The Future of Data Interoperability is Now

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Discussion Topics

• Leveraging Indiana’s Success in Interoperable Communications
• The Move From Analog to Digital Networks
• Data Interoperability/Information Sharing Concept
• Business Needs for Integrating Public Safety & Justice Agencies
• What’s Going On in the World of Information Sharing
• Indiana’s Data Interoperability Future
Indiana’s Successful Statewide Network

- Project Hoosier SAFE-T

  » Revolutionize Indiana public safety communications by building an interoperable statewide network.
  » Deliver a vital public safety need for the least possible cost and maximum local involvement.
  » Coordinate local, state, and federal public safety resources, tear down agency and geographical boundaries, and foster cooperation between Police, Fire, EMS, and other Hoosier first responder and public safety agencies.
Indiana’s Successful Statewide Network

• Project Hoosier SAFE-T

• SAFE-T By The Numbers
  » Project Hoosier SAFE-T System Users (12/01/07)
  » 40,000 Voice System Users
  » 700 Mobile Data System Users
  » 131 sites
  » Project Hoosier SAFE-T Users By Agency Type
  » 17 State Agencies
  » 64 County Sheriff’s Offices
  » 290 local law enforcement agencies
  » 92 County EMA agencies
  » 52 County EMS Services
  » 399 local fire departments/services
  » 3 Federal Agencies
  » 21 School Districts
  » 68 Hospitals
  » 29 Universities
The Future for Wireless Networks

ASTRO 25 Mission Critical System Platform

ASTRO 25 Voice
ASTRO 25 Data
High Performance Data
The Future of Wireless Networks

Same Applications as Integrated Data

Plus

» Graphics
» Building Maps
» Internet / Intranet
» Enhanced AVL
  » More Users
  » Faster Updates
» Mug Shots
» e-mail
# The Future of Wireless Networks

## High Performance Data Applications

<table>
<thead>
<tr>
<th>Facial Recognition</th>
<th>Report Writing</th>
<th>Surveillance</th>
<th>Still-Image Sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Facilitates Capture and Conviction</td>
<td>• Rapid Info Sharing • Increased Accuracy</td>
<td>• Control of sensor networks</td>
<td>• Fast Incident Response Time</td>
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<thead>
<tr>
<th>Fingerprint</th>
<th>AMBER Alert BOLO*</th>
<th>Intranet Access</th>
<th>And More</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Positive Identification</td>
<td>• Fast Identification and Capture / Recovery</td>
<td>• Visual Aids for Responders • Increased Street Time</td>
<td>• Validated Applications</td>
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</tbody>
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* Be On the Lookout

Through Motorola’s Applications Validation Lab
What is Data Interoperability?

• Enabling specialized legacy systems to work together as a single enterprise
  » Sharing information to gain efficiencies
    » Minimizes re-entry
    » Increases timeliness and accuracy of information
    » Increases access and correlation

• Information sharing can make an entire enterprise more efficient
  » It’s like enabling people who speak different languages, with different customs and cultures to work together more effectively
This becomes a very complex network with lots of possibilities for breakdowns and miscommunications.
This simplifies the network but the translator becomes inefficient when he/she must ensure cultural and native language unique concerns are addressed.
Leverage is gained from the Service Experts, but Native Language and lack of process limits Communications.
Integrated Solution with a Common Language, Shared Services, and Process Management enables Efficient & Effective Communications

Five People
Five Languages

Languages are translated at the point of interface and a Single Common Language is used within the Enterprise to ensure Reliability and quality of Communications

Shared Services are more Reliable, Effective, and Efficient because they are only dealing in one Common Language

Communications Manager insures Process are Managed, the right Services are engaged, and Information is Recorded throughout the Enterprise

New People can be added to the Network without any Change to Existing Communications

Integrated Solution with a Common Language, Shared Services, and Process Management enables Efficient & Effective Communications
Multiple Systems - One “Information Sharing Architecture”

**Integration Framework Controller (Automator)**
- Master Indices (MI)

**Central Data Repository (CDR)**
- Web Query
- Security
- Identification Service (IDS)

**Geographic Information Systems (GIS)**
- Communicator

**Lexical Query Service (LQS)**
- Connector

**Central Data Repository (CDR)**
- Internal connector

**Identifiers**
- External connector
- Internal connector

- **CAD**
- **LE Records**
- **Prosecutor Case Mgmt**
- **Court Case Mgmt**
- **Corrections**
- **Probation**
- **Other Systems**

**Note:**
- External connector
- Internal connector
National Information Sharing Organizations

Leaders

- International Association of Chiefs of Police (IACP) Law Enforcement Information Technology Standards Council (LEITSC) (www.iacp.org)
  - Represents the nation’s Chief’s of Police in developing standards for software applications and information sharing

- Department of Justice (DOJ) Global (it.ojp.gov/global)
  - Global is a group comprised of practitioners from across the country
Leaders

» Integrated Justice Information Systems (IJIS) Institute (www.ijis.org)
  » Partner with DOJ Bureau of Justice Assistance
  » Brings industry partner expertise to help practitioners plan and implement information sharing

» SEARCH (The National Consortium for Justice Information and Statistics) (www.search.org)
  » Provides best practices for practitioners
National Models, Standards & Programs

• Information Sharing Process
  » Justice Information Exchange Model (JIEM)

• Data
  » Messaging Models
    » Global Justice XML Data Model (GJXDM)
    » National Information Exchange Model (NIEM)
  » Messaging Exchanges
    » Information Exchange Package Document (IEPD)

• Programs
  » Next Generation 9-1-1
  » National Data Exchange (N-DEx)
  » Fusion Centers
  » Justice Reference Architecture (JRA)
• Information Sharing Process
  » Justice Information Exchange Model (JIEM)
    » User centered requirements gathering
    » Gathers dimensions of exchanges between agencies
    » Levels playing field from consultant to developer
    » Bottom Line – More easily understood way to define the exchange of data between systems. Bridges the comprehension divide between users, designers and developers.
• Data
  » Messaging Models
    » Provides a common way to refer to data (terminology and data relationships) between systems regardless of how each defines and stores data
  » Evolution
    » Data Dictionary (GJXDD)
    » Data Models (GJXDM, NIEM & LEXS)
    » Model Implementation Schema’s (IEPD)
  » Bottom Line – Models can make it easier, less risky, less costly, using less time to share information between disparate systems
Programs

Next Generation 9-1-1

Federal Program – Department of Transportation – RITA/ITS

Goal - Enable text, data, images and video to be transmitted to PSAP’s and then to CAD’s. Will provide more sophisticated communication from public and better enable public safety response to incidents.

Evolve to internet (IP) based networks

Communicate with personal and other devices
- Automated crash notification and health alert monitors
- Alerts to public

Bottom Line – Technology and information revolution better enabling first preventers to respond to events and for the public to communicate more effectively.
National Models, Standards & Programs

• Programs
  » National Data Exchange (N-DEx)
  » FBI program
  » Goal – Provide better, more comprehensive and quicker access to information from the public safety and justice communities and provide tools to better correlate and make sense of this information across the country
    » Law enforcement records initially
    » Not Intel
    » Expanding to corrections, probation, parole in future
  » Bottom Line – N-DEx has the potential to make previously unavailable or un-actionable information available to those who need it in a timely fashion enabling the interdiction of more criminal & terrorist activity.
National Models, Standards & Programs

» National Data Exchange (N-DEx)

Courtesy of the FBI
• Programs
  » Fusion Centers
    » DOJ and DHS Program in concert with State/Local/Tribal
    » Evolution of Intel Centers at State/Local
    » Nineteen domain partners
    » All Crimes-All Hazards-Terrorism Prevention
    » Fifty-six exist to date
    » Goal - Leverage the capabilities, resources, and information of the LE, Public Safety and Private Sectors to provide more comprehensive access to actionable information enabling a more effective, proactive approach to preventing and responding to crime and terrorism activity
  » Bottom Line – Fusion Centers have the potential to effectively cross jurisdictional, domain and agency boundaries to keep the nation safer
• Programs
  » Justice Reference Architecture (JRA)
    » Global program
    » Goal – Provide a model or reference architecture based upon the Service Oriented Architecture (SOA) and create a best practice for the justice and public safety community
    » Bottom Line – The JRA will help consolidate the various SOA typologies into a common architecture reference model that will better enable the private and public sectors to speak from a common terminology relative to enterprise architecture
The Future

- Indiana’s Past Voice Success Can Propel it into it’s Data Future
  - SAFE-T
    - Developed a structured, collaborative working environment across all levels of government, agencies and the State
  - INData
    - Can use that structure and great working relationship between Indiana’s public safety and justice partners to plan and implement a comprehensive statewide information program to help all of the Indiana’s Public Safety and Justice community be safer and provide better services to the communities in which they work.
Questions?