



NIEM OPEN

MilOps Stakeholder Engagement

Wednesday, 14 June 2023



Opening Remarks / Introductions

Chuck Chipman



AGENDA

Time	Topic	Presenter
1000 – 1005	Opening Remarks / Introductions	Chuck Chipman
1005 – 1010	NIEMOpen	Chuck Chipman
1010 – 1015	MilOps	Chuck Chipman
1015 – 1025	IEPD Lifecycle	Christina Medlin
1025 – 1035	Tools	Tom Carlson
1035 – 1045	Subsetting Demo	Tom Carlson
1045 – 1050	Registries & Repositories	Chuck Chipman
1050 – 1055	Resources	Chuck Chipman
1055 – 1100	Discussion / Closing Remarks	Chuck Chipman

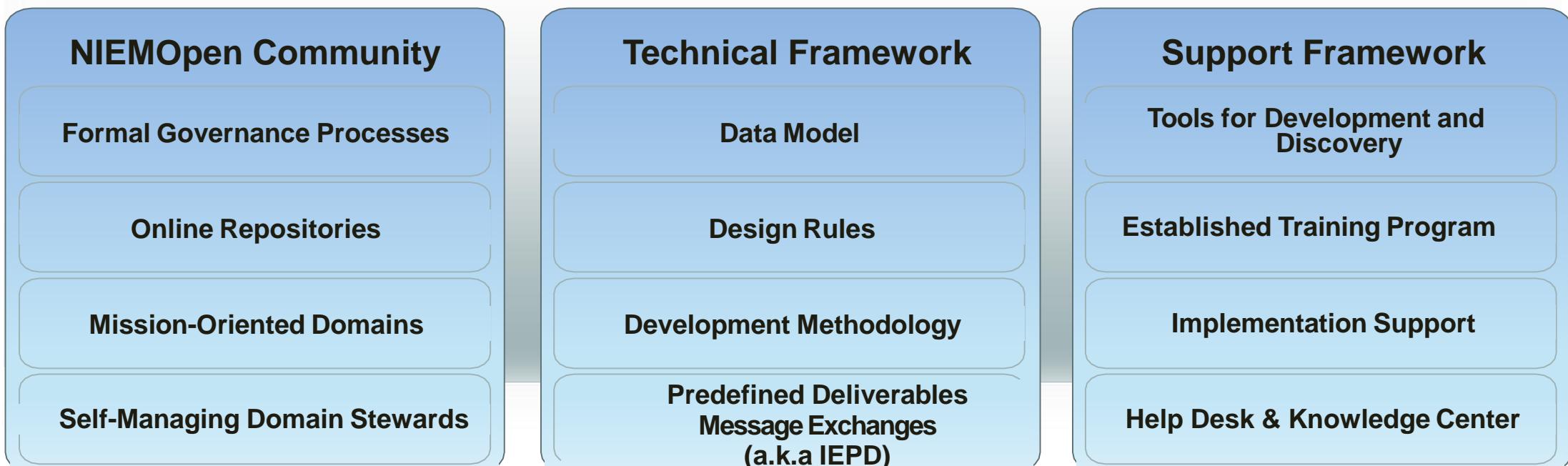


NIEMOpen

Chuck Chipman

NIEMOPEN FRAMEWORK

- NIEMOpen is a community-driven, open source, standards-based approach to exchanging information
- Diverse communities can collectively leverage NIEMOpen to increase efficiencies and improve decision-making
- NIEMOpen is available to everyone, including public and private organizations
- NIEMOpen includes a data model, governance, training, tools, technical support services, and an active community to assist users in adopting a standards-based approach to exchanging data

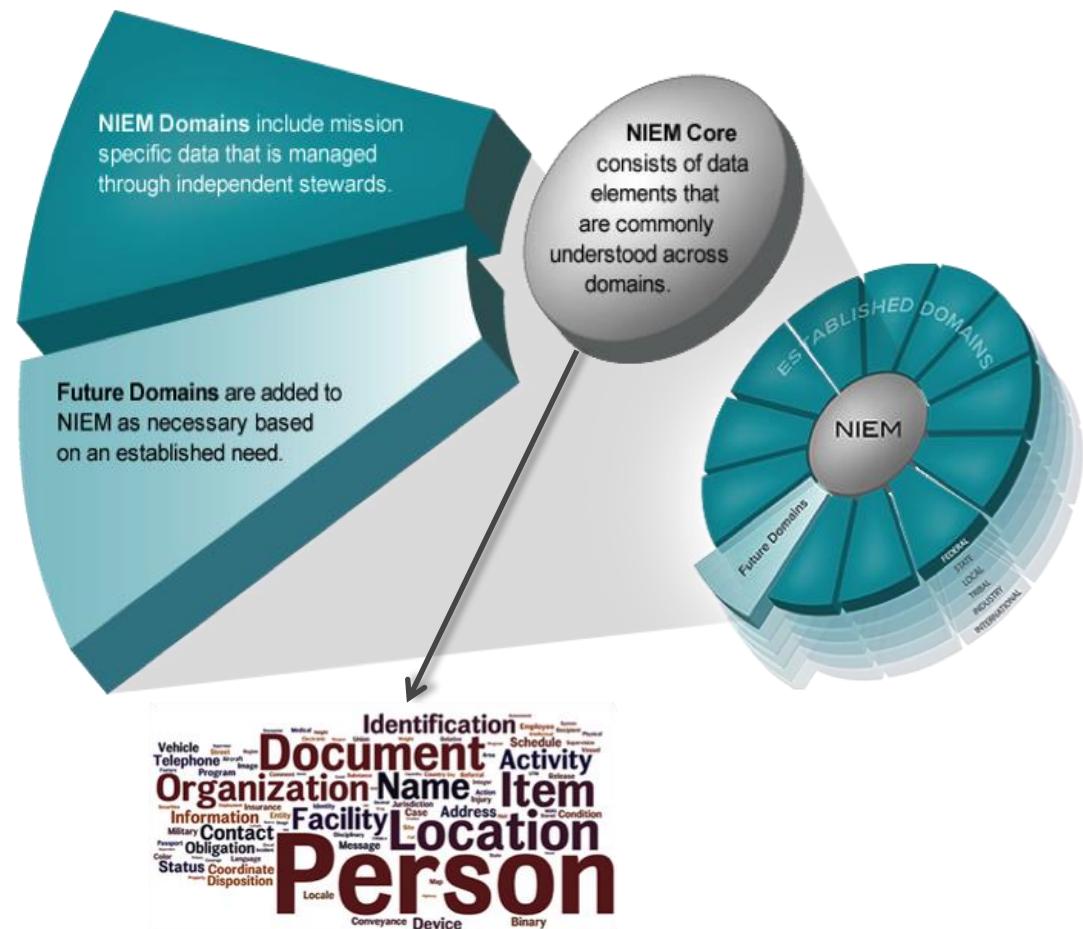


NIEMOPEN MODEL CONTENT

Think of the NIEMOpen data model as a mature and stable data dictionary of agreed-upon terms, definitions, and formats independent of how information is stored inside individual IT systems.

NIEMOpen 17 Domains

- Agriculture
 - Biometrics
 - Chemical, Biological, Radiological, & Nuclear
 - Cyber
 - Emergency Management
 - Human Services
 - Immigration
 - Infrastructure Protection
 - Intelligence
 - International Trade
 - International Human Services
 - Learning & Development
 - Justice
 - Maritime
 - Military Operations
 - Screening
 - Surface Transportation



Emerging Domains

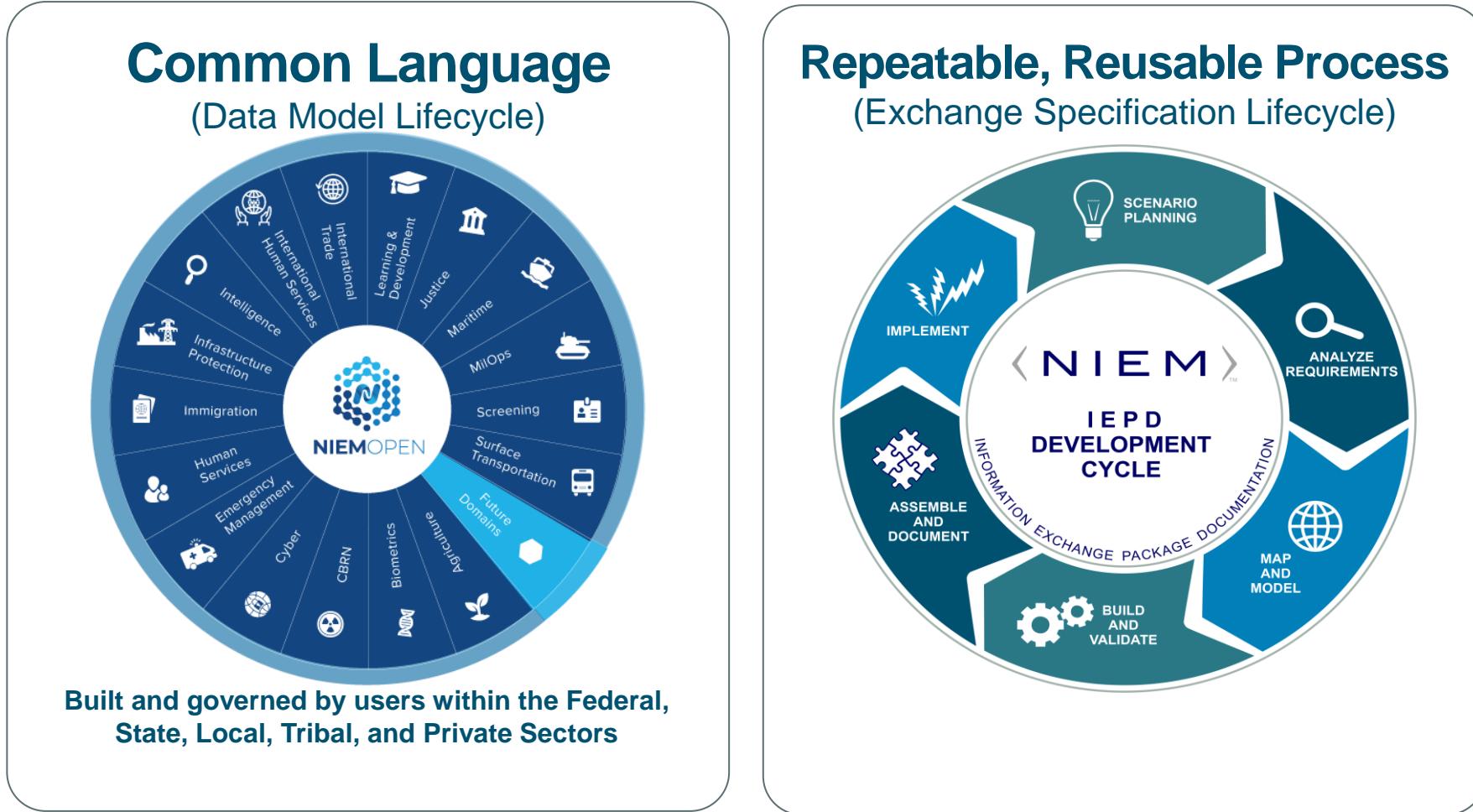
- Acquisition – DoD A & S
 - Identity Credentials – DHS
 - Physical Security - DMDC



NIEM OPEN

NIEM – THE BIG PICTURE

NIEM enables organizations to move information across organizational boundaries in order to interoperate – and act as one – while each maintains authority for their own existing systems



TRANSFER OF GOVERNANCE



NIEMOPEN

- 20 October 2022
NIEMOpen ESC is Sunset
and NIEMOpen
Governance Transitions to
the NIEMOpen OPEN
Project Governing Board
(PGB) under the Auspices
of OASIS OPEN Project
- ESC Principals remain in an
Advisory Role



CHIEF DIGITAL AND ARTIFICIAL INTELLIGENCE OFFICER
9010 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-9010

October 20, 2022

MEMORANDUM FOR NATIONAL INFORMATION EXCHANGE MODEL EXECUTIVE
STEERING COUNCIL

SUBJECT: Transition of the National Information Exchange Model to the Organization for the
Advancement of Structured Information Standards Open Project Program

On September 21, 2021, the National Information Exchange Model (NIEM) Executive Steering Council (ESC) approved the transition of NIEM to the Organization for the Advancement of Structured Information Standards (OASIS) Open Project Program. On October 20, 2022, NIEM governance shifts to the new NIEM Open, Project Governing Board (PGB). The PGB exercises leadership, provides guidance, establishes policy, and approves model releases and content under the auspices of the OASIS Open Project Program. The PGB is supported by two Technical Steering Committees: NIEM Business Architecture Committee (NBAC) and NIEM Technical Architecture Committee (NTAC). The NBAC and NTAC provide day-to-day operational oversight.

The NIEM ESC is hereby sunset effective October 20, 2022, with the instantiation of the NIEM OPEN PGB. I encourage ESC members to continue to participate in an advisory capacity to the NIEM Open, PGB. Details of Open Project Sponsorship can be found online at "<https://www.oasis-open.org/join-2/>" and by contacting Dee Schur, the OASIS Open Source and Standards Advocate at dec.schur@oasis-open.org.

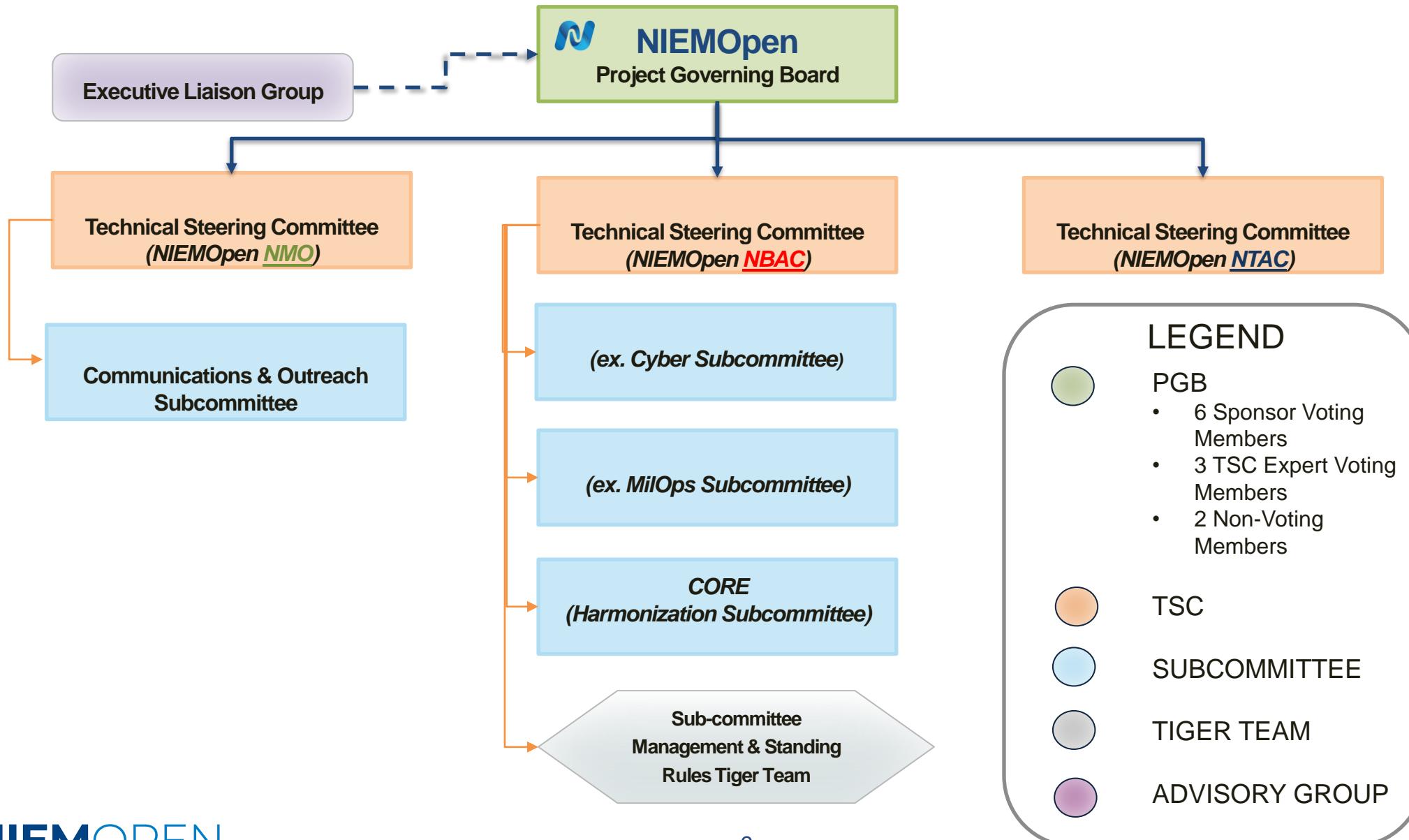
A handwritten signature in black ink that reads "J. Clark Cully".

J. Clark Cully, Ph.D.
Deputy Chief Data Officer
Department of Defense



NIEMOPEN Dr. Cully Transition Memo

NIEMOpen Organization



PGB VOTING MEMBERS MAY 2023



Ms. Katherine Escobar
PGB Chair
Deputy Division
Chief, Data and
Standards Division at
Joint Staff J6 and
NIEMOpen
Managing Director



Ms. Christina Bapst-Stump
Science and
Technology
Directorate,
US Department of
Homeland Security



Mr. Gary Egner
Director Business
Development,
Equivant



Mr. John Wandelt
Principal Research
Scientist, Georgia
Tech Research
Institute



Mr. Duncan Sparrell
CSO sFractal
Consulting



Ms. Maria Cardiellos
Executive Director
Integrated Justice
Information Systems
Institute



Mr. Payton Lamb
Data Engineer
Commonwealth of
Virginia
Office of the secretary of
Administration
Office of Data
Governance and
Analytics



Ms. Jennifer Stathakis
Biometric Standards SME,
Enterprise Data Standards Team
Criminal Justice Information
Systems Division, Federal
Bureau of Investigation



Premier



Premier

équivant



Fractal Consulting LLC
the closer you look, the more you see



IJIS Institute



Premier



NIEMOpen SPONSORS

- Sponsors

- JS J6
- DHS S&T
- CJIS (FBI)
- GTRI
- sFractal
- NAJIS
- IJIS
- DOT
- ODGA (Virginia)
- Equivant



Premier



Premier



IJIS Institute



Premier



Think Evilly, Act Ethically



- In Discussions

- Microsoft
- DHS OBIM
- MITRE



- Expressed Interest

- Government of Canada
- Veterans Administration
- Tyler technologies
- Ernst & Young
- NIST

Government of Canada Gouvernement du Canada

Canada



Ms. Carol Geyer
– OASIS Open Chief Development Officer



NIEM 6.0

- Next version of the NIEMOpen model (core + domains)
 - New modeling formalism (CMF and XSD supported)
 - Supporting transformations from CMF or NIEM XML to NIEM JSON schema
 - Simplified message specification guidance
 - Simple XML and other benefits for message implementers to follow
-
- NIEM 6.0 architecture changes project note draft coming for public review later this month



MilOps

Chuck Chipman

DOD INFORMATION SHARING POLICY & GUIDANCE

28 March 2013



DOD CIO NIEM Adoption Memo states:

“... DOD will adopt the National Information Exchange Model (NIEM) as best suited for standards-based data exchanges.” “DOD organizations shall first consider NIEM for their information sharing solutions...”

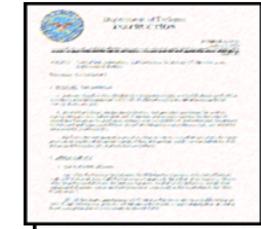
January 2017



DepSecDef Memo Improvements to DoD Unclass Shared Situational Awareness:

“... Commander, NORTHCOM and PACOM will use NIEM in accordance DoDI 8320.07 leveraging existing DoD capabilities, to provide DoD mission partners with a clear and concise DoD central authoritative data source for the sharing of unclassified information related to disasters....”

August 2015



DoDI 8320.07:

“... the use of NIEM-based exchanges must be considered for all new Extensible Markup Language (XML) information exchanges created and for all XML information exchanges being modernized as part of the normal lifecycle management for these information exchanges.”

December 2018



CNO Message R 261805Z DEC 18 Transforming Our End-to-End Information Environment – Compile To Combat In 24 Hours Implementation Framework:
References the DOD CIO Memo and directs “... Adoption of the National Information Exchange Model (NIEM) with the DOD, and establishing that model as the DOD mandated data sharing model..”

MILITARY OPERATIONS (MLOPS)

The MilOps Domain manages those unique military operations and missions' data components used to define NIEM-based information exchanges that satisfies mission critical sharing requirements with the U.S. Department of Defense (DOD), and/or with other federal government agencies and mission partners.

Mission

The MilOps Domain provides a catalogue of data components necessary to support improved data interoperability between DOD and mission partners for operations.

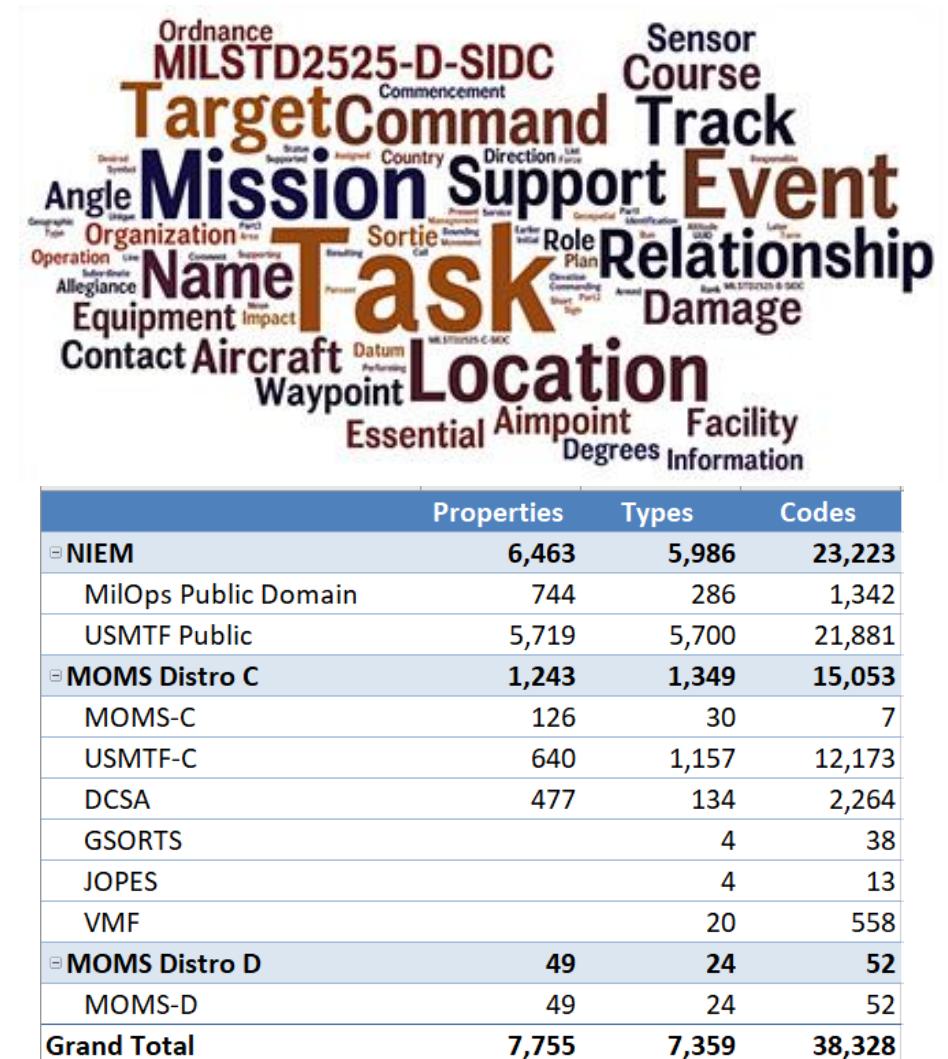
Governance

The MilOps Domain is stewarded by the Joint Staff, as requested by the DOD Chief Information Officer (CIO). A MilOps Domain Configuration and Control Board (MilOps CCB) was formally stood up in March 2014. The MilOps CCB manages domain content and addresses technical issues arising from the development of Information Exchange Package Documentations (IEPDs) using MilOps Domain Content. NIEMOpen is the identified and preferred semantic solution for interoperability by the DoD Chief Data Officer (CDO), CIO and the Secretary of Defense as defined in the DoD Instruction (DoDI) 8320.07; Implementing the Sharing of Data, Information, and Information Technology (IT).



MILOPS MODEL CONTENT

- The MilOps data components focus on DOD Joint Capability Areas:
 - Force Support, Battlespace Awareness, Force Application,, Logistics, C3, Protection, Net-Centric, and Building Partnerships.
 - MilOps has both public and non-public Distribution Statement C and D content (namespace MOMS).
 - **NIEMOpen has been identified as a key enabler for Joint All Domain Command and Control (JADC2).**
 - JADC2 Reference Architecture Version 3.0
 - JADC2 Reference Design Version 1.0





MILOPS ACTIVITIES

- **2022 Highlights**

- Showcased NCDF capabilities in CWIX 2022
- Transitioned from APAN to OASIS repositories
- Approval of NIEMOpen as a key JADC2 standard
- Continued support of UC2 language standard development
- Added DoD Minimum Essential Metadata
- Added 8,787 USMTF properties & types
- Supported DCSA development of SF86 IEPD and DCSA reference model
- Supported DISA with development of SAAR IEPD and DISA Enterprise ICAM model
- Supported AFRL with development of 6 cyber incident messages; will demonstrate in CWIX 2023

- **2023 Objectives**

- Showcase improved NCDF data lake capabilities in CWIX 2023
- Complete USMTF transition to NIEMOpen NDR and MilOps Domain content additions; support transition to NIEMOpen IEPD (DISA Brian O'Shea)
- Increased adoption of NIEM:
 - ✓ JADC2 enterprise stakeholders
 - ✓ Universal Command & Control (UC2)
 - ✓ Background Investigations/Continuous Vetting (BI/CV) Information Exchange (SF 86/85/85P)
 - ✓ Enterprise ICAM model, SAAR IEPD (DISA)
 - ✓ AFRL Cyber exchanges
 - ✓ JWX 2023 (data fabric demo)
 - ✓ Interference Incident Reporting from non DoD stakeholders (DISA/DSO)



IEPD Lifecycle

Christina Medlin

IEPD LIFECYCLE



Design and build a NIEM IEPD / message specification:

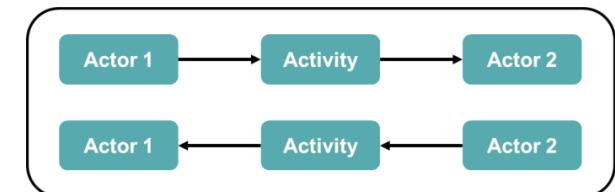
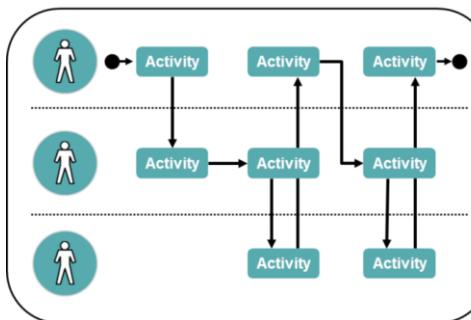
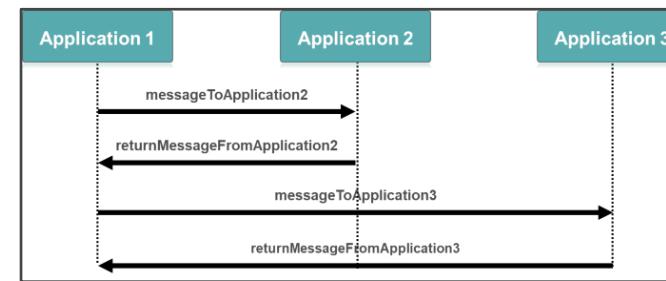
- Scenario Planning
- Analyze Requirements
- Map and Model
- Build and Validate
- Assemble and Document
- Publish and Implement

<https://niem.github.io/reference/iepd/lifecycle/>

1. SCENARIO PLANNING

Review background information related to your information exchange, assess resource impact, understand business context, and identify information exchange business scenarios.

- Describe the scenario
- Identify areas of concern
- Determine whether to use NIEM
- Define business requirements
- Assess effort level
- Build scenario models

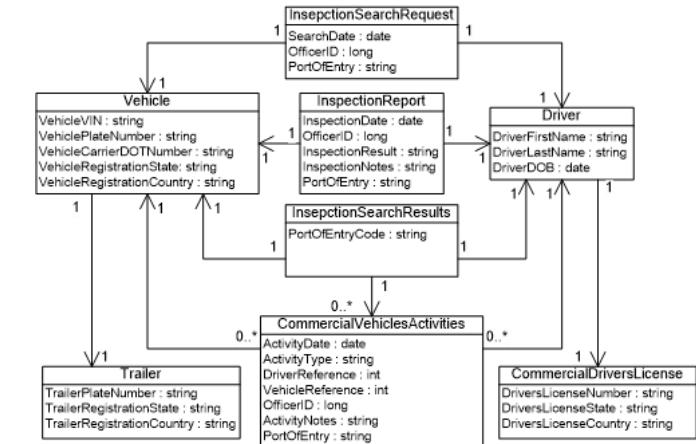


2. ANALYZE REQUIREMENTS

Further elaborate on the information exchange scenario to understand and document the data requirements and business rules.

This includes capturing data requirements, business rules, and other detailed requirements.

Field	Type	Definition	Min	Max	Constraints	Comments
first	string	First name	1	1		
middle	string	Middle name	0	unbounded		
last	string	Last name	1	1		
DOB	date	Birthday	0	1	Valid only between 1900-01-01 and current date	Check to see if this field needs to be required
eye color	code set		0	1		



Type	Code	Definition
eye color	BLK	black
eye color	BRN	brown
eye color	BLU	blue
eye color	GRN	green
eye color	HZL	hazel
eye color	OTH	other or unknown

3. MAP AND MODEL

Map

- Review the data requirements and look for matches in NIEM.
- Document results in a mapping spreadsheet.

Property Name	Data Type	Definition	Mapping	Target	Notes	NS Prefix	Property Name	Qualified Data Type	Definition
			Code	Code	Notes	NS Prefix	Property Name	Qualified Data Type	Definition
award	Text	An award won by or for this item. Supersedes awards.	no match						
birthDate	Date	Date of birth.	map	nc	PersonBirthDate	nc:DateType			A date a person was born.
birthPlace	Place	The place where the person was born.	map	nc	PersonBirthLocation	nc:LocationType			A location where a person was born.
email	Text	Email address.	map	nc	ContactEmailID	niem-xs:string			An electronic mailing address by which a person or organization may be contacted.
familyName	Text	Family name. In the U.S., the last name of an Person. This can be used along with givenName instead of the name property.	map	nc	PersonName	nc:PersonNameType			A combination of names and/or titles by which a person is known.
familyName	Text	Family name. In the U.S., the last name of an Person. This can be used along with givenName instead of the name property.	map	nc	PersonSurName	nc:PersonNameTextType			A last name or family name of a person.
givenName	Text	Given name. In the U.S., the first name of a Person. This can be used along with familyName instead of the name property.	map	nc	PersonGivenName	nc:PersonNameTextType			A first name of a person.
netWorth	MonetaryAmount or PriceSpecification	The total financial value of the person as calculated by subtracting assets from liabilities.	no match						
netWorth	MonetaryAmount or PriceSpecification	The total financial value of the person as calculated by subtracting assets from liabilities.	map	nc	Amount	niem-xs:decimal			An amount of money.
netWorth	MonetaryAmount or PriceSpecification	The total financial value of the person as calculated by subtracting assets from liabilities.	map	nc	CurrencyAbstract	NONE			A data concept for a unit of money or exchange.
netWorth	MonetaryAmount or PriceSpecification	The total financial value of the person as calculated by subtracting assets from liabilities.	map	nc	CurrencyCode	iso_4217:CurrencyCodeType			A unit of money or exchange.

<https://niem.github.io/reference/iepd/artifacts/mapping-spreadsheet/>

Model

- Begin modeling the data requirements without NIEM matches (extensions)
- Follow NIEM Naming and Design Rules

The Basics

Fundamentally, a NIEM release consists of a set of namespaces, each of which define properties and types (referred to more generally as components). An IEPD reuses components from a release that meet its requirements, and creates new properties and types in local namespaces as needed. These namespaces, properties, and types are basic building blocks of NIEM.

Namespaces

Learn about namespaces in NIEM and see schema examples and templates with header information at the XML and JSON links below.

Namespaces	A namespace is a collection of properties and types, managed by a common authoritative source.	XML	JSON
-------------------	--	---------------------	----------------------

Properties

A property represents a concept, idea, or thing.

Properties	A property represents a concept, idea, or thing.	XML	JSON
-------------------	--	---------------------	----------------------

Elements	An element represents a concept. In an instance, it acts as a container that may carry either a simple value or an object, and optionally attributes.	XML	JSON
-----------------	---	---------------------	----------------------

Abstract Elements	An abstract element is an element defined as a placeholder in a schema that must be replaced with an appropriate substitution in an instance.	XML	JSON
--------------------------	---	---------------------	----------------------

Substitutable Elements	A substitutable element is one that can replace another element in an instance.	XML	JSON
-------------------------------	---	---------------------	----------------------

Attributes	An attribute is a property that may carry a simple value only.	XML	JSON
-------------------	--	---------------------	----------------------

<https://niem.github.io/reference/concepts/>

4. BUILD AND VALIDATE

Create subset schemas, extension schemas, and sample instances based on the previous mapping and modeling work. Verify that schemas and instances are valid and that they meet NIEM conformance requirements described by the NIEM Naming and Design Rules (NDR) specification.

- Build
 - NIEM subset schemas
 - Local extension schemas
 - Sample instances
- Validate
 - Check extension schemas are valid
 - Check extension schemas pass NDR conformance rules
 - Check sample instances are valid against extension schema
 - Check sample instances carry all expected data

The screenshot shows a hybrid training course titled "NIEM Technical Training" sponsored by the NIEM Management Office. The course is described as an online technical training course focused on developers and implementers interested in a deep-dive of NIEM. The interface includes a sidebar for navigating the course, a list of six video lessons, and links to GitHub and YouTube.

Lesson Number	Lesson Title	Length	Category
1	NIEM Training Intro Day 1	1:53	NIEM
2	NIEM Training 2022 Introduction to NIEM	45:49	NIEM
3	NIEM Training 2022 IEPD Development	50:14	NIEM
4	NIEM Training Intro Day 2	1:15	NIEM
5	NIEM Training 2022 Introduction to Mapping	45:58	NIEM
6	NIEM Training 2022 Understanding NIEM Objects	1:03:04	NIFM

<https://github.com/NIEM/NIEM-Training>

YouTube: Search for “NIEM Training” for the playlist

5. ASSEMBLE AND DOCUMENT

Create any additional documentation needed for the IEPD, fill out the IEPD catalog, assemble all of the artifacts, and bundle the files into the final IEPD zip file package.

- Document
 - IEPD Catalog
 - Change log
 - Readme
 - Optional artifacts
- Assemble
 - Add schemas, instances, mapping spreadsheet, diagrams, readme, IEPD catalog, etc., to a zip file.
 - See guidance for recommended folder layout
- Final review

```
myIEPD-2.0/
  iepd-catalog.xml      # IEPD catalog
  changelog.*           # Change log
  conformance-assertion.* # Conformance assertion
  readme.*              # Readme

  base-xsd/             # Schema folder
    niem/                # NIEM subset schemas
      xsd/
        adapters/
        codes/
        domains/
        external/
        utility/
        niem-core.xsd
        wantlist.xml       # SSGT wantlist
        xml-catalog.xml

    extension/            # IEPD extension schemas
      extension1.xsd
      extension2.xsd
      ...
      xml-catalog.xml

    external/             # Schemas from external standards
      ic-ism/
      ...
      xml-catalog.xml

  iep-sample/            # Sample messages
    message1.xml
    message2.xml

  documentation/         # Human-readable documentation
  ...
```

<https://niem.github.io/reference/iepd/artifacts/>

6. PUBLISH AND IMPLEMENT

Publish

- Separate public and restricted repositories are available to publish and share IEPDs.
- Public IEPD repo is available from <https://niemopen.org>.
- Restricted IEPD repo is available on the WMA Portal.

Implement

- Specific implementations are outside the scope of NIEM.

The screenshot shows the NIEMOPEN website's MEP Registry & Repository page. At the top, there is a navigation bar with links for Getting Started, About NIEM (which is underlined), Strategic Initiatives, Communities, NIEM Standard, and Training. There is also a search bar and links for Current Release, TechHub, Contact, Tools Catalog, and IEPD/MEP Registry. Below the navigation, the title "Message Exchange Package (MEP) Registry & Repository" is displayed. A section titled "Want to submit a Message Exchange Package (MEP) to the NIEM Registry and Repository?" explains how users can submit their packages using the Contact Form. Below this, there are search and filter fields for "Search Term (optional)", "NIEM Version (optional)" (with a dropdown menu showing "- Any -"), and "Communities (optional)" (with a dropdown menu showing "- Any -"). A blue "Apply" button is located below these filters. A table follows, listing two entries:

Title	Description	Communities	Organization	NIEM Version	
Electronic Court Filing Version 5.0	The LegalXML Electronic Court Filing 5.0 (ECF 5.0) specification consists of a set of non-proprietary XML and Web services specifications along with clarifying explanations and amendments to those specifications that...	Justice	OASIS LegalXML Electronic Court Filing (ECF) Technical Committee (TC)	4.0	View Resource
Court Services	Court Services Online (CSO) is an initiative of the				



Tools

Tom Carlson

SSGT

- Exploration tool
- Generates subsets
- Tool URL:
 - <https://tools.niem.gov/niemtools/ssgt/index.iepd>
- More info:
 - <http://niem.github.io/reference/tools/ssgt/>

The screenshot shows the NIEM SSGT (Schema Subset Generation Tool) interface. At the top, the browser address bar shows the URL: tools.niem.gov/niemtools/ssgt/SSGT-SearchSubmit.iepd. The page header includes the NIEM logo and navigation links for TECHHUB, NIEM RELEASES, and TOOLS CATALOG. Below the header, a main menu bar offers links to GETTING STARTED, ABOUT NIEM, COMMUNITIES, TRAINING, and CONTACT US. The main content area is titled "Schema Subset Generation" and "Search". It features a search bar with the placeholder "Search for a Property" and a value "person". A "Schema Subset" section contains buttons for "Add" and "Edit Cardinality". A "Data Model Search" section also has a search bar for "Property" set to "person". The central part of the interface displays a tree view of schema elements under "Types" and "Elements". Under "Types", it lists nc:DateType, nc:PersonType, niem-xs:date, and xs:date. Under "Elements", it lists nc:Date, nc:DateRepresentation (with nillable="true"), and nc:PersonBirthDate (with nillable="true"). To the right, there is a detailed sidebar showing "Selected Release: NIEM-5.2" and a list of substitutable elements: nc:MonthDate (niem-xs:gMonth), nc:DateTime (niem-xs:dateTime), nc:YearDate (niem-xs:gYear), and nc:DayDate (niem-xs:gDay). The bottom of the interface has a footer with the text "NIEM OPEN" and a small circular logo.

CONTESA

- “Conformance Testing Assistant”
- Validates your work
 - Not a certification
 - Only catches some errors
- Tool URL:
 - <https://tools.niem.gov/contesa/>
- More info:
 - <http://niem.github.io/reference/tools/contesa/>

Screenshot of the ConTeSA Conformance Report interface:

The page title is "ConTeSA Conformance Report". The generation date is "Tue Aug 30 13:38:44 UTC 2022". The validation object is "CrashDriver.xsd".

Skip to: Rule Contexts Summary | Rule Results | Auto Fail Rules | Manual Fail Rules | All Rules

Rule Summary

Statistical information about all passing/failing rules in the system.

Category	Count	Percentage
Auto Pass	54	34%
Auto Fail	0	0%
Manual Pass	0	0%
Manual Fail	0	0%
Not Run	104	65%

Rule Summary (158 Rules)

● Not Run 104 (65%)
● Auto Pass 54 (34%)

Rule Contexts Summary

A statistical analysis of business rules, based on which context they belong in.

Context Name	Description	Auto Pass	Auto Fail	Manual Pass	Manual Fail	Not Run	Total
NDR 5 Rules for extension XML Schema documents	No Description Found (add sch:p element to your pattern).	54	0	0	0	104	158
Totals		54	0	0	0	104	158

Migration Tool

- Migrates subsets
- One version at a time
 - e.g. 4.2 ➔ 5.0 ➔ 5.1
- Does not migrate extensions
- Tool URL:
 - <https://tools.niem.gov/niemtools/migration/index.iepd>
- More Info:
 - <http://niem.github.io/reference/tools/migration/>

The screenshot shows a web browser window for the NIEM Migration Tool. The URL in the address bar is tools.niem.gov/niemtools/migration/index.iepd. The page has a dark blue header with the NIEM logo and navigation links for TECHHUB, NIEM RELEASES, and TOOLS CATALOG. Below the header is a search bar. The main content area has a light gray background and features a large "Upload Wantlist" button. Above the button, there's a note: "Migration Tool Provide the wantlist you wish to migrate." Below the button is a file input field labeled "Wantlist" with the placeholder "Choose File no file selected". To the right of the file input is a "Migrate Wantlist" button. Underneath the file input, there's a section titled "Supported Wantlist Migrations" with a note: "NOTE: Domain updates are now automatically included when available and no longer appear as separate releases." A bulleted list follows, detailing supported migrations from various versions of NIEM and GJXDM to NIEM 2.0. At the bottom of the page, there's a "Migration Output" section with a bulleted list of what the tool generates.

NATIONAL INFORMATION EXCHANGE MODEL

NIEM

TECHHUB NIEM RELEASES TOOLS CATALOG

GETTING STARTED ABOUT NIEM COMMUNITIES TRAINING CONTACT US

Migration Tool Provide the wantlist you wish to migrate.

Upload Wantlist

Wantlist
Choose File no file selected

Migrate Wantlist

Supported Wantlist Migrations

NOTE: Domain updates are now automatically included when available and no longer appear as separate releases.

- NIEM 5.1 to NIEM 5.2 conversion.
- NIEM 5.0 to NIEM 5.1 conversion.
- NIEM 4.2 to NIEM 5.0 conversion.
- NIEM 4.1 to NIEM 4.2 conversion.
- NIEM 4.0 to NIEM 4.1 conversion.
- NIEM 3.2 to NIEM 4.0 conversion.
- NIEM 3.1 to NIEM 3.2 conversion.
- NIEM 3.0 to NIEM 3.1 conversion.
- NIEM 2.1 to NIEM 3.0 conversion.
- NIEM 2.0 to NIEM 2.1 conversion.
- NIEM 1.0 to NIEM 2.0 conversion.
- GJXDM 3.0.3 to NIEM 2.0 wantlist conversion.

Migration Output

- Migrated wantlist.
- Migrated subset.
- Migration report containing:
 - Actions taken and choices made in migrating the wantlist.
 - Issues that could not be resolved automatically.
 - Statistics indicating degree of migration resolution.

WAYFARER

- Exploration tool
- Third party
- Tool URL:
 - <https://niem5.org/wayfarer/>



niem5.org/wayfarer/nc/Person.html

NIEM Wayfarer 5.1

Disclaimer: This tool was developed by Tom Carlson Consulting LLC. It was created from the official distribution of the data model. Tom Carlson Consulting LLC makes neither claim nor warranty that this tool provides an accurate representation of the NIEM data model. For official and authoritative representations, please visit the official [NIEM release website](#). Non-English text powered by Google Translate.

Search both names and definitions for

nc:Person ([nc:PersonType](#))

A human being.

View UML for type: [nc:PersonType](#)

nc:Person is contained within these types:

- [j:ActivityContactInformationAssociationType](#) (e.g. [j:ActivityContactInformationAssociation](#))
- [j:ActivityDriverLicenseAssociationType](#) (e.g. [j:ActivityDriverLicenseAssociation](#))
- [nc:ActivityPersonAssociationType](#) (e.g. [nc:ActivityAdministratorPersonAssociation](#))
- [ip:AssetType](#) (e.g. [ip:Asset](#))
- [hs:ChildVictimChargeAssociationType](#) (e.g. [hs:ChildVictimChargeAssociation](#))
- [j:DebtCreditorAssociationType](#) (e.g. [j:DebtCreditorAssociation](#))
- [scr:DeviceBasedEncounterAssociationType](#) (e.g. [scr:DeviceBasedEncounterAssociation](#))
- [j:DriverLicenseAssociationType](#) (e.g. [j:DriverLicenseAssociation](#))
- [j:DriverLicenseDrivingIncidentAssociationType](#) (e.g. [j:DriverLicenseDrivingIncidentAssociation](#))
- [j:EntityEmailAssociationType](#) (e.g. [j:EntityEmailAddressAssociation](#))
- [j:EntityInstantMessengerAssociationType](#) (e.g. [j:EntityInstantMessengerAssociation](#))
- [j:EntityNetworkAddressAssociationType](#) (e.g. [j:EntityNetworkAddressAssociation](#))
- [j:EntityTelephoneNumberAssociationType](#) (e.g. [j:EntityTelephoneNumberAssociation](#))
- [nc:FacilityPersonAssociationType](#) (e.g. [nc:FacilityPersonAssociation](#))

nc:Person can contain:

- [nc:PersonAccentText](#)
A manner of pronunciation; a way of pronouncing words that may indicate the place of origin or social background of the speaker.
- [nc:PersonAgeDescriptionText](#)
A general description of the age of a person.
- [nc:PersonAgeMeasure](#)
A measurement of the age of a person.
- [nc:PersonBirthDate](#)
A date a person was born.
- [nc:PersonBirthLocation](#)
A location where a person was born.
- [nc:PersonBloodTypeText](#)
A blood group and RH factor of a person.
(replacing [nc:PersonBloodTypeAbstract](#))
- [j:PersonBloodTypeCode](#)
A code set identifying a blood group and RH factor of a person.
(replacing [nc:PersonBloodTypeAbstract](#))
- [ncic:PersonBloodTypeCode](#)
A blood group and RH factor of a person.
(replacing [nc:PersonBloodTypeAbstract](#))
- [nc:PersonBodyXRaysAvailableText](#)
An X-ray of a body part available for a person.
(replacing [nc:PersonBodyXRaysAvailableAbstract](#))
- [ncic:PersonBodyXRaysAvailableCode](#)
An X-ray of a body part available for a person.

50

MOVEMENT

- Simplified exploration tool
- Use alongside something like the SSGT
- Tool URL:
 - <https://beta.movement.niem.gov/>
- More Info:
 - <http://niem.github.io/reference/tools/movement/>

The screenshot shows the Movement web application interface. At the top, there's a navigation bar with the Movement logo, a search bar, and links for 'Beta Version - Subject to Change', 'NIEM.GOV', and 'CONTACT US'. A 'MY SUBSET BUILDER' button is also visible. Below the header, a search model bar has 'Search Model' and 'Enter Keyword' fields, along with a magnifying glass icon. A link to 'Back to search results for "person"' is present. The main content area is titled 'Person' under 'DOMAIN: CORE'. It displays two cards: 'Definition' (A human being.) and 'Type of Property' (PersonType). Below these, a list of related terms is shown, each with an 'ADD TO SUBSET' button: Person (nc:PersonType), EmployeeContactInformation (nc>ContactInformationType), PersonAccentText (TextType), PersonAgeDescriptionText (TextType), PersonAgeMeasure (nc:TimeMeasureType), PersonBirthDate (nc:DateType), PersonBirthLocation (nc:LocationType), PersonBloodTypeAbstract (abstract) (This term has synonym entries), PersonBodyXRaysAvailableAbstract (abstract) (This term has synonym entries), PersonBuildAbstract (abstract) (This term has synonym entries), and PersonCapability (nc:CapabilityType).

MEP BUILDER

- Unified tool for building IEPDs
- Still under development
- Tool URL:
 - <https://sourceforge.net/projects/niem-mep-builder/>

The screenshot shows the NIEMOPEN MEP Builder interface. At the top, there's a navigation bar with tabs: Getting Started, My Home (selected), MEP Builder, and Training. Below the navigation is a header with fields for MEP Name (Test IEPD), Release (5.1), Revision (1), Status (beta), Point of Contact (Tom), and Email (thomas.carlson@gtri.gatech.edu). There are Save and Save & Close buttons, along with a Hints toggle.

The main area has a sidebar titled "Message Exchange Package Creation Guide" with sections: Lifecycle Phases (Scenario Planning, Analyze Requirements, Map & Model selected), Build & Validate, Assemble & Document, and Publish & Implement. Below the sidebar is a "Message Exchange Package Artifacts" section with a "Message Exchange Package Build Components" folder.

The central content area is titled "Map and Model". It contains a list of tasks: "With the basic data requirements identified, now is the time to match them to NIEM data components." followed by a bulleted list of actions:

- Map user data requirements to NIEM data components
- Create custom model extensions
- Validate NIEM conformance on individual extension components
- Search SSGT for results for type or property
- Search Common NIEM Components for popular types or properties

Below this is a note: "To help visualize the information flow and content, you can graphically show the actors and information flow for your scenario. A visual representation can be useful especially if the scenario is complex."

At the bottom right is a detailed mapping table with columns for Property, Type, Type-Has-Property, Codes | Facets, Namespace, Local Terminology, Type Union, and Metadata. The table includes rows for NS Prefix, Property Name, Data Type, Definition, Sample Value, Code, and NS Prefix.



Subsetting Demo

Tom Carlson



Registries & Repositories

Chuck Chipman

REGISTRIES & REPOSITORIES

- Message Exchange Package (MEP) Registry & Repository

– <https://www.niem.gov/about-niem/message-exchange-package-mep-registry-repository>

The screenshot shows the NIEM OPEN website with the URL https://www.niem.gov/about-niem/message-exchange-package-mep-registry-repository. The page title is "Message Exchange Package (MEP) Registry & Repository". It features a search bar for "Search Term (optional)" and "NIEM Version (optional)", and a dropdown for "Communities (optional)". Below the search area is a table listing two entries:

Title	Description	Communities	Organization	NIEM Version	Action
Log4j0.8, Electronic Court Filing 5.0 (ECF 5.0)	Specification for a set of non-proprietary XML and Web services standards designed to facilitate exchange and clarify requirements and amendments to those specifications that...	Justice	OASIS Log4j, Electronic Court Filing (ECF) Technical Committee (TC)	5.0	View Resource
Court Services Online (CSO) eFile and Processing Automation Column	Specification for the Court Services Branch of the Ministry of Attorney General and the British Columbia Provincial Court (BCPC) provides electronic court processing...	Justice	British Columbia Judiciary	5.0	View Resource

- NIEM Restricted Registry & Repository

– <https://wmaafip.js.mil/NIEM>

The screenshot shows the NIEM Restricted Registry & Repository website with the URL https://wmaafip.js.mil/NIEM. The page title is "National Information Exchange Model (NIEM)". It includes a sidebar with icons for Home, Search, Advanced Search, Notifications, and Welcome, Charles Chipman. The main content area has tabs for "Description" and "IEPDs". The "Description" tab contains the following text:

(U) The NIEM (formerly known as National Information Exchange Model) Restricted Repository, managed by the NIEM Management Office (NMO), provides a platform for authenticated users to share NIEM Message Exchange Packages/IEPDs for limited distribution. Here, users can search and discover, upload, download and re-use information. Users must meet the access control requirements of the Warfighting Mission Area (WMA) portal. To access this repository, users are required to authenticate their credentials with a Common Access Card (CAC), specifically the Personal Identity Verification (PIV).

(U) To learn more about NIEM, visit <https://www.niem.gov/>.

(U) For questions or comments, contact the NMO at information@niem.gov or visit <https://www.niem.gov/contact>.



Resources

Chuck Chipman

RESOURCES

- [OASIS Open - OASIS Open \(oasis-open.org\)](https://oasis-open.org)
- NIEMOpen/MilOps Web Presence:
 - <https://niemopen.org>
 - <https://www.niem.gov/>
 - <https://niem.github.io/>
 - <https://niem.github.io/community/milops/>
- Git Repos
 - NIEMOpen: <https://github.com/niemopen>
 - NBAC TSC (admin): <https://github.com/niemopen/nbac-admin>
 - NTAC TSC (admin): <https://github.com/niemopen/ntac-admin>
 - NMO TSC TBD: in-progress
- NIEMOpen Slack Channel:
 - https://join.slack.com/t/niemopen/shared_invite/zt-1n1brwp2p-bRBR~gkIra0f5Btdzami5w
- Mailing Lists
 - NIEMOpen: <https://lists.oasis-open-projects.org/g/niemopen>
 - NTAC TSC: <https://lists.oasis-open-projects.org/g/niemopen-ntactsc>
 - NBAC TSC: <https://lists.oasis-open-projects.org/g/niemopen-nbactsc>
 - NMO TSC: <https://lists.oasis-open-projects.org/g/niemopen-nmotsc>
 - SLTT Tiger Team: <https://lists.oasis-open-projects.org/g/niemopen-sltt>
- Registry & Repository
 - Message Exchange Package (MEP) Registry & Repository: <https://www.niem.gov/about-niem/message-exchange-package-mep-registry-repository>
 - NIEM Restricted Repository: <https://wmaafip.js.mil/NIEM>
- Releases: [http://niem.github.io/niem-releases/](https://niem.github.io/niem-releases/)
- Tools Catalog: <https://www.niem.gov/tools-catalog>
- Training: <https://niem.github.io/training/>



Follow Us



https://twitter.com/NIEMconnects?ref_src=twsrctfw



<https://www.linkedin.com/groups/1903175/profile>



<https://www.youtube.com/channel/UCg9qV22PXLBjG41hc-EwVrQ>



Discussion / Closing

Remarks

Chuck Chipman

Contact Us

Sub-Committee Co-Chairs

Beth Smalley

(757) 203-7177 (DSN 836)

Beth.l.smalley.civ@mail.mil

Lavdjola Farrington

(757) 203-8544 (DSN 836)

Lavdjola.farrington.civ@mail.mil

Secretariat

Nicholas Ballard

(757) 203-9670 (DSN 836)

Nicholas.a.ballard.civ@mail.mil

Website

<https://niem.github.io/community/milops/>

MilOps Email

Js.dsc.j6.mbx.milops@mail.mil



BACKUP

NIEMOPEN MILSTDS, CJCSIS, DODIS & STANAGS

Effort	Partner ORGs	Overview	Status
Integrating NIEMOpen via STANAGs NCDF STANAG 5653	JS J6, Germany, NATO ACT / NCIA)	Semantics: MIP Information Model (MIM) UML format to NIEM-conformant XML creation. Syntax: NATO XML Naming Design Rules to mimic NIEM	Share COMPSPOT IEPD with German MTF Rep Nico (already approved by ACC). Once Nico's support contract is in place, continue to engage and share as appropriate USMTF work already done. This will ensure quicker alignment between U.S. and NATO.
MILSTD 6040 (USMTF) NIEMOpen Conformance approach, STANAG 7149/APP-11	USMTF CCB	Onboard/Technical Support to transform existing USMTF XML into a NIEMOpen conformant construct. Potential to include 20,000 new data components into the MilOps Domain	USMTF migrating to NIEMOpen XML; anticipate completion FY23; NATO MTF to evaluate U.S. product once released.
MILSTD 6016 (Link-16) Tactical Data Link J-series messages XML standardization STANAG 5516	Joint Multi-TDL CCB	Approved Draft Interface Change Proposal to develop Appendix to provide guidelines for generation of J-Series message data as NIEMOpen conformant XML	The appendix to 6016 will provide for the conversion of J-series binary messages to XML; and back to binary. One of the primary considerations of this effort is NIEMOpen conformance. Two challenges currently being worked: a. J-Series messages do not convert directly to NIEM. b. Identification of a binary to XML conversion that will support NIEMOpen conformance. c. NATO ahead of U.S. w/ DFDL; U.S. considering leveraging DFDL to produce NIEMOpen conformant XML of J-series messages
MILSTD 6520	NATO, Greece	C3B Interim Measure regarding geographical Entities for C3 Standards Addendum 2 to AC/322-N(2017)0092	
MILSTD 2525 Symbology STANAG 2019/APP-6	NATO	Standardized set of graphical symbols for the display of Information in C2 Systems and Applications.	Both U.S. and NATO standards aligned; NIEMOpen v3.0 and v4.0 support exchanging SIDC codes.
Joint All Domain Command and Control (JADC2)	Joint Staff, CDAO, OUSD, DOD MPE Exec Agency	Warfighting Capability intended to Sense, make Sense and Act at all levels and phases of war and across all domains with partners, to deliver information advantage at the speed of relevance.	Currently being implemented through five stable and enduring Lines of Efforts, objectives and tasks to achieve strategic goals. Multiple reaffirmations to NIEMOpen in the JADC2 RA Enclosure D (JADC2 Capability Development and Analytical Framework) within the Application and services, Interface and Data & Information principals. Also, Referenced at the JADC2 RD Standard View 2.

NIEMOPEN MILSTDS, CJCSIS, DODIS & STANAGS

Effort	Partner ORGs	Overview	Status
CJCSM 3265.01A JOINT COMMAND AND CONTROL (C2) REQUIREMENTS MANAGEMENT PROCESS AND PROCEDURES	Joint Staff		Currently reference NIEMOpen section 5.3 Mission Partner Interoperability, Section 7 Data
CJCSI 6610.01F TACTICAL DATA LINK STANDARDIZATION AND INTEROPERABILITY	Joint Staff		Currently reference NIEM
DODI 8110.01 MISSION PARTNER ENVIRONMENT INFORMATION SHARING CAPABILITY IMPLEMENTATION FOR THE DOD	DoD CIO		Section 1.2. Policy f 1 Section 2.10 OSD AND DOD COMPONENT HEADS, EXCEPT FOR DOT&E Currently require compliance with NIEM
DODI 8320.07 Implementing the Sharing of Data, Information, and Information Technology (IT) Services in the Department of Defense	DoD CIO		NIEMOpen First Policy
DODD 819001e Defense Logistics Management Standards (DLMS)	USD (A&S)		Chg.3 Enclosure 2 page 6 Incorporates changes to ASC X12 standards into DLMS in accordance with the NIEMOpen
DoD Instruction 8170.01 ch 1, Aug 2021 Online Information Management and Electronic Messaging			Section 3.11 Data b. Architect new DoD electronic messaging services for openness and expose high-value data and content as Web APIs at a discrete and digestible level of granularity with metadata tags, in accordance with the May 23, 2012 Federal CIO Memorandum and the tagging concepts and standards found in DoDI 8320.07
IC Data-Centric Framework and Joint Guidance Plan, 24 Jan 2023	NSA	The IC Joint Guidance Plan is a living document, reviewed periodically, and based on lessons learned from the mission sprints and refinement of the Data-Centric Framework. 42	NIEMOpen is mentioned under for data-related activities, "an organization should adopt controlled vocabularies and terminologies". Also, NIEMOpen is under the reference standards under guidance such as "IC Elements should conform to NIEMOpen standards to enable humans querying"

NATO CORE DATA FRAMEWORK (NCDF) CWIX 2023 AND FEDERATED MISSION NETWORKING (FMN)



• **NCDF ~ NIEM in NATO**

- Adopt NIEM-like technical specifications (e.g NDR, IEPDs)
- Adopt NIEM-like business processes (e.g. core and domain models)
- Draft NCDF STANAG (standardization agreement); will enter ratification process this year
- NATO Semantic Reference Model (SRM) Vision: create a Common Cross Community SRM (CXCSRMM)

• **CWIX 2023 – NCDF Data Lake demonstration**

- Use NCDF model as basis for structural data stored in the data lake
- Includes transformation from several formats to NCDF (e.g. MIP, MTF, OTH-G, NVG, KML, native XML)
- Data tagged for discovery/search/access control (IAW STANAGs 4774/4778/5636)
- Includes data from various COIs: Maritime, CBRN, C2, Medical, Cyber, ISR, Space, Land

• **NCDF in FMN**

- FMN is NATO effort to establish min federation capabilities to ensure Day 1 interoperability for NATO operations
- Includes set of Procedural Instructions and Service Instructions
- FMN Spiral 5 Service Instruction for Cross Community Information Sharing (NCDF Data Lake)

NIEM 5.2 MILOPS MISSION SPECIFIC (MOMS)

- Separate release for distribution restricted content, typically published 3 months after public release; currently includes:
 - Distribution Statement C – Federal gov’t and contractors
 - Distribution Statement D – DoD and contractors
- MOMS content/sources include: ASW COI, DCSA, JP 3-52 (Airspace Control), Link-16, USMTF, VMF, and more
 - Additional USMTF content to be added to MOMS 5.2
- MOMS releases include restricted content versions of the Conformance Testing Assistant (ConTesA) and the Schema Subset Generation Tool (SSGT), which are available upon request due to file size
- MOMS releases are available on the NIEM Restricted Repository hosted on the Warfighting Mission Area – Architecture Federation and Integration Portal (WMA-AFIP) at <https://wmaafip.js.mil/NIEM>

MILOPS DOMAIN

- Main landing page - <https://www.niem.gov/communities/military-operations>
 - Become a member - <https://www.niem.gov/contact>
 - Governance
 - Explore MilOps model content
 - Download the current NIEM release which includes updates to MilOps model content - <https://niem.github.io/niem-releases/>
 - NIEM Restricted Repository - <https://wmaafip.js.mil>
 - View model content using Movement -
https://beta.movement.niem.gov/#/results?q=*&selectedFacets=domain:%22Military%20Operations%22&page=1
 - Success Stories - <https://www.niem.gov/about-niem/success-stories>
 - Get involved - <https://niem.github.io/community/milops/>