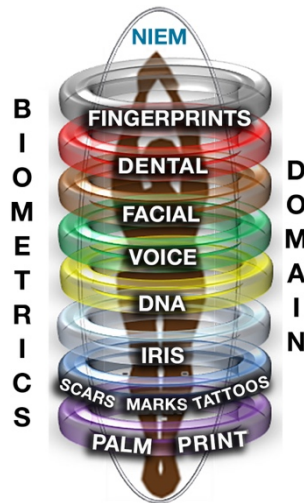


Editor's Note

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 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 maturing the NIEM Biometrics DNA data model, NIEM 5.0 Harmonization and Release updates, DoJ FBI EBTS updates, advancing NIEM adoption and improving NIEM implementation, NIEM 5.1 release planning, and ANSI/NIST-ITL Type 23 Record Contactless updates.



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 (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 Agency Act of 2018.



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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)

OBIM Matures the NIEM Biometrics DNA Data Model

OBIM's NBD Executive Committee (NBDEC), comprising the Chair, Co-Chairs, and Ombudsman, collaborated with Subject Matter Experts (SMEs) from the biometrics community and OBIM's DNA Store Match Share (SMS) project team during the NBD Working Group (NBDWG) meetings. The purpose was to mature the NIEM DNA Data Model, which is being implemented by the SMS project. The team identified approximately 60 new DNA attributes and agreed upon a few modifications to existing DNA attributes currently available in the NIEM Biometrics Domain model. The NBDEC will work with the NIEM Harmonization Working Group when it begins the NIEM 5.1 minor release process. The goal is to reflect NIEM Biometrics DNA changes in the NIEM Biometrics Domain data model.

NIEM 5.0 Harmonization

The NIEM Harmonization Working Group held weekly meetings to address issues in preparation for the NIEM 5.0 major release, which ended on 08/13. This effort resulted in addressing 128 issues which were logged into the NIEM Releases GitHub Repository at <https://github.com/NIEM/NIEM-Releases/projects/3>.

The NIEM Harmonization Working Group focused on harmonizing objects across the Core and Domains, as well as several user and quality assurance issues.

The major content additions approved include:

- Controlled Unclassified Information (CUI) metadata
- Content for the Generic Statistical Information Model
- Public Health Emergency Operations Center minimum data set additions
- Harmonization of the FBI code set
- Core code elements were moved to code namespaces
- The full set of Geography Markup Language (GML) schemas were replaced with a simplified profile
- Additional miscellaneous harmonization updates.

The NIEM 5.0 Harmonization Working Group received a “Best of the NIEM” award for 2020.

About the NIEM Release 5.0

The NIEM 5.0 major release is scheduled for fall 2020 and the Release Candidate (RC) 3 was made available for public review and comment on October 16. The RC3 incorporates public feedback from the NIEM 5.0 RC2. The minor changes include:

- Updated Geopolitical Entities, Names, and Codes (GENC) CSV files to exclude GENC codes marked ‘exclusion’
- Updated GENC enumerations to exclude GENC codes marked ‘exclusion’
- Added ‘SP-’ to the beginning of CUI specified category marking codes
- Removed CUI ‘NATO Restricted’ and ‘NATO Unclassified’ category codes
- Updated cardinality to support CUI multiple dissemination controls
- Created a substitution group for CUI ‘Releasable To” (RELTO) codes
- Updated the names and definitions of CUI limited dissemination RELTO elements to represent both RELTO and ‘display only’ options
- Updated CUI category and limited dissemination control codes based on registry updates.

The NIEM-Releases GitHub repository containing release artifacts and packages is available at <https://github.com/NIEM/NIEM-Releases>. Release information containing the status of the latest draft release, instructions, and links for all releases is available at <https://niem.github.io/niem-releases>.

This is the final stage before official publication of the NIEM 5.0 release and addresses errors and bugs only. Upon release, the 5.0 XML schemas and documentations will be published along with updates to the NIEM specifications and tools. Other issues can be queued up for the next release.

DoJ FBI EBTS Update

The Department of Justice (DOJ) Federal Bureau of Investigation (FBI) Criminal Justice Information Services (CJIS) Division is moving towards a system that will contain a complete biometric and biographic profile of the subject records in its databases. Though fingerprints will continue to be the FBI’s primary mode of identification for the near future, the scope of the Electronic Biometric Transmission Specification (EBTS) has been expanded over previous versions to include additional biometric modalities (e.g., palm print, facial, and iris) in recognition of the rapidly developing biometric identification industry.

CJIS is expecting EBTS version 11 will be approved by the CJIS Advisory Board Process (APB) soon, and released in January after final approval by Director Wray. This update will incorporate Iris Identifications into the Next Generation Identification (NGI) System. The EBTS 11 XML Information Exchange Package Documentation (IEPD) will be released in conjunction with that document.

Contact Us to Participate!

Please contact the NBD Team at OBIMFuturesIdentityNIEM@obim.dhs.gov if you are interested in collaborating and contributing towards the NBDWG meetings led by OBIM Futures Identity.

For additional information on any of these topics, or to discuss participation in any working groups, contact the NIEM Biometrics Domain Team at: OBIMFuturesIdentityNIEM@obim.dhs.gov

Upcoming NBAC Monthly Teleconference:

- Nov 19, 2020, 1:00pm – 2:00pm
- Dec 17, 2020, 1:00pm – 2:00pm

2020 NIEM Annual Meetings

NBAC Annual Meetings

NIEM Business Architecture Committee (NBAC) Annual meetings were held virtually from September 14 to 18.

This event included 10 NIEM-rich sessions presented in the morning (10:00-12:00 AM) and the afternoon (1:00-3:00 PM) through the week.

Advance NIEM Adoption

The NBAC identified ways to advance NIEM adoption which include:

- Incorporating NIEM into the Contract Acquisition process. The NIEM Management Office (NMO) and NBAC will engage the Government Contracting Offices to showcase the NIEM value proposition and help add NIEM requirements into future Government contracts.
- Maturing the NIEM Data Model
- Increasing NIEM Adoption through NIEM teams including the State, Local, and Tribal Tiger Team, the International Tiger Team, and the Emerging Technologies Tiger Team
- Engaging in agencies' publications and newsletters
- Expanding NIEM by evaluating US Government Accountability Reports to identify ways the NBAC and NMO can assist the agencies.

Improving NIEM Implementation

Jonathan Kirk, a guest speaker from the Treasury Board of Canada Secretariat, gave a briefing on what NIEM implementation means and ways to achieve it.

Implementation means:

- How useful the NIEM model is (scope includes Governance, Maturity, Open Source, Solution-Focused, and Benefits-Rich).
- How easy the NIEM model is to implement within one's system (Training)
- How well the NIEM model can be implemented within one's system (Tools).

Ways to achieve NIEM implementation:

- Start the conversation – Do we have anyone who has implemented NIEM?
- What were some of the risks and challenges of implementing NIEM exchanges?
- NIEM acceptance as part of a suite of

NIEM 5.1 Release Planning

The tentative NIEM 5.1 release schedule is announced:

- | | |
|---------------------|-------------|
| • Major Inputs Due: | End of year |
| • Alpha 1: | Feb 2021 |
| • Beta 1: | May 2021 |
| • RC 1: | Aug 2021 |
| • Release: | Fall 2021 |

Click [here](#) to Visit the NIEM Biometrics Domain Community Online!

ANSI/NIST-ITL's Proposed Type 23 Record for Contactless

Shahram Orandi, John Libert, and Craig Watson of National Institute of Standards and Technology (NIST) discussed a newly proposed Type 23 Record for Contactless during a Transportation Security Administration (TSA) Civil Vetting and Rap Back forum with the FBI.

Currently most biometric systems throughout the world package and exchange biometric records using the ANSI/NIST standard as a basis.

The ANSI/NIST standard allows for inclusion of contactless fingerprints. But studies have shown contactless images to be markedly different from traditional fingerprint images. Contactless can also have negative consequences when processed in the same pathways as traditional fingerprint images (such as contactless data inadvertently replacing existing contact-collected data through automatic sample improvement algorithms).

The **Type 23 Record** is being developed by NIST in conjunction with stakeholders to promote the acceptance of contactless. First, the Type 23 record will cordon off contactless data and prevent inadvertent processing of that data as contact-collected imagery. Next, it allows for utilization of legacy-equivalent contactless imagery now, but also provides a pathway for archiving raw sensor data for reprocessing at a future time (without recapture) as parts of contactless technology improve.

This new record type will be introduced as a NIST Special Publication Best Practices Recommendation (BPR). A draft of this BPR will be distributed to stakeholders in November for review and comment. To be included in the distribution of the draft and call for comments, please send an email request to fastcap@nist.gov.