

NATIONAL INFORMATION EXCHANGE MODEL

NIEM Business Architecture Committee (NBAC)

ANNUAL MEETING

14–18 September 2020

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14–18 September

Daily Morning & Afternoon Sessions

All Morning Sessions 10 a.m.–12 noon EDT

All Afternoon Sessions 1–3 p.m. EDT

**Monday 14 September**

Morning session

Advancing NIEM Adoption

Afternoon session

State, Local & Tribal Tiger Team

**Tuesday 15 September**

Morning session

Supporting Domain Growth

Afternoon session

Emerging Technologies Tiger Team

**Friday 18 September**

Morning session

NIEM 2021 Priority Planning

Afternoon session

2020 Meeting Wrap-up

**Wednesday 16 September**

Morning session

Improving NIEM Implementations

Afternoon session

International Tiger Team

**Thursday 17 September**

Morning session

NIEM Release Planning

Afternoon session

NBAC/NTAC Joint Collaboration

**JOIN US!**

**SESSIONS ARE FREE**



# NIEM

## Virtual Annual Meeting (NBAC)

15 September 2020 → 10-12PM

### Supporting Domain Growth



**Kamran Atri**  
**NBAC Co-Chair**

Director  
A4SAFE Inc  
katri@A4SAFE.COM



## HOUSEKEEPING:

- *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:** All 2020 sessions are audio recorded for NIEM training & communications purposes

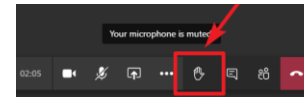
## QUESTIONS & ANSWERS ARE ENCOURAGED!

**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)

All session briefings are available on **NIEM's GitHub** for download as they occur



<https://github.com/NIEM/NIEM-Annual-Meetings/tree/master/2020>

## Speakers

### – Primary Facilitator

- Kamran Atri



### – Support Facilitator

- Thomas Krul



### – Guest Speaker

- Brian R Gattoni



# A SHORT VIDEO



**Never Any Issues with Data Sharing ... Right?**

**YES**

**NIEM Can Help**

# SESSION AGENDA



NEXT  
BIG  
THING

- NBAC Mission
- Guest Speaker: Brian R Gattoni
- Brief History of NIEM
- Some NBAC Services
- Proven Best Practices to Mature NIEM Domains



# NIEM BUSINESS ARCHITECTURE COMMITTEE (NBAC)

## The mission of the NBAC:

- ✓ **Business Architecture:** The NBAC oversees and validates the construction, maintenance, and use of the business architecture framework for NIEM.
- ✓ **NIEM Core:** The NBAC provides management and oversight of the NIEM Core—the central part of the NIEM data model that's commonly understood across all domains.
- ✓ **Community:** The NBAC serves as the forum for the admission of new domains and interactions between domains, and coordinates action to maintain the NIEM community.
- ✓ **Forecasting:** Determine the need for new data model releases as necessary, such as to accommodate new domains content or to provide business requirements to the NTAC.
- ✓ Submit recommendations to the ESC concerning the admission of a new domain into the NIEM data model.

Data Sharing Facilitated

Data Governance Enforced

Collaboration Maximized

Data Resources Harmonized

Data Direction Orchestrated

Data Architecture Longevity

Data Standards Enforced

Data Management Outreach

# INTRODUCING BRIAN R GATTONI

**DHS CISA Chief Technology Officer (CTO)** for the DHS Cybersecurity and Infrastructure Security Agency (CISA).

Mr. Gattoni is responsible for the technical vision and strategic alignment of CISA data and mission services to manage risk to federal networks and critical infrastructure. CISA is the Nation's risk advisor, working with partners to defend against today's threats and collaborating to build more secure and resilient infrastructure for the future.

Previously, Mr. Gattoni was the **Chief of Mission Engineering & Technology** responsible for developing innovative analytic techniques and new approaches to technology insertion to increase the value of DHS Cyber mission capabilities.

In 2015, Mr. Gattoni was named the DHS Systems Engineer of the Year.

Prior to joining DHS in 2010, Mr. Gattoni served in various positions at the Defense Information Systems Agency and the United States Army Test & Evaluation Command.

Mr. Gattoni holds a Master of Science Degree in Cyber Systems & Operations Planning from the Naval Postgraduate School in Monterey, California and is a Certified Information Systems Security Professional (CISSP).



**CISA**  
CYBER+INFRASTRUCTURE

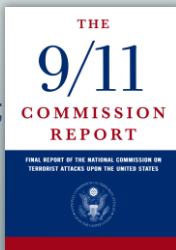
# BRIEF HISTORY OF NIEM

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

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



Identified Data Sharing & Data Standardization as primary issues; And requested that agencies work together to overcome info exchange challenges & gaps across government boundaries in 2004.



Built upon GJXDM's success and lessons learned, NIEM was launched in April 2005 by DHS and DOJ.

2005 – 2010 New Domains were created (CBRN, Maritime, Screening, Immigration, Justice, International Trade, IP, EM...).

NIEM 2.1 Released with 5 Domain in 2006.

HHS joined as the third primary sponsor in 2010.

NIEM Biometrics Domain Created 2012.

NIEM 3.0 Released with 12 Domain in 2013 - 2014.

2012 – 2017 New Domains were created (Human Services, MileOPS, Surface Trans, Agriculture, ...).

NIEM 4.0 Released 2017.

NIEM 3.0 Released with 12 Domain in 2013 - 2014.

NIEM Requirement was added to Gov Grants Funding - 2018

NIEM 5.0 Released 2020. Over 12000 Data Attributes Standardized

NIEM Cyber Domain Created 2020.

NIEM continues to mature adding new communities & building partnership.

NIEM Leadership Transferred from DHS to DoD 2019-2020.





# SOME NBAC SERVICES

- ✓ Assessment of existing or target data exchanges (Document and NDR conformance) ... IEPDs.
- ✓ Support development of NIEM data, information models, dictionaries and or IEPDs; and their harmonization between the NIEM Domains.
- ✓ Gap analysis of data exchanges vs. national or international data standards or other organizational structures.
- ✓ Promote NIEM nationally and internationally within or outside of the NIEM Domain organizations.
- ✓ Spin-off tiger teams or other working groups to collectively solve the NBAC Domain's issues, gaps and or opportunities.
- ✓ Identify, review and share technical NIEM Domain related issues, training, usage and others such as Best Practices.
- ✓ Assist in development and standardization of IEPD templates, governance, processes or structures.
- ✓ Facilitate NIEM Domain onboarding process, and cross-domain harmonization.
- ✓ Assist Domains develop get-well plans and or road-to-recovery plans using the NIEM maturity model.





# NIEM VALUE PROPOSITION

- ✓NIEM ***shortens the time*** frame for information exchange development.
- ✓NIEM reduces errors and increases data ***reliability and quality***.
- ✓NIEM decreases data integration headaches through ***data standardization***.
- ✓NIEM save time and effort by eliminating the need for duplicating what already exists in the data model (**NIEM conformance**).
- ✓Allows for more ***effective decision-making*** by making actionable information more accessible.
- ✓NIEM provides a ***common language*** for data exchange across all partners.
- ✓NIEM allows communities to come together to ***solve challenges uniformly***.
- ✓NIEM allows ***reuse*** of data exchanges and data models and their ***transformation into web services***.
- ✓NIEM enhances operational efficiency through ***layered architecture***.



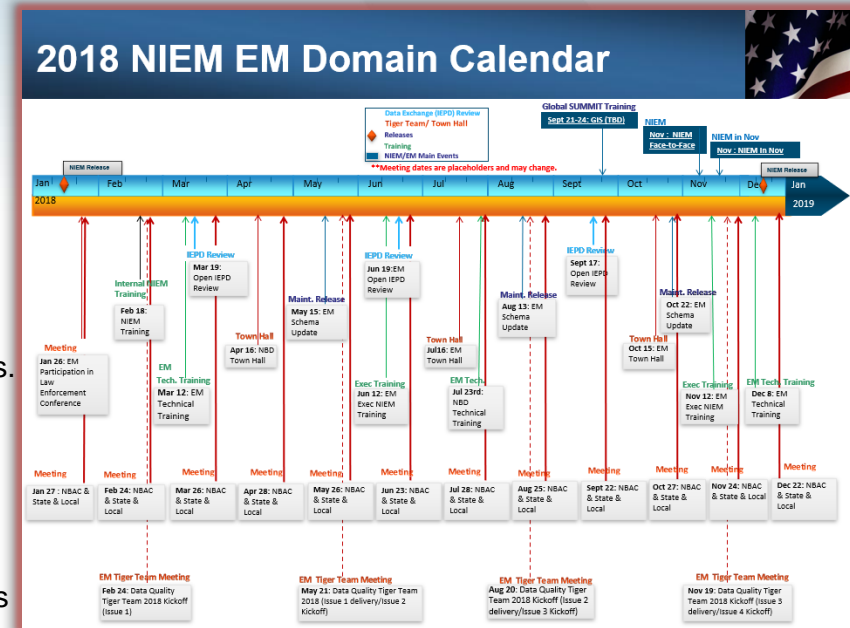
**NIEM ALLOWS USERS TO DO MORE WITH LESS.**

## BEST PRACTICES TO MATURE ANY NIEM DOMAIN

# Domain Project Management Plan

- Create a yearly updatable Domain Project Management Plan,
    - Include visualized calendar for main activities and deliverables.
  - The Domain Project Plan created by NIEM Domain Management must address:
    - Ensure the development of the content for the NIEM Domain creates zero disruption (**Do-No-Harm**) on the existing systems data sharing and or backward compatibility
    - Work with the organization's Enterprise and Data Architecture teams for any IT modernization initiative
    - Must include operational stakeholders (i.e. Business Offices, Process/Functional Owners, Operations...) and not just IT organizations
    - Include level of effort (LOE), timelines and defining the type and # of IEPDs that will need to be developed using the NIEM model, architectural framework, or NDR that best benefit the Domain Community of Interest (CoI).
- The image shows a sample of a published public-facing domain calendar. It is a horizontal timeline from January to December. The calendar is divided into three main sections: January to April, May to August, and September to December. Each section contains a series of boxes representing events. The events are color-coded: red for meetings, green for training, and blue for releases. The events include:

  - January:** Meeting (Jan 26: EM Participation in Law Enforcement Conference), Meeting (Jan 27: NBAC & State & Local).
  - February:** Meeting (Feb 18: NIEM Training), Meeting (Feb 24: NBAC & State & Local), EM Tiger Team Meeting (Feb 24: Data Quality Tiger Team 2018 Kickoff (Issue 1)).
  - March:** Meeting (Mar 26: NBAC & State & Local).
  - April:** Meeting (Apr 16: NBD Town Hall), Meeting (Apr 28: NBAC & State & Local).
  - May:** Meeting (May 26: NBAC & State & Local), EM Tiger Team Meeting (May 21: Data Quality Tiger Team 2018 (Issue 1 delivery/Issue 2 Kickoff)).
  - June:** Meeting (Jun 23: NBAC & State & Local).
  - July:** Meeting (Jul 28: NBAC & State & Local), EM Tech Training (Jul 23rd: NBD Technical Training).
  - August:** Meeting (Aug 23: NBAC & State & Local), EM Tiger Team Meeting (Aug 20: Data Quality Tiger Team 2018 Kickoff (Issue 2 delivery/Issue 3 Kickoff)).
  - September:** Meeting (Sept 22: NBAC & State & Local).
  - October:** Meeting (Oct 27: NBAC & State & Local), Maint. Release (Oct 22: EM Schema Update), Meeting (Oct 15: EM Town Hall).
  - November:** Meeting (Nov 12: NBAC & State & Local), Exec Training (Nov 12: EM Exec NIEM Training), Meeting (Nov 19: Data Quality Tiger Team 2018 Kickoff (Issue 3 delivery/Issue 4 Kickoff)).
  - December:** Meeting (Dec 22: NBAC & State & Local), Exec Training (Dec 8: EM Technical Training).
- Sample of Published Public-Facing Domain Calendar

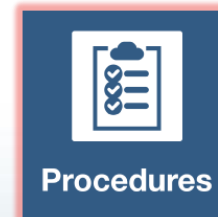
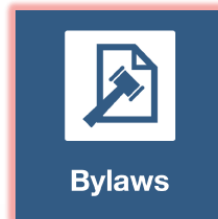


### Sample of Published Public-Facing Domain Calendar

# BEST PRACTICES TO MATURE ANY NIEM DOMAIN

- **Domain Management Charter**

- The Domain Management Charter must:
  - Define the purpose, scope, roles and responsibilities, interrelationships and dependencies, structure, and processes of the stakeholders involved with the NIEM Domain stewardship and management.
  - Be a formal authorizing document for the management of the NIEM Domain, and therefore the charter must be vetted to all stakeholders and gained the proper signatures prior to implementation.
  - Include as many organizational stakeholders and assign them titles (chair, co-chair, ombudsman,...)



# BEST PRACTICES TO MATURE ANY NIEM DOMAIN (CONT.)

- **Domain Management Implementation Plan**

- The Domain Management Implementation Plan must:
  - Help facilitate and manage the NIEM Domain
  - Strengthen the documentation and effectiveness of the organization's data management practices which will help manage information correlation and sharing between its partners and stakeholders.
  - **Document how-to** for the required processes for the Col to operationalize the Domain, covering topics such as:
    - Document technical tools used or required, processes, methodologies to support data analysis, development, discovery, dissemination, reuse
    - Development or implementation of a **data sharing repository** of existing or upcoming data exchanges
    - Existing data standards and plans for conversion (if applicable)
    - Listing of common lexicon
    - Provide training schedules or roadmap
    - Also how-to: technical assistance, communication, outreach, and implementation support services.



# BEST PRACTICES TO MATURE ANY NIEM DOMAIN (CONT.)

- **NIEM Domain Col Governance Process Implementation Plan**



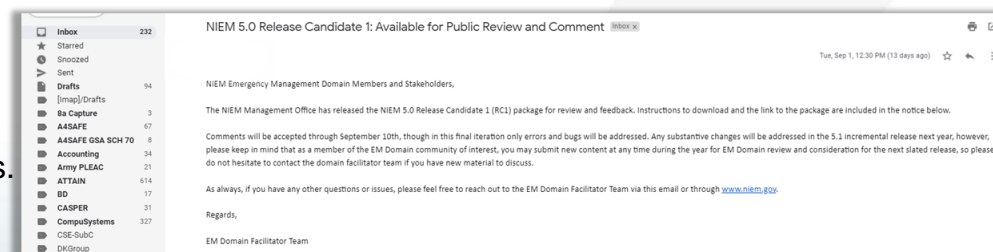
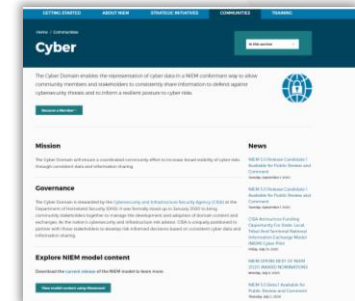
- Develop a Governance Process Implementation Plan to establish:
  - The NIEM Domain Governance (deliverables, structures, approval process, reporting).
  - The NIEM Domain maintenance guidelines, change control, and change management processes.
  - The NIEM Domain Col vetting and conflict resolution process for members.
  - Establish support layer such as: Tier One or Tier Two and Tier Three support to help Domain Col overcome their data sharing concerns and or issues.



# BEST PRACTICES TO MATURE ANY NIEM DOMAIN (CONT.)

## • Outreach and Collaboration Support

- Develop and track **Membership List** and update monthly.
  - Collecting the NIEM Domain Col member contact information is imperative for the execution and management of the NIEM Domain support services.
- Create a sign-up opportunity by offering The NIEM Domain **Newsletter**. At the end of each article, put a call to action by asking members to get involved.
- Continuously update your **NIEM Domain Webpage** - The website is often the first place the members go when they want to find out more about NIEM Domain.
  - Work with the NIEM PMO to ensure the Domain website is established and continuously updated.
  - Use it as a message board (i.e. Press Release...) to showcase accomplishments and updates to you COI.
- Present or participate at Col seminars and brief of the NIEM Domain value proposition.
  - Develop Domain specific leave behind pamphlet.
- Create and maintain a **Group Email** for the NIEM Domain to receive and respond back as a unit/facilitator and not individuals.
- Actively participate in NBAC, NTAC sessions and or NIEM Tiger Teams.





# BEST PRACTICES TO MATURE ANY NIEM DOMAIN (CONT.)

- **Create & Maintain Data Dictionary**

- Develop an enterprise data dictionary that integrates existing and targeted common data elements used across the COI enterprise / organizations to help provide consistency and understanding of common data.
  - Not all Col datasets will be used for IEPDs (i.e. Biometrics Domain), but the Col is using it daily for many purposes.
  - The creation and maintenance of the data dictionary is pivotal to the success of NIEM Domain.
  - Develop template to enable capturing and comparing/mapping metadata side-by-side from different systems and or sources which are involved with the Col mission areas.
  - Work with the Col to harmonize and or reconcile datasets naming convection, descriptions or definitions, relationships or code sets, when required.



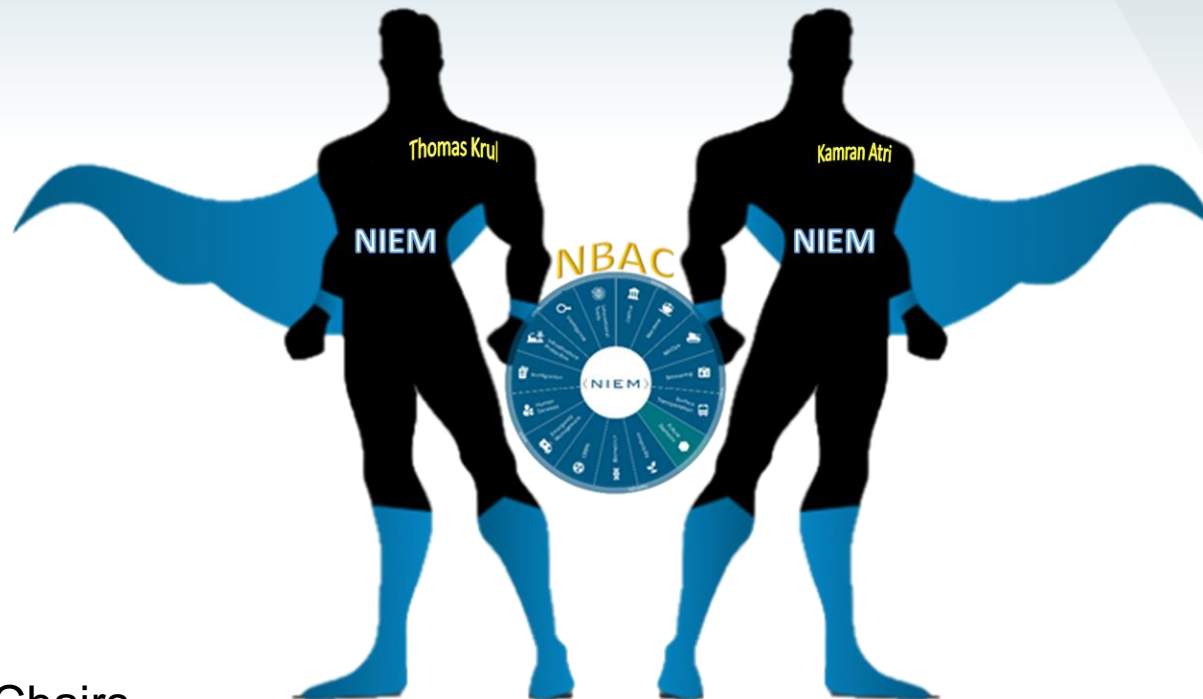
- **Domain Informal Training Support**

- Periodically provide internal NIEM stakeholder briefing and or training (where possible), this also means preparing speakers and or organizing sessions.
  - NIEM PMO and NBAC leadership is ready and prepared to support.



# Q&A

# Enabling Connected ~~Future~~ Now



- NBAC Co-Chairs



➤ Thomas Krul



[thomas.krul@canada.ca](mailto:thomas.krul@canada.ca)



➤ Kamran Atri



[katri@A4SAFE.COM](mailto:katri@A4SAFE.COM)

# ANNUAL MEETING OVERVIEW (14-18 SEPTEMBER)

	Session Date & Time	Session Topic	Planned Speakers	Facilitators
1	<b>Monday, 14 Sept</b> 10 a.m. – Noon EDT	<b>Advancing NIEM Adoption</b>	<b>Kshemendra Paul</b> NIEM Executive Steering Council	Kamran Atri Thomas Krul
2	<b>Monday, 14 Sept</b> 1 – 3 p.m. EDT	<b>State, Local, Tribal Tiger Team</b>	<b>Eric Sweden</b> National Association of State Chief Information Officers (NASCIO)	Cait Ryan, Tom Carlson Thomas Krul
3	<b>Tuesday, 15 Sept</b> 10 a.m. – Noon EDT	<b>Supporting Domain Growth</b>	<b>Brian Gattoni</b> DHS CISA CTO	Kamran Atri Thomas Krul
4	<b>Tuesday, 15 Sept</b> 1 – 3 p.m. EDT	<b>Emerging Technologies Tiger Team</b>	<b>Syed Mohammed</b> Director, US Department of Homeland Security, Modeling and Simulation Technology Center	Jalal Mapar Lain McNeill
5	<b>Wednesday, 16 Sept</b> 10 a.m. – Noon EDT	<b>Improving NIEM Implementation</b>	<b>Jon Kirk, Patrick Lagioia</b> Treasury Board of Canada	Thomas Krul Kamran Atri
6	<b>Wednesday, 16 Sept</b> 1 – 3 p.m. EDT	<b>International Tiger Team</b>	<b>Poewan Lau</b>	Thomas Krul Kamran Atri
7	<b>Thursday, 17 Sept</b> 10 a.m. – Noon EDT	<b>NIEM Release Planning</b>	Working Session	Christina Medlin Web Roberts
8	<b>Thursday, 17 Sept</b> 1 – 3 p.m. EDT	<b>NBAC/NTAC Collaboration Planning</b>	Working Session	Kamran Atri , Webb Roberts Thomas Krul, Scott Renner
9	<b>Friday, 18 Sept</b> 10 a.m. – Noon EDT	<b>NIEM 2021 Priority Planning</b>	<b>Stuart Whitehead</b> NIEM Executive Director	Katherine Escobar Stephen Sullivan
10	<b>Friday, 18 Sept</b> 12 -12:15 p.m.	<b>Annual Meeting 2020 Wrap-up</b>		Kamran Atri Thomas Krul Stephen Sullivan