

VA Commonwealth Data Stewards Panel

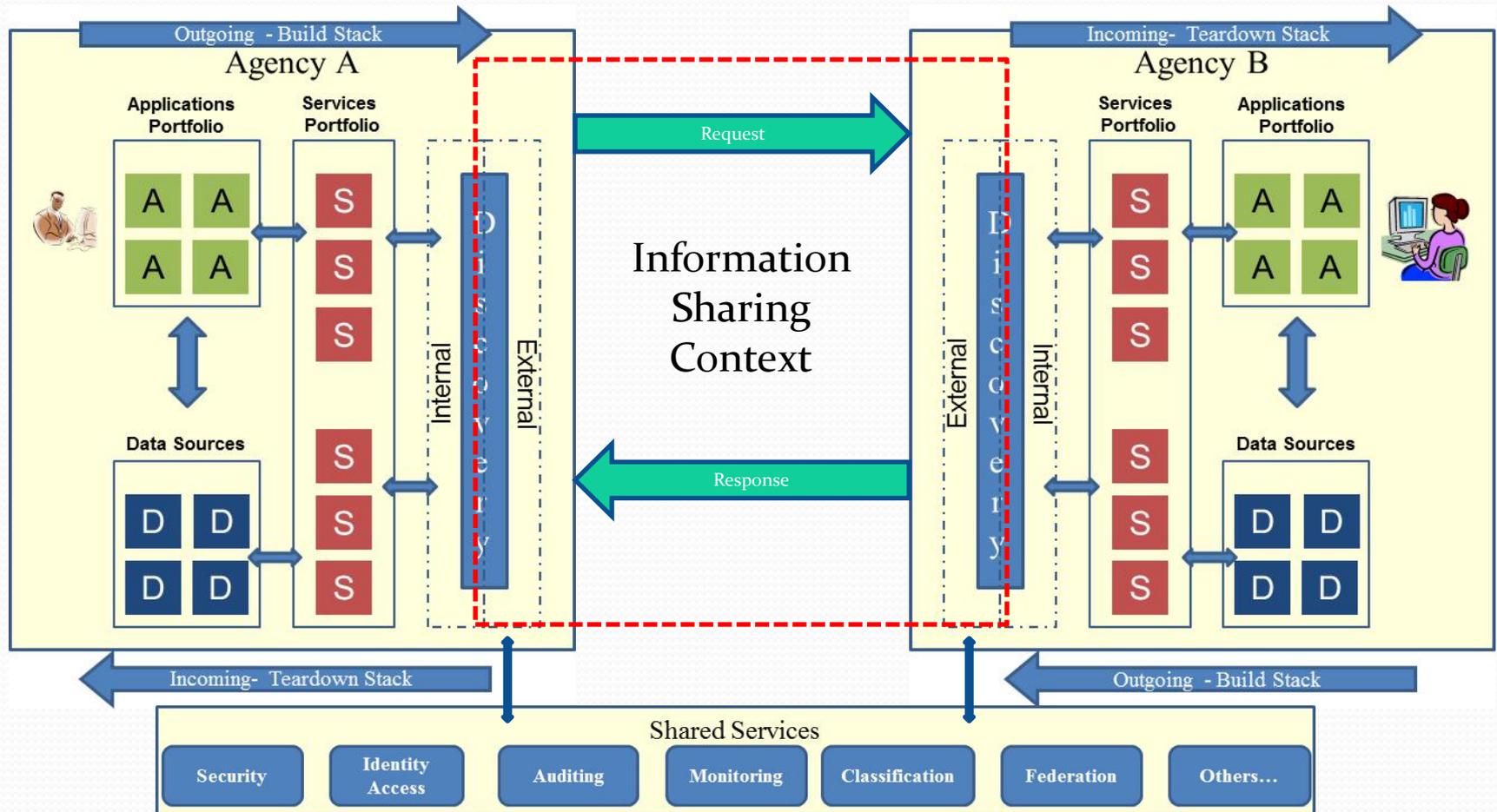
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Information Sharing Vs. Interoperability

- **Sharing** is the ability to:
 - Share information between one or more mission partners
 - May be structured or unstructured
 - Often based on pre-existing contracts that define the structures and content of data between mission partners
 - Often point-to-point, and focused on data
- **Interoperability** is when the same information is shared across a diverse audience and is still consumed, processed and interpreted in a consistent fashion, with the appropriate access/privacy controls, and without losing its semantic meaning, and with or without existing contracts.

Information Sharing Context



Key Components

Interoperability

Sharing

- **Data: What** is the data that needs to be, or is available to share? What formats are available? NIEM, HL7, GML, etc.
- **Services: How** is this data going to be shared? What protocols do we use? SOAP, REST, MQ, etc.
- **Policy: Who** is allowed to access this information? What are the rules for IDAM, PII, Security Markings, etc.? How are we going to tag data consistently?
- **Process: Why** do we care about this exchange? This is where the mission process describes the need for this exchange, and more importantly the sequencing of exchanges to drive towards desired results.



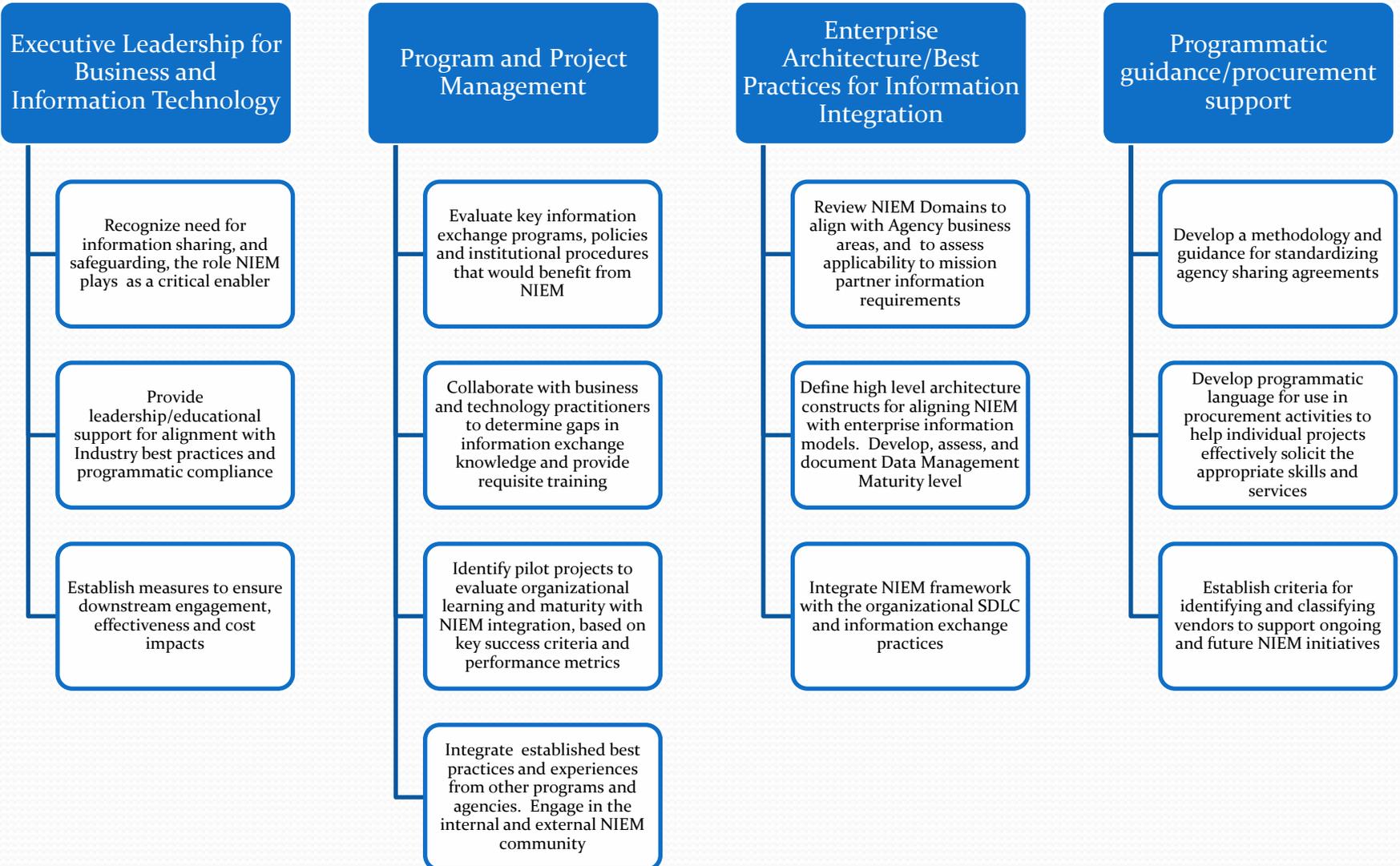
Got NIEM???

What Next???

NIEM is Hard!!!

- NIEM certainly is complex, but that's also because it is very comprehensive
- Easier to handle if agencies collaborate, and apply principles of enterprise information management
- Is the XML syntax hard, or the actual concepts hard?
- NIEM-UML helps significantly with the technical XML syntax
- Rationalize requirements, resources, and common strategies for re-use
- CRAWL.....WALK.....RUN!!!

NIEM Communities within an enterprise



NIEM based Information Integration Roadmap

1. Executive Sponsorship

- Often driven by government programmatic guidance or grant funding
- Management support with resources to help drive downstream adoption
- Implementation and measurement strategy

2. Establish NIEM Governance

- Assess current organizational governance structure
- Identify a target state that aligns with the NIEM framework's governance best practices
- Centralized governance plan that demonstrates the agency's commitment

3. Evaluate Cross Domain Application

- Review NIEM Domains to align with Agency business areas
- Review NIEM Domains to assess applicability to mission partner information requirements
- Identify opportunities for future enhancements to the NIEM model

4. Establish SDLC Guidelines

- Integrate NIEM framework into agency information exchange practices
- Evaluate key information sharing programs, policies and institutional procedures as candidates for NIEM integration
- Define high level architecture constructs for NIEM integration

6. Develop Services and Connectors

- Develop architecture components to support Integration
- Explore integration requirements with other standards like GRA, GFIPM, etc.

5. NIEM Pilots

- Identify potential opportunities to execute NIEM Integration in a controlled environment
- Define key success criteria and performance metrics
- Execute pilot projects

7. Evaluate and Institutionalize

- Repeatable processes
- Define areas of responsibility



**New York
Statewide
Police Information Network
(IJP – Integrated Justice Portal)**

The Challenge

- Mission critical system with stringent requirements for accuracy, performance and high availability
- Multiple point-to-point connections
- Proprietary and legacy protocols/formats, no real documentation
- No standard business vocabulary with many manual processes
- Islands of data with often no unified view of information
- Expensive and time consuming to maintain and make changes
- Limited support for the existing legacy infrastructure
- Coordination among multiple in-state and out-of-state agencies
- Roll-out the new solution with minimal disruption of services

NYS Vision

NY State long term vision - Provide 'one-stop information shopping platform' for all LE, justice and correction users



IJ Stakeholders and Partners

In-State agencies such as State Police, Courts, Criminal History, DMV, and *National agencies* such as FBI, and NLETS

In State Agencies

- Law Enforcement/Criminal Justice Agencies:
 - Division of State Police
 - Division of Criminal History Services
 - Local Police Departments
 - Sheriffs
 - Administrative Office of the Courts
- Corrections Agencies:
 - State Prisons
 - Sheriffs House of Corrections
 - Probation
 - Parole
- Other Agencies
 - Division of Homeland Security
 - Division of Emergency Services
 - Division of Motor Vehicles
 - Division of Tax and Finance

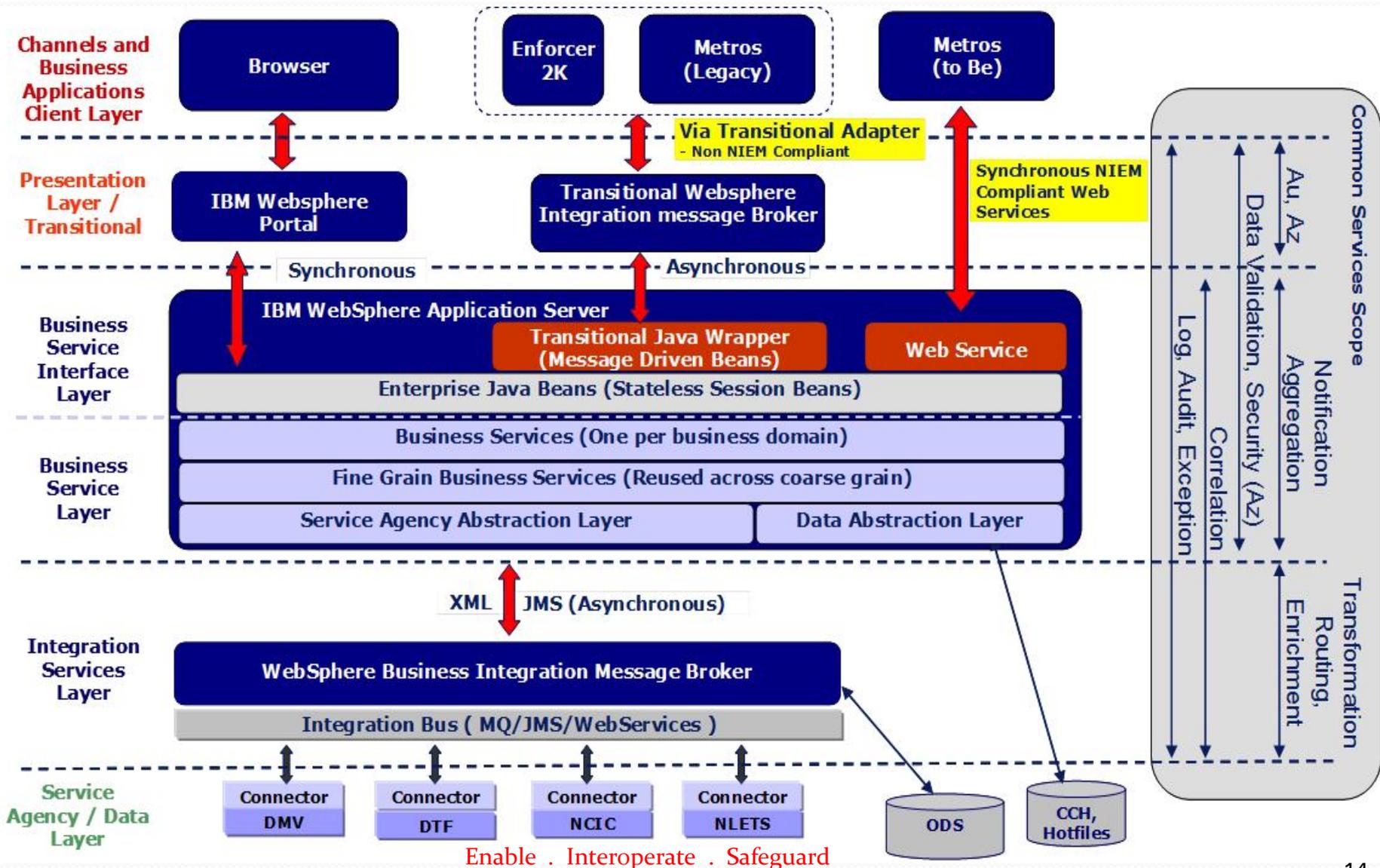
Out of State Agencies

- Federal Bureau of Investigation:
 - National Crime Information Center (NCIC) for Hotfiles
 - Interstate Intelligence Index (III) for Criminal History
- National Law Enforcement Telecommunications System:
 - Out of State DMV Records
 - Out of State Rap Sheets
 - Out of State Criminal History
 - Lo Jack
 - National Weather Service
 - Immigration Services
 - Royal Canadian Mounted Police

Key IJP Solution Highlights

- 351 NYSPIN supported business transactions replaced with about 120 NIEM IEPD based business services.
- Leverages NIEM to develop a 'canonical' enterprise view of the information architecture
- Maintains/exceeds state and national standards for response times
- Standards based SOA solution - Compliant with NYSP architectural requirements for open standard and products
- Services enabled business functionality to support diverse user base using portal, legacy devices and computer-to-computer (Metro) interfaces
- Comprehensive multi-year transition strategy to support users as they transition from legacy client interfaces to portal and web-services based solutions

IJP - Solution Architecture



IJP Lessons Learned

- Establish end vision and create a roadmap that will get you there
- Roadmap will and should be adjusted periodically to tune for changing requirements, delays, emerging technologies, etc.
- Identify key stakeholders, their dependencies, and inter-dependencies early on
- Establish, implement, and enforce a robust Governance structure
- Establish a comprehensive transition strategy – minimal disruption of service
- Recognize the importance of training and change management: the new system would only be successful if the people using it embrace the new technology



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