NIEMOPEN

PGB Session

1 August 2024

Ms. Katherine Escobar
NIEMOpen Project Governing Board Chair

CALL TO ORDER

- Called to order the regular virtual meeting of the NIEMOpen Project Governing Board at 2 PM, 1 August 2024.

VENUE

PGB Meeting

- 1 August 2024
- Virtual Meeting 2-4 PM EST
  - Virtual: MS TEAMS

Microsoft Teams 1 August 2024 PGB Meeting

Microsoft Teams
Join the meeting now
Meeting ID: 993 848 600 07
Passcode: TP2EnR
Dial-in by phone
+1 410-874-6749,,622463276# United States, Odenton
Find a local number
Phone conference ID: 622 463 276#

Current and post meeting location of 1 Aug PGB Meeting documents:

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MAKING THE MOST OF OUR SESSION

Virtual Meeting Etiquette

PLEASE:

- **MUTE your mic when you're not talking**
- **Identify yourself before you start to speak**
- **Speak clearly**
- **Disable "call waiting" feature**
  (the clicking noise can be heard by all)

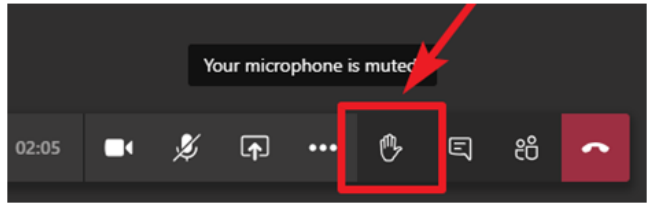
Please note: ESC sessions are audio recorded.

Meeting Minutes will be published and distributed to participants.

QUESTIONS & ANSWERS ARE ENCOURAGED!

To signal you want to contribute without interrupting the speaker

- Enter comments via **CHAT window** at any time



To signal a question or respond to a question

- Click on '**Raise your hand**' button on meeting toolbar

  (Lower hand after you've talked by clicking hand button again)

Presenters, please be mindful of timing

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NOTE TAKER

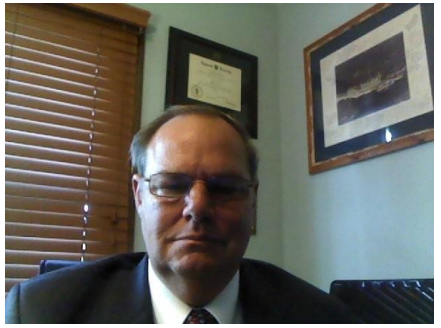
The PGB Executive Session is being recorded on MS TEAMS. A link to the recording will be provided and meeting minutes will be posted on the NIEMOpen Git Repo once approved: https://github.com/niemopen/oasis-open-project/tree/main/pgb-meeting-minutes

Meeting support, note takers:

Aubrey Beach
aubrey.l.beach.ctr@mail.mil

Shunda Louis
shunda.r.louis.ctr@mail.mil

Stephen Sullivan
stephen.m.sullivan14.ctr@mail.mil



ROLL CALL

- PGB Voting Members:
  - Department of Defense Joint Staff J6 (DoD JS J6)
  - Department of Homeland Security Science & Technology (DHS S&T)
  - Equivant
  - Georgia Tech Research Institute (GTRI)
  - Integrated Justice Information Systems Institute (IJIS)
  - Commonwealth of Virginia, Office of Data Governance and Analytics
  - Criminal justice Information Systems Division (CJISD), Federal Bureau of Investigation

- PGB Expert Voting Members
  - NBAC TSC
  - NTAC TSC
  - NMO TSC

- PGB Expert NON-Voting Members

PGB APPOINTED VOTING MEMBERS

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

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. April Mitchell
FBI It Specialist and Technical Lead of Data Standards in the Criminal Justice Information Services (CJIS) Division

PGB EXPERT VOTING MEMBERS

Technical Steering Committees

Kamran Atri
Co-Chair
NIEM Business Architecture Committee (NBAC) Technical Steering Committee (TSC)

Jim Cabral
Vice President, Court Relations, InfoTrack

Beth Smalley
Co-Chair
NIEM Management Office (NMO) Technical Steering Committee (TSC)

PGB NON-VOTING MEMBERS

Technical Steering Committees

Thomas Krul
Co-Chair
NIEM Business Architecture Committee (NBAC) Technical Steering Committee (TSC)

Dr. Scott Renner
Co-Chair
NIEM Technical Architecture Committee (NTAC) Technical Steering Committee (TSC)

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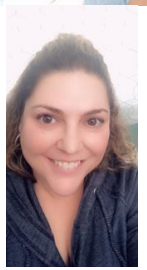
NMO, NBAC, & NTAC TSC CO-CHAIRS & OASIS MAINTAINERS

TSC	Approved (TSC CHAIRS)
NMO TSC	Ms. Katherine Escobar & Ms. Beth Smalley
NBAC TSC	Mr. Kamran Atri & Mr. Thomas Krul
NTAC TSC	Dr. Scott Renner & Mr. Jim Cabral

NTAC TSC

NBAC TSC

NMO TSC



GitHub Repos	Primary	Alternates
NIEM Open	Ms. Christina Medlin & Mr. Aubrey Beach	Mr. Tom Carlson, Ms. Shunda Louis, Mr. Steve Sullivan (PGB Folder)
NBAC TSC	Ms. Christina Medlin & Mr. Aubrey Beach	Mr. Tom Carlson, Ms. Shunda Louis, Mr. Steve Sullivan
NTAC TSC	Mr. Tom Carlson & Christina Medlin	Mr. Aubrey Beach, Ms. Shunda Louis, Dr. Scott Renner
NMO TSC	Mr. Aubrey Beach	Ms. Shunda Louis, Mr. Steve Sullivan, Mr. Tom Carlson (Training)

Ms. Christina Medlin

Mr. Aubrey Beach

Mr. Tom Carlson

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PROPOSED 1 AUGUST 2024 PGB AGENDA

Call to Order

- Admin
  - TEAMS Link
  - Meeting Etiquette
  - Note Takers
  - Roll Call & Introductions
    - PGB Voting Members (Sponsors) & PGB Expert Voting Members (TSCs) & PGB Non-Voting Members (TSC Co-Chairs)
    - TSC Co-Chairs & NIEMOpen Maintainers
- Approval of Agenda
- Around-the-Horn – PGB Voting Members
- Approval of Meeting Minutes from 11 April Jan 2024
- OASIS Staff / NIEMOpen Administrator Comments
- Q1 Financial Snapshot – Cathie Mayo (OASIS)
- Sponsor Update – Carol Geyer
- CY 2024 Planning
- Reveal Update – Jane Harnad

5 Minute Break

Motions

1. 2025 PGB Meeting Dates

Updates

- NTAC Update
  - NDR6 – Jim Cabral
- NBAC Update – Kamran Atri
- NMO Update
  - PS02 Update – Christina Medlin
  - API 2.0 Progress - Christina Medlin
  - MEP Tool DEMO – Aubrey Beach
  - LearnPress – Aubrey Beach
  - Communications & Outreach Sub-Committee
- Next Meeting
- Other Business/General Discussion
- Questions/Adjourn

APPROVAL OF AGENDA

- **Chair:** A Draft Agenda for the NIEMOpen 1 August 2024 Project Governing Board (PGB) Meeting was provided to PGB Voting Members as a readahead.

- **Chair:** Are there any recommended changes to the agenda as distributed?

- **Chair**: If there are no (further) changes, the agenda stands approved as distributed (corrected).

✓?

☐ Approve

☐ Approve as Corrected

PGB MEMBERS: AROUND-THE-HORN

APPROVAL OF 11 APRIL 2024 PGB MINUTES

- **Chair:** A Draft of the NIEMOpen 26 October 2023 PGB meeting minutes was provided to the PGB Voting Members as a readahead: Please let me know now if you found any errors. https://github.com/niemopen/oasis-open-project/blob/main/pgb-meeting-minutes/2024/11-April-2024/(DRAFT)%20NIEMOpen%20PGB%20Meeting%20Minutes%2011%20April%202024%20v2%205-1-2024%20(1).docx

- **Chair:** Are there any corrections to the minutes as distributed?

- **Chair**: If there are no (further) corrections, the minutes stand approved as distributed (corrected).

✓?

☐ Approve

☐ Approve as Corrected

OASIS STAFF

- **Ms. Kelly Cullinane** – OASIS Senior Director of Standards Development

- **Ms. Carol Geyer** – OASIS Chief Development Officer

- **Ms. Holly Peterson** – OASIS Business Development Manager

- **Ms. Cathie Mayo** – OASIS Chief Financial Officer

- **Ms. Jane Harnad** – OASIS Manager of Events

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CY 2024 Q2 FINANCIALS

Ms. Cathie Mayo – OASIS Controller

CY 2024 Q2 FINANCIALS

Placeholder - Financials

NIEMOpen Current SPONSORS “No Change”

9 Sponsors, 3 Premier

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

Premier

Premier

Premier

- **In Discussions**
  - Microsoft
  - DHS OBIM
  - DND, Canada
  - DOJ

- **Expressed Interest**
  - MITRE
  - Veterans Administration
  - Tyler technologies
  - Ernst & Young
  - NIST
  - DISA
  - NOAA
  - Pinary

Department of National Defense

Ms. Carol Geyer

– OASIS Open Chief Development Officer

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CY 2024 NIEM OPEN PLANNING

Complete

- ✓ NIEM Version 6.0 Project Specification (PS01)
- ✓ Implement EIN Presswire
- ✓ J6 Complete/contribute MEP tool and host on AWS
- ✓ Implement LearnPress LMS
- ✓ Complete/IOC MEP Builder Tool
- ✓ Complete NIEM API 2.0
- ✓ Complete/IOC MEP Builder Tool

Planned/ In Progress 2024

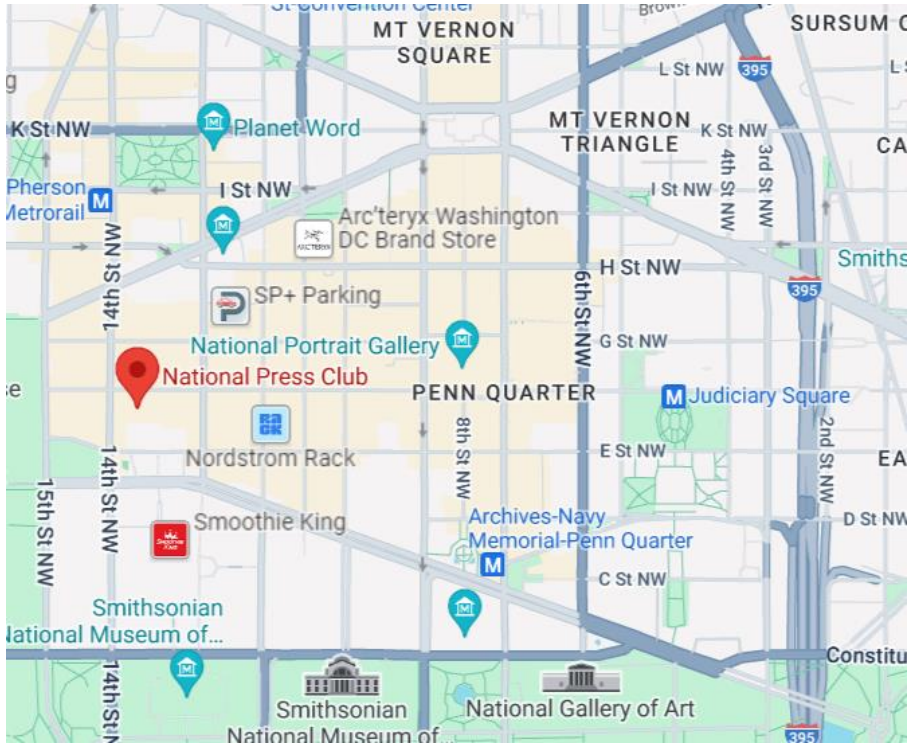
- Submit NIEM 6.0 NDR as PSD/ PS
- Submit NIEM Model Version 6.0 PS02
- Submit NIEM Model Version 6.0 PS02 as an OS
  - Solicit 3 statements of use
- Transfer Training Equities to NMO TSC Training Repo
- Update Training Materials to reflect Model Version 6.0 Updates
- Update/integrate LearnPress LMS w/Model Version 6.0
- Develop/Complete NIEM Model Version 6.1
- Submit NIEM Model Version 6.1 as Open Project Release
- Complete transfer of github.io files to NIEMOpen
- Execute 2025 NIEMOpen Reveal

Recurring/On-Going

- Identify Potential Sponsors/Conduct Outreach
- Populate OASIS Jira & Confluence Site
- Conduct Monthly Synch w/ OASIS Staff
- Obtain Contributor License Agreements
- Bi-Weekly synch with 2025 Symposium Planning Team

NIEMOPEN REVEAL

https://sites.google.com/oasis-open.org/niemopen-training-2025/home



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SUMMIT UPDATE

Placeholder

BREAK

PGB TOPICS FOR CONSIDERATION & VOTE

Motions

1. CY 2025 PGB Meeting Dates

Updates

- NTAC TSC
- NABC TSC
- NMO TSC

MOTION TO APPROVE CY 2024 (Q2, 3, & 4) PGB MEETING DATES

- **Chair:** A proposal to approve CY 2025 Q 1, 2, 3 & 4 PGB Meeting Dates was submitted as a readahead to PGB Voting Members.

- **Maker: (NMO-Beth Smalley)** I motion that the following PGB Meeting Dates be accepted for CY 2024:.

CY 2025 Meeting Dates			
Q1	JAN 30	2 – 4 PM	EST
Q2	APR 24	2 – 4 PM	EDT
Q3	JUL 31	2 – 4 PM	EDT
Q4	OCT 28	2 – 4 PM	EDT

- ***SECOND?***
- **Chair:** (Debate) Do any of the members have comments on the proposal?
- **Chair**: Conducts a Simple Majority Vote
- **Chair**: Announces Vote

✓?

Resolution

☐ Approve

☐ Approve w/Comment

☐ Table/Reject

NTAC TSC UPDATE

Links:

- Common Model Format (CMF)
  - https://github.com/niemopen/common-model-format
- CMF Tool DEMO – Dr. Renner
  - https://github.com/niemopen/cmftool

Discussion:

- NDR6 Update Discussion – Jim Cabral
  - https://github.com/niemopen/niem-naming-design-rules/tree/dev

NDR 6.0 REVISION

- A major rewrite of NDR 5.0
  - A new abstract UML metamodel defining the information content of a NIEM model
  - Two concrete model formats: XSD and CMF
  - Two supported message formats: XML and JSON
  - Simplified conformance rules for message schemas
  - Changes to augmentation and metadata
  - More explanation, (slightly) less technical detail
- A working outline and initial version is posted
- Working draft anticipated end-of-July

NBAC TSC UPDATE

- Update NIEM MODEL Version 6.0 PSO1 TO PS02 continues
- Obtain 3 Statements-of-Use for NIEM Model 6.0
- Advance NIEM Model Version 6.0 PS02 to OS
- Support NIEMOpen 2025 Reveal

NMO TSC UPDATE

- PS02 Update – Christina Medlin
- API 2.0 Progress - Christina Medlin
- MEP Tool DEMO – Aubrey Beach
- LearnPress – Aubrey Beach
- Communications & Outreach Sub-Committee

API 2.0 UPDATE

Completed actions:

Alpha	Focus	Description	Comments
1	Transforms	Convert [CMF or XSD] to [CMF, XSD, OWL, or JSON Schema]	Other output transformation modules should be added later (e.g., spreadsheet, CSVs, lite UML, etc.)
2	Get model details	Get information about stewards, models, versions, namespaces, properties, types, and facets. Load NIEM 1.0 – 5.2 data.	Multi-model support for NIEM + IEPDs.
3	Search models	Search properties and types	Code set searching should be added later.
4	Migrate models	Migrate a supported model from one version to any later version	Runs multiple iterations in one call. Only works for models in the database with migration rules.
5	Validate models	XML validation for XML, XSD, IEPD catalogs, XML catalogs, CMF files. NDR validation for XSD.	JSON validation and QA rules for properties and types should be added later. Reports in JSON and CSV.

References:

Title	Link	Comments
NIEM Toolbox	https://niemopen.github.io/niem-toolbox/	Will be available at the end of the current alpha.
NIEMOpen Tool Issue Tracker	https://github.com/orgs/niemopen/projects/4/views/2	Kanban board for NIEM API and NIEM Toolbox. Click tabs for other groupings and views of the data.
NIEM API 2.0 code	https://github.com/niemopen/niem-api	Code to be posted at the end of the current alpha.
NIEM Toolbox code	https://github.com/niemopen/niem-toolbox	Code to be posted at the end of the current alpha.
NIEM data for the new backend PostgreSQL database	https://github.com/niemopen/niem-api-db	SQL files with NIEM 1.0 – 5.2 data to be posted at the end of the current alpha.

MEP TOOL

Design.

Develop.

Share.

Overview:

MEP Builder is a containerized application on AWS that leads users through the design and development of the IEPD/MEP Lifecyle.

Features:

- Intuitive UI/UX wizard guides the user step-by-step
- Allows users to publish, browse, and modify IEPD's/MEP's
- Open-source development; allows for NIEM community to enhance/expand functionality

Status:

Production release available at:
https://mep.niemopen.org

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LEARNPRESS

NIEM Management Office is integrating online training directly into NIEMOpen.org.

- Modularized lessons with quiz / knowledge check
- Certificate of Completion

Benefits:

Reduce learning curve of IEPD/MEP design, development, and implementation

Release:

FY24 Q3

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COMMUNICATIONS & OUTREACH SUB-COMMITTEE

- Assisting NIEMOpen Management Office on planning for NIEMOpen Reveal
- Exploring long term options for NIEMOpen management functions
- Developing stewardship resources for inactive domains
- Planning with DAMA to expand use cases for NIEMOpen
- Presentations on NIEMOpen to industry, Practitioners
- Exploring new domains
- Soliciting deeper industry participation
- Response to inquiries from presentations

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PGB MEETING SCHEDULE

NEXT PGB Meeting

- Thursday, 7 November 2024
- Virtual Meeting 2 – 4 PM EDT
  - Virtual: MS TEAMS

CY 2025 Meetings

- See CY 2025 Motion

Pending Approval

OTHER BUSINESS/DISCUSSION

?

ADJOURN

- **Chair**: Do any of the PGB members or our attending guests have any questions?
- **Chair:** Meeting Adjourned

BACKUPS

CMF TOOL

- A command-line developer tool for working with NIEM XSD and CMF
  - Also provides functionality to API 2.0
- Provides round-trip translation between NIEM XSD and CMF
- Also generates simplified message schema XSD
  - Addresses several developer complaints
- The alpha-2 version of CMFTool 1.0 is posted
  - Not a specification, no PSD process required
  - Bug reports and change requests are anticipated

NIEM 6.0 TECHNICAL ARCHITECTURE: WHAT'S NEW?

CMF

8 DECEMBER 2022

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OUTLINE: NIEM 6.0 IN 2023

- An OASIS Open Project
- New modeling formalism
- Convertible message serializations
- Support for ontology and knowledge graphs
- New message specification (IEPDs)
- Benefits for message implementers

NIEM OPEN: AN OASIS OPEN PROJECT

- NIEM is transitioning to OASIS in 2022 as an Open Project
  - Community development of standards and software
  - Through a defined and managed process that is open, balanced, consensus-based
  - Producing new OASIS standards (like SAML, STIX, etc.)
  - With a path to international recognition (ISO)
- The NTAC anticipates two OASIS standards for NIEM 6
  - NIEM model (core and domains) – a shared semantic reference model for the NIEM community
  - NIEM technical framework – usable by anyone to specify data content and meaning

NIEM COMMON MODEL FORMAT (CMF)

- NIEM has always used XML Schema as its data modeling language
  - Model semantics formally defined via mappings to Resource Description Framework (RDF)
  - Mappings defined in the Naming and Design Rules
  - Convenient for designers and developers implementing XML-based data exchange

```
<xs:complexType name="VehicleType">
 <xs:annotation>
  <xs:documentation>
    A data type for a conveyance designed
    to carry an operator, passengers and/or
    cargo, over land.
  </xs:documentation>
 </xs:annotation>
<xs:complexContent>
 <xs:extension base="nc:ConveyanceType">
  <xs:sequence>
```

```
nc:VehicleType a rdf:Class ;
    rdfs:subclassOf nc:ConveyanceType ;
    rdfs:comment "A data type for a
      conveyance designed to carry an
      operator, passengers and/or
      cargo, over land." .
```

XML Schema like this ——— *entails* ———→ RDF like this

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NIEM COMMON MODEL FORMAT (CMF)

- NIEM has always used XML Schema as its data modeling language
  - Model semantics formally defined via mappings to Resource Description Framework (RDF)
  - Mappings defined in the Naming and Design Rules
  - Convenient for designers and developers implementing XML-based data exchange
- NIEM now supports developers who aren't using XML
  - XML Schema is not convenient for them
- For NIEM 6, the NTAC created the NIEM metamodel and Common Model Format
  - Metamodel: A conceptual data model for the things we want to know about data models
  - CMF: A NIEM-based implementation of the metamodel… Just like any IEPD

NIEM COMMON MODEL FORMAT (CMF)

- NIEM 6 will have two data modeling languages: XSD and CMF
  - The NTAC is providing free and open-source tools to convert between them

```
<xs:complexType name="VehicleType">
 <xs:annotation>
  <xs:documentation>
    A data type for a conveyance designed
    to carry an operator, passengers and/or
    cargo, over land.
  </xs:documentation>
 </xs:annotation>
<xs:complexContent>
 <xs:extension base="nc:ConveyanceType">
  <xs:sequence>
   <xs:element ref="VehicleDoorQuantity"
   <xs:element ref="VehicleIdentification"
```

```
<cmf:Class>
 <cmf:Name>VehicleType</cmf:Name>
 <cmf:Namespace s:ref="nc"/>
 <cmf:DescriptionText>
  A data type for a conveyance designed
  to carry an operator, passengers and/or
  cargo, over land.
 </cmf:DescriptionText>
 <cmf:ExtensionOfClass s:ref="nc:ConveyanceT
 <cmf:HasProperty>
  <cmf:Property s:ref="nc_VehicleDoorQuantit
  <cmf:MinOccursQuantity>1</cmf:MinOccursQua
  <cmf:MaxOccursQuantity>unbounded</cmf:MaxO
```

XML Schema like this ⟵ *exactly equals* ⟶ CMF like this

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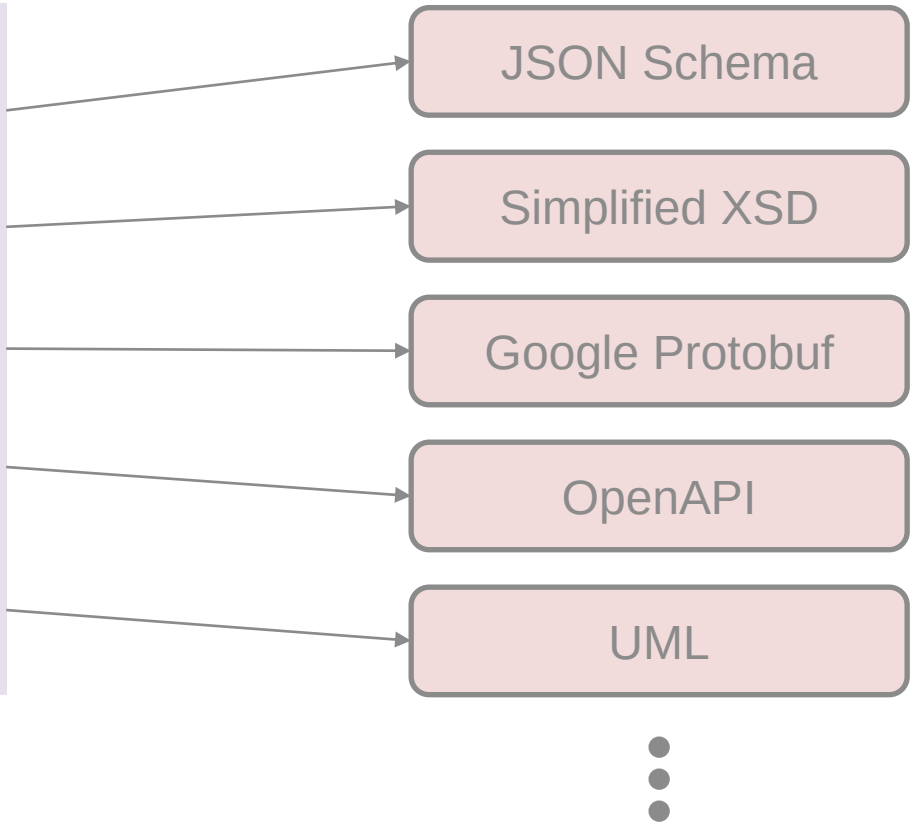
TECHNOLOGY-INDEPENDENT DATA MODELS

- CMF can be converted into developer artifacts for many technologies
  - The NTAC is providing free and open-source tools to generate these artifacts from CMF

```
<cmf:Class>
 <cmf:Name>VehicleType</cmf:Name>
 <cmf:Namespace s:ref="nc"/>
 <cmf:DescriptionText>
  A data type for a conveyance designed
  to carry an operator, passengers and/or
  cargo, over land.
 </cmf:DescriptionText>
 <cmf:ExtensionOfClass s:ref="nc:ConveyanceT
 <cmf:HasProperty>
  <cmf:Property s:ref="nc_VehicleDoorQuantit
  <cmf:MinOccursQuantity>1</cmf:MinOccursQua
  <cmf:MaxOccursQuantity>unbounded</cmf:MaxO
```



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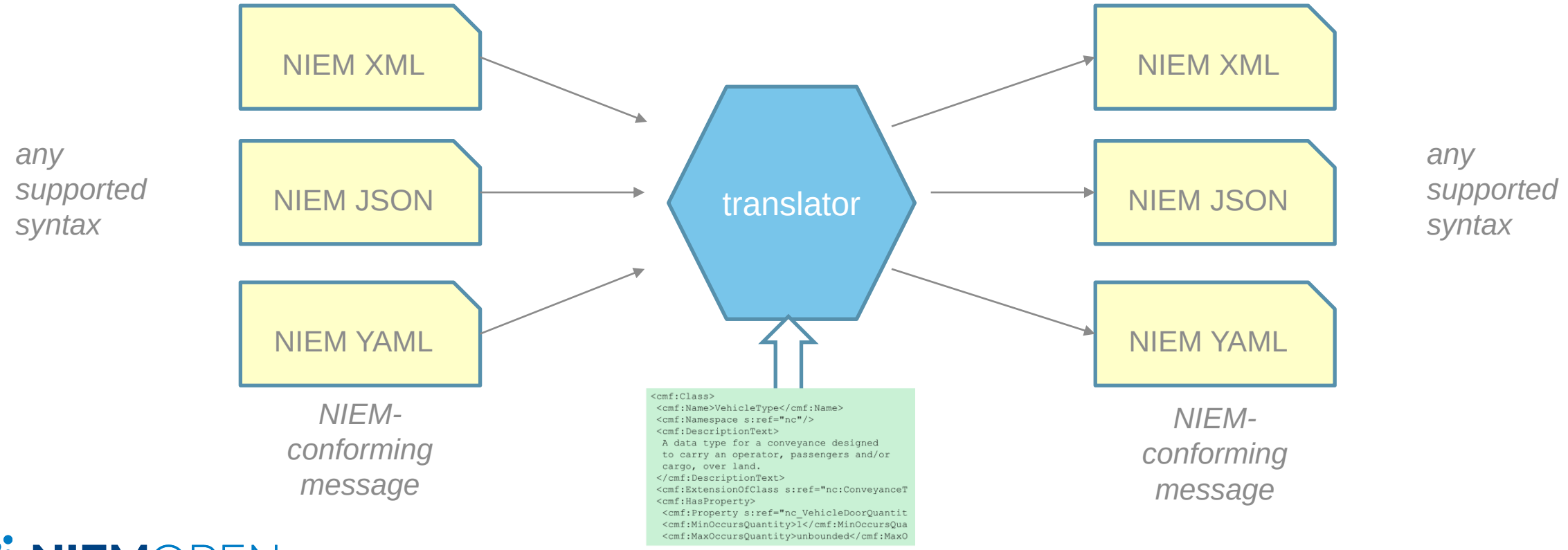
CONVERTIBLE MESSAGE SERIALIZATIONS

- In NIEM 6, the same message information can have different message serializations
  - The CMF model has everything needed to drive syntax conversions (XML→JSON, JSON→XML, etc.)
  - The NTAC is providing free and open-source tools to convert NIEM messages



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KNOWLEDGE GRAPH SUPPORT

- CMF message models and runtime NIEM messages can both be converted into RDF
  - The NTAC is providing free and open-source tools for these conversions

```
<ex:CrashDriverInfo>
 <j:Crash>
  <j:CrashVehicle>
   <j:CrashDriver>
    <nc:RoleOfPerson s:id="P1">
     <nc:PersonBirthDate>
      <nc:Date>1890-05-04</nc:Date>
     </nc:PersonBirthDate>
     <nc:PersonName>
      <nc:PersonGivenName>Peter</nc:PersonGiv
      <nc:PersonMiddleName>Death</nc:PersonMi
```

```
_:n0 a j:CrashType ;
     j:CrashVehicle _:n1 .
_:n1 a j:CrashVehicleType ;
     j:CrashDriver _:n2 .
_:n2 a j:CrashDriverType ;
     nc:RoleOfPerson _:P1 ;
_:P1 a nc:PersonType ;
     nc:PersonBirthDate _:n3 ;
     nc:PersonName _:n4 .
_:n3 a nc:DateType ;
     nc:Date "1890-05-04" .
```

NIEM-based message in XML ⟵ *equivalent to* ⟶ NIEM-based message in RDF

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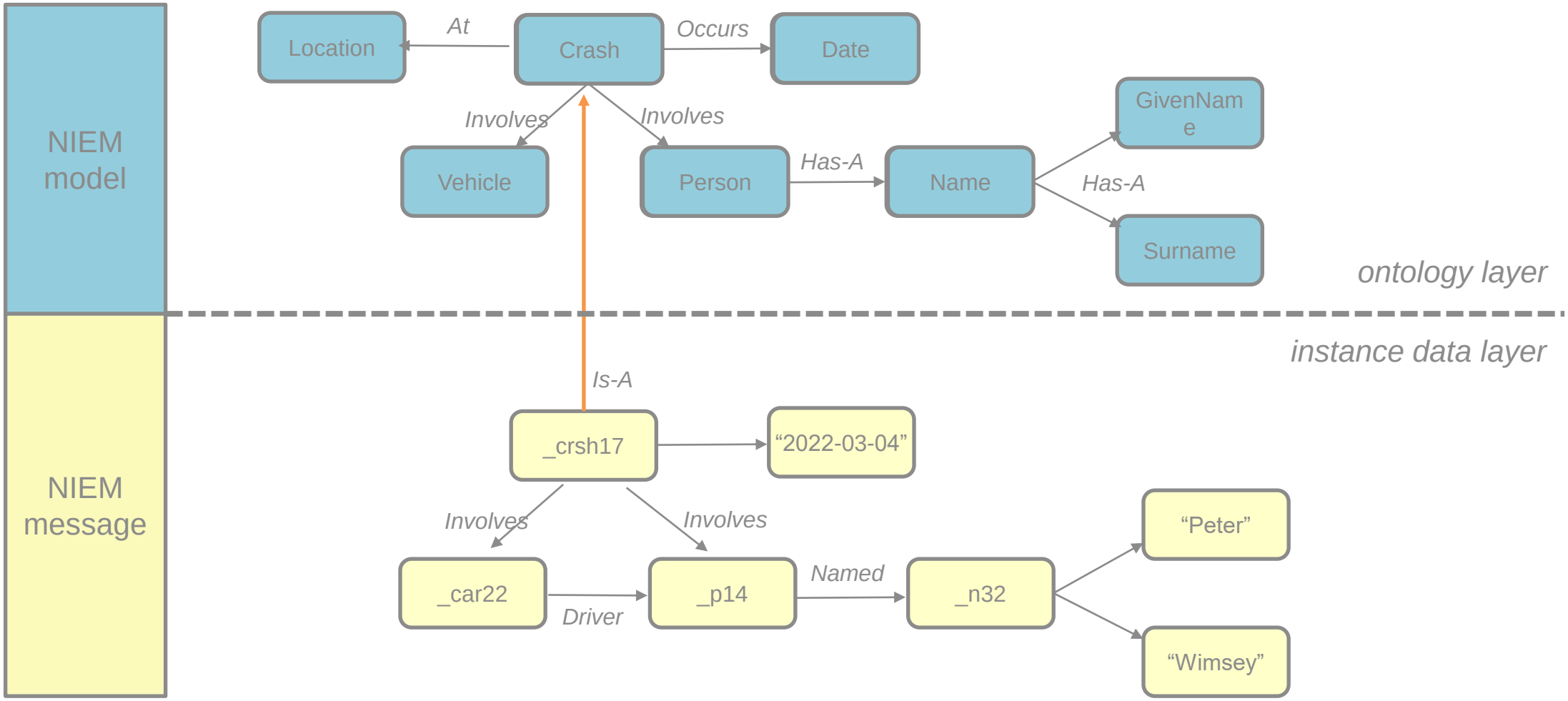
MODEL + MESSAGE = KNOWLEDGE GRAPH



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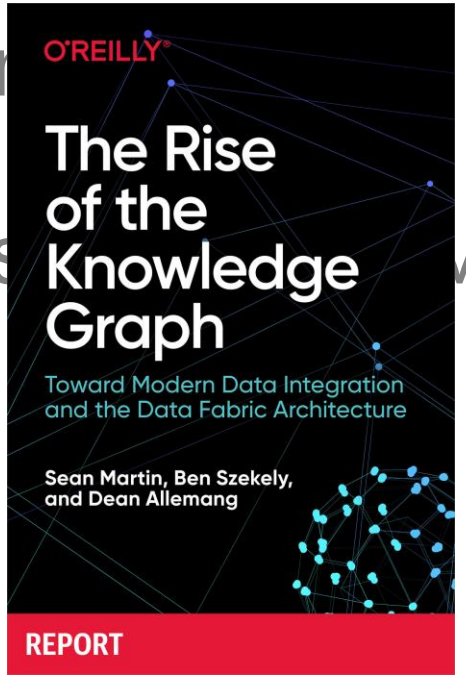
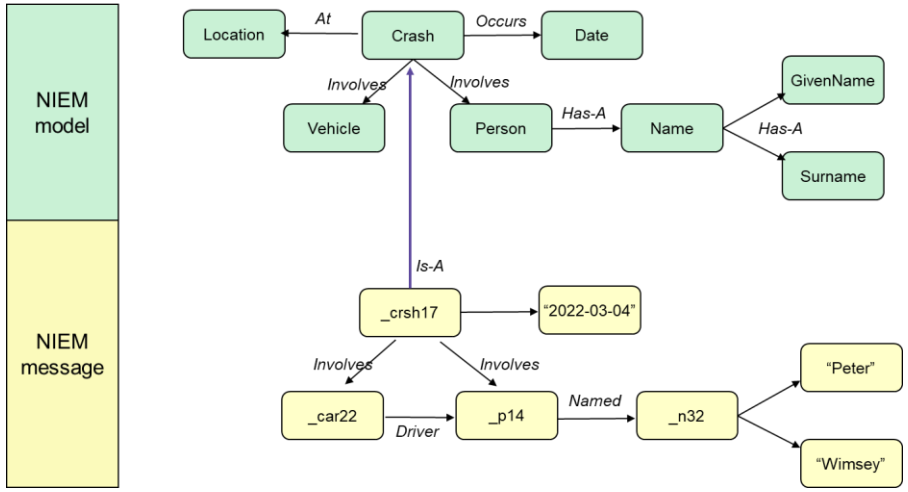
KNOWLEDGE GRAPHS: NEXT BIG THING?

- An important topic in data management and sy
  - There are commercial vendors and impressive industry applications
- NIEM 6 offers an easy “on-ramp” for developers M
  - Most of whom know nothing of knowledge graphs, and care less
  - Their NIEM-conforming data will be accessible as a knowledge graph





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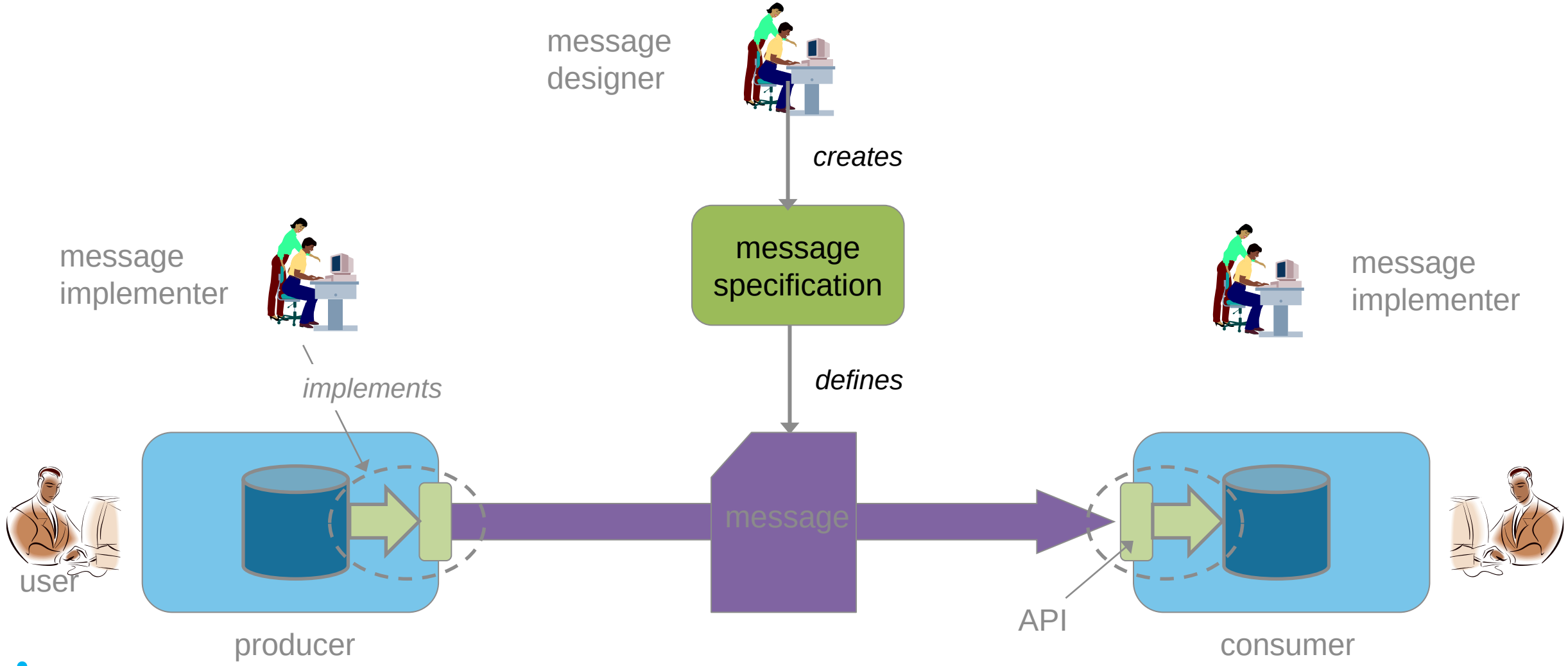
MESSAGE SPECIFICATIONS IN NIEM 6

- A new way to specify NIEM messages == a new IEPD format
- Goal is to make simple specifications easy; complex specifications possible
- Support for specifications that
  - Define a single class of message (e.g. TACELINT), or more than one (e.g. request / response)
  - Define a single serialization for a message class (XML, JSON), or more than one
  - Use canonical property names (`nc:PersonSurName`), or simple properties (`lname`)
- Convention over configuration
  - Use the default values and your configuration file can be very small
- We will develop free and open-source tools to work with new message specifications
  - Test messages for conformance
  - Validate message specifications
  - Generate implementation artifacts for developers (e.g. OpenAPI document components)

BENEFITS FOR MESSAGE IMPLEMENTERS



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IMPLEMENTER OBJECTIONS TO NIEM XSD

1. Many namespaces and many schema documents; schema assembly is complicated
2. Many global elements and attributes
   - Awkward in some integrated development environments (IDE)
   - Not possible to determine the message element from the schema
   - Extra bits in EXI encoding
3. ISO 11179 element names and upper camel case
   - Many programming languages have a lower camel case convention
   - Many developers prefer shorter names specialized for their particular application
4. Data binding tools (JAXB, .NET) work poorly, or not at all
   - Substitution groups don't work as well as `xs:choice`
   - Complex types for simple content are inefficient, awkward
5. NIEM XSD typically not usable for XML validation in classification-domain guards

IMPLEMENTER SUPPORT IN NIEM 6.0

- Simple NIEM XSD: Tool support for schemas now built by hand
  - Replace substitution with xs:choice
  - Fewer global declarations
  - Replace long type derivation chains
  - Additional constraints in XSD used for CDS validation
  - These simplified XML schemas can be generated from CMF
  - This will be in NIEM 6.0
- Simple NIEM XML: Messages that are easier to create and consume
  - One namespace and one global element for the message format
  - Simple property names (`lname`) instead of canonical names (`nc:PersonSurName`)
  - More work for NTAC, more benefit for developers
  - This may be in NIEM 6.0

SIMPLE NIEM XML

Canonical NIEM XML

```
<exch:CrashDriverInfo
  xmlns:exch="http://example.com/CrashDriver/1.1/"
  xmlns:j="http://release.niem.gov/niem/domains/jxdm/7.0/"
  xmlns:nc="http://release.niem.gov/niem/niem-core/5.0/">
  <j:CrashVehicle>
    <j:CrashDriver>
      <nc:Person>
        <nc:PersonBirthDate>
          <nc:Date>1890-05-04</nc:Date>
        </nc:PersonBirthDate>
```

Simple NIEM XML

```
<CrashDriverInfo
  xmlns="http://example.com/CrashDriver/1.1/simple/">
  <vehicle>
    <driver>
      <person>
        <bday>
          <date>1890-05-04</date>
```

This works because the *namespace URI* identifies a message specification with mappings from the simple property names to the canonical names

NIEMOPEN

SUMMARY

- Transition to OASIS is next month
- NIEM 6.0 release is October 2023
  - Next version of the NIEM model (core + domains)
  - New modeling formalism (CMF and XSD supported)
  - Convertible message serializations (XML, JSON, others)
  - Support for ontology and knowledge graphs
  - New message specifications (aka IEPDs)
  - Simple XML and other benefits for message implementers

RESOURCES

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Stephen Sullivan, stephen.m.sullivan14.ctr@mail.mil , 757-203-8619

- **Git Repos**
  - NIEMOpen: https://github.com/niemopen/
  - NTAC TSC
    - https://github.com/niemopen/ntac-admin
  - NBAC TSC
    - https://github.com/niemopen/nbac-admin
  - NMO TSC
    - https://github.com/niemopen/nmo-admin
    - https://github.com/niemopen/nmo-training
  - NIEMOpen Slack Channel: https://niemopen.slack.com/
- **Mailing Lists**
  - NIEMOpen: https://lists.oasis-open-projects.org/g/niemopen
  - PGB: https://lists.oasis-open-projects.org/g/niemopen-pgb
  - 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

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https://www.niem.gov/

https://niemopen.org/

GitHub

slack

Confluence

Follow Us On Twitter

https://twitter.com/NIEMconnects?ref_src=twsrc%5Etfw

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

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

MEP Registry & Repository
MEP Tool:
https://mep.niemopen.org

CMFTool: https://github.com/niemopen/cmftool
NDR draft: “ndr6-outline.md”
at https://github.com/niemopen/niem-naming-design-rules/tree/dev

NIEMOPEN

NIEM API and Toolbox Update

Alpha	Focus	Description	Comments
1	Transforms	Convert [CMF or XSD] to [CMF, XSD, OWL, or JSON Schema]	Other output transformation modules should be added later (e.g., spreadsheet, CSVs, lite UML, etc.)
2	Get model details	Get information about stewards, models, versions, namespaces, properties, types, and facets. Load NIEM 1.0 – 5.2 data.	Multi-model support for NIEM + IEPDs.
3	Search models	Search properties and types	Code set searching should be added later.
4	Migrate models	Migrate a supported model from one version to any later version	Runs multiple iterations in one call. Only works for models in the database with migration rules.
5	Validate models	XML validation for XML, XSD, IEPD catalogs, XML catalogs, CMF files. NDR validation for XSD.	JSON validation and QA rules for properties and types should be added later. Reports in JSON and CSV.
6	Infrastructure and updates	Upgrade CMF tool. Fix bugs. Update testing suites and infrastructure. Add UI for migration and validation.	Also adds better handling for structural updates to production db. Publish code and SQL.
7	Browse UI	Browse details about NIEM and other models. Load NIEM 6.0 data, plus additional fields.	Add support for type unions, local terminology, legacy fields, and starred components.
8	Search UI	Search properties, types, and codes	
9	Subsets	Build subsets in UI. Add SSGT wantlist to CMF transform.	New transform supports migrating users away from SSGT without losing their previous work.
10	Model updates	Low-level functions to update the model. Add support for user permissions.	Allows other users to create models and make incremental changes.
11	Model mgt artifacts	Load change request spreadsheets and update model. Add CMF to spreadsheet, CSV, and stats transforms.	NIEM 6.1 and future version support. Allows bulk changes via CR spreadsheet.

Feb 12, 2024

Done | In progress | To Do

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Support for MEP Builder and to replace legacy tools

Alpha	Focus	MEP Builder	SSGT	Migration Tool	ConTesA	Movement	Model mgt
1	Transforms	* XSD transform bug	NIEM model to XSD				
2	Get model details (API)						
3	Search models (API)						
4	Migrate models (API)						
5	Validate models (API)						
6	Infrastructure and updates	* Fix XSD transform bug		Add UI to Toolbox	Add UI to Toolbox		
7	Browse UI						
8	Search UI						
9	Subsets						
10	Model updates						Update NIEM model data; add migration rules.
11	Model mgt artifacts						Load change requests. Generate version artifacts.

Done | In progress | To Do

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Resources

Title	Link	Comments
NIEM Toolbox	https://niemopen.github.io/niem-toolbox/	Will be available at the end of the current alpha.
NIEMOpen Tool Issue Tracker	https://github.com/orgs/niemopen/projects/4/views/2	Kanban board for NIEM API and NIEM Toolbox. Click tabs for other groupings and views of the data.
NIEM API 2.0 code	https://github.com/niemopen/niem-api	Code to be posted at the end of the current alpha.
NIEM Toolbox code	https://github.com/niemopen/niem-toolbox	Code to be posted at the end of the current alpha.
NIEM data for the new backend PostgreSQL database	https://github.com/niemopen/niem-api-db	SQL files with NIEM 1.0 – 5.2 data to be posted at the end of the current alpha.