Editor's Note

Welcome to your National Information Exchange Model (NIEM) 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 that deal with 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. This newsletter presents notable changes and current work in the Biometrics Domain. This specific issue covers topics such as the upcoming NIEM Releases 4.2 and 5.0, as well as updates for the NIEM Business Architecture Committee (NBAC), NIEM Technical Architecture Committee (NTAC), NIEM Management Office (NMO), and DHS, including the new DHS NIEM First memorandum.

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 NIEM Biometrics Domain was launched in July 2012 under the stewardship of the Office of Biometric Identity Management (OBIM) within the Department of Homeland Security (DHS). OBIM recently transitioned to the DHS Management Directorate.

About the NIEM Release 4.2

NIEM 4.2 beta 1 (upcoming minor release) is under development and is targeted for a August 2019 release which will address comments recieved in response to the alpha release.

The NIEM version 4.2 schedule is available at https://github.com/NIEM/NIEM-Releases/wiki/Upcoming-Release.

Q3 2019 issue

The Biometrics Domain operates under the oversight of its executive committee, which includes:

Chair: John Boyd (OBIM)
Co-Chair: Jennifer Stathakis (DOJ/FBI)
Co-Chair: William Graves (DoD)
Ombudsman: Diane Stephens (NIST)

NBAC Co-Chair Update

The NIEM Executive Steering Committee (ESC) approved the nomination for Mr. Thomas "Tom" Krul as the incoming Co-Chair of the NBAC, effective October 2019, replacing Mr. Ryan Schultz. Mr. Krul manages the adoption of NIEM in the Government of Canada's Public Safety space as the Interoperability & Portfolio Manager in the CIO Directorate of Public Safety Canada. He was a "Best of NIEM '18 - Effective & Efficient Government" award recipient demonstrating NIEM security enhancements related to user access and release controls.

For additional information, contact the NIEM Biometrics Domain Team at: OBIMFuturesIdentityNIEM@obim.dhs.gov

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NIEM 5.0

The NIEM ESC endorsed NIEM 5.0 for a major release next year. They are requesting Domain Stewards to identify requirements to support emerging technologies. The Stewards responded to a survey indicating interest in emerging technologies, provide point of contact, and identify any use cases in emerging technologies. Requirements were submitted in August 2019 maintining the release schedule. NIEM 5.0 requirements aim at improving NIEM adoption and data exchange implementation, and will support structured and unstructured content.

Focus areas are use cases applicable to Artificial Intelligence (AI) and Internet of Things (IoT). Artificial Intelligence and Machine Learning are broad topics gaining traction within the public sector, but that have the potential to touch many different domain arenas. The NBAC plans to mature these via the NBAC Emerging Technologies Tiger Team.
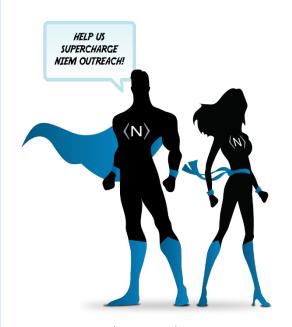
Other topics being considered for inclusion in the NIEM 5.0 discussion: International Data Sharing, Mixed Content, Open Data, Data Safeguarding/Sharing, Unified Modeling Language, Cybersecurity, Microservices, and Enterprise Cloud.

Emerging Technologies Tiger Team

The NBAC kicked off the Emerging Technologies Tiger Team (ET3) in April 2019 to focus on the impact of new technologies, interoperability, and the adoption, utilization, and evolution of NIEM.

ET3's objective will be to determine the impact of certain technologies such as IoT, AI, and Identity Management on NIEM core data model management and harmonization efforts. The expected outcome of the objective will lead to requirements for information exchanges relevant to many domains including Emergency Management, Military Operations, Health & Human Service, Surface Transportion, Biometrics, and more.

For questions or participation in ET3, please contact Mr. Ralph O'Connell, NIEM Management Office Business Manager at ralph.m.oconnell.civ@mail.mil.

www.niem.gov/about-niem/outreach-resources

NIEM aims at collaborative partnership of agencies and organizations across all levels of government and private industry.

DHS Releases "NIEM First"

David P. Pekoske, DHS Senior Official Performing the Duties of the Deputy Secretary, signed the "NIEM First" memorandum on May 3, 2019, outlining the Department's adoption of NIEM.

The Information Sharing and Safeguarding Governance Board (ISSGB) has unanimously recommended that the Department adopt NIEM for all new data exchanges created by DHS operational Components and Headquarters. It stated the following: "While it would be inefficient to make all existing data exchanges NIEM conformant, we can take steps to ensure NIEM conformance for all future data exchanges created at DHS. The adoption of NIEM for all new data exchanges will provide a critical foundation for future information sharing and exchange across the enterprise, best enabling DHS to accomplish mission responsibilities while appropriately complying with information safeguards and privacy protections."

This memorandum, similar to DoD CIO's 2013 memo, "Adoption of the National Information Exchange Model within the Department of Defense," amplifies the ongoing commitment by the NIEM community executives to advance and champion the greatest adoption of a common data standard to achieve data interoperability.

Save the Date
NIEM 2019 Face-to-Face (F2F)
October 21-25, 2019

Georgia Tech Research Institute
1700 North Moore Street, Suite 1910
Arlington, VA 22209

Focus: This is the premiere NIEM event of the year, so mark your calendars, come meet your colleagues, and make a difference through shaping and advancing NIEM information sharing.

NMO Update

The NMO is pleased to announce the hiring of Ms. Katherine Escobar as the Deputy Managing Director & Strategic Communications Manager. She is encouraging the submission of Best of NIEM 2019 nominations and is eager to support key leader engagements with Domain Stakeholders.

The NMO has been very busy and productive in supporting Domain information exchange activities. One high priority objective is to define NIEM requirements for NIEM 5.0 major release, coming next year. NIEM momentum is growing as the NMO is responding to an increasing amount of requests for new adopters to join Domains. The NMO is also working with DHS to stand up a Cyber Domain with enterprise participation across the Federal Government. Cyberspace is an evolving domain with emergent risks. Although the proliferation of technology leads to new risks, it also provides an opportunity for innovation. DHS is leading by researching, developing, adapting, and employing cutting-edge cybersecurity capabilities, and remains agile in efforts to keep up with evolving threats and technologies.

NTAC Update

The NIEM Biometrics Domain is supporting the NTAC. Their role is to define and govern the technical and structural architecture associated with NIEM development and implementation. The NTAC plays a major role in developing, implementing, and maintaining the technical specifications for the NIEM community. By joining the NTAC, one will be able to interact with NIEM leadership, gain insider access to NIEM program operations via monthly calls, attend two semi-annual face-to-face meetings, promote participation on LinkedIn, and highlight their role within the NIEM communities of interest (COI). Here are highlights from this quarter's meetings:

• The NTAC assessment concluded that the NIEM Meta-model will tie into the front end and evolve into the user interface. This is currently in development. They have an open source tool strategy using the NIEM core data framework for internationalization.

• https://GitHub.com/webb/niem-metamodel is the directory where the Meta-model is located. The NIEM ESC is identifying how to best socialize the Meta-model outside of the NTAC and within the COI.

• Utilization of Unified Modeling Language (UML) as a Meta-model is a simpler approach than using the UML profile because the profile brings in all NIEM elements whereas the UML Meta-model only brings in specific elements.

• The NTAC is also discussing a way to create the ability to track metrics measuring NIEM utilization.

• In support of the Healthcare Domain, the NTAC is documenting requirements for a privacy marking which would reside in an NTAC/NBAC collaborative repository. This effort is an attempt to prototype a more formal NBAC process. More details are located at github.com/NIEM/NBAC-NTAC-Collaboration/issues/5 for NTAC review.

DHS OBIM Update

Mr. Thomas Freed of DHS OBIM briefed the NBAC on three areas of interest where NIEM Biometrics may play a role: DNA, Facial Recognition Technology, and Human Language Technology. These are advanced capability areas that the OBIM Futures Identity (FI) team plans to evaluate in the form of prototypes, projects, or concepts. FI will use Enterprise Architecture (EA) tools to document the business process, architecture, software, and system modeling. Also, the FI team has developed a lightweight and efficient lifecycle process to explore advanced capabilities and innovative ideas.

Other key points of the discussion included:

• An overview and brief demo of the EA Modeling tool MagicDraw will be presented for the September NBAC.

• OBIM is sponsoring NIST to develop ISO Quality Standardizations for face biometrics. The standards proposed will include a Quality Scalar Standard, a Quality Vector Standard, and a Next Generation Capture Subsystem Standard.

As a follow up, the OBIM FI team plan to present at the NBAC F2F meeting in October to provide considerably more detail with an opportunity for questions and follow up. Topics under consideration are:

• Building a Concept Prototype Environment to demonstrate use cases and prove a business case.

• Implementation of modeling tools, benefits, and lessons learned.

• DNA Prototype, an exercise in integrated architecture, and NIEM standardization.

Explore NIEM's TechHub at https://niem.github.io

Upcoming NBAC Monthly Teleconference:

• **Sep 26, 1:00pm – 2:00pm**
• **Nov 28, 1:00pm – 2:00pm**