

Editor's Note

Welcome to your National Information Exchange Model (NIEM)Open Biometrics Domain newsletter. This publication provides Domain members with situational awareness of the latest features and related news of the Biometrics Domain and enhances the exchange of intelligence and information across the Domains. Domain members represent the full range of operations dealing with the gathering, analysis, fusion, and dissemination of biometrics intelligence. Our readers represent a broad audience of decision makers, stakeholders, and practitioners of the NIEMOpen Biometrics Domain (NBD).

This newsletter presents NBD notable changes and current work. This issue covers topics such as ANSI/NIST-ITL 2023 workshop and update, the NBD Voice Data Model maturation, NIEMOpen 5.2, NIEMOpen Workshop updates, the NIST Special Publication 500-339, and EBTS Updates.



About: NIEMOpen Biometrics Domain

The NIEMOpen Biometrics Domain is a data model of agreed upon terms, definitions, and formats. It supports information sharing and promotes interoperability between mission-based organizations engaged in activities such as homeland security, national defense, border management, immigration benefits, and global law enforcement through the joint development and alignment of Extensible Markup Language (XML) Biometric Standards. The NBD was launched in July 2012 and functions under the stewardship of the Office of Biometric Identity Management (OBIM) within the Department of Homeland Security (DHS). OBIM transitioned to the DHS Management Directorate after passage of the Cybersecurity and Infrastructure Security

Visit the NIEMOpen Biometrics Domain
Community Online [here!](#)



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The NIEMOpen Biometrics Domain Executive Committee (NBDEC) includes:

Chair: John Boyd (OBIM)

Co-Chair: Jennifer Stathakis (DOJ/FBI)

Co-Chair: Ryan Triplett (DOD)

Ombudsman: Diane Stephens (NIST)

ANSI/NIST-ITL 2023 Update

The American National Standards Institute (ANSI)/ National Institute of Standards and Technology (NIST)- Information Technology Laboratory (ITL) 2023 Standard Update workshop kicked off in February. The Subject Matter Experts (SME) Working Groups (WGs) identified during the ANSI/NIST-ITL Kick-Off meeting are being planned. NIST has sent invites to a Doodle poll to determine specific WG meeting dates and times. The WGs identified during the workshop are:

- Overall Document Edit
- Type 1 Considerations (Deprecate Type 1?)
- Type 9 Friction Ridge Metadata
- Type 10 Image Data
- Type 11 Voice
- Contactless (Type 14, etc.)
- Type 18 Deoxyribonucleic acid (DNA)
- JavaScript Object Notation (JSON) representation

Interested? Submit a [Canvasee Request](#)

Maturing Voice Data Model for NIEMOpen Biometrics at OBIM

The NIEMOpen Biometrics Domain Working Group (NBDWG) lead at OBIM, Satish Sripada, holds bi-weekly biometrics standards meetings to mature the Human Language Technology (HLT)/ Voice Data Model. Participants are from DHS, Department of Defense (DoD), Department of Justice (DOJ), NIST, the Project Team, and HLT SMEs. Recent activities include:

- International Organization for Standardization (ISO) Sub-Committee (SC) 37 WG1 approved: Speak, Speech, Speaker.
- Preparing for a May submission to ISO SC37 WG1, which will include concept maps for Segmentation, Speaker Segmentation, and Speaker Diarization.
- Terms in-progress include Segmentation, Turn, Turn Change, Turn Segmentation, Speech Overlap, Category, Categorization, Characterization, Data Subject Identification, Data Subject Verification, Data Subject Recognition, Authentication, and Speech Analysis.

The NBD GitHub repository is used to log issues and tracks the project. To join our NBDWG discussions: [Email the NBD Team](#)

NIEM Business Architecture Committee (NBAC) Monthly Meeting

May 25, 2023, 1:00–2:00 PM

June 29, 2023, 1:00 – 2:00 PM

NIEMOpen 5.2 Release

The NIEMOpen 5.2 Release is available for download. This latest release of the NIEMOpen common vocabulary enables efficient information exchanges across diverse public and private organizations. NIEMOpen 5.2 Release incorporates content identified since the NIEMOpen 5.1 release was published in December 2021.

The NIEMOpen 5.2 Release content submissions produced a significant increase in the overall size of the model, growing from approximately 13,000 elements to nearly 19,000 elements. The new Learning and Development domain submitted their initial content to the NIEMOpen model, and the U.S. Message Text Format (USMTF) community submitted a substantial contribution to the MilOps domain.

Overview of NIEMOpen Release 5.2:

Biometrics Domain: Added and updated content for DNA categories and encodings.

Cyber Domain: Added and modified content to support State, Local, Tribal, and Territorial Agency Cyber Incident Reporting Requirements and Cyber - Physical System Incident Reporting Requirements.

Learning and Development Domain (New): Added content on courses, course sections, students, and employment positions.

Justice Domain: Updated the FBI's National Crime Information Center codes.

MilOps Domain: Added Minimum Essential Metadata content and USMTF content as a subdomain, with information about military operations, missions, resources, readiness, and training.

FIPS county codes: Updated Federal Information Processing Standards (FIPS) 3-digit and 5-digit county codes.

ISO 639-5 language family codes: Added the ISO 639-5 language family code set.

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NIEMOpen Workshop

Ms. Katherine Escobar, NIEMOpen Project Governing Board (PGB) Chair, led a NIEMOpen NIEM Management Office (NMO) Domain Workshop, on February 14-15, 2023. The session aimed at bringing awareness among the NIEMOpen Community on the logistics of the Organization for the Advancement of Structured Information Standards (OASIS) Open Project. During this workshop, Ms. Escobar updated the community on the NMO transition to OASIS and below dates:

1. October 20, 2022, the NIEM Executive Steering Council (ESC) was sunset and NIEM Governance transitioned to the NIEMOpen PGB under the auspices of the OASIS OPEN Project. The ESC Principals remain in an Advisory Role. Dr. Cully's transition memo was reviewed to provide contextual information to audience.
2. On October 20, 2022, a new organizational structure was proposed and approved by the PGB and reflects the addition of the NMO Technical Steering Committee (TSC) SC and NBAC TSC Tiger Team currently being formed by the NBAC and NMO TSCs. The PGB was established with membership from the six founding sponsors, the Joint Staff J6, DHS Science & Technology, Georgia Tech Research Institute, Equivant, sFractal, and the National Association of Justice Information Systems, and now includes the Integrated Justice Information Systems.
3. The overall guidance for the project is provided by PGB. The PGB is composed of one voting member from each Project Sponsor, who elects to appoint a PGB member. If the PGB has one or more TSC, one voting expert representative from each TSC, elected, or appointed by that TSC. The PGB approved 3 TSCs by resolution and their respective governance documents (NMO TSC, NBAC TSC, and NIEM Technical Architecture Committee TSC) along with their co-chairs.

ANSI/NIST-ITL Standard Workshop

Diane Stephens, NIST Editor, organized a workshop on February 21, 2023, to enable the standards community to participate in voting on the proposed update to "Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information."

The meeting began with Michael Hogan, NIST-ITL Standards Liaison, who provided background information on ANSI/NIST-ITL and the ANSI Canvass Method. The canvass list consists of individuals who are known or have indicated that they would be directly and materially affected by a standard that specifies the Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information. Each canvass participant nominates one principal representative and may nominate one or more alternate representatives. As members of the canvass body, participants thoroughly review proposed updates that have been submitted for approval and provide feedback within a designated time interval.

Some briefings included:

- Contactless Fingerprint Data Interchange updates by Mr. Shahram Orandi, NIST.
- XML in Biometric Standards and JSON's Widespread Adoption by Mr. Satish Sripada, DHS OBIM.
- HLT/Voice updates by Ms. Tara Etemadi, DHS OBIM.

NIST Special Publication (SP) 500-339 Released

For the past decade, NIST, as part of the U.S. Department of Commerce, has been working on developing metrics, standard reference materials, and test protocols for contactless (touchless) fingerprint capture devices. The goal of this effort is to make it easier for interested parties to accept and use these devices.

In pursuit of this effort, NIST announced the release of the NIST SP 500-339 titled "[Specification for Certification Testing of Contactless Fingerprint Acquisition Devices, v1.0.](#)" This specification builds on all previous work, including the protocols and metrics established in the NIST SP 500-336. The NIST SP 500-339 defines procedures for the evaluation and certification of contactless fingerprint acquisition devices with respect to already certified legacy contact fingerprint collection devices. This protocol enables developers of contactless fingerprint technology, who are seeking certification of their devices, to conduct self-testing using the NIST Fingerprint Registration and Comparison Tool (NFRaCT). Once they have completed the self-tests, they can submit the results to the certifying authority for verification and acceptance.

Although NIST is not responsible as a certifying authority, they are interested in testing the protocols outlined in SP 500-339. To achieve this, they are inviting interested parties to participate in a dry run of the protocols.

Contact NIST via email at fastcap@nist.gov to express interest in participating.

Apply for Harmonization Subcommittee Membership:

<https://lists.oasis-open-projects.org/g/niemopen-harmonizationsc>

Electronic Biometric Transmission Specification (EBTS) Amendment

The DoD Automated Biometric Identification Systems (ABIS) relies on the proper provisioning of settings to correctly execute the business rules for ingesting and sharing biometric data. The NIEM compliant DoD EBTS contains data attributes that allow for the provisioning of these settings as well as defining the Types of Transactions (ToTs) acceptable for DoD ABIS processing. The DoD EBTS v4.1 is the current mandated specification in the DoD Information Technology Standards Registry (DISR) and defines the transactions needed to support DoD biometric operations in its current state. The Defense Forensics and Biometrics Agency (DFBA) along with DoD mission partners identified the need for an additional ToT to manage biometric data received from organizations outside the U.S., resulting in an amendment to the DoD EBTS v4.1 specification. This amendment added the Foreign Information Direct Route (FIDR) Type of Transaction to meet operational and data exchange requirements of the DoD. More information can be found on this transaction type in the DoD EBTS v4.1 – Amendment 1 Types of Transaction Matrix located in the [DFBA - Standards Library](#).

DFBA Standards Library

DFBA provides a library containing Standards information in a variety of formats to all forensics and biometrics stakeholders at [DFBA - Standards Library](#).

Documents include EBTS specification, Integrated Data Dictionary, EBTS Information Exchange Package and other contextual information.

NIEMOpen Website

NIEMOpen launched a new website as NIEM transitions to NIEMOpen OASIS. Please visit and subscribe topics of your interest at www.niemopen.org.