No	General Services Administration
Federal Test Method Standard 370	Instrumental Photometric Measurements of Retroreflective Materials and Retroreflective Devices	1977	No	General Services Administration
MIL-R-21607 D	Resins, Polyester, Low Pressure Laminating, Fire-retardant	1979	No	Department of Defense
CCC-C-426 D	Cloth, Drill, Cotton	1979	No	General Services Administration
CCC-C-443 E	Cloth, Duck, Cotton (Single and Plied Filling Yarns, Flat)	1979	No	General Services Administration
MIL-C-43006 E	Cloth and Strip Laminated, Vinyl Nylon High Strength, Flexible	1979	No	Department of Defense
L-P-375 C	Plastic Film, Flexible, Vinyl Chloride	1979	No	Department of Defense
MIL-C-17415 E	Cloth, Coated, and Webbing, Inflatable Boat and Miscellaneous Use	1979	No	Department of Defense
MIL-C-17415 E	Cloth, Coated, and Webbing, Inflatable Boat and Miscellaneous Use	1979	No	Department of Defense
Federal Test Method Standard 370	Instrumental Photometric Measurements of Retroreflective Materials and Retroreflective Device	1979	No	General Services Administration

Federal Test Method Standard 141a, method 4010	Federal Standards and Test Methods Length-Weight Relation; Thread; Yards Per Pound (m/kg)	1978	No	General Services Administration
Federal Test Method Standard 141a, method 4100	Strength and Elongation, Breaking; and Tenacity; of Thread and Yarn; Single Strand	1978	No	General Services Administration
Federal Test Method Standard 141a, method 5804	Weathering Resistance of Cloth; Accelerated Weathering Method	1978	No	General Services Administration
V-T-295E	Thread, Nylon	1986	No	General Services Administration
MIL-T-43548C	Thread, Polyester Core: Cotton-, Rayon-, or Polyester-Covered	1986	No	Department of Defense
MIL-T-43624A	Thread, Polyester, Spun.	1982	No	Department of Defense
MIL-R-7575C	Military Specification, Resin, Polyester, Low-Pressure Laminating	1966	No	Department of Defense
MIL-R-24719(SH)	Military Specification, Resins, Vinyl Ester, Low Pressure Laminating	1989	No	Department of Defense
ZZ-H-451f	Hose, Fire, Woven-Jacketed Rubber or Cambric-Lined, with Couplings, F	1984	No	Department of Defense
MIL-P-21929B	Plastic Material, Cellular Polyurethane, Foam-in-Place, Rigid (2 Pounds per Cubic Foot)	1991	No	Department of Defense
MIL-P-21929C	Plastic Material, Cellular Polyurethane, Foam-in-Place, Rigid (2 and 4 pounds per cubic foot)	1991	No	Department of Defense
MIL-R-21607E(SH)	Resins, Polyester, Low Pressure Laminating, Fire Retardant	1990	No	Department of Defense

USCIS

In FY22, the United States Citizenship and Immigration Services (USCIS) Chief Data Office and USCIS Chief Information Officer signed a memorandum to implement data standards across the USCIS Enterprise. Standards implementation will occur as part of a multi-step process and commenced with an information exchange inventory to define what data moves among systems at USCIS. USCIS has developed and is implementing data standards in its technology systems, which are used to perform the mission. USCIS has 117 approved data standards, 28 of which are DHS-approved data standards. USCIS participates in the Office of Homeland Security Statistics (OHSS) Immigration's Data Integration Initiative (IDII) to help promote consistent data standards across the department. USCIS standards are maintained locally and made available via the Reference Data as a Service (RefDaaS) platform, USCIS SharePoint site and a DHS-hosted instance of Collibra.

USSS

The United States Secret Service (USSS) uses several Voluntary Consensus Standards (ISO, ASTM, MIL SPEC, IBC Building Codes, etc.) to conduct the development, testing and procurement of equipment and technology and facilities. The USSS has participated in the development of Voluntary Consensus Standards. USSS does not maintain a standards-specific website. The USSS does not utilize Government Unique Standards.

2. ***Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2023. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY):***

   NOTE: Please list ALL government-unique standards you are using currently, and also indicate on your list which of the standards are new in FY2023:

There are **no** government-unique standards that are **new** in FY2023.

The following Components responded with no inputs for the FY2023 reporting timeframe:

- OCIO
- OGC
- OCFO
- CPO
- OCSO
- S&T Chief Scientist

Attachment 2

Component Standards Executive Updated for FY24

Component	Title	Name	Email	Phone
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Submitted to NIST Nathalie M. Rioux (Fed) [nathalie.rioux@nist.gov] from DHS S&T OSE Renee Stevens renee.stevens@hq.dhs.gov / Standards@hq.dhs.gov .