Editor's Note

Welcome to your National Information Exchange Model (NIEM) 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 NIEM Biometrics Domain (NBD).

This newsletter presents NBD notable changes and current work. This issue covers topics such as the new NBD Executive Committee (NBDEC) Co-Chair, NIEM 5.1 Updates, NBD Voice Data Model Updates, the Annual Meetings for the NIEM Management Office (NMO), NIEM Technical Architecture Committee (NTAC), and the NIEM Business Architecture Committee (NBAC), as well as the FBI / Criminal Justice Information Services (CJIS) XML / Webservices Transition.
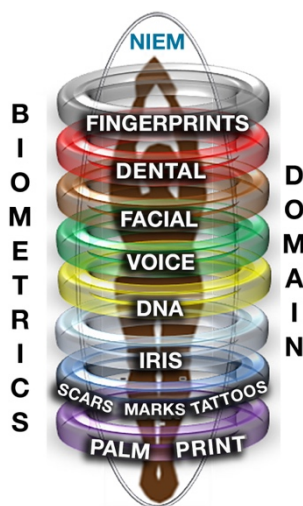
About the NIEM Biometrics Domain

The NIEM 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 NIEM Biometrics Domain Community Online [here](#)!

FOR OFFICIAL USE ONLY

The NIEM 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)

Ryan Triplett (DoD) Announced as New NBDEC Co-Chair

The NBDEC is pleased to announce a new Co-Chair: Ryan Triplett. He serves as Branch Chief for the Defense Forensics and Biometrics Agency (DFBA) and performs the standardization duties of the DOD Executive Agent for Defense Forensics and Biometrics Enterprises. He serves as the primary DOD voting member to the InterNational Committee for Information Technology Standards (INCITS) M1 Biometric Standards Development Organization, the custodian for the North Atlantic Treaty Organization (NATO) Standardization Agreement (STANAG) 4715 Biometric Data Interchange, and editor of the DOD Electronic Biometric Transmission Specification (EBTS). This new role compliments Triplett's committee chair position with the Forensic and Biometric Standards Working Group (FBSWG).

Maturing Voice Data Model for NIEM Biometrics at OBIM

The NIEM Biometrics Domain Working Group (NBDWG) lead at OBIM, Tara Etemadi, holds bi-weekly biometrics standards meetings to mature the Human Language Technology (HLT) / Voice Data Model for the Biometrics Community. Participants from DHS, DOD, DOJ, NIST, the Project Team, and HLT Subject Matter Experts (SMEs) have been reviewing the conceptual data model for voice and a glossary of terms and definitions drafted by OBIM. The NBDWG focus expanded to include forensic use cases.

Recent activities include:

- Updated the Voice Attributes Sheet to reflect comparison of voice attributes available in DOD EBTS against the NIST Type 11 record and ISO 19794- part 13.
- SME review with DOJ FBI, NIST, and OBIM Futures Identity (FI) representatives.
- NBDWG meets Nov. 10 to review and discuss the Voice data model updates.

The NBDWG's goal is to advance voice standards, ensure conformance to NIEM, and support development of Identity Exchange Messaging (IXM) services for the OBIM HLT prototype. The NBD encourages HLT SMEs to join our NBDWG discussions: OBIMFuturesIdentityNIEM@obim.dhs.gov

NIEM Release 5.1– NBD Updates

NIEM publishes annual releases on a 3-year cycle. A major release year will be followed by 2 minor release years. NIEM 5.1 will be a minor release and is currently under development. The NIEM 5.1 publication is scheduled for fall 2021.

The NIEM 5.1 Beta 1 was published for community review and the NBD team provided initial feedback. The NIEM 5.1 Release Candidate (RC) 1 is delayed; the schema is being updated based on NIEM community feedback.

Previous releases and the status of the draft release, instructions, and links are available at: https://niem.github.io/niem-releases.

The NIEM 5.1 Beta 1 includes approximately 10 DNA additional attributes identified during review and agreed upon by the NBDWG. These are new and modifications to existing DNA attributes currently available in the NBD model. The goal is to reflect the NIEM Biometrics DNA changes in the NBD Data Model.

Note: New or updated voice attributes may be reflected in 2022 NIEM 5.2 depending on the consensus achieved through the NBDWG.

NIEM 5.1 Release Planning

The updated NIEM 5.1 release schedule:

Major inputs due:

- Alpha 1:   March 2021
- Alpha 2:   June 2021
- Beta 1:   Aug. 2021
- Release Candidate 1:   Oct. 2021
- Release: Fall 2021

Additional phases (e.g., RC 2) may be added if required, during the development process.

NIEM F2F Plenary Session
The NIEM Management Office held this year's F2F Plenary Session on September 21, 2021. The Best of NIEM awards were announced and the NIEM workplan for next year was discussed. Details are available at: https://www.niem.gov/about-niem/news/best-niem-2021-awards-announced.

FOR OFFICIAL USE ONLY

Information Exchange Efforts Recognized in Biometrics Domain

The Best of NIEM Awards for 2021 were announced at the NIEM Annual Plenary Session, Sept. 21. NIEM leadership selected the OBIM Futures Identity (FI) Team for the sole "Exceptional Domain Stewardship" award for their efforts in progressing community engagement and collaboration, advancing the NIEM model, and superlative efforts to expand NIEM adoption across a wide range of organizations.

"This recognition is well deserved and an exceptional collaborative effort by the Futures Identity Team," said John Boyd, Assistant Director, OBIM, who heads the FI Team and is also the chair of the NBD. "Getting information out to our mission partners, both at home and abroad, using common and easily understood terminology is critical to our communications efforts," he added.

Tara Etemadi, OBIM FI, who leads day to day NIEM activities explained, "The data models ensure that the information is well understood and carries consistent meaning across various mission areas including those of the U.S. Department of Homeland Security, the U.S. Department of Justice, the U.S. Department of Defense, and other organizations across the U.S. interagency."

"We've been able to expand our relationship and coordination with others in the NIEM environment and leverage tools like GitHub and the NIEM website to collaborate and continue to advance the NIEM updates," said Etemadi. – OBIM Communications Team

NBAC Monthly Teleconference:
- Nov. 18, 2021, 1:00pm – 2:00pm
- Dec. 30, 2021, 1:00pm – 2:00pm

Top FBI CJIS Division XML/Web Services Transition

The FBI Criminal Justice Information Services (CJIS) Division is carrying out an effort to stay in step with the National Law Enforcement Telecommunications System (Nlets) by transitioning the National Crime Information Center (NCIC), Next Generation Identification (NGI)/III, and the National Instant Criminal Background Check System (NICS) from dot-delimited formats to web services interfaces with an XML payload. In the current approach, NCIC proxied many transactions related to other CJIS services instead of communicating directly such as with the NGI/III CJIS service. The new formats and interfaces have been published. The CJIS partners started converting their software from dot-delimited / socket communications to the new xml / web services interfaces. The CJIS Advisory Policy Board (APB) has targeted Sept. 30, 2022 for sunsetting the NCIC socket-based protocols, as well as dot - delimited and Global Justice XML Data Model (GJXDM) formats. There is no official date to sunset socket-based communications for NGI/III or NICS, but many partners have expressed an interest to change all three systems at the same time in order to consolidate the effort.

2021 NBAC Annual Meeting

The NBAC held this year's Annual Meeting on Sept. 14 – 16, 2021 at the Georgia Technical Research Institure (GTRI) in Arlington, Virginia with virtual attendance.

Key Topics discussed include:

- **NIEM Adoption**: NIEM is a Federal, State, local, tribal, and private initiative to increase information sharing between organizations. NIEM includes a data model from which organizations can establish information sharing specifications. NIEM adoption leads to cost avoidance, enhanced mission capabilities, and low total cost of ownership.
- **NIEM Stewardship:** Domain stewards play a critical role in the success of a domain by managing domain activities, driving domain growth, and interfacing with NIEM governance bodies. Domain Stewards must be Federal entities. The Domain Stewardship Agreement must be signed by an individual with funding authority.
- **Train-the-Trainer:** The NIEM Management Office (NMO) is planning to offer a training program for trainers and potential trainers of NIEM courses.
- **Road to Success:** The establishment of a Community of Interest (COI) is essential to the long-term success and continued maturation of a domain.
- **Sharing and Collaboration:** NIEM is about standardizing data across systems, which enables sharing with mission partners. NIEM enables sharing and collaboration approaches that:
  - Align with the whole-of-government approach
  - Accommodate a diverse user community
  - Are easily composable and scalable

2021 NTAC Annual Meeting

The NTAC held this year's Annual Meeting on Aug. 10 – 12, 2021 at GTRI in Arlington, Virginia with virtual attendance.

NTAC members represent technical experts and thought leaders across the community, including representation from all levels of government, Standards Developing Organizations (SDOs), and industry to ensure interoperability and coordinated development. Prominent topics discussed include:

- **NIEM 6 Architecture Changes:** The potential changes to the NIEM architecture are related to Metadata, ordered properties, adopting XML Schema 1.1, leading to simplicity and consistency of NIEM concepts across the architecture.
- **NIEM Metamodel:** The metamodel is a framework for building models that are interoperable across data representation and specification technologies. It defines a model for NIEM data definitions so that those definitions may be used with technologies in addition to XML Schema, such as the JavaScript Object Notation (JSON) schema. The model, describing objects, values, and the relationships between them, will be consistent across representations including the XML and JSON schemas. This consistency will ensure that data definitions can be reused across multiple technologies.
- **NIEM as a Standard:** The NMO is working with the NIEM community to establish NIEM as an Open Standard through Organization for the Advancement of Structured Information Standards (OASIS). OASIS covers the core technical, legal, promotional, and administrative services necessary for NIEM as a path to ratify national and international standard status.