

UMF & NIEM

April 22, 2014

WELCOME AND AGENDA

| Time | Topic | Details | Lead Presenter/Presenters |
|-------------------|---------------------------------|--|-------------------------------------|
| 9:30AM - 9:45AM | Welcome | Purpose and Agenda for the Day | Justin Stekervetz & Christina Bapst |
| 9:45AM - 10:15AM | UMF Update | Current State of Governance and Model | Kris Klebek |
| 10:15AM - 10:45AM | NIEM Highlights | NIEM 3.0, NIEM-UML, Design Patterns | Justin Stekervetz |
| 10:45AM - 11:00AM | Break | N/A | N/A |
| 11:00AM - 12:00PM | NIEM Governance | Committees, PMO Structure, and Org Chart | Pat Brooks & Derek Nisco |
| 12:00PM - 1:00PM | Lunch Session on DoD Case Study | Overview of Process and NIEM First Policy | Lynda Dallas/Ryan Schultz |
| 1:00PM - 2:30PM | Support Functions | Training, Help Desk, Lead Developers, Tools | Christina Bapst & Justin Stekervetz |
| 2:30PM - 3:30PM | Model Management | Release and Harmonization Process | Justin Stekervetz |
| 3:30PM - 3:45PM | Break | N/A | N/A |
| 3:45PM - 4:45PM | Stakeholder Engagement | Community-wide and Community-specific | Christina Bapst & Derek Nisco |
| 4:45PM - 5:15PM | Closing Remarks | N/A | Kshemendra Paul |
| 6:00PM - 7:30PM | Dinner | Farmers, Fishers, Bakers Georgetown Waterfront Area 3000 K Street NW, Washington, DC 20007 | N/A |

UMF OVERVIEW



Universal Message Format (UMF)

with the financial support from the Prevention of and Fight against Crime Programme of the European Union
European Commission - Directorate-General Home Affairs



Why UMF?

Many “law enforcement” channels, systems and data models on international level

EUROPOL AWFs, EIS, IxF, EBDS, SIENA, Audit

INTERPOL iLink, I247, SLTD, SMV, iArms

EUROJUST EPOC, CMS

FRONTEX JORA, EUROSUR

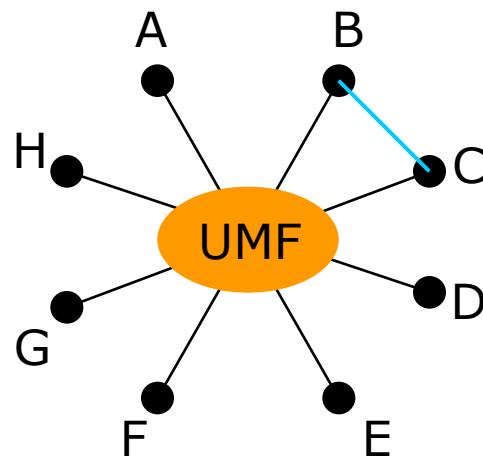
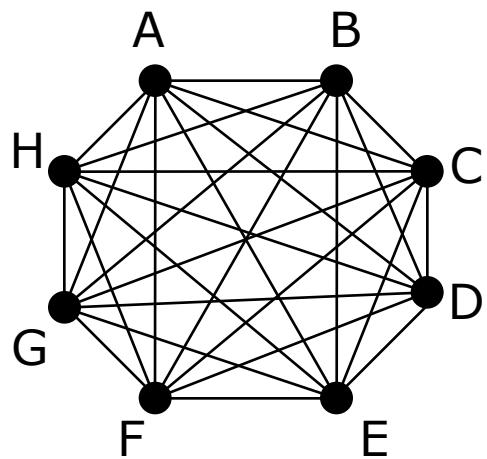
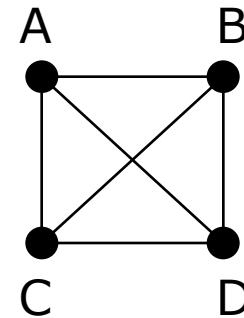
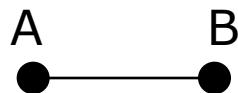
SIRENE/SIS

“Swedish Initiative”, Prüm, ECRIS, CIS, EAW, VIS,
EURODAC, PNR, *EES* etc.

Why UMF?

**Even more “law enforcement” channels, systems
and data models on national level!!!**

Why UMF? Interfaces



Why UMF? “Good” & “Bad” standards

| | | | | | | |
|--|-------------------------------------|---|-------------------------------------|---|--------------------------------------|---|
| X | X | ✓ | ✓ | ✓ | - | X |
| North America Grounded NEMA 5-15 | Japan Non-grounded JIS C 8303 | Europe German style CEE7/4 Schuko | Europe French style Schuko | Europe/Russia Non-grounded CEE7/16 Europlug | Great Britain Grounded BS-1363 | Great Britain "Shaver socket" BS-4573 |
| X | X | X | X | X | X | X |
| Australia/China Grounded AS-3112 | Italy Grounded CEI 23-16 | Switzerland Grounded SEV-1011 | Denmark Grounded SRAF 1962/DB | Israel Grounded SI 32 (IS 16A-R) | India Grounded BS-546 "Small" | South Africa Grounded BS-546 "Large" |

Universal Message Format (UMF2)

Action point 5 – *Information Management Strategy*
approved by the Council in 2010

Programme supported by the Council and the
Commission, under auspices of DAPIX

Aim: **Create a framework for structured, cross-border communication exchange for Law Enforcement**

UMF Objectives

Common law enforcement ***Information Model*** (human)

Technical (IT) specifications - ***Exchange Format*** (computer)

Proposal for permanent ***Governance Structure***

Pilot implementations:

- Prüm hit follow-up form (live)
- Automation of the Prüm hit follow-up form (Poland/ongoing)
- SIENA supporting UMF (ongoing)
- EAS supporting UMF (planned)

Community of experts

UMF2 Partners

Universal Message Format 2 Interoperability Coordination Programme
Programme Structure



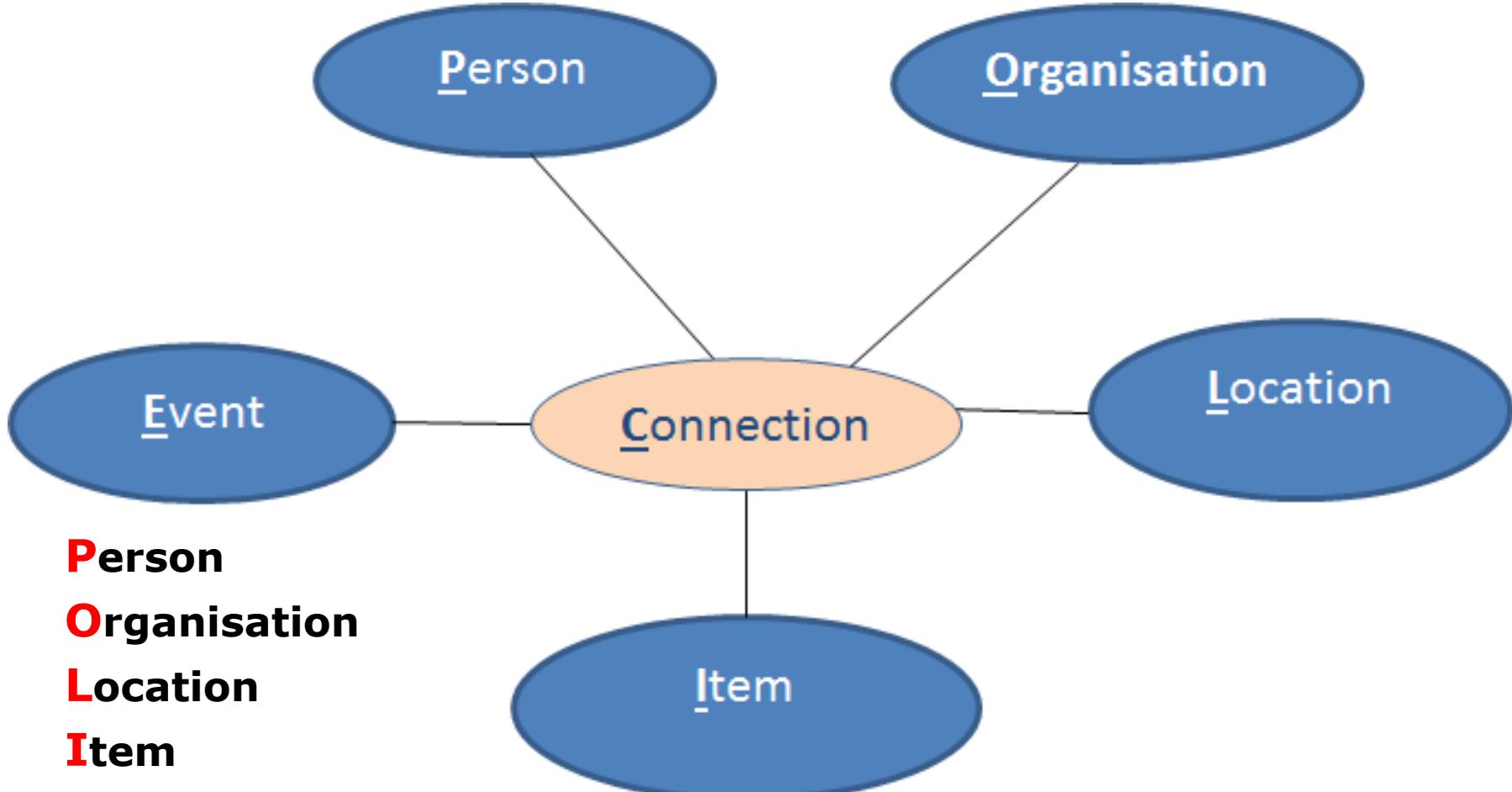
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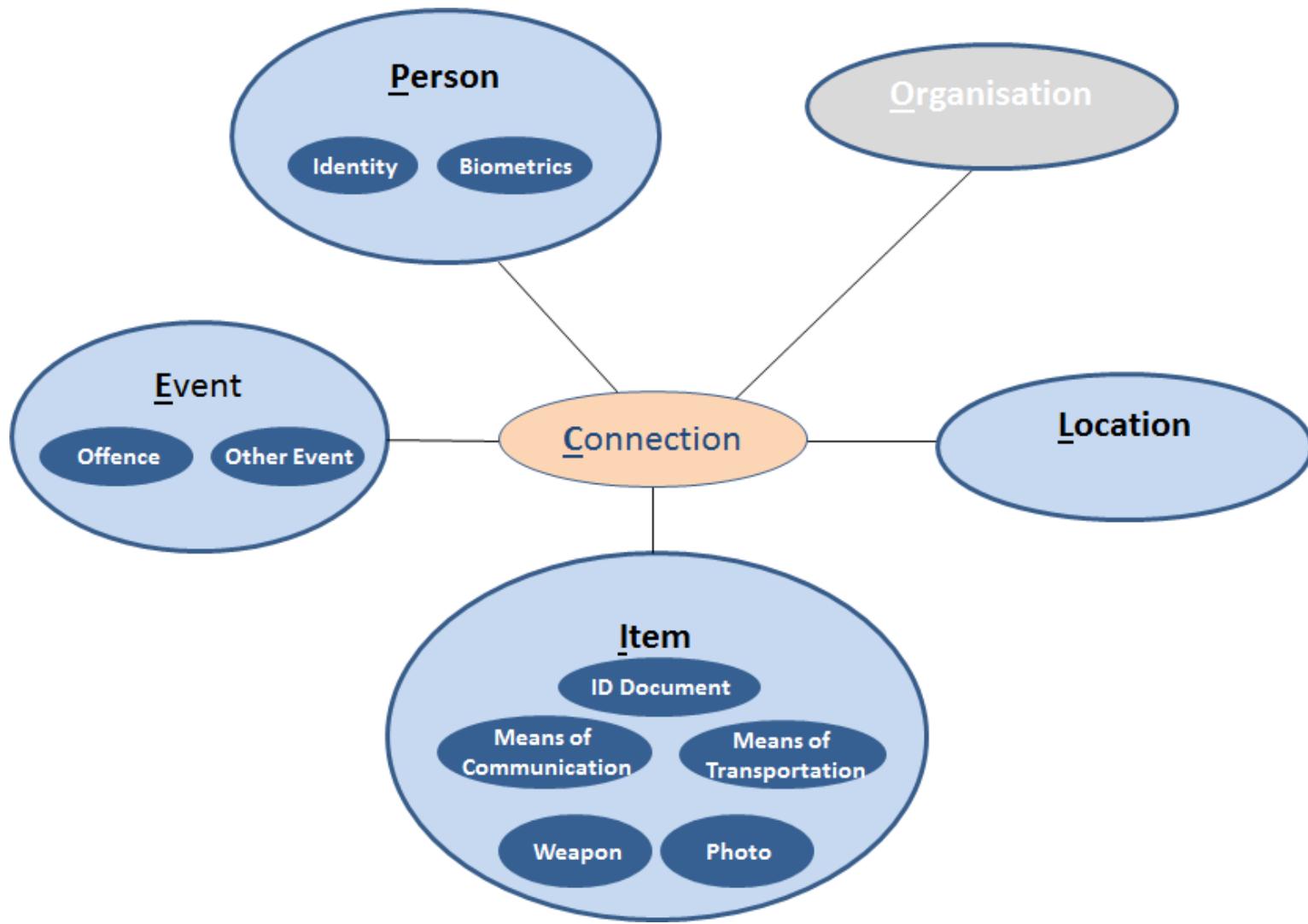
UMF Guiding Principles

- Supports **crossborder info exchanges** (does not concern structure of your systems!)
- **Technology agnostic**
- **Simple and understandable** for Law Enforcement & ICT
- The **80/20 Rule**
- **Extensible and future-proof** Information Model
- Exchange of **unstructured information** along with structured parts
- Build on **existing standards (re-use!)**
- **Double-labelling** of key legal concepts
- **Language-independence** (support for **multilingualism**)
- Allow for flexibility in the development of applications requiring **Human Interaction**

UMF Information Model



UMF Information Model



Benefits of UMF (automation)

For law enforcement (once implemented):

- Shorter response time
- Improved data quality
- Better case understanding, incl. breaking language barrier!
- Better knowledge/statistics
- Less resources needed

For IT:

- Simplified design, development, and maintenance
- Stimulation of private vendors

UMF governance structure (*proposal*)

Aim: **sustainability of UMF**

Means: permanent governance structure

Vision:

- strong strategic positioning
- wide adoption
- focus on benefits for law enforcement

UMF governance structure (*proposal*)

Main principles:

- UMF **responds to needs** of Law Enforcement.
- UMF is **based on expert opinion and developed through a multi-stakeholder process of experts** from both law enforcement and ICT domains and representing all participating countries and organisations.
- UMF is **based on a consensus** – all major decisions are taken jointly and unanimously.

UMF governance structure (*proposal*)

Main functions (areas):

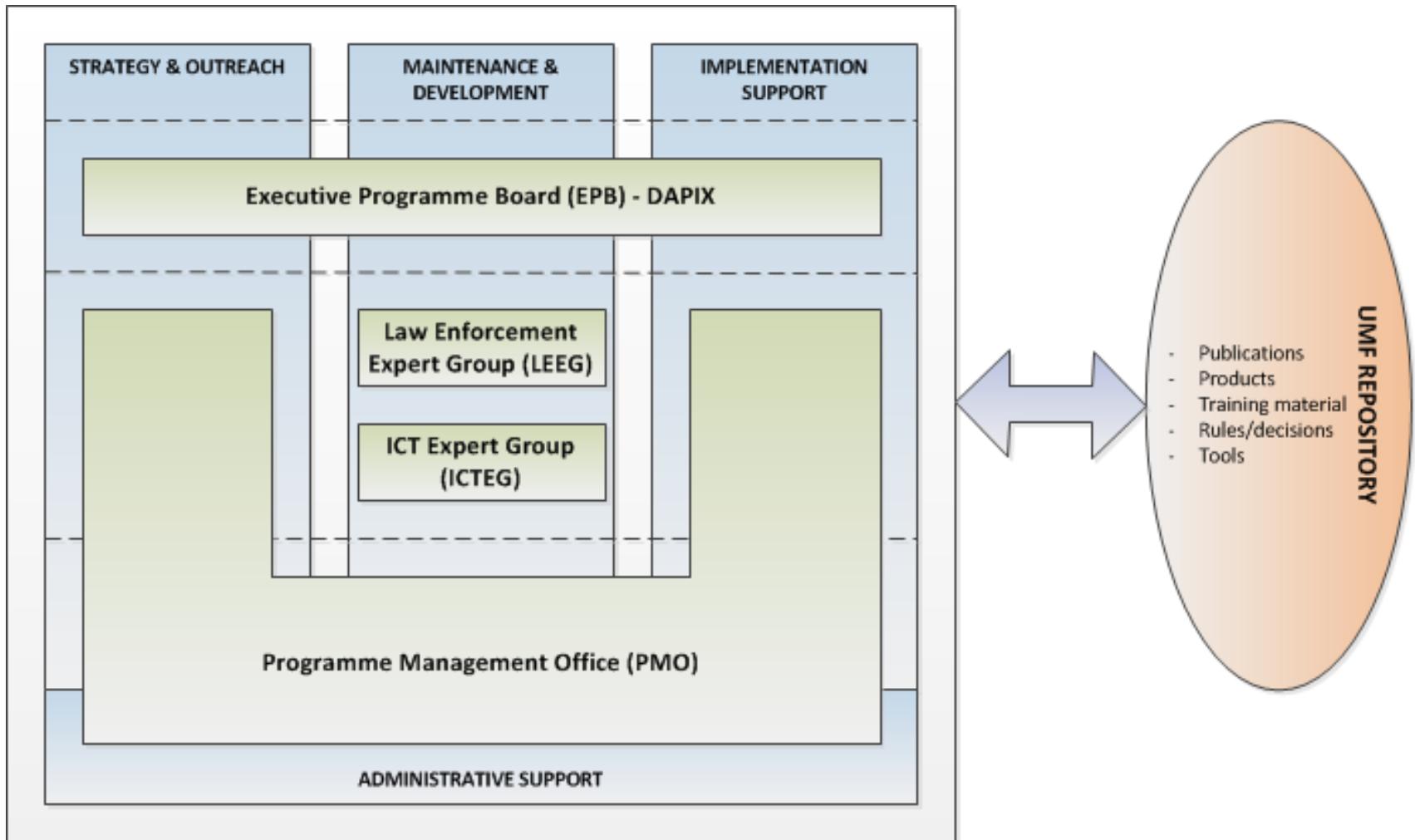
- Strategy (implementation) & Outreach
- Continuous maintenance and further development of the standard
- Support for implementation of the standard in concrete projects

UMF governance structure (*proposal*)

Main actors:

- Executive Programme Board (EPB) – extended DAPIX
- Law Enforcement & ICT Expert Groups
- Programme Management Office (PMO)

UMF governance structure



Challenges

Scenarios/systems to interconnect

Old v. new exchanges

Getting buy-in

Resources for governance structure



**Thank you
Any questions?**

Krzysztof Klebek
Europol
CD Business Product Management
email: krzysztof.klebek@europol.europa.eu
tel. +31-703531167

RECENT NIEM UPDATES

HISTORY OF NIEM

Started by a handful of organizations supporting state and local government, NIEM is a community-driven, government-wide, standards-based approach to exchanging information. Diverse communities can collectively leverage NIEM to increase efficiencies and improve decision-making.

By joining forces to overcome the challenges of information exchange across government boundaries, a grassroots effort called the Global Justice Information Sharing Initiative was established.

Built upon GJXDM's success and lessons learned, NIEM was launched in April 2005 by DHS and DOJ. HHS joined as the third primary sponsor in 2010.

The Department of Homeland Security (DHS) was established on November 25, 2002.

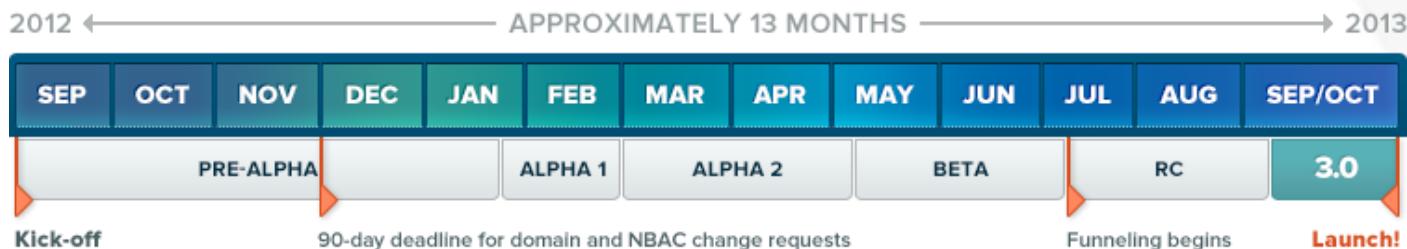
The Global Justice XML Data Model (GJXDM) was announced in April 2003.

NIEM continues to mature with new communities and partners...

CURRENT RELEASE: VERSION 3.0

The latest release of NIEM is available for use and can be found at NIEM.gov/version3.

The NIEM 3.0 release schedule:

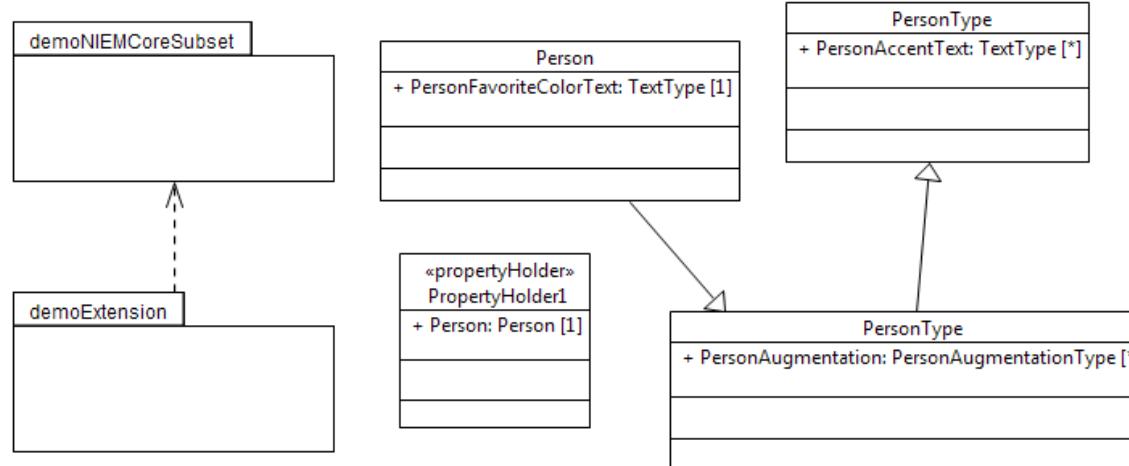


The NIEM 3.0 release contained:

- New elements to **NIEM core**, as well as modified existing names/definitions
- New and/or updated content from **7 domains** including Chem/Bio/Rad/Nuc (CBRN), Justice, Screening, Immigration, Biometrics, Maritime, and Children, Youth and Family Services (CYFS)
- **Technical architecture** enhancements to reduce the complexity and duplication of elements and to create information exchanges that are easier to implement

NIEM-UML

The UML Profile for NIEM Version 2.1 (better known as NIEM-UML) is an Object Management Group (OMG) specification for modelers and developers to produce NIEM-conformant artifacts using the Unified Modeling Language (UML).



NIEM-UML is a specification. It must be implemented in a UML modeling tool in order to generate NIEM-conformant XML schema.

WHEN WOULD I USE NIEM-UML TOOLING?

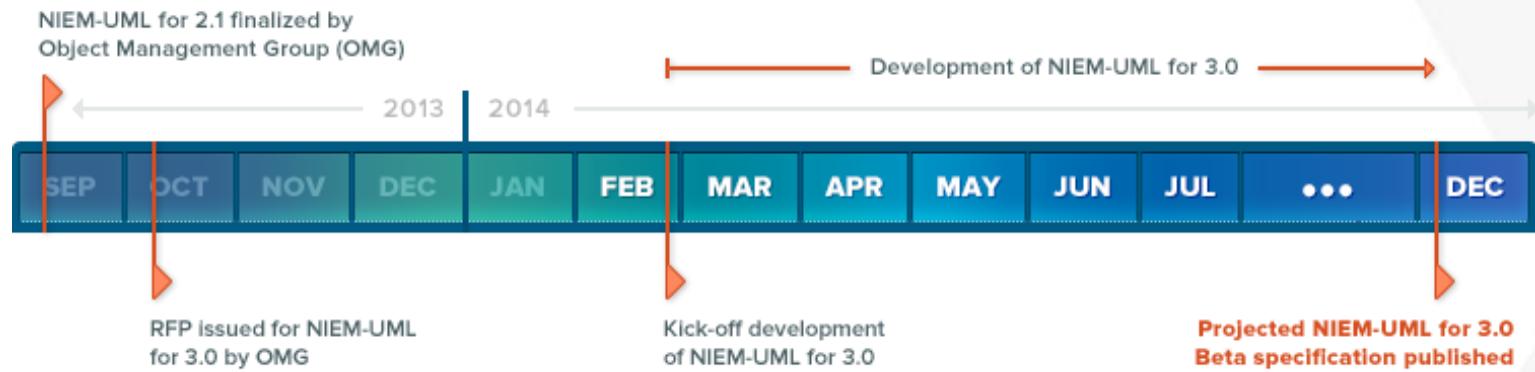
*For developers who have previous UML experience,
NIEM-UML is a great option for creating exchanges.*



- NIEM-UML provides a visual model, which can be easier to understand than XML schema
- NIEM-UML, in a tool, generates NIEM-conformant information exchanges and can assist in domain model management
- Rules outlined in the NIEM specifications (for NIEM Version 2.1) are automatically applied and validated

WHAT'S NEXT FOR NIEM-UML?

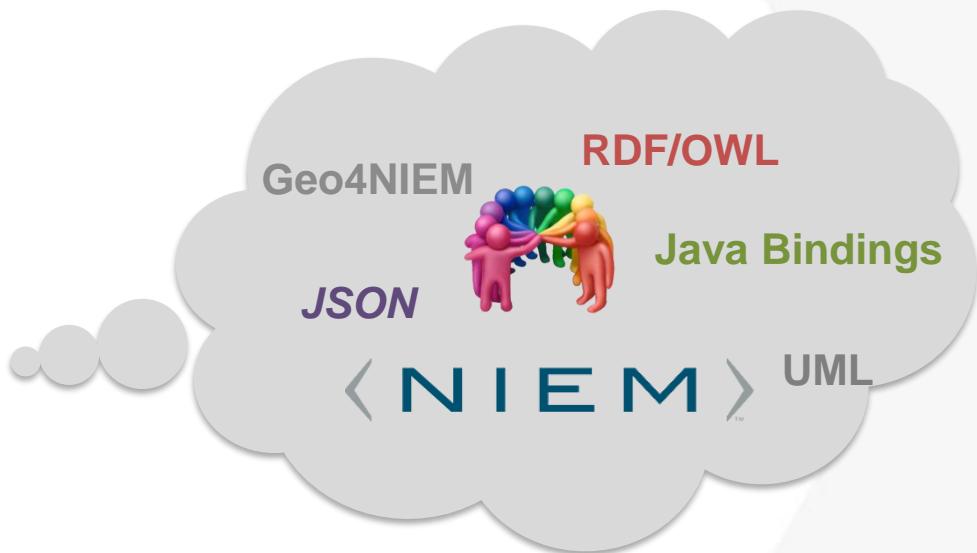
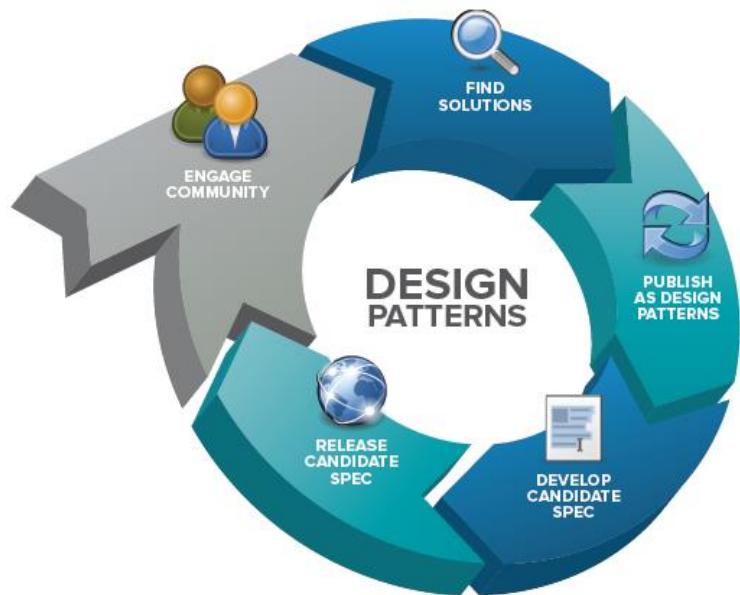
The OMG Architecture Board (AB) recently accepted the Request for Proposal (RFP) for NIEM-UML for 3.0.



For more information on the development of NIEM-UML for 3.0, visit NIEM.gov/uml

DESIGN PATTERNS

To ensure the NIEM program is growing its technical architecture and capabilities in alignment with community needs.



For more information, visit NIEM.gov/designpatterns

INTERNATIONAL INTERACTIONS

ISA Programme

- Interoperability Solutions for European Public Administrations (ISA) Programme supports and facilitates cross-border electronic collaboration between European public administrations
- Explored potential alignment between NIEM and ISA Core Vocabularies via mapping exercise for:
 - Core Person
 - Core Business
 - Core Organization

Japan

- Plans to build a common vocabulary infrastructure to enable the cross-sectional use of data
- Currently selecting necessary functions and vocabulary domains to prepare for the construction of the infrastructure
- As a result, embarking on promoting open data, adopting NIEM, and enhancing data security mechanisms

CrimTrac, Australia

- Responsible for national information sharing services between state, territory, and federal law enforcement and national security agencies
- Objective to deepen understanding of NIEM in context specific to the Justice and Biometrics domains
- **Gained approval from all Australian Police Commissioners and the CrimTrac CEO to adopt NIEM for police data sharing**

NORTH AMERICA ADOPTION

Temporary Resident Biometrics Project

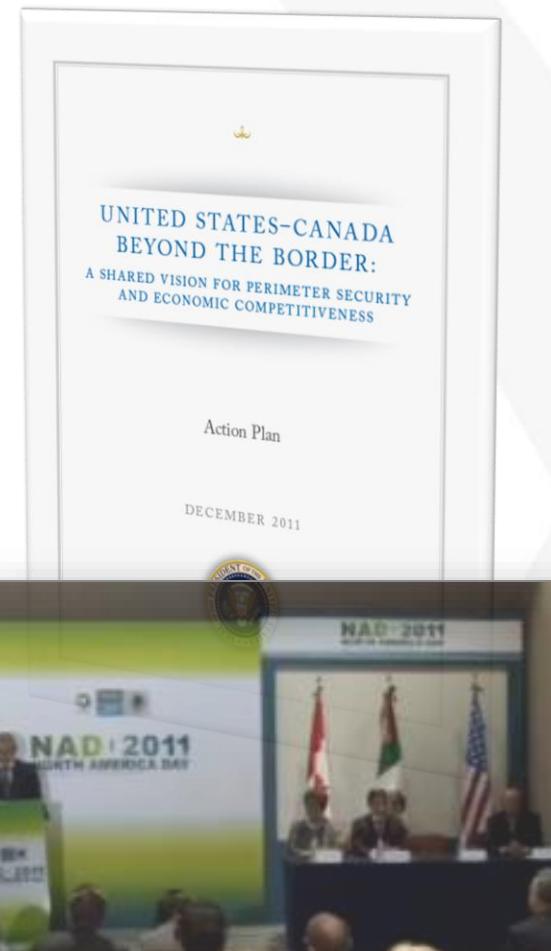
- Citizenship and Immigration Canada
- US Citizenship and Immigration Services

Entry/Exit Data Exchange

- Canada Border Services Agency
- US Customs and Border Protection

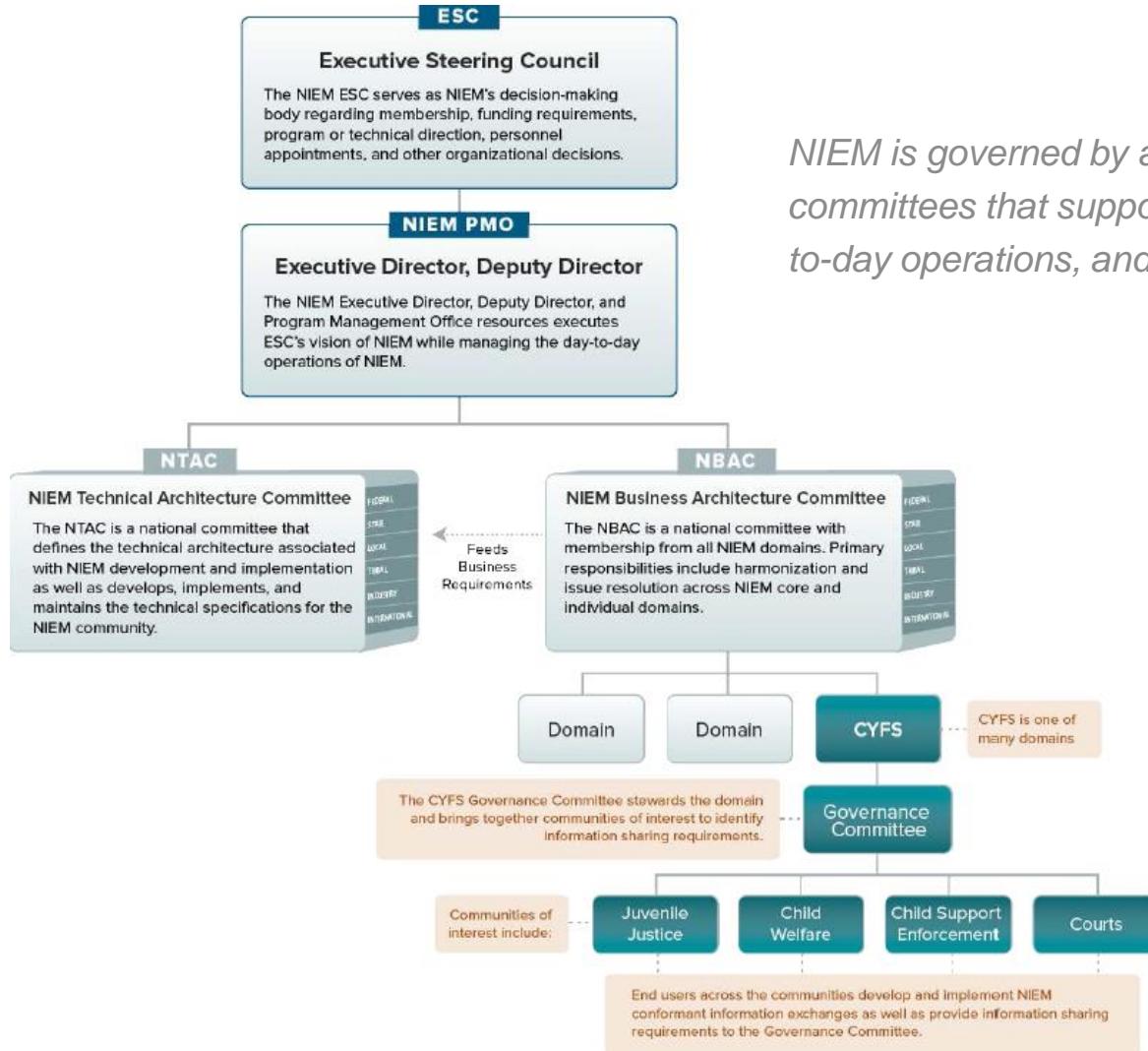
North America Day Pilots (US/Canada/Mexico)

- Public Health Pilot, Public Health Alerts
- Public Safety Pilot, Stolen Vehicles



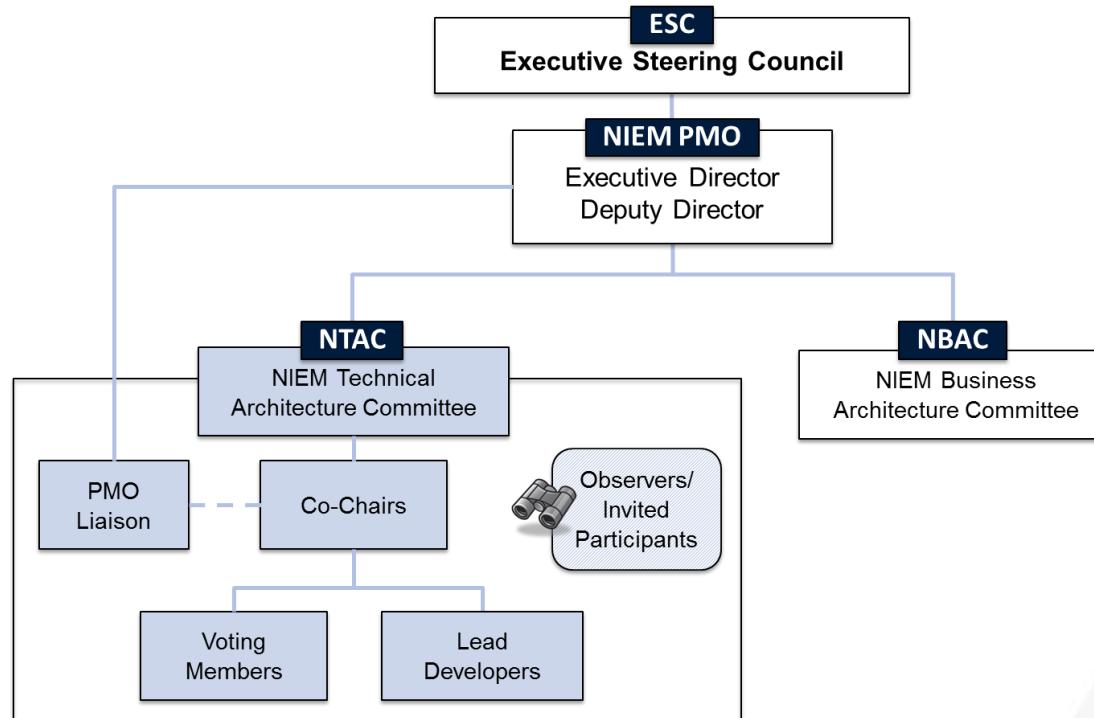
NIEM GOVERNANCE

NIEM GOVERNANCE



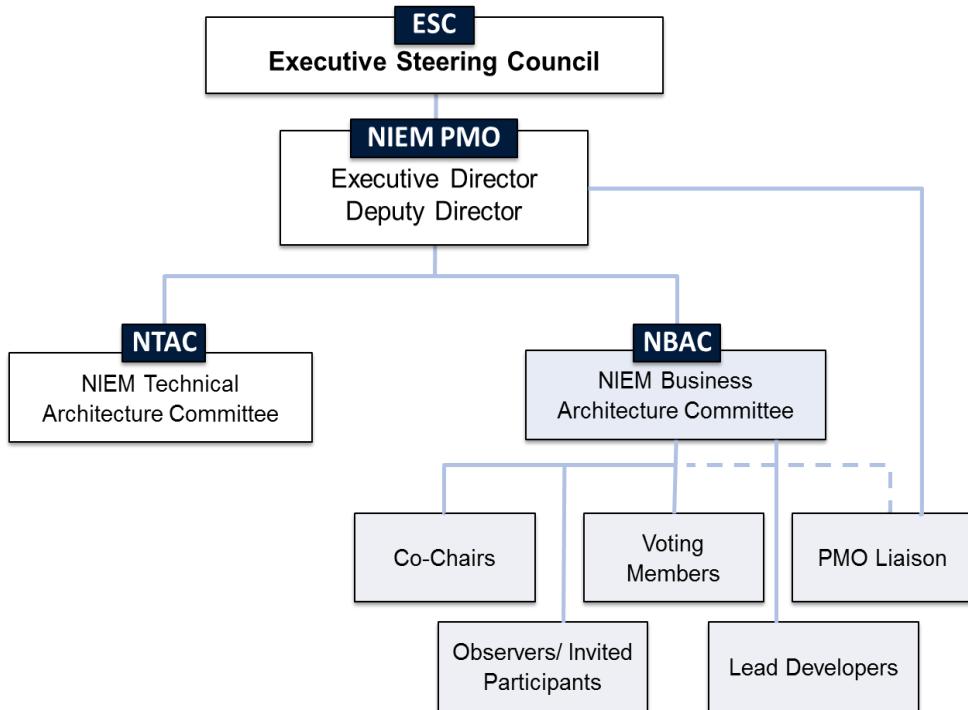
NTAC OVERVIEW

The primary mission of the NTAC is to define and support the technical architecture of NIEM. The NTAC documents, implements, and maintains technical specifications for NIEM. In addition, the NTAC is responsible for providing robust and effective development of the NIEM core structure and complementary processes to support and enable users to efficiently develop, use, and reuse NIEM-conformant model package description components



NBAC OVERVIEW

The mission of the NBAC is to set the business architecture and requirements of NIEM, manage NIEM core, and facilitate the processes for the regulation and support of NIEM domains.

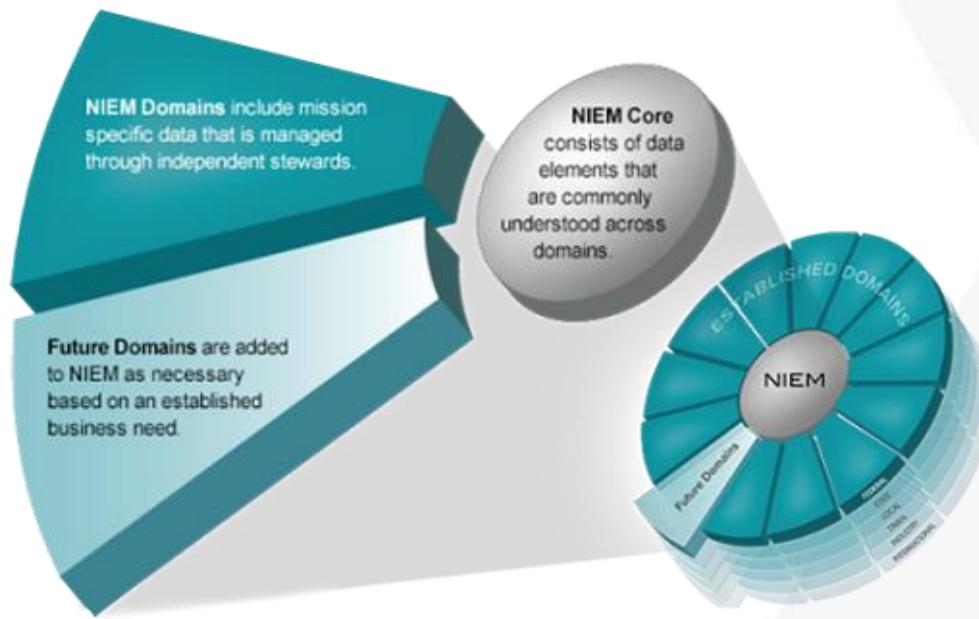


- Oversees and validates the construction, maintenance, and use of a business architecture framework for NIEM
- Provides management and oversight of the NIEM core, the central part of the NIEM data model that is commonly understood across all domains
- Serves as the forum for the admission of new domains and interactions between domains, and coordinates action to maintain the NIEM community

DOMAIN GOVERNANCE

NIEM domains are communities of interest that are formally established with an executive steward to officially manage and govern a portion of the NIEM data model.

NIEM domains contain mission-specific data components that build upon **NIEM core** concepts.



NIEM FIRST ADOPTION IN DOD

DoD Adoption of the National Information Exchange Model

22 April 2014



Ms. Lynda Dallas & Mr. Ryan Schultz

DoD CIO, A&I Directorate & Joint Staff J6

lynda.b.dallas.civ@mail.mil

ryan.r.schultz.civ@mail.mil

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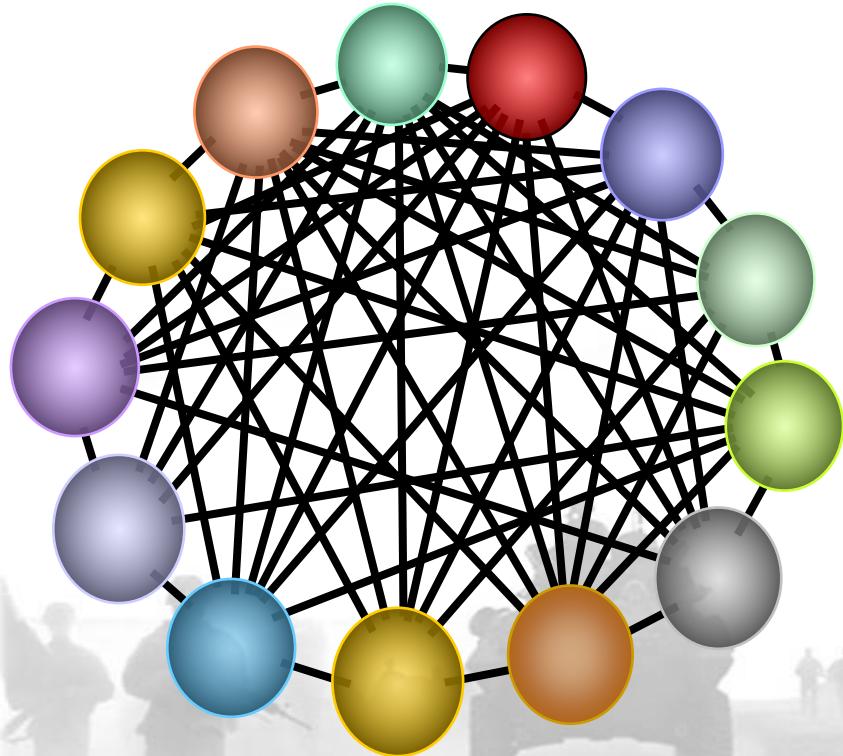


DoD CIO Vision & Mission

- **Vision:**
 - DoD and Partners securely access information and services they need at the time, place, and on approved devices of their choosing.
- **Mission:**
 - Lead the DoD Information Enterprise by defining a shared vision, setting overall policy, and driving the standard for the information infrastructure that supports warfighting, intelligence and business missions.

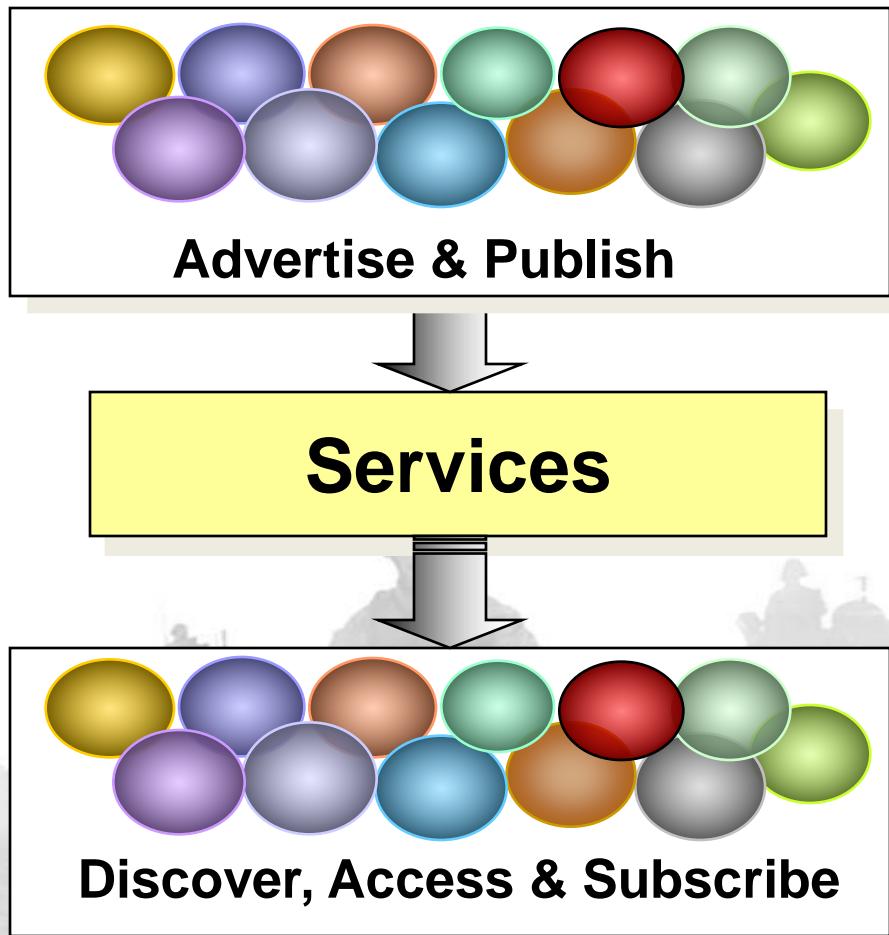
Legacy

- “Mandate to share” vs “Need to protect” information
- Focus on connectivity, standards, guard solutions
- Highly structured, pre-determined point to point information exchange



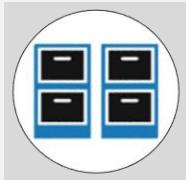
Future

- Systems and applications are web-enabled to advertise and expose their information.



DoD IT MODERNIZATION

CONSOLIDATE INFRASTRUCTURE



1. Consolidate Enterprise Networks



2. Deliver DoD Enterprise Cloud

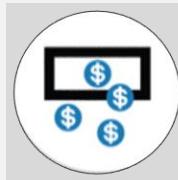


3. Standardize IT Platforms

STREAMLINE PROCESSES



4. Enable Agile IT



6. Strategic Sourcing for IT Commodities



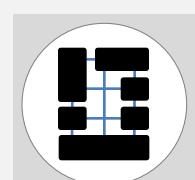
8. Strengthen IT Investments



5. Strengthen IT Governance



7. Strengthen Cyber Security



9. Improve Enterprise Arch Effectiveness

STRENGTHEN WORKFORCE



10. Modernize IT Guidance and Training



Challenges To Meeting Our Imperatives

In today's environment, the Combatant Commands (COCOMs) are provided with Service-centric IT networks and IT services focused on Service-unique domains. This Service-centric approach extends beyond networks to identity and access management processes, data centers, mission and business applications, commercial off-the-shelf (COTS) hardware and software, and IT procurement practices.

DoD CIO Information Technology (IT) Enterprise Strategy and Roadmap

| | | |
|---|--|--|
|  |  |  |
| Hundreds of sub-optimal data centers and networks incur unnecessary costs | Limited interoperability reduces information sharing and mission collaboration | Increasing demand for new technology on rapidly evolving devices |
|  |  |  |
| IT Programs average 81 Months* – cannot rapidly and efficiently field new technology to meet warfighter needs | Cyber security vulnerabilities threaten to exploit classified information and endanger our national security | Current IT delivery process hinders our ability to take advantage of new commercial technology |

The Result is an IT Infrastructure That Does Not Effectively Support the Joint Warfighting Environment

DoD Data Sharing End State

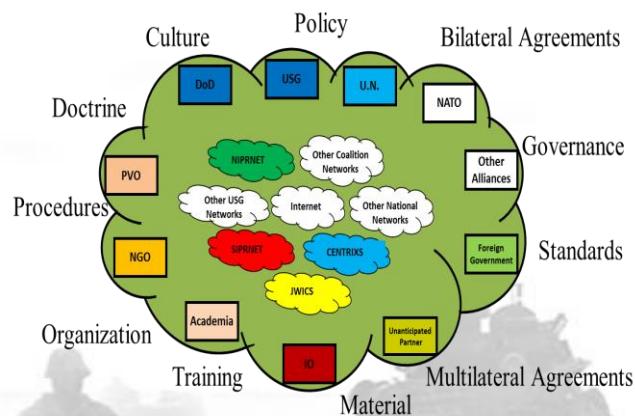
Make Data
Visible

Make Data
Accessible

Make Data
Understandable

Enable Data to
Be Trusted

Make Data
Interoperable



Today's Environment

Connect, Access,
Share, Operate, Defend
and Govern



Future Environment

Why Adopt NIEM Now

- **Connects communities to advance missions**
- **Not intrusive to existing information systems**
- **Does not require spending resources for new or different hardware**
- **Reuses existing data elements**
- **Enables sharing with mission partners**



ENHANCE OPERATIONAL
EFFICIENCY



IMPROVE INTEROPERABILITY



CONTROL COSTS THROUGH
REUSE



INCREASE MISSION
EFFECTIVENESS

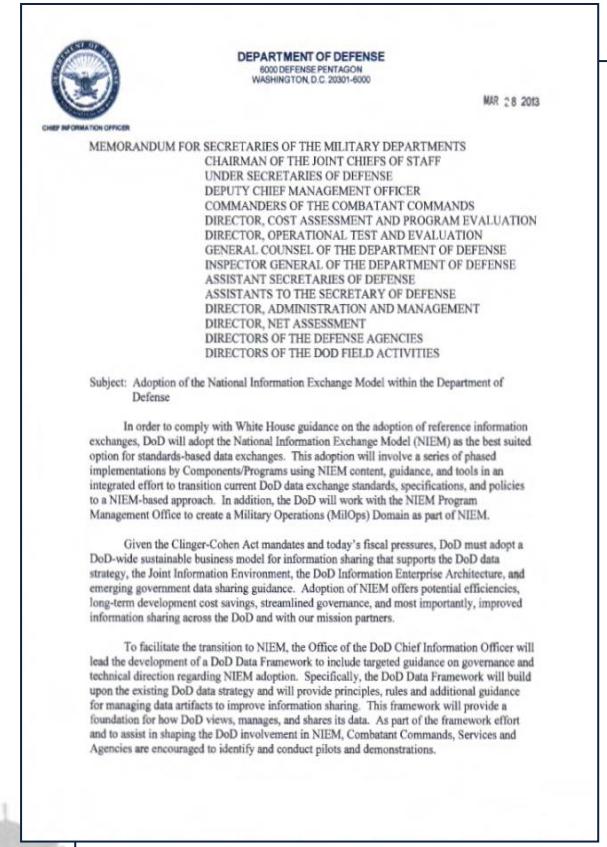
DoD Adoption of NIEM

The 28 Mar 13 DoD CIO NIEM Adoption memo states:

“ ... DoD will adopt the National Information Exchange Model (NIEM) as best suited for standards-based data exchanges.”

“... the DoD will work with the NIEM Program Management Office to create a Military Operations (MilOps) Domain as part of NIEM.”

“...DoD organizations shall first consider NIEM for their information sharing solutions...



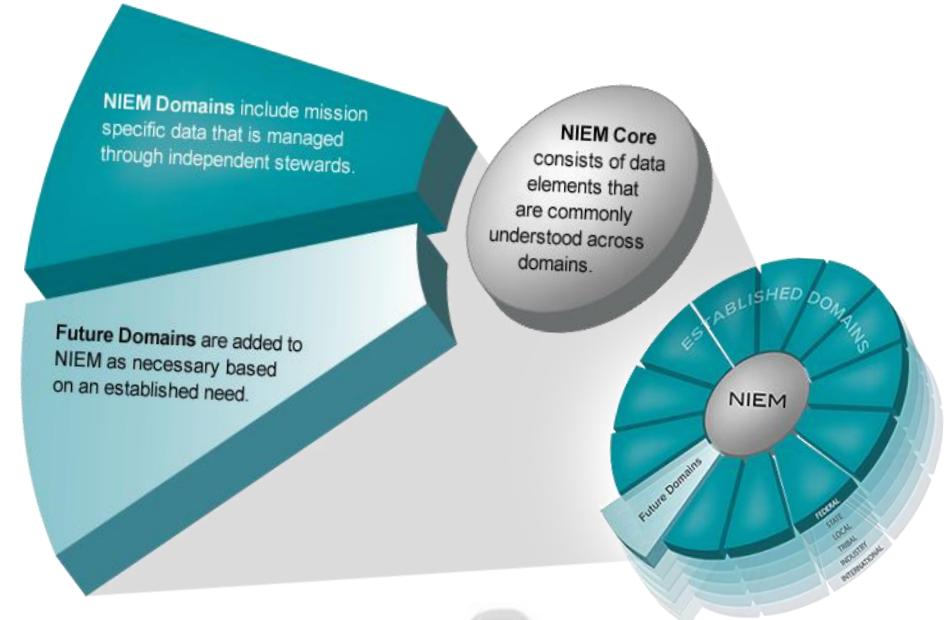
Adopting NIEM across DoD

- The DoD will adopt the NIEM as the best suited option for **XML-based information exchanges**.
- NIEM Adoption offers potential improvements in:
 - Mission Effectiveness
 - Economic Savings & Effectiveness
 - Mission Improvements
- DoD to build off success of the NIEM-Maritime to realize the potential for greater info sharing
- Adoption will involve a series of phased implementations by Components/Programs using NIEM content, guidance, and tools in an integrated effort to transition current DoD information exchange standards, specifications, and policies to a NIEM-based approach.

DoD participation in NIEM

The data model consists of two sets of closely related vocabularies:
NIEM Core and individual **NIEM Domains**.

- Biometrics*
- Chemical, Biological, Radiological, & Nuclear (CBRN)*
- Cyber* (emerging)
- Children, Youth, and Family Services (CFYS)
- Emergency Management
- Health* (emerging)
- Human Services (emerging)
- Immigration
- Infrastructure Protection
- Intelligence*
- International Trade
- Justice
- Maritime**
- Military Operations**
- Screening



*DoD
Participation

**DoD
Stewards

Newest
Domains

DoD Implementation of NIEM

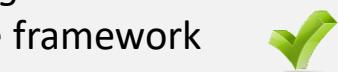
PHASE 1: SHAPE

- *DOD CIO Intent Memo on NIEM Adoption*
- Engage with internal/external audiences
- *DOD policy issuances*
- Synchronize with other DOD related activities
- *Identify and conduct Pilots*



PHASE 2: IMPLEMENT

- Establish NIEM MilOps domain
- NIEM Technical Assistance
- Publish program implementation guidance issued
- Incorporate into DOD governance framework



PHASE 3: MAINTAIN

- Developers implement consistent with NIEM First policy
- Measure adoption progress

NIEM Pilots and Early Adoption Activities

- Several pilots ongoing in 2014
 - Defense Security Enterprise Architecture (Base Access Information Sharing portion)
 - Civil Information Integration Pilot
- Have received multiple queries from organizations indicating interest in conducting FY14 pilots

Real World Example

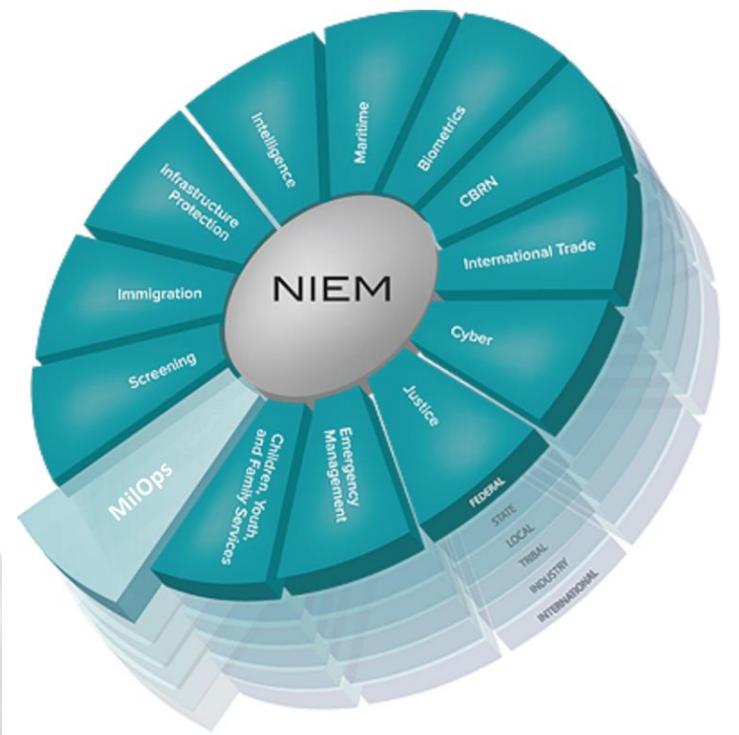
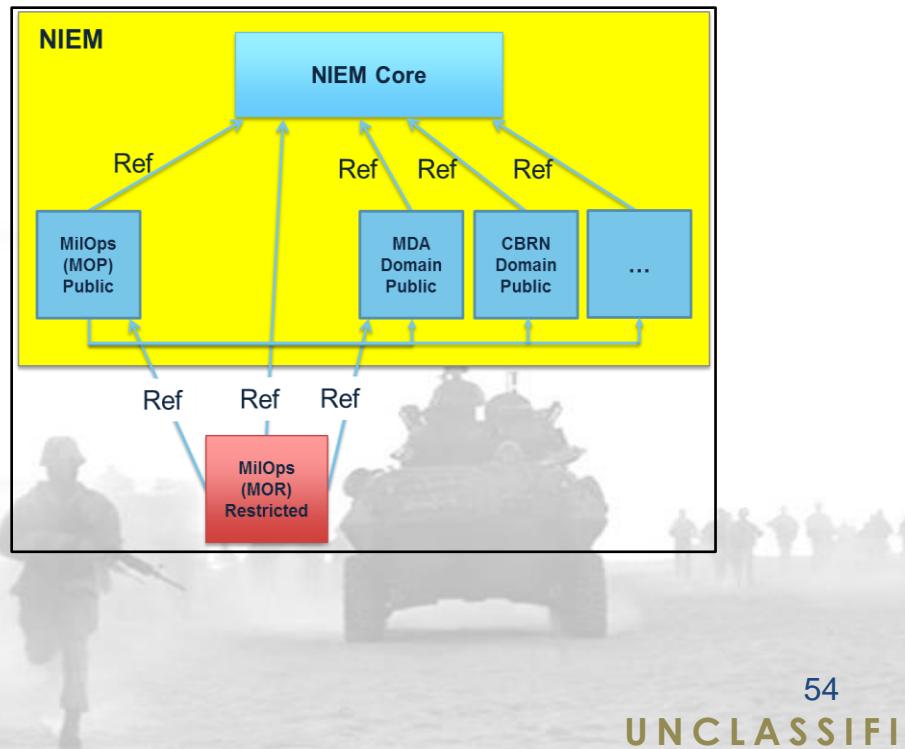
Maritime Information Sharing Environment (MISE)

The Maritime Information Sharing Environment (MISE) has provided an internet-accessible, unclassified information sharing framework. Leveraging Business Information Exchange Components, implementation time for new exchanges has been reduced from weeks to days, and in some cases, to hours. Currently, MISE is leveraged by over 12 active partners within the federal and defense community as well as their first state partner.



Military Operations Domain

- Created as part of larger overall DOD adoption of NIEM
 - Contains data components used for unique for military related NIEM-conformant information exchanges



MilOps Domain Scope

- Scope Statement:

"The NIEM MilOps domain manages those unique military operations and missions data components used to define NIEM Information Exchange Package Documents (IEPDs) that satisfies mission critical information sharing requirements within DOD, and/or with other Federal government agencies, and Mission Partners."

- Content to support any DOD mission area

- Harmonization / deconfliction with other domain content required

- Initial focus of MilOps Domain data components support information exchange requirements from the following DOD functional categories:

- Force Support
 - Battle Space Awareness
 - Force Application
 - Logistics
 - Command, Control, Communications, and Computers

Recent Domain Events

- NIEM MilOps Domain is now up and running
 - 4 Nov 13 NIEM ESC approved
 - DHS / DOD CIO / Joint Staff MOA for domain stewardship
 - 18 Dec 14 NIEM MilOps v1.0 content approved by Domain Steward
 - 18 Jan 14 available on the DoD Data Services Environment (DSE) for military use
 - 31 Jan 14 public content available on NIEM.gov
 - 14 Mar 14 MilOps Configuration Control Board kickoff

Domain Next Steps

- Mature the NIEM MilOps Configuration Control Board
 - Meets quarterly with more frequent tiger team sessions
 - Participation open to the entire NIEM community
 - Conduct domain-to-domain business sessions as needed
 - Anticipate a content update Dec 14
- Refine and complete the draft Domain Operations and Maintenance plan
- As part of a larger DOD CIO led team support current and emerging NIEM adoption activities
 - DOD technology demonstrations
 - NATO and coalition mission partners outreach
 - National Guard Bureau relationship

DoD Way Forward

- Continue NIEM Strategic Engagement to include industry outreach
- Expand NIEM First and related guidance
- Establish NIEM Technical Assistance
- Look for opportunities now to support early adoption
- Continue to conduct pilots and incorporate lessons learned

SUPPORT FUNCTIONS: TRAINING

NIEM TRAINING OVERVIEW



NIEM TRAINING INCLUDES:

Classroom
Training

Online
Training

Maintenance

NIEM TRAINING CURRICULUM

| | Executives General overview of the benefits of NIEM | Managers Project & Program Managers | Architects Business & Technical Architects | Developers Information Exchange Developers |
|---|--|---|---|---|
| NIEM 100 NIEM General Overview (~1 hour) | | | | |
| NIEM 101 Technical Introduction to NIEM (~1 hour) | | | | |
| NIEM 200 NIEM Project Management (~2 hours) | | | | |
| NIEM 300 IEPD Discovery and Development (~4 hours) | | | | |
| NIEM 301 NIEM Advanced Technical Concepts (~5 hours) | | | | |
| NIEM 302 Build and Validate and IEPD (~2 hours) | | | | |
| NIEM 303 Assemble, Publish and Implement an IEPD (~3 hours) | | | | |

REQUIRED COURSES OPTIONAL COURSES

7 COURSES

4 DISTINCT AUDIENCES

Participants can follow one of the four tracks or customize their education by selecting specific courses based on their business need.

NIEM ONLINE TRAINING



NIEM 100



NIEM 100 : General Overview

Provides an overview of the National Information Exchange Model (NIEM). By taking this course, you will understand NIEM's history, how NIEM works, the benefits and impacts of NIEM and how NIEM's governance is structured.



NIEM 100M : General Overview (Mobile Friendly)

Provides an overview of the National Information Exchange Model (NIEM). By taking this course, you will understand NIEM's history, how NIEM works, the benefits and impacts of NIEM and how NIEM's governance is structured. This version is mobile friendly.



How are we doing? Click here to provide feedback on NIEM trainings.

Thank you for participating in NIEM training. Please fill out this short evaluation to help us continue to improve and measure the effectiveness of our learning program. Thank you for your feedback!

| Course Name | Status | Result |
|---|--------|--------|
| NIEM 100: General Overview | | - |
| NIEM 100: General Overview | | - |
| NIEM 101: Technical Introduction to NIEM | | - |
| NIEM 200: NIEM Project Management | | - |
| NIEM 300: IEPD Discovery And Development | | - |
| NIEM 301: NIEM Advanced Technical Concepts | | - |
| NIEM 302: Build and Validate an IEPD | | - |
| NIEM 303: Assemble, Publish and Implement an IEPD | | - |

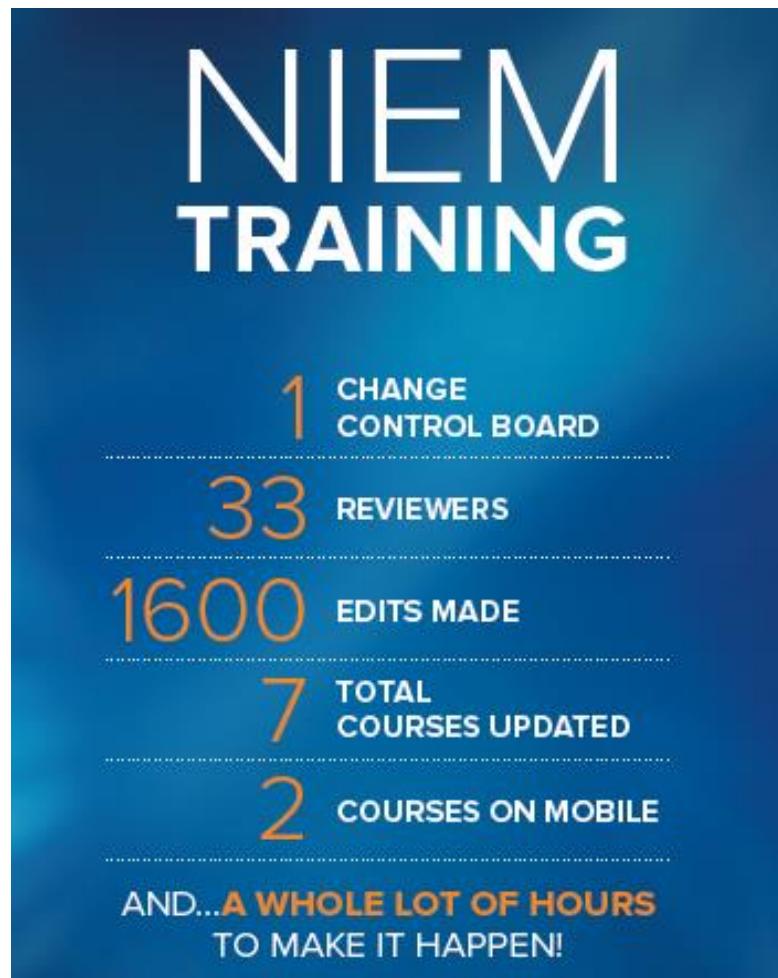
NIEM 3.0 TRAINING UPDATE

The NIEM Training Update process kicked off in May 2013 in anticipation of the NIEM 3.0 release. This update process has come to a close and has not only incorporated 3.0 changes to NIEM Training content but implemented other enhancements relative to NIEM-UML and overall usability.

Below is a summary of all seven courses and the type of changes made to each:

| Courses | Scope of Changes |
|--|--|
| <p>NIEM 100: NIEM General Overview</p> <p>NIEM 101: Technical Introduction to NIEM</p> <p>NIEM 200: NIEM Project Management</p> <p>NIEM 300: IEPD Discovery and Development</p> <p>NIEM 301: NIEM Advanced Technical Concepts</p> <p>NIEM 302: Build and Validate an IEPD</p> <p>NIEM 303: Assemble, Publish, and Implement an IEPD</p> | <p>All courses have been reviewed for the following:</p> <ul style="list-style-type: none">• Technical accuracy• Business concept alignment• Design and aesthetics• Usability and ease of maintenance• Case study/exercise and assessment enhancements |

NIEM 3.0 TRAINING UPDATE: RESULTS



SUPPORT FUNCTIONS: HELP DESK

HELP DESK

Contact us online:

| | |
|----------------------------|---------------------------------------|
| First Name * | Category * |
| <input type="text"/> | --None-- |
| Last Name * | Description * |
| <input type="text"/> | <input type="text"/> |
| Organization Name | |
| Organization Type * | |
| --None-- | |
| E-mail * | <input type="button" value="Submit"/> |
| <input type="text"/> | |
| Phone | |
| <input type="text"/> | |
| * indicates required field | |

Or:

The [National Information Sharing Standards \(NISS\)](#) can help you with questions regarding the content, principles, and best practices for using NIEM:



Search the NISS online knowledge base, available 24 hours a day, 7 days a week.

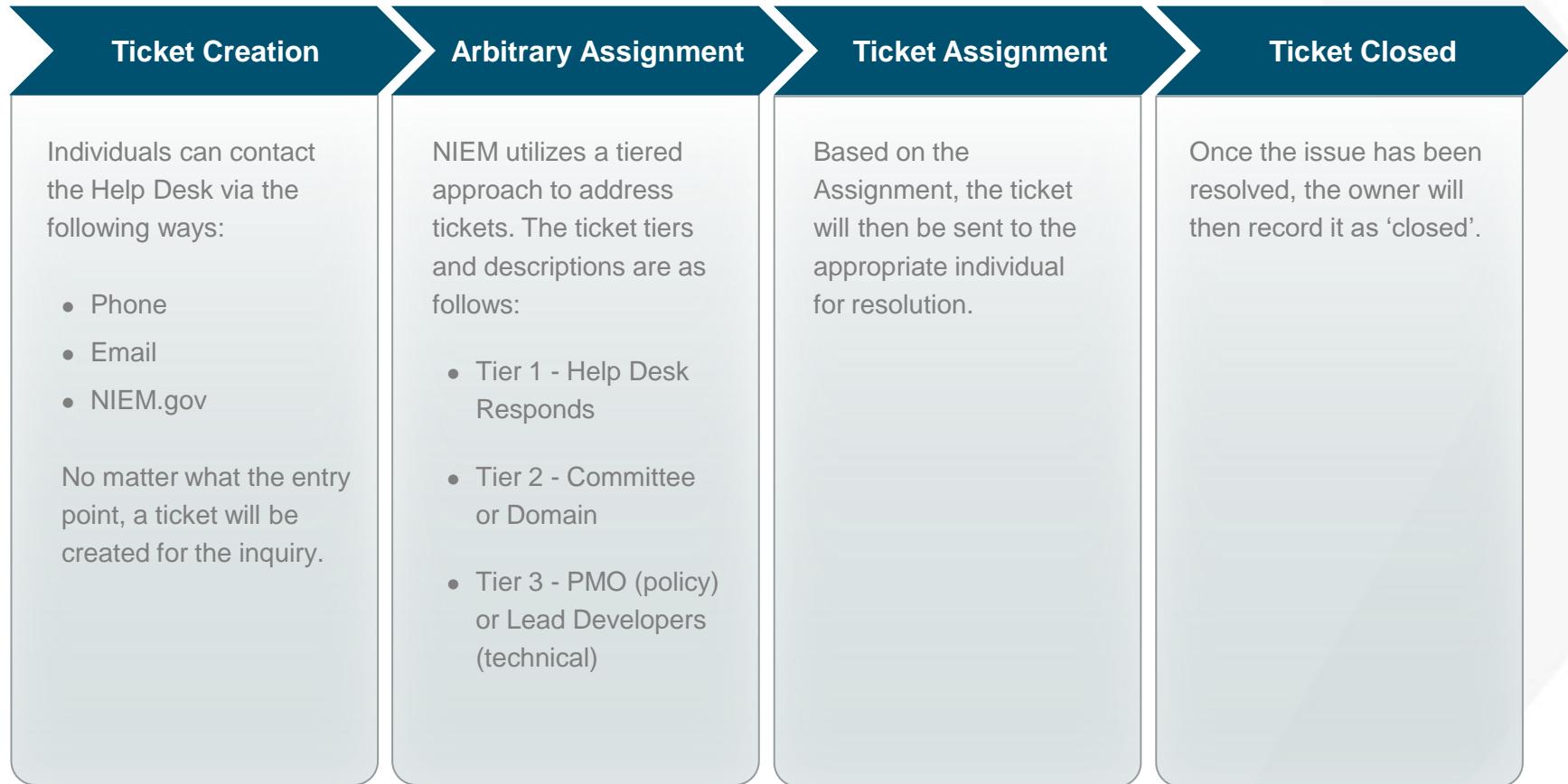


Live technical support staff is available from 9:00 a.m.–8:00 p.m. (EST) Monday–Friday, excluding federal holidays, at 1-877-333-5111 or 1-703-726-1919.



Prefer email? Contact NISS anytime by emailing nisshelp@ijis.org

HELP DESK PROCESS



SUPPORT FUNCTIONS: TOOLS

TOOLS CATALOG

The Tools Catalog provides a convenient location for NIEM users to find tools that support and enable NIEM capabilities. The Tools Catalog can be found at NIEM.gov/tools.

Assessment Criteria

Tool Review Process

The screenshot shows the NIEM Tools Catalog homepage. At the top, there is a navigation bar with links for Current Release, Glossary/Acronyms, Register here / Login, MyNIEM, About NIEM, Meet Us, Technical NIEM, Communities, Training, Contact Us, and Tools Catalog. Below the navigation is a search bar and social media links. The main content area has a title 'Tools Catalog' and a sub-section 'Welcome to the NIEM Tools Catalog (Beta Version)'. It includes a sidebar with links for Tools Catalog Assessment Criteria, Industry Partnership, Submit A Tool, Thank you!, Tool Review Process, News, and Resource Database. The main content also contains a list of tool categories and a message about the beta version.

Submit a Tool

Tool Providers:
Please verify your tool meets the defined criteria prior to submission. Once submitted, each tool will undergo a review process.

[Submit a Tool >](#)

NIEM users:
We welcome your feedback! Be sure to select "Tools Catalog" as the category.

[Submit Feedback >](#)

Feedback Collection

LEAD DEVELOPERS

Lead Developer/NBAC Interactions

- Attend scheduled meetings
- Take on action items and assignments for architectural updates
- Offer recommendations on business and technical architecture issues
- Coordinate with the NBAC Co-Chairs and liaison to bring forth agenda items for committee review

Lead Developer/NTAC Interactions

- Establish and support the NIEM technical architecture
- Establish mechanisms and processes for publishing NIEM content artifacts
- Ensure all content in the NIEM data model appropriately conforms to NIEM specifications
- Maintain communication and interaction with other NIEM program entities, such as the help desk, NBAC, and PMO
- Analyze and assess emerging technologies and how they relate to NIEM; develop roadmap for future capabilities
- Establish goals, milestones, and desired outcomes, and measure performance

MODEL MANAGEMENT

WHAT IS HARMONIZATION?

Harmonization is the process of examining the model to ensure that a given data element exists only once. Additionally, harmonization ensures that data elements are defined precisely and unambiguously, so that they are reusable across domains and the NIEM community.

Types of Harmonization

**Domain Reconciliation
(Minor Release)**

**NIEM Core and
Domain Reconciliation
(Major Release)**

HARMONIZATION PROCESS



- 1. Issue identified and entered into the online NCCT tool**
 - Lead Developer conducts initial assessment on new issues and prepares and distributes harmonization meeting agenda containing issue and brief description
- 2. Issue triaged and “assigned” to applicable participants**
 - During the harmonization call, the issue is reviewed by all participants and assigned to a tiger team consisting of NBAC member(s) with knowledge, expertise, or vested interest in the issue resolution
- 3. Issue resolution worked by tiger team**
 - The tiger team works offline to resolve the issue and posts the recommended resolution in NCCT
- 4. Proposed resolution is evaluated**
 - The recommended resolution is reviewed by the NBAC and or accepted, rejected, or deferred for more information during the harmonization call

HARMONIZATION RESPONSIBILITIES

NBAC Responsibilities

- Resolve NBAC related NCCT content issues
- Harmonize when core components are involved
- Assist domains with harmonization and content modeling in collaboration with Lead Developer
- Execute cross-domain harmonization, core harmonization, and resolve associated NCCT issues as needed

Domain Responsibilities

- Review and act on harmonization master list NCCT
- Prepare new content and changes XSD or CR format
- Review their domain intermediate release content (names, definitions, structures, semantics)

STAKEHOLDER ENGAGEMENT

COMMUNICATIONS

Branding Guidelines

Rules for application of NIEM branding elements

Collateral and Templates

Brochures and customizable communications templates

Fact Sheets

Essential information to educate stakeholders about NIEM

Image Library

Images that help to communicate NIEM's importance and impact

Logos & Program Graphics

Identity and educational graphics that help to explain how NIEM works

Online Applications

Customer Relationship Management, public website, online learning management system

Current Release Glossary/Acronyms Register here / Login

Search this site...

MyNIEM [About NIEM](#) [Meet Us](#) [Technical NIEM](#) [Communities](#) [Training](#) [Contact Us](#) Tools Catalog

Who Won Best of NIEM?

Did you miss the big announcement? / [Find out now](#)

1 2 3 4 5 6



NIEM Connects. The Dots. Data. Communities. The Nation. And Beyond.

NIEM makes it possible for organizations to share critical data; as a result, people are empowered to make informed decisions that improve efficiency and help organizations advance their missions.

[Learn more about NIEM >](#)

NIEM News [\(more\)](#)

[Update on NIEM-UML for 3.0](#)

COMMUNITY-WIDE EVENTS



The NIEM in November in person and virtual event featured:

- 361 in-person and virtual attendees
- Virtual streaming and conversation on NIEM.gov
- The launch of NIEM 3.0
- The announcement of the 2013 Best of NIEM Awards



The technically-focused February Town Hall featured:

- Over 240 virtual attendees
- Overview of NIEM-UML
- Demonstration of the open source NIEM Modeling Tool
- Announcement of the Design Patterns Initiative

DOMAIN ENGAGEMENT

The PMO and NBAC Co-Chairs encourage and enable certain domain capabilities, to ensure that they are **self-sustaining** and **independent**. Domain independence is a foundational principle of NIEM, and domain self-sustainment enables the program to scale smoothly and increases the value to its users.

Data Model Management

Information Exchanges

- Developing and implementing information exchanges is the core of NIEM adoption
- IEPDs may serve as the basis of a domain data model

Data Model Management

- Data models must be regularly maintained and harmonized to ensure currency and usability
- Elements should be chosen with an eye to their use case

Stakeholder Engagement

Membership Maintenance

- Domain leaders should define roles and responsibilities for participants
- Domains should consider tracking relationships with stakeholders and exchange partners

Outreach & Communications

- Domains should keep their stakeholders up-to-date with exchange information and new features

Governance

Defined Governance

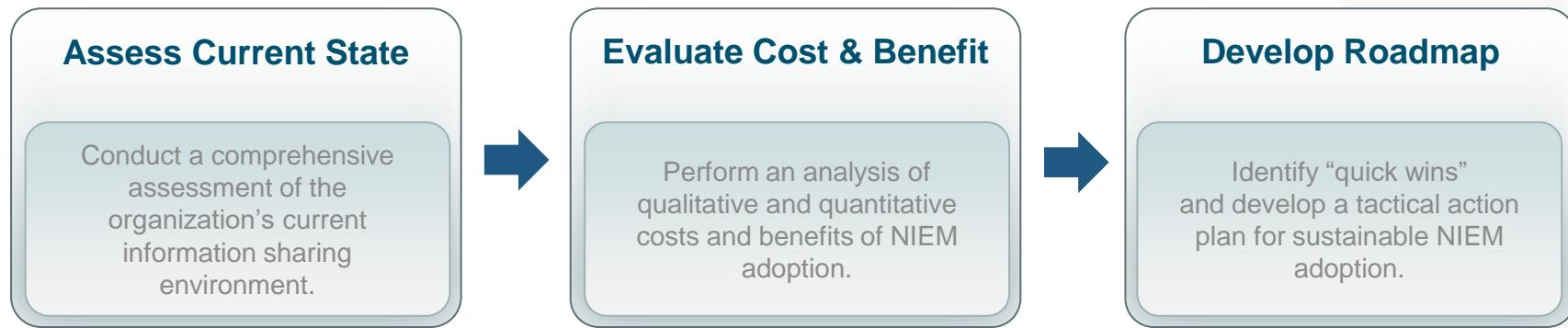
- Domains should have some form of internal, official governing document but remain independent

Artifacts (Charter & Domain Stewardship Agreement)

OTHER RESOURCES (APPENDIX)

ROADMAP TO ADOPTION

The NIEM Engagement Process is a self-service model that includes tools and methods for organizations to assess current state, evaluate cost and benefits, and develop a roadmap.



Results

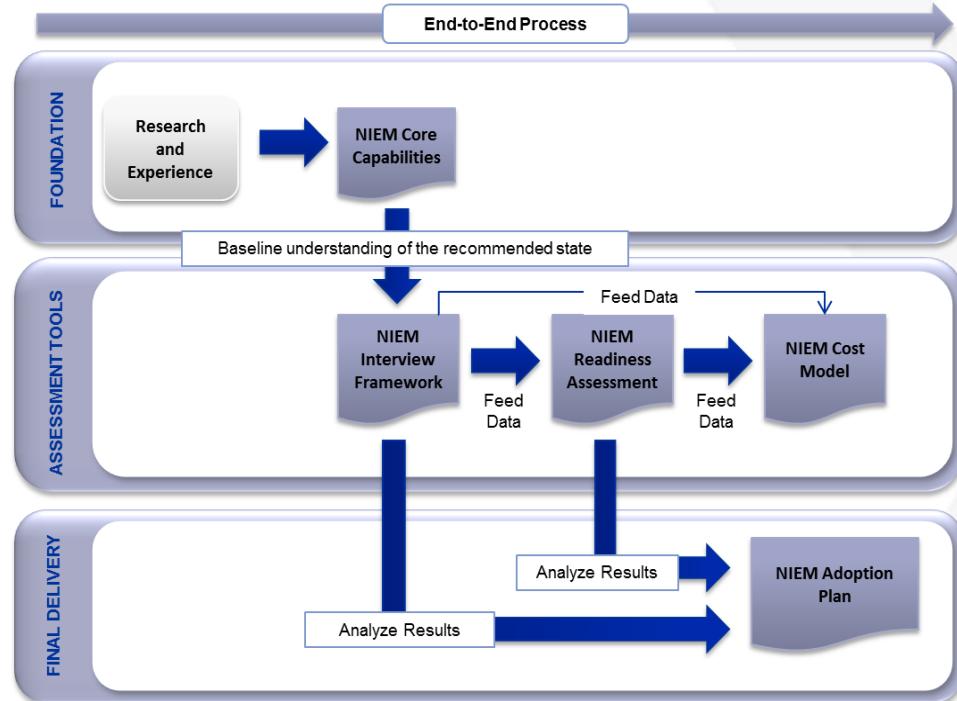
- Identify information exchanges where NIEM can provide the most **value to the organization**.
- Develop a tailored action plan** outlining how the organization can adopt and sustainably use NIEM for information exchange.

For more information on the NIEM Engagement Process, please visit
NIEM.gov/aboutniem/roadmap/Pages/niem-engagement.aspx.

NIEM ENGAGEMENT PROCESS

Benefits of the process:

- Assess the value of applying NIEM to information-sharing and exchange activities.
- Develop a NIEM adoption strategy for any identified information exchanges that have the potential to use NIEM technical processes.
- Identify efficiency of adding exchange element to an organization's data model to increase interoperability and reuse.



The NIEM Engagement Process can be modified to best fit the needs of the interested community.

NEP TOOLS

The following documents, tools, and templates should be used to complete the NEP. All documents are available and free online at NIEM.gov/roadmaptoadoption.

| Document | Purpose |
|--|---|
| User Guide | Instructions and guidance for facilitators performing the NEP |
| Core Capabilities | Describes the critical elements recommended for successful NIEM adoption and lays the foundation for the NEP |
| Interview Framework | Research guide to investigate the organization's information sharing and exchange model |
| Interview Framework Data Collection Tool | Complete structure of questions to assist in the evaluation of different aspects of the organization's information sharing activities |
| NIEM Readiness Assessment Tool | Framework for measuring the organization against the core capabilities |
| Cost Model | Tool for analyzing the quantities, costs, and benefits of adoption |
| Road to NIEM Adoption Template | Proposed timeline for adoption |