



# **The Business Case for Service Oriented Architecture in Justice Systems Integration**

**Gerry Coleman, Wisconsin Crime  
Information Bureau**

**Jeff Harmon, Maine State Police**

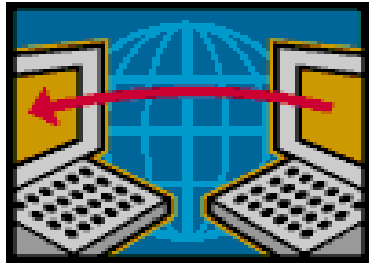
**John Loverude, Illinois State Police**



# Standards in daily life

- Telephones have to be *standards based* to work
- You don't know what the standards are or how they work
- You just want the cell phones to connect to desk phones to connect to fax machines, etc.

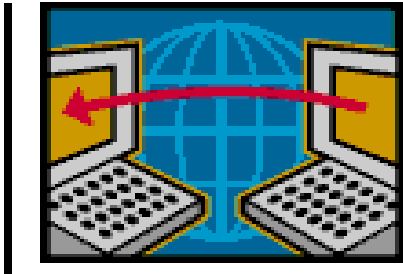




# Justice Data Exchange

- Technical components are necessary for it to work
- Standards are necessary for it to work.
- The GJXDM can provide some of the standard components.
- What other technical components are necessary?



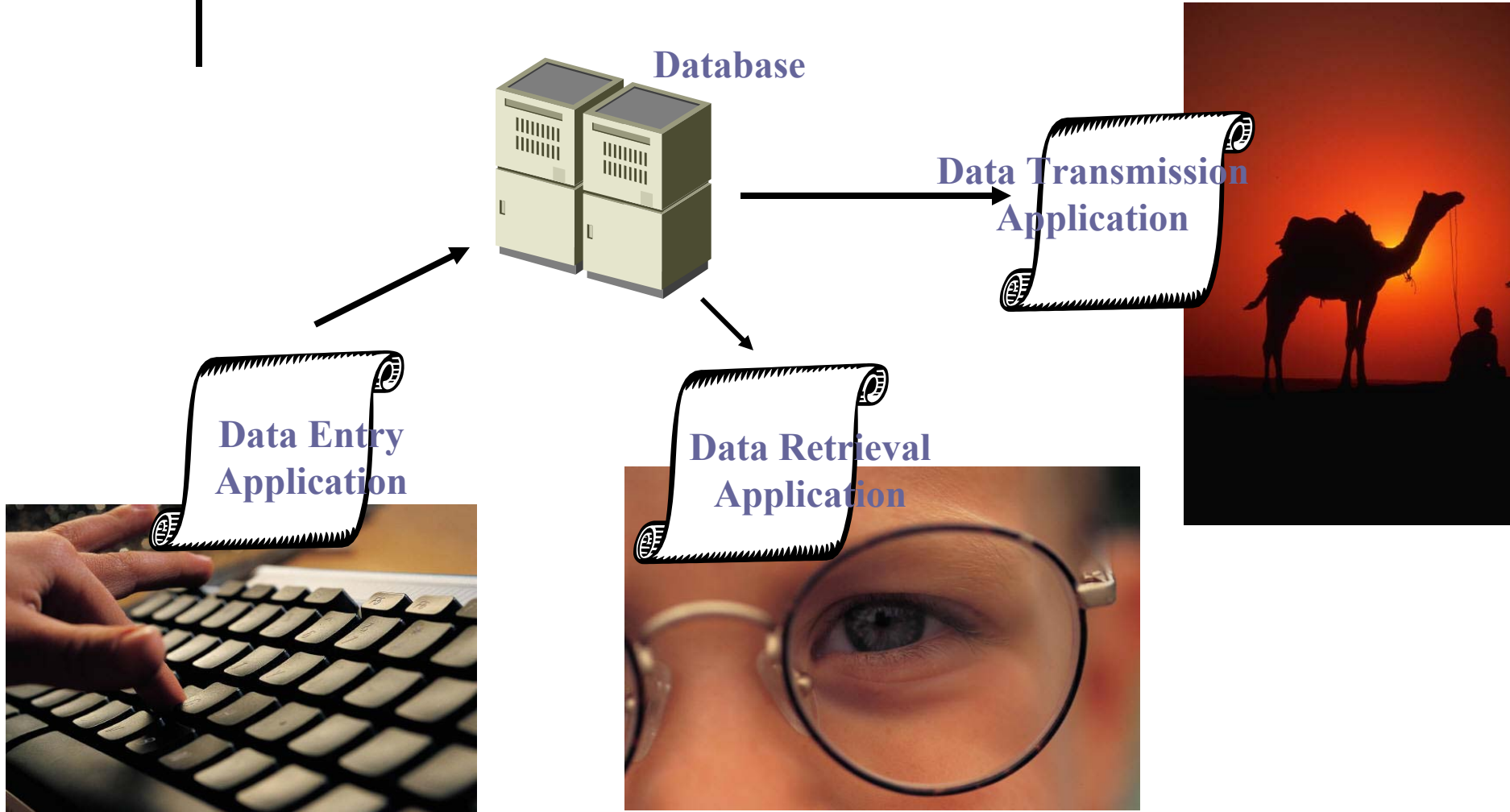


# Justice Data Exchange

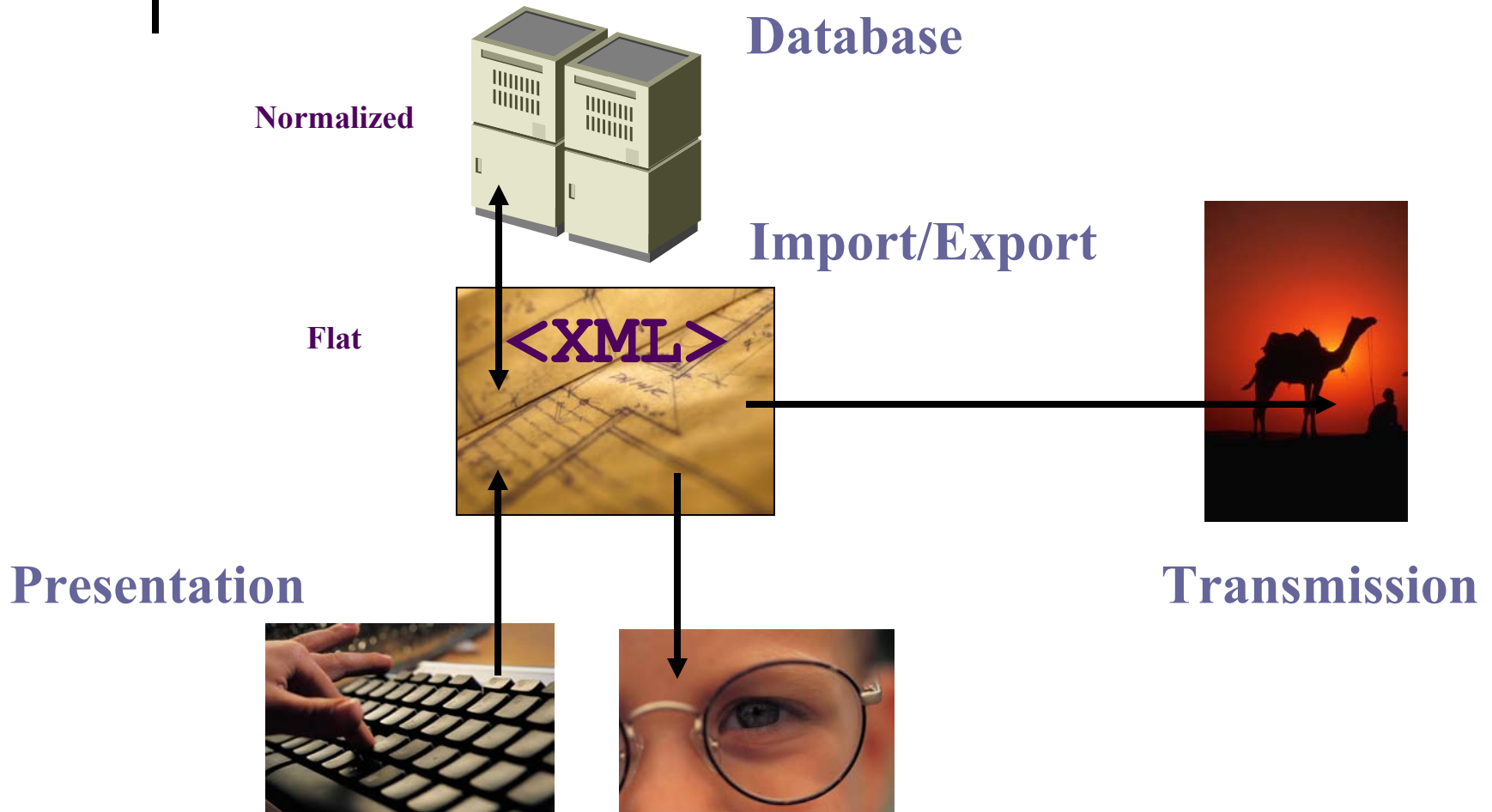
- Architecture is a structured plan for justice data exchange
- Component Re-Use/Object Dictionary (the GJXDM): the vocabulary used to build the information payload of the exchange (document, transaction, message)
- Business Rules: the conditions and constraints that are important to the data exchange.

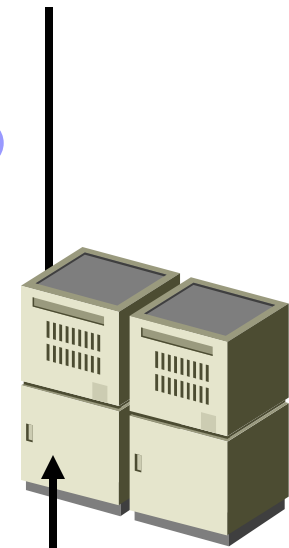


# Traditional Architecture

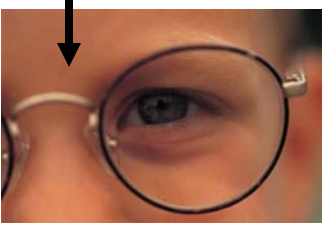


# XML Service Architecture





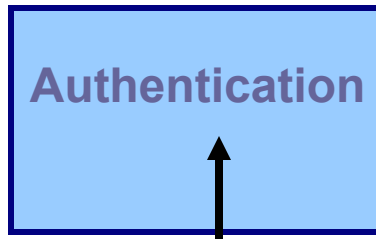
**Oracle 8.1.5 +  
XDK Utilities**  
Java Objects  
DOM, parser



**IBM WebSphere**  
web services  
Xerxes  
Zalin

**IBM WebSphere**  
web applications  
Stylesheets, forms  
Adobe PDF

**Microsoft  
Active Directory**



LDAP

Xpath  
<UserID>

Schema  
validation

Intrusion Detection



**Tool Set**



**XML  
Firewall**  
Sarvega  
DataPower  
Westbridge





# Justice Information Sharing Trends

- Nature of justice in America
- Nature of justice information systems
- Increasing need/desire to share information
- From buyers/builders to product developers
- New player Global Advisory Committee
- New approach - Service oriented architecture





# Global Advisory Committee

- Advisory committee to Attorney General
- Group of groups – inclusive
- Identifying opportunities to improve information sharing
- Developing products
  - GJXDM
  - Service oriented architecture





# GJXDM 3.0 (Object Model/Dictionary)

- Provides accepted semantics across the justice business domain
- Provide consistent semantics
  - Extends easily to add missing information
  - Evolves to incorporate changing requirements
- Will enable the business needs of justice data exchange



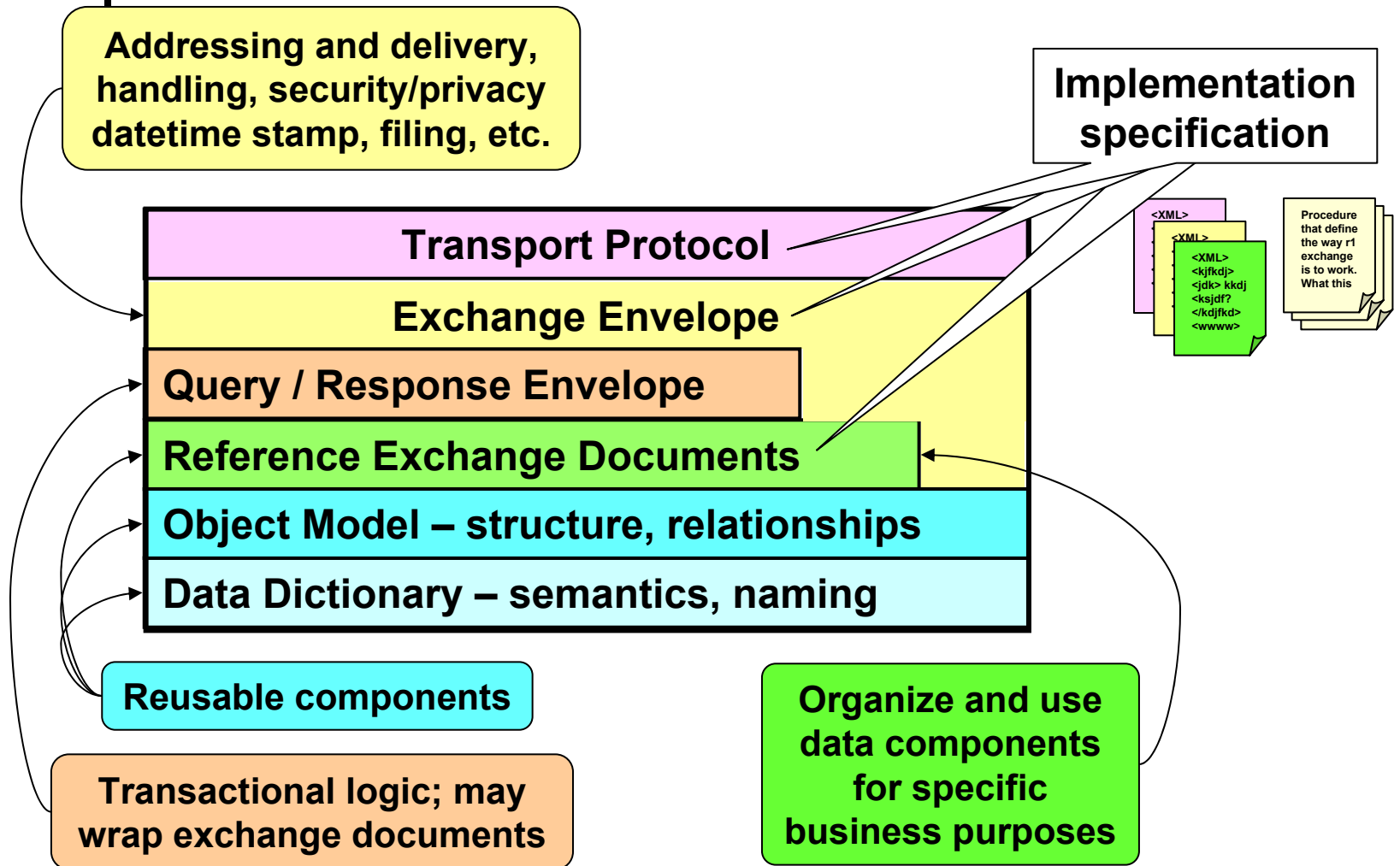


# Joint Task Force on Rap Sheet Standardization

- Has transitioned from consumer of standards (ANSI/NIST) to developer (XML) back to consumer (2.0/3.0)
- Should primarily be consumer
- Transition to GJXDM 3.0
  - Three states implemented JTF 2.X
  - Interoperability between 2.X and 3.0
  - Use of GJXDM 3.0 features
  - Timing of GJXDM 3.0 based specification

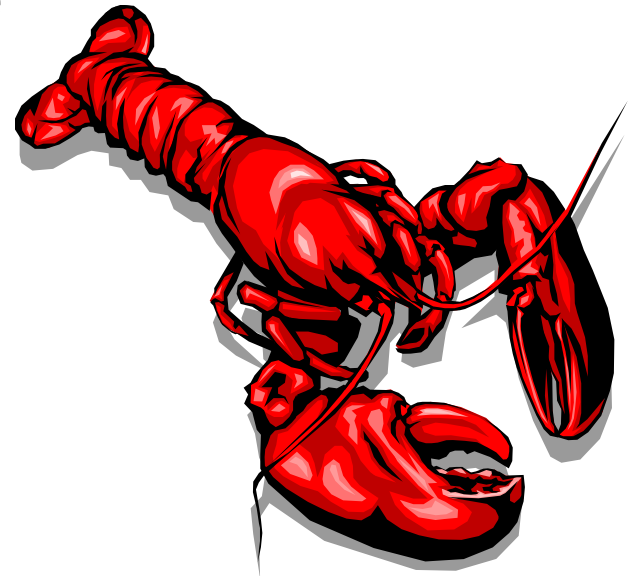


# A Conceptual Exchange Architecture



# Use Case: Maine's Information Exchanges

- Maine Department of Motor Vehicles to Maine State Police
- Local Law Enforcement to Court Violations Bureau
- Maine State Police to Court Violations Bureau





# State Perspective

- Tools such as JIEM and GJXDM
  - Extend state dollars
  - Quicker system implementation
  - Improve access to information
  - Improve quality of information (less conversion)
  - Reusable components





# The Business Case

- SOA standards are important if you want to:
  - SHARE DATA (speak the same language)
  - SAVE MONEY (use the same products)
  - LOWER RISK (increase the probability that your exchange will be interoperable with other justice entities throughout the nation)





# The Business Case

- SOA standards are important if you want to:
  - INCREASE PUBLIC SAFETY (get it there faster, more accurately, in a consumable format)
  - INCREASE PUBLIC ACCESS (accurate information accessible through the web)





# Benefits

- On-demand real time data access by practitioners who need it to make decisions
- Standard products from vendors at lower cost
- Leverage legacy system investment
- Evolve with emerging technology in a phased approach

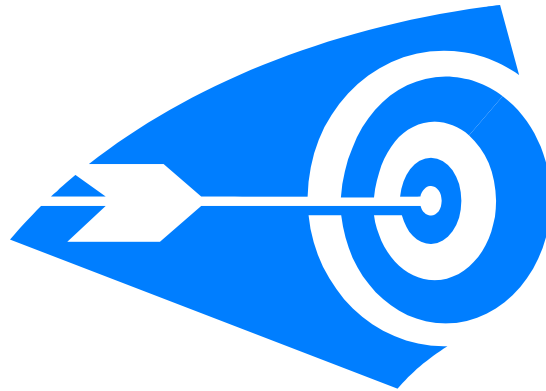




## Benefits

- If you care about PUBLIC SAFETY, SOA standards are important because these standards can dramatically lower the lifecycle cost of sharing data
- If you care about ACCOUNTABILITY FOR THE PUBLIC'S MONEY, SOA standards are important because they will help to significantly lower the lifecycle cost of sharing data





# It is up to YOU

- Each justice entity must decide when and what way to take advantage of SOA
- Resources for Justice Practitioners





# **The Business Case for Service Oriented Architecture in Justice Systems Integration**

**Gerry Coleman, Wisconsin Crime  
Information Bureau**

**Jeff Harmon, Maine State Police**

**John Loverude, Illinois State Police**