

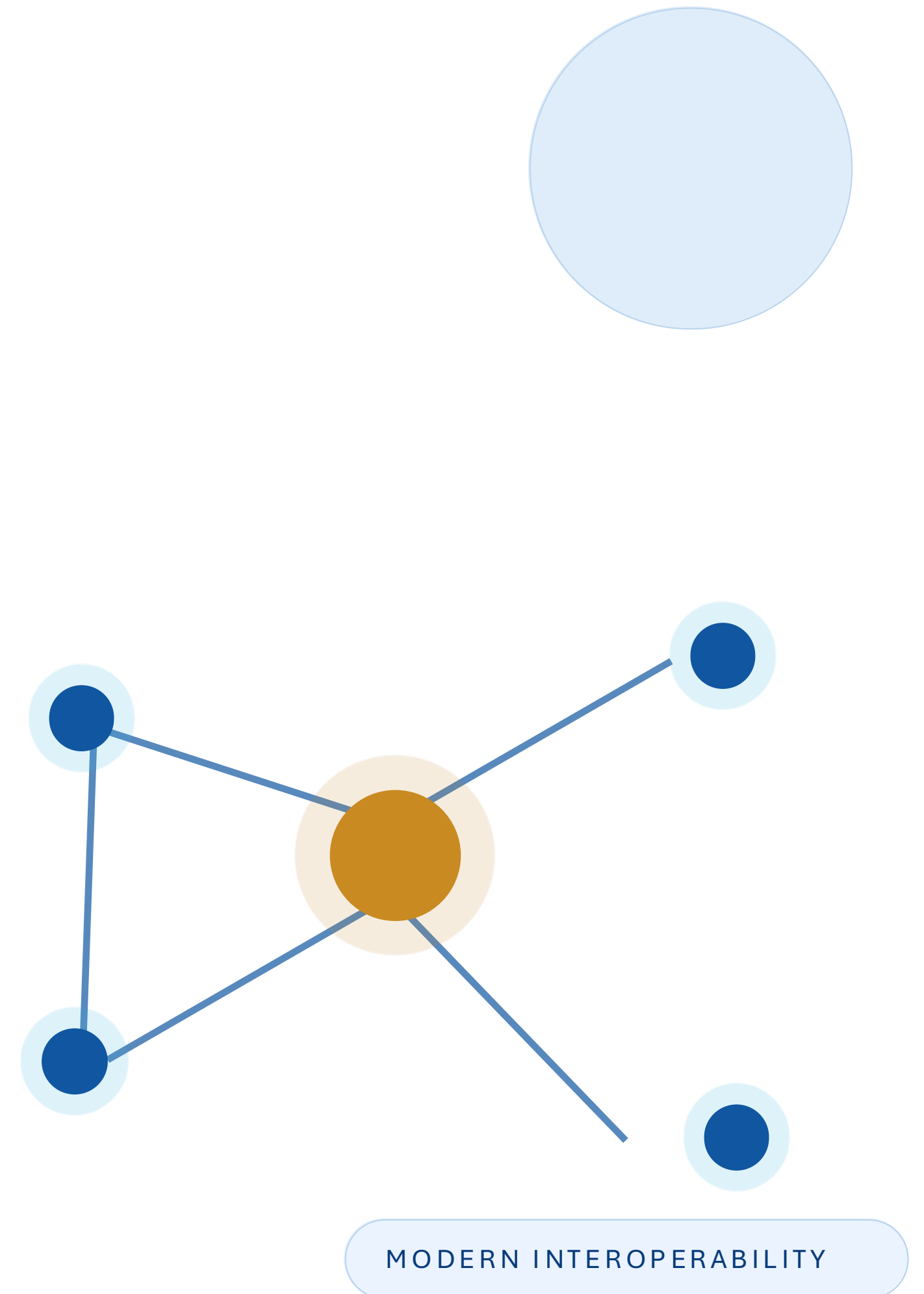
NIEMOPEN • EXECUTIVE BRIEFING

The New NIEM

The National Information Exchange Model
is reinvented



Paul Wormeli • Chairman, NIEMOpen Project Governing Board





Solving the *Interoperability* *Crisis* at scale

Moving beyond 20th-century siloed systems to establish a common language for critical data exchange.

01 Consensus Building

Establishing a shared meaning of terms across diverse communities.

02 Syntactic Harmony

Defining common formats to allow seamless computer-to-computer interoperability.

03 Naming and Design Rules

Based on international standards

FOUNDATIONS

What NIEM is

NIEM is a common vocabulary that lets diverse public and private organizations exchange information reliably — consistent rules, reusable data components, and repeatable processes.

SEMANTICS

Common vocabulary

Shared terms and definitions so partners interpret exchanged data the same way.

REUSE

Reusable Data components

Core plus domain content agencies adapt instead of designing every exchange from scratch.

METHOD

Repeatable process

A defined method for building and publishing message exchange specifications.

COMMUNITY

Community-governed

Content maintained by practitioners across federal, state, local, tribal and private partners.

A Proven Foundation **of harmonized data**

Leveraging decades of cross-domain success to power the next generation of information exchange.

NIEM's development was accelerated following the 9/11 tragedies to ensure first responders and security agencies could share data in real-time. It has since transitioned from a US Federal initiative to a global framework applicable to any cross-domain challenge.

Separate Domains

Specialized vocabularies spanning Justice, Defense, Emergency management, Biometrics, Cybersecurity, and International Trade, etc.

18 Domains

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Harmonized Data Components

- Core components shared across all domains
- Domain-specific components of interest only to specific domains

20,000+

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Message Exchange Specifications

- MilSpec, IEEE, ANSI, NIST, other exchange standards across all 18 domains
- Custom exchanges for enterprise systems

Hundreds

GOVERNANCE TRANSITION

The shift: NIEM is now NIEMOpen

NIEM moved from a U.S. interagency program to an open, vendor-neutral standards project hosted at OASIS. The practical effect is standing, stability, and a clearer path into procurement language.

THEN

National Information Exchange Model

- U.S. government program, launched 2003
- Managed through interagency agreement
- Guidance published on niem.gov
- XML-centric specifications

NOW

NIEMOpen, an OASIS Open Project

- Formal OASIS Standards, openly governed
- Project Governing Board and steering committees
- Specifications published by OASIS
- Serialization-neutral, JSON-friendly

A New Home: The Transition to NIEMOpen

Moving from federal subsidy to a sustainable collaborative community



New Parents: A Community That Owns Its Future



Equal voice

Every sponsor has an equal vote through the Project Governance Board.



Shared support

Subscriptions fund program management, engineering, training, and education.



Owned by users

Government and industry sponsors determine NIEMOpen's future.

Broad sponsor ecosystem

Federal

State / local

Nonprofits

Industry

Who runs NIEM now

Governance is shared between a Project Governing Board and technical steering committees, so sponsors, developers, and practitioners all have a voice.

PGB

Project Governing Board

Sets top-level strategic direction. Seats are held by sponsors who sign the entity contributor agreement.

NBAC

Business Architecture

Owens the NIEM data model — Core and domain content — and shepherds model releases.

NTAC

Technical Architecture

Owens the technical specifications, including the Naming and Design Rules and conformance.

NMO

Management Office

Coordinates day-to-day program support, tooling, training, and community resources.

Sponsored by partners across federal, state, local, tribal, territorial, international, and private organizations.

NIEMOPEN — AN OASIS OPEN PROJECT

NIEM 6.0

A new era for cross-domain information sharing

Executive briefing for domain leaders | September 2026

NIEM 6.0: *Grounds for a Standard*

Gaining credibility as a national and international standard.



01 **An OASIS Standard**

Both NIEMOpen and the NDR are now official OASIS standards. Proposed to ISO.

02 **FBI CJIS Adoption**

NIBRS and other CJIS services are NIEM conformant

03 **National Science Foundation**

Endorsement for the Justice Open Knowledge Network

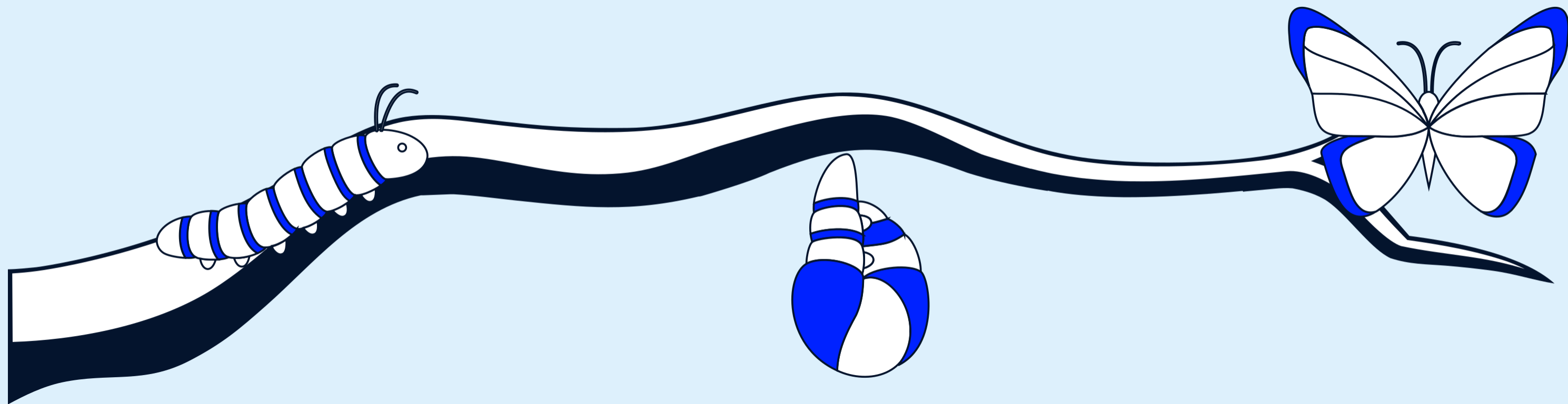
What's new in NIEM 6.0

As a major version, 6.0 could change content in any namespace, including Core, as well as the underlying architecture. The headline changes:

01	New namespace URIs	Namespaces were updated to reflect NIEM's transition to an OASIS Open Project.
02	Simpler adapter syntax	New representation terms and a simpler type syntax for adapters that carry external standards.
03	Rewritten Naming & Design Rules	NDR 6.0 supersedes NDR 5.0 (2020) and restates NIEM's technical architecture around a formal metamodel.
04	Common Model Format (CMF)	A model representation independent of XML Schema, expressible as XML, JSON, RDF, or other NIEM-supported serializations.
05	JSON-LD context	A published context file maps NIEM namespace prefixes to URIs, supporting JSON exchanges alongside XML.

NIEM 6.0 and the Common Model Format

Eliminating XML dependency for a multi-
framework future



Legacy NIEM

Dependent on Extensible Markup
Language (XML).

Common Model Format

New reference data model (Version
6.0) re-expressed for flexibility.

Multiple Representations

Support for XML, JSON, RDF, and
other frameworks.

The New Model: From XML Dependency to CMF

NIEM 6.0

The reference data model and updated naming and design rules are official OASIS standards.

XML dependency is removed. The model is separated from any single implementation syntax.

ISO STANDING REQUESTED

Portable by design

Common Model Format

Independent representations

XML

JSON

RDF

Other

New versions bring new data

Content Changes V. 6.0

Core	Digital identity additions
International Human Services	New domain content
Justice	National Crime Information Center (NCIC) code updates
MilOps	Minimum Essential Metadata updates
Surface Transportation	Model Minimum Uniform Crash Criteria (MMUCC) updates
General	NDR-related updates, including metadata, adapters, and roles Harmonization and issue resolution Code set updates OASIS namespace updates



Modern Tooling and *AI-Driven Mapping*

Automating the labor-intensive process of data alignment through intelligent software.

Ontology Mapper

Uses AI to automatically map legacy datasets to the NIEM ontology, saving hundreds of manual hours.

API Version 2.0

Currently in preparation to support subsystem generation and automated Version 6.0 testing. Adding support for MCP server to support AI engagement.

Contessa & SSGT

Legacy tools like the Subset Generation Tool remain available for existing v5.2 implementations.

BENEFITS

What leaders get from it

Lower integration cost

Reusable terms, definitions, and exchange packages remove the need to design every exchange from scratch.

Faster partner onboarding

A shared model lets agencies, vendors, and private partners agree quickly on what data means.

Improved interoperability

Consistent rules and components let systems communicate even with different internal formats.

Less ambiguity, less risk

Common semantics reduce misunderstandings in mission-critical exchanges and improve decisions.

Reuse and scale

Existing exchange specifications can be adapted rather than rebuilt for each new partner.

Cross-sector collaboration

Justice, public safety, emergency management, health, human services, and cyber share one vocabulary.

IN PRACTICE

Where NIEM does the work

NIEM carries model content for 18 community domains. In justice and public safety, the everyday exchanges look like this:

- **Arrest report submission**

Records management systems to the state repository

- **Charging document transfer**

Prosecutor case management to the courts

- **Warrant and disposition sharing**

Courts, corrections, and state repositories

- **Emergency and incident data**

Cross-agency response and disaster management

- **Biometrics and identity**

Federal, state, and international partners



What to do next

1

Take stock

Inventory the exchanges you run today and note which NIEM version each one targets.

2

Plan the move to 6.0

Namespace URIs and adapter syntax changed, so coordinate updates with your solution providers

3

Reuse before you build

Search the public IEPD/MEP registry and adapt an existing specification wherever one fits.

4

Write it into procurement

OASIS Standard status makes NIEM conformance straightforward to require in solicitations and contracts.

5

Take a seat at the table

Sponsorship opens a PGB seat; staff can contribute directly through NBAC and NTAC.

THE BOTTOM LINE

NIEM is ready to be required

Standard

Model 6.0 and NDR 6.0 are OASIS Standards as of 28 November 2025.

Modern

CMF and JSON-LD free the model from XML-only exchange.

Open

Governed in the open by a board and committees you can join.

Learn more at niemopen.org | Specifications published at docs.oasis-open.org

New Uses, Expanding Domains

01

Knowledge graph Ontologies

NIEMOpen generates ontologies for justice and other domains.

02

Health and Justice Exchanges

Message standards to support care coordination and reduce recidivism.

03

Forensics Domain

Business and Technical Architecture subcommittees are expanding toward forensics.

04

Financial integrity Domain

Explored for fraud detection, mitigation, and financial-crime investigation.

Building the Open Knowledge Network

For the Justice Domain:

“Built on the National Information Exchange Model (NIEM) Justice Domain standard, SCALES employs standardized vocabularies to enable systematic analysis of justice system functioning, reveal inequities, and support evidence-based policymaking. The platform addresses the critical lack of nationally accessible and linked criminal justice data.”

National Science Foundation

<https://registry.okn.us/registry/kgs/scales/>

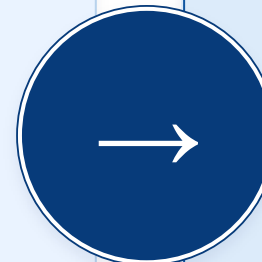
Other domains are equal candidates for deriving ontologies from NIEMOpen

The Transformation Ahead

OPERATING FOUNDATION

Sponsor-backed open-source collaborative

- Maintain open-source products and services
- Fund the program through community sponsorship
- Keep participation centered on shared user needs



FUTURE CAPABILITY

Dynamic models and tools

- Adapt as technology and mission demands evolve
- Build consensus standards across domains
- Support public- and private-sector information sharing
- Advance through OASIS and requested ISO recognition

HELP SHAPE WHAT COMES NEXT

Welcome to the New NIEM

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CONSENSUS-BASED INFORMATION SHARING



NIEMOPEN