

NIEM Charter

1. Project Name

NIEM

1.1 Full Name

NIEM

1.2 Familiar Name

NIEM

2. Abstract

NIEM, formally known as National Information Exchange Model, is a community-driven, standards-based approach to exchanging information. Diverse communities can collectively leverage NIEM to increase efficiencies and improve decision making. There are three different aspects to the value of NIEM: community interaction, a technical framework that helps define data structures, and a support framework that helps from an implementation perspective.

NIEM is described as a *framework*, because it is not just a reference architecture that provides a common data vocabulary for information exchanges, it includes several components to enable your implementation and achieve interoperability:

- A common data model called *NIEM core* that provides data components for describing universal objects such as people, locations, activities, and organizations
- More specialized business focused data models for more specialized use cases, called domains (examples including Cyber, Justice, Immigration, and Emergency Management). *A NIEM domain represents both the governance and model content oriented around a community's business needs.*
- A methodology for using and extending the building blocks that come from the common and domain-specific models to turn them into a complete information exchange, known as an *information exchange package*
- Free Tools to help develop, validate, document, and share the information exchange packages
- A governance organization that provides training and support and oversees NIEM's evolution over time

NIEM is available to everyone. The NIEM community spans federal, state, local, tribal, international, and private sector entities. It is this diverse group of people who drive NIEM forward. NIEM was built by the community for the community.

3. Statement of Purpose

Problem Statement

Information sharing involves the business processes, policies, procedures, architecture, and governance that support effective decision-making. Organizations are often unable to effectively share information. At the same time, there can be fundamental differences in the nature and understanding of information being shared between organizations. While sharing does occur today, it often occurs to a limited degree, or within stovepipe information systems. With the abundance of data being produced and collected by organizations, there are still numerous opportunities for improved data sharing amongst relevant communities of interest (COIs).

Proposed Solution

Current information collection and dissemination practices have not been planned as part of a unified global strategy but, rather, have evolved incrementally over time to meet specific one-off challenges as they have surfaced. As a program, NIEM is designed to support the development and dissemination of enterprise-wide information exchange standards that enable organizations to share critical information effectively and efficiently. NIEM exchanges don't require a particular database and can work with any adapter. While NIEM provides the foundation, participants just need to agree on the definition and structure of the data in the exchange.

The NIEM framework enables information sharing by focusing on the syntax of information exchanges between organizations as part of their current or intended business practices. The NIEM exchange development methodology results in a common understanding across participating organizations to ensure data is formatted in a semantically consistent manner as it moves from system to system. The NIEM program provides the data model, managed processes, implementation tools, training, and technical assistance to enable commonly understood information exchanges. A fundamental advantage of NIEM as an electronic exchange standard is that it allows organizations to save time, money and resources, connect with each other, and focus on what matters most – solving problems, reducing risks, and advancing even the most complex missions.

The NIEM program will work with stakeholders to advance the functionality of the NIEM framework, while also adding new domains and content as recommended and approved by the Project Governing Board (PGB). Domains are community-specific business areas that provide governance and content to the NIEM model. As a multi-organization program with shared funding and staffing resources, the NIEM PGB shall carefully consider decisions that impact the level of domain support and governance required of its current and future partners. The board will also address the interests and needs of all partners when making decisions, maximizing participation, adoption, and value across the broad NIEM user community.

4. Business Benefits

NIEM enables information sharing by focusing on information exchanges between organizations. NIEM can save organizations time and money by providing consistent, reusable, and repeatable data terms, definitions, and processes.

The benefits of this implementation approach are agility, scalability, and cost efficiency through the leveraging of existing investments including legacy systems, and the reuse of information sharing assets. This approach enables service reuse and allows the use of the resulting services as

enterprise assets, which has the potential of additional exponential cost savings as existing services are leveraged for new exchanges or tasks through reuse.

OASIS is a recognized standardized development organization (SDO) with lots of contributors worldwide. The collaboration with OASIS allows for the expansion into international markets. This partnership creates a path for a larger pool of stakeholders and developers to contribute to the project and broaden the content, which ultimately benefits current and future stakeholders.

Stakeholders

Below is a non-exhaustive list of stakeholders with examples of just some of the benefits they can realize by using the NIEM framework.

- Government Stakeholders – NIEM enables government-government exchanges
- Domain Stewards – NIEM provides communities based on specific interests and expertise, while creating opportunities for information sharing with partnerships spanning across domains
- Project Governing Board- Funding and management decisions are shared amongst all sponsors
- Technical Steering Committees – Make recommendations for improving and growing the NIEM model via voluntary consensus
- Executives - NIEM minimizes the time-to-market, while allowing maximum flexibility to solve real-world problems and reducing risk
- Program Managers - NIEM helps teams build exchanges in less time, for less money
- Architects - NIEM offers a better way to exchange data that is more adaptable and allows new capabilities to be added.
- Developers – NIEM tools and support are available to make exchange development easier and faster
- Implementers - NIEM lowers the cost of maintenance in comparison to legacy formats
- Tool Providers – NIEM connects providers with customers who have an interest in cross-domain information sharing

5. Normative Scope

The NIEM project provides the data model, managed processes, tools, training, harmonization, and technical assistance. The project develops guidance to design standardized data elements. These standardized data elements are defined so that the terms are commonly understood across domains. NIEM specifications provide rules and guidance in order to design consistent and well-defined information exchanges.

NIEM will improve the data model by making it more accessible to end users and the communities of interests, by focusing on efforts that make the NIEM infrastructure and its components more

technology neutral. NIEM will leverage the work of the Common Model Format and Metamodel to reengineer a model that creates XML, JSON, or any other data serialization that NIEM supports and allows the data to be expressed in any supported serialization. This body of work will eliminate the need to first develop the work in XML and then move it another format.

6. Relationship to Other Projects

There are several active and important standards that include NIEM.

Examples include:

- ANSI 42.42 Radiological Nuclear detectors
- ANSI APCO Alarm Monitoring Company to Public Safety Answering Point (PSAP)
- OASIS EXDL FEMA
- OASIS LegalXML Electronic Court Filing (ECF)
- NIST Big Data Framework Vol 7
- Nation Fire Protection NFPA 950 calls for compliance with NIEM. Emergency Incident Data Document (EIDD) IEPD – NISTIR 8255
- Biometrics ANSI/NIST ITL Standard
- Biometric Conformance Test Software (BioCTS)
- BioCTS for AN-ITL v2 is a desktop application which tests electronic biometric data files, known as transactions, for conformance to NIST Special Publication (SP) 500-290
- Conformance Test Architecture (CTA) and Test Suite (CTS) called "BioCTS for AN-2011 NIEM XML" designed to test implementations of AN-2011 NIEM XML encoded transactions.
- NIEM Cited in patent – Integrated Environment for Developing Information Exchanges patent No: US 8,769,480 B1 Dated July 1, 2014
- Model Minimum Uniform Crash Criteria Guideline (MMUCC) – Department of Transportation

7. Repositories and Licenses

- NIEM will operate under the following licenses:
 - Governance documents will be licensed under [CC-BY 4.0](#)
 - Code will be licensed under [Apache License Version 2.0](#)
- The project shall create a repository for the following:
 - Specifications will initially be forked from <http://niem.github.io/reference/specifications/>
 - Releases – The latest release will be forked from <http://niem.github.io/niem-releases/>

- Tools

Migration to an OASIS Open Project

The migration from the legacy NIEM governance model to an OASIS Open Project will be a 24-month transition. This transition will comprise of 2 phases with preparation and Formal Transition ending in FY 2024. During that period the following milestones are projected:

FY 2022 Preparation (Governance, Marketing & Development)

- Draft Charter & Governance
- Awareness Campaign
- Domain Stewardship Transition Workshop
- Project Governance Board Sponsorship
- Marking & Development

FY 2023 Formal Transition (Shadow & Reverse Shadow)

- OASIS NIEM Committee Membership
- Shadow NIEM OASIS PGB
- Selected projects transferred
- Intellectual capital transfer
- Final ESC Turnover

FY 2024 Initial NIEM OASIS Open Standards

8. Initial Contributions from Existing Work

The full body of work specifying, explaining, and supporting the NIEM family of specifications under the current DoD-sponsored and GTRI coordinated efforts will be transitioned to OASIS, including:

- Specifications for all NIEM releases
 - NIEM Naming and Design Rules (NDR)
 - NIEM JavaScript Object Notation (JSON)
 - NIEM Code Lists Specifications
 - NIEM Conformance Targets Attribute Specification v3.0
 - NIEM Information Exchange Package Documentation (IEPD) Specification
 - NIEM Conformance Specification
 - Metamodel
 - The Common Model Format (CMF)

- All intellectual Property - The [OASIS IPR policies for Open Projects](#) will apply. This process allows projects to choose any one of several open-source licenses. With a mature regime governing NIEM for many years, we do not anticipate any conflicts around IPR.
- NIEM User Tools
 - Information Exchange Lifecycle Tools
 - ConTesA functionality
 - SSGT functionality
 - Migration Tool functionality
 - NIEM API
 - MEP Builder Tool
- NIEM Brand
 - [NIEM.gov website](#)
 - [NIEMOpen.org website](#)