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The Unique Alternative to the Big Four®

Business First Approach to Information Sharing: Lessons Learned from the Creation of Indiana's Strategy & Solution

IDEx
INDIANA DATA EXCHANGE

Overview to U.S. DOJ's Global Advisory Committee
April 11, 2012

IDHS
INDIANA DEPARTMENT OF HOMELAND SECURITY

Topics

Background

- Intent/Purpose of the Project

Strategic Planning Process

- The Business First Approach

ROI Overview

- Cost savings and cost avoidance

Thank You

- Questions

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Current State: Silos

More than just corn silos in Indiana…

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Key Business Drivers

Indiana's justice and public safety organizations have historically made independent decisions regarding public safety data communications and how and when to share electronic data.

An opportunity existed to improve efficiency and enhance public safety services.

The State of Indiana public safety community recognized a need to enhance services by sharing data across jurisdictions, including among local, state and federal public safety agencies.

State of Indiana desired to emerge as a national leader in criminal justice and public safety information sharing.

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Agency Collaboration from Day One

We Began the Journey Together

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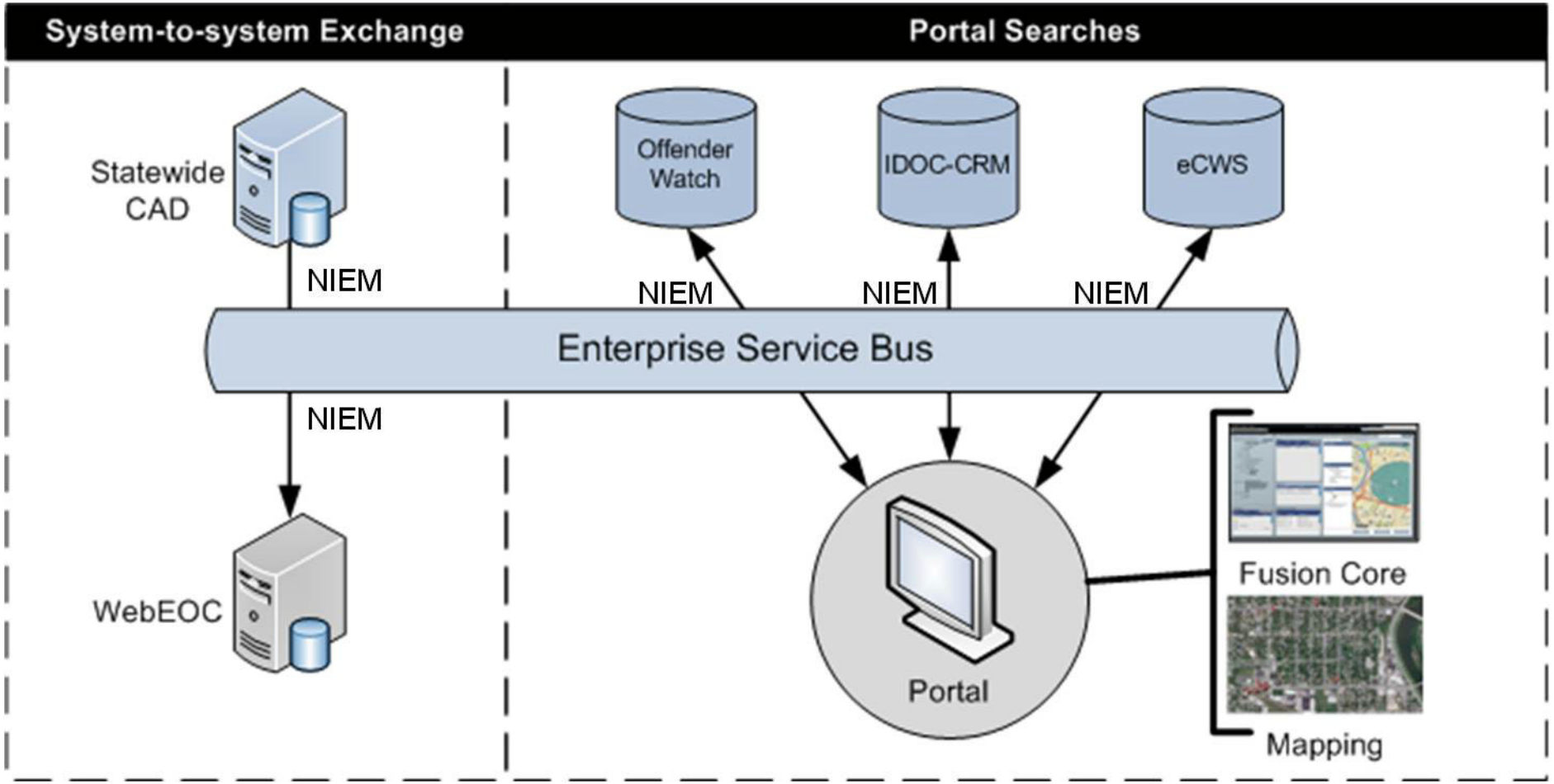
High-Level Solution: Proof-of-Concept



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Business First Approach

1.Envision

- Mission and vision statements
- Current environment assessment
- Gaps/needs analysis
- Prioritized data exchanges
- Exchange modeling
- Strategic Plan

2. Architect

- System design
- System architecture (NIEM, GFIPM, GRA)
- Implementation plan

3. Build

- NIEM-conformant exchanges
- Setup of enterprise environment (Enterprise Service Bus, Portal, Fusion Core Solution)
- Return on Investment Analysis

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IDEx Vision and Mission

Vision

- Indiana will be a leader in providing secure, standards-based enterprise data exchange and information sharing enhancing the safety and security of all Hoosiers.

Mission

- To establish a comprehensive framework and strategy to promote and facilitate the exchange of critical information in a secure environment to support the missions of local, state, federal and private sector partners.

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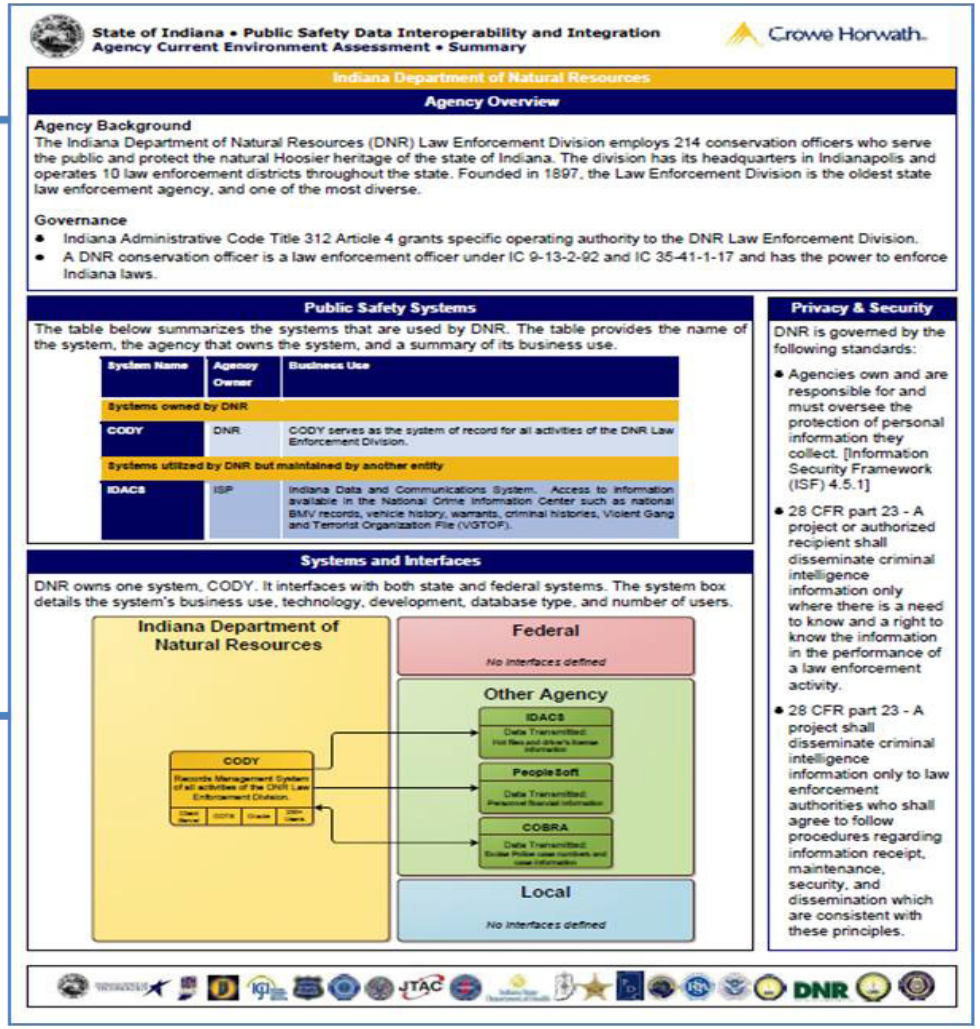
Agency Current Environment Assessment

- Governance
- Systems
- Privacy & Security



State of Indiana • Public Safety Data Interoperability and Integration
Agency Current Environment Assessment • Summary

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Indiana Department of Natural Resources

Agency Overview

Agency Background

The Indiana Department of Natural Resources (DNR) Law Enforcement Division employs 214 conservation officers who serve the public and protect the natural Hoosier heritage of the state of Indiana. The division has its headquarters in Indianapolis and operates 10 law enforcement districts throughout the state. Founded in 1897, the Law Enforcement Division is the oldest state law enforcement agency, and one of the most diverse.

Governance

- Indiana Administrative Code Title 312 Article 4 grants specific operating authority to the DNR Law Enforcement Division.
- A DNR conservation officer is a law enforcement officer under IC 9-13-2-92 and IC 35-41-1-17 and has the power to enforce Indiana laws.

Public Safety Systems

The table below summarizes the systems that are used by DNR. The table provides the name of the system, the agency that owns the system, and a summary of its business use.

System Name	Agency Owner	Business Use
Systems owned by DNR		
CODY	DNR	CODY serves as the system of record for all activities of the DNR Law Enforcement Division.
Systems utilized by DNR but maintained by another entity		
IDACS	ISP	Indiana Data and Communications System. Access to information available in the National Crime Information Center such as national BMV records, vehicle history, warrants, criminal histories, Violent Gang and Terrorist Organization File (VGTOF).

Privacy & Security

DNR is governed by the following standards:

- Agencies own and are responsible for and must oversee the protection of personal information they collect. [Information Security Framework (ISF) 4.5.1]
- 28 CFR part 23 - A project or authorized recipient shall disseminate criminal intelligence information only where there is a need to know and a right to know the information in the performance of a law enforcement activity.
- 28 CFR part 23 - A project shall disseminate criminal intelligence information only to law enforcement authorities who shall agree to follow procedures regarding information receipt, maintenance, security, and dissemination which are consistent with these principles.

Systems and Interfaces

DNR owns one system, CODY. It interfaces with both state and federal systems. The system box details the system's business use, technology, development, database type, and number of users.

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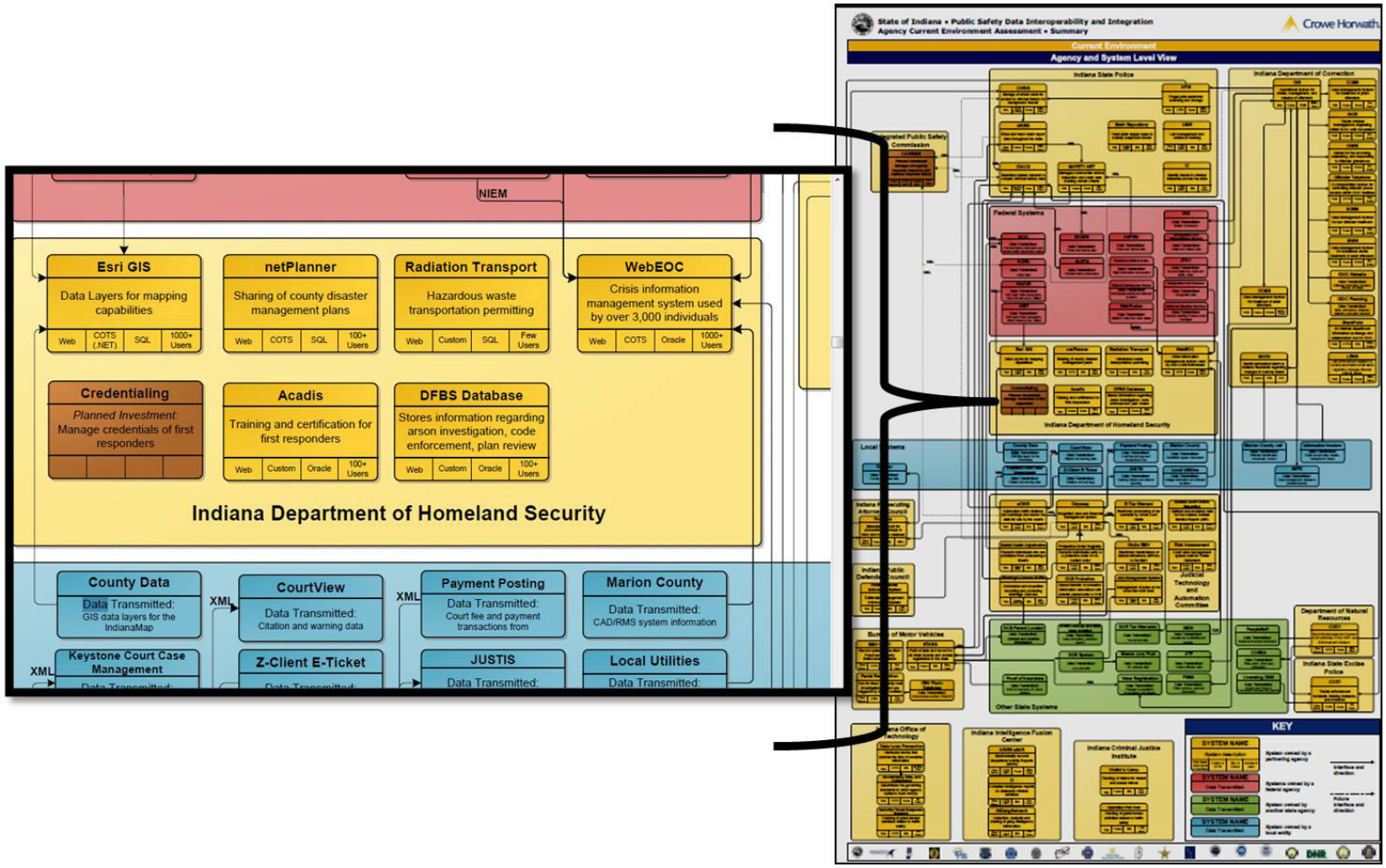
Statewide System Map



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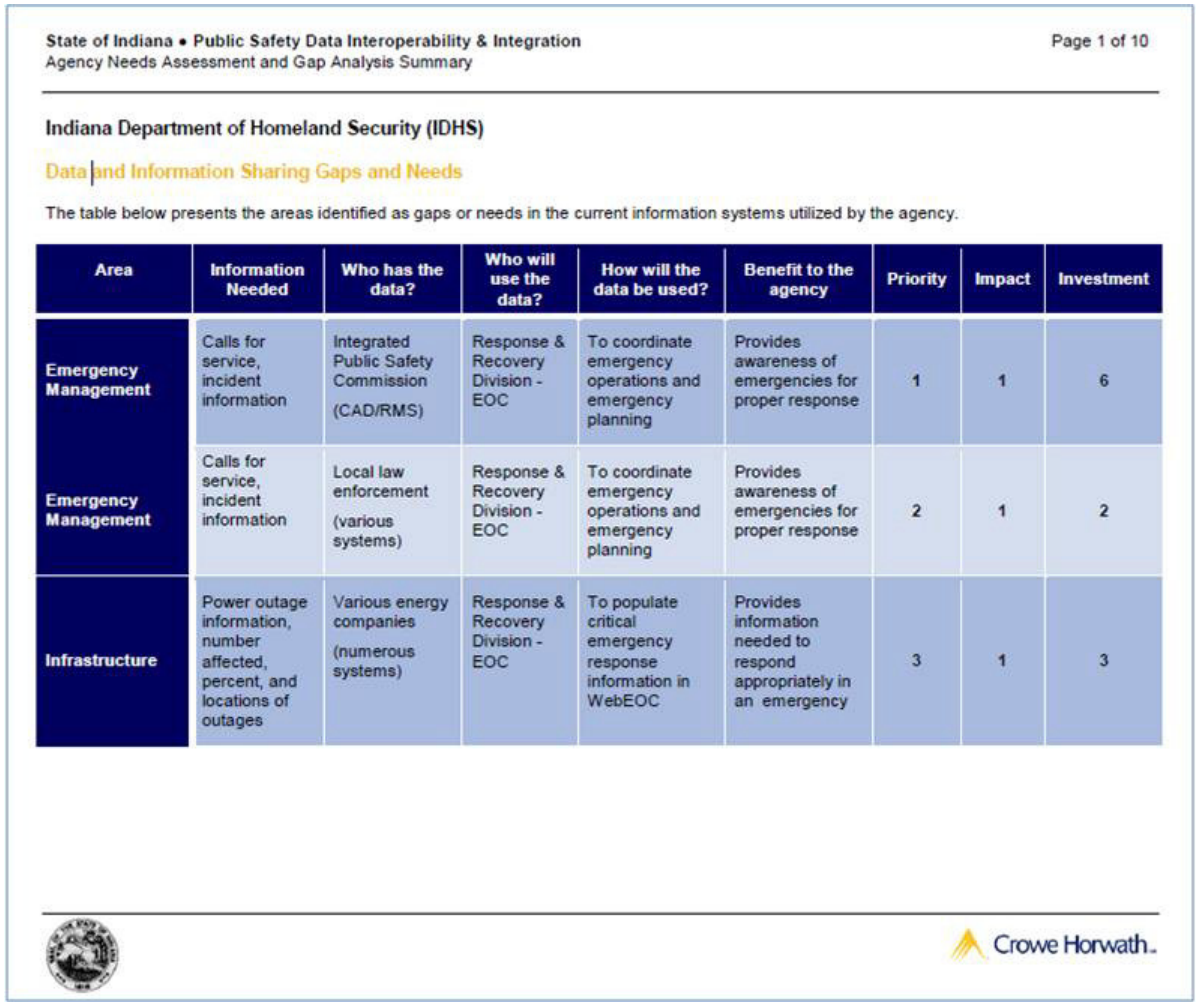
Agency Gaps/Needs



State of Indiana • Public Safety Data Interoperability & Integration
Agency Needs Assessment and Gap Analysis Summary

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Indiana Department of Homeland Security (IDHS)

Data and Information Sharing Gaps and Needs

The table below presents the areas identified as gaps or needs in the current information systems utilized by the agency.

Area	Information Needed	Who has the data?	Who will use the data?	How will the data be used?	Benefit to the agency	Priority	Impact	Investment
Emergency Management	Calls for service, incident information	Integrated Public Safety Commission (CAD/RMS)	Response & Recovery Division - EOC	To coordinate emergency operations and emergency planning	Provides awareness of emergencies for proper response	1	1	6
Emergency Management	Calls for service, incident information	Local law enforcement (various systems)	Response & Recovery Division - EOC	To coordinate emergency operations and emergency planning	Provides awareness of emergencies for proper response	2	1	2
Infrastructure	Power outage information, number affected, percent, and locations of outages	Various energy companies (numerous systems)	Response & Recovery Division - EOC	To populate critical emergency response information in WebEOC	Provides information needed to respond appropriately in an emergency	3	1	3

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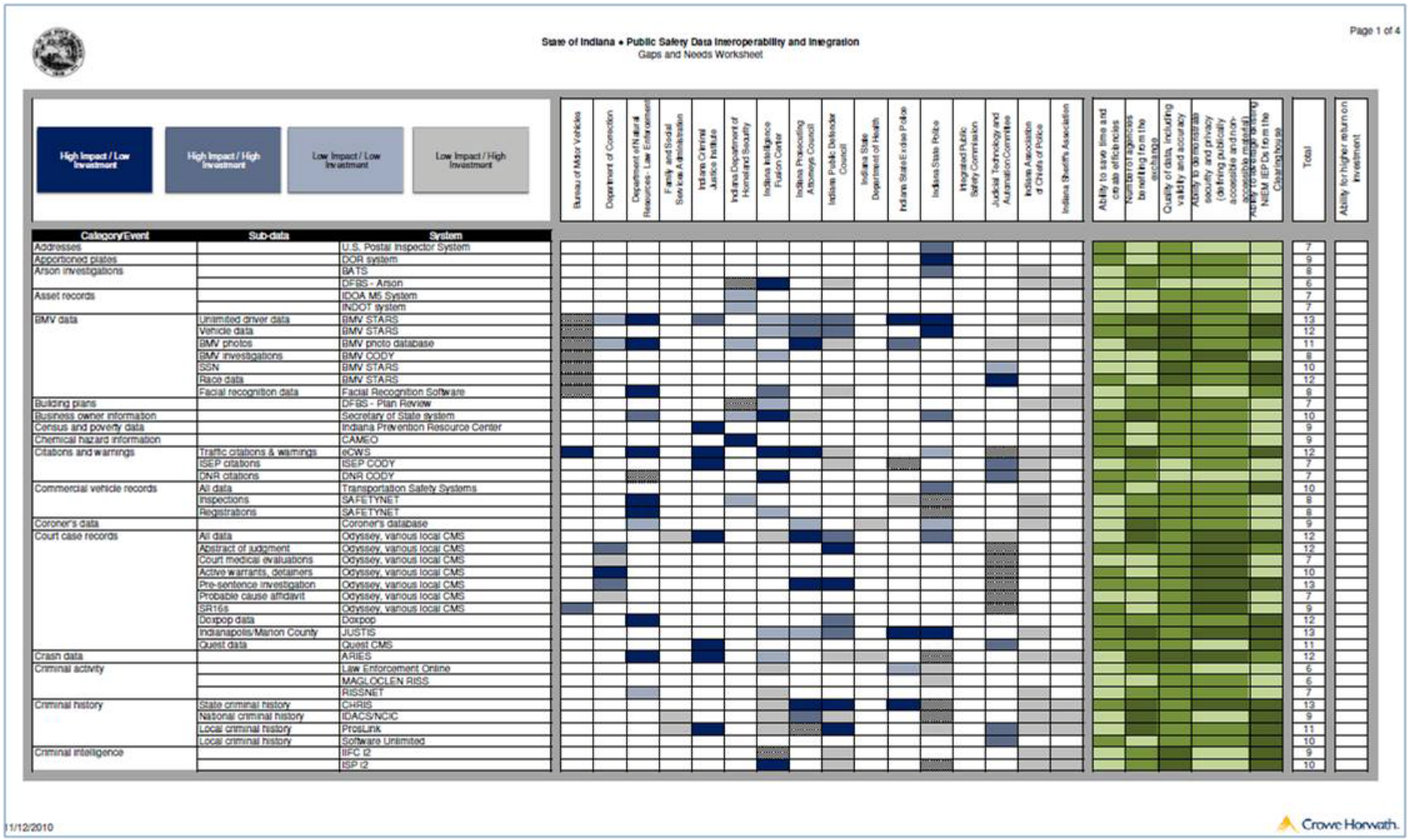
Statewide Gaps/Needs



State of Indiana • Public Safety Data Interoperability and Integration
Gaps and Needs Worksheet

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High Impact / Low Investment	High Impact / High Investment	Low Impact / Low Investment	Low Impact / High Investment

Category/Event	Sub-data	System	Bureau of Motor Vehicles	Department of Correction	Department of Natural Resources - Law Enforcement	Family and Social Service Administration	Indiana Criminal Justice Institute	Indiana Department of Homeland Security	Indiana Intelligence Fusion Center	Indiana Prosecuting Attorneys Council	Indiana Public Defender Council	Indiana State Department of Health	Indiana State Excise Police	Indiana State Police	Integrated Public Safety Commission	Judicial Technology and Automation Committee	Indiana Association of Chiefs of Police	Indiana Sheriffs Association	Ability to save time and create efficiencies	Incentivize agencies benefiting from the exchange	Quality of data, including validity and accuracy	Ability to demonstrate security and privacy (defining publically accessible and non-accessible material)	Ability to leverage existing NIEM IEPDs from the Clearinghouse	Total	Ability for higher return on investment
Addresses		U.S. Postal Inspector System												■										7	
Apportioned plates		DOR system												■										9	
Arson investigations		BATS												■										8	
		DFBS - Arson						■	■															6	
Asset records		IDOA M5 System																						7	
		INDOT system																						7	
BMV data	Unlimited driver data	BMV STARS			■					■	■	■	■	■										13	
	Vehicle data	BMV STARS								■	■	■	■	■										12	
	BMV photos	BMV photo database			■						■		■											11	
	BMV investigations	BMV CODY								■														8	
	SSN	BMV STARS														■								10	
	Race data	BMV STARS														■								12	
	Facial recognition data	Facial Recognition Software			■				■			■												8	
Building plans		DFBS - Plan Review						■	■															7	
Business owner information		Secretary of State system			■			■	■					■										10	
Census and poverty data		Indiana Prevention Resource Center					■		■															9	
Chemical hazard information		CAMEO						■	■															9	
Citations and warnings	Traffic citations & warnings	eCWS	■		■		■		■	■														12	
	ISEP citations	ISEP CODY					■						■			■								7	
	DNR citations	DNR CODY			■				■							■								7	
Commercial vehicle records	All data	Transportation Safety Systems												■										10	
	Inspections	SAFETYNET			■			■					■											8	
	Registrations	SAFETYNET			■				■					■										8	
Coroner's data		Coroner's database			■					■		■		■										9	
Court case records	All data	Odyssey, various local CMS				■	■		■		■	■		■										12	
	Abstract of judgment	Odyssey, various local CMS		■							■													12	
	Court medical evaluations	Odyssey, various local CMS		■																				7	
	Active warrants, detainers	Odyssey, various local CMS		■																				10	
	Pre-sentence investigation	Odyssey, various local CMS		■							■	■												13	
	Probable cause affidavit	Odyssey, various local CMS		■																				7	
	SR16s	Odyssey, various local CMS	■																					9	
	Doxpop data	Doxpop			■						■													12	
	Indianapolis/Marion County	JUSTIS							■	■	■		■	■										13	
	Quest data	Quest CMS					■									■								11	
Crash data		ARIES			■		■		■		■	■				■								12	
Criminal activity		Law Enforcement Online							■				■	■										6	
		MAGLOCLEN RISS							■															6	
		RISSNET			■				■															7	
Criminal history	State criminal history	CHRIS							■	■	■		■	■										13	
	National criminal history	IDACS/NCIC				■			■	■	■					■								9	
	Local criminal history	ProsLink					■		■	■	■													11	
	Local criminal history	Software Unlimited														■								10	
Criminal intelligence		IIFC I2							■		■													9	
		ISP I2							■		■					■								10	

11/12/2010

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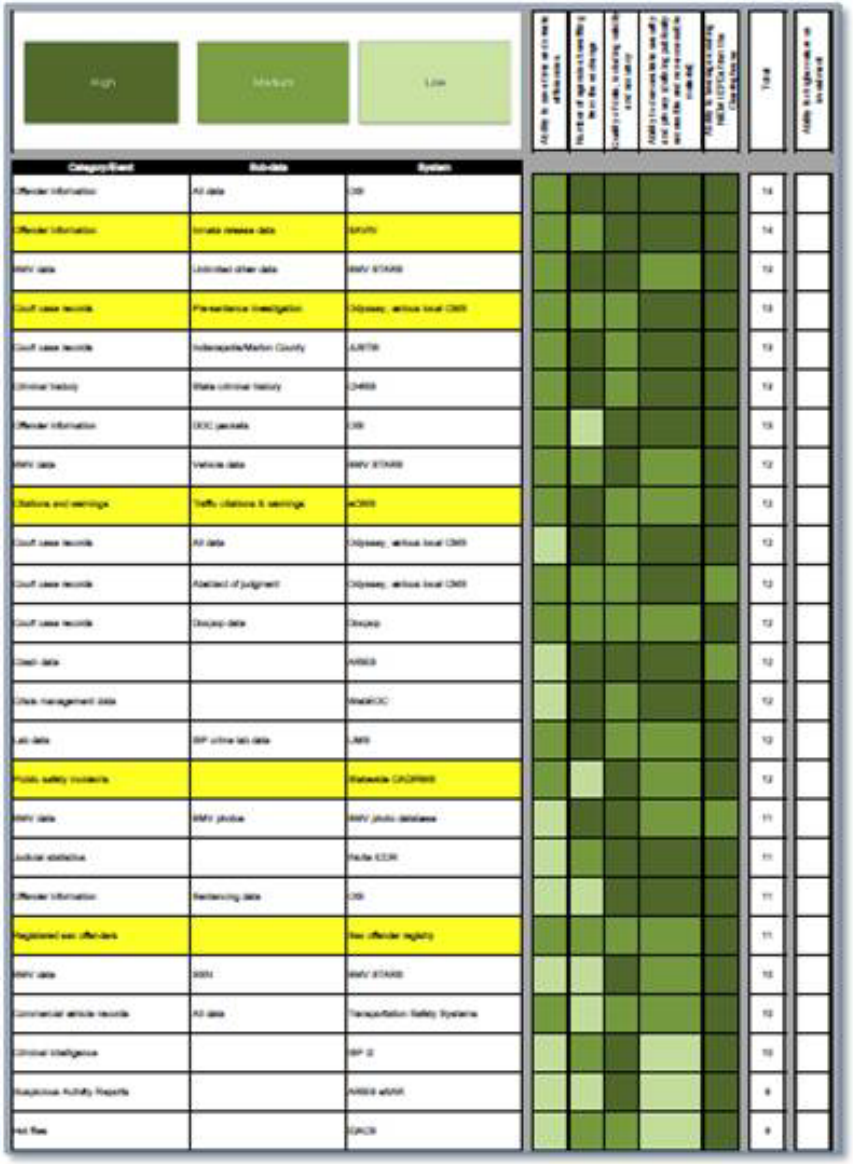
Prioritization: Heat Map

- Guiding Principles
- Ability to save time and create efficiencies
- Number of agencies benefiting from the exchange
- Quality of data, including validity and accuracy
- Ability to demonstrate security and privacy (defining publically accessible and non-accessible material)
- Ability to leverage existing NIEM IEPDs from the Clearinghouse



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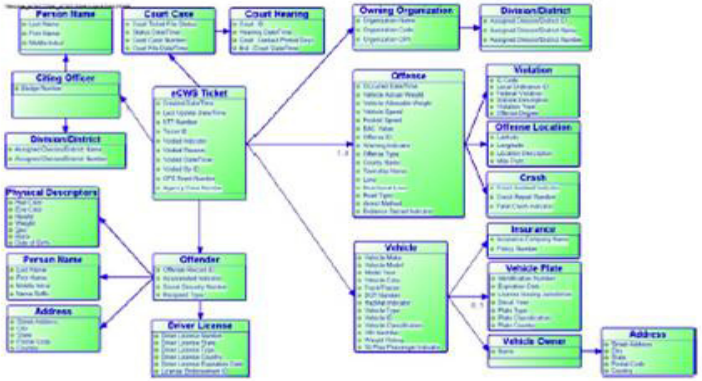
Process Modeling

eCWS Data Model

The logical data model below indicates the data elements currently collected within the eCWS system. Agencies permitting a search of their citations may wish to remove some of these elements from the query response. In response to a query, the response may contain zero to many instances of the citation document below.

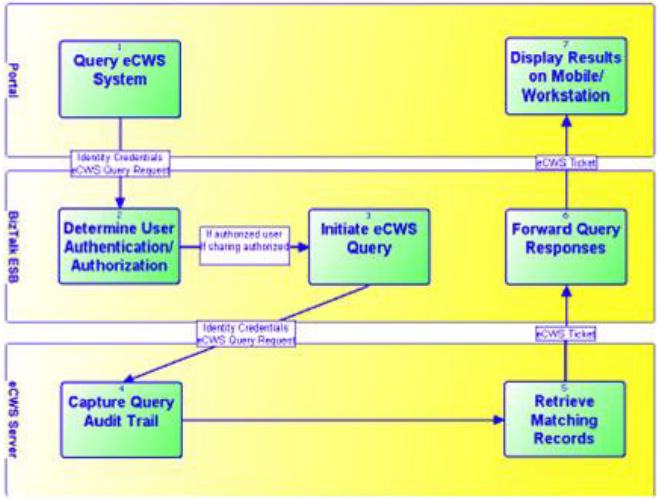


Citation and Warning Portal Search

Over one million traffic citations are issued in Indiana every year. Of this number, approximately 50 percent are issued using eCWS. Currently, eCWS contains over 2.1 million citation records. These citations include information about the person issued the citation and if applicable, the vehicle associated with the incident.

There are two types of citations. A citation is considered *Information Summons* if the subject is charged with at least one misdemeanor statute. Otherwise, the citation is considered a *Complaint Summons*.

The communications infrastructure of each agency will determine how often citations issued using their mobile computer are uploaded to the eCWS database. In general, citations issued by the Indiana State Police are uploaded every 15 minutes. Other jurisdictions may only upload every 48 hours.



Activities

1. Query eCWS System

The eCWS system may be queried for citations and warnings based on the following criteria:

- Subject Name and Date of Birth
- Subject Operator License Number (OLN)
- Vehicle Tag State and Tag Number

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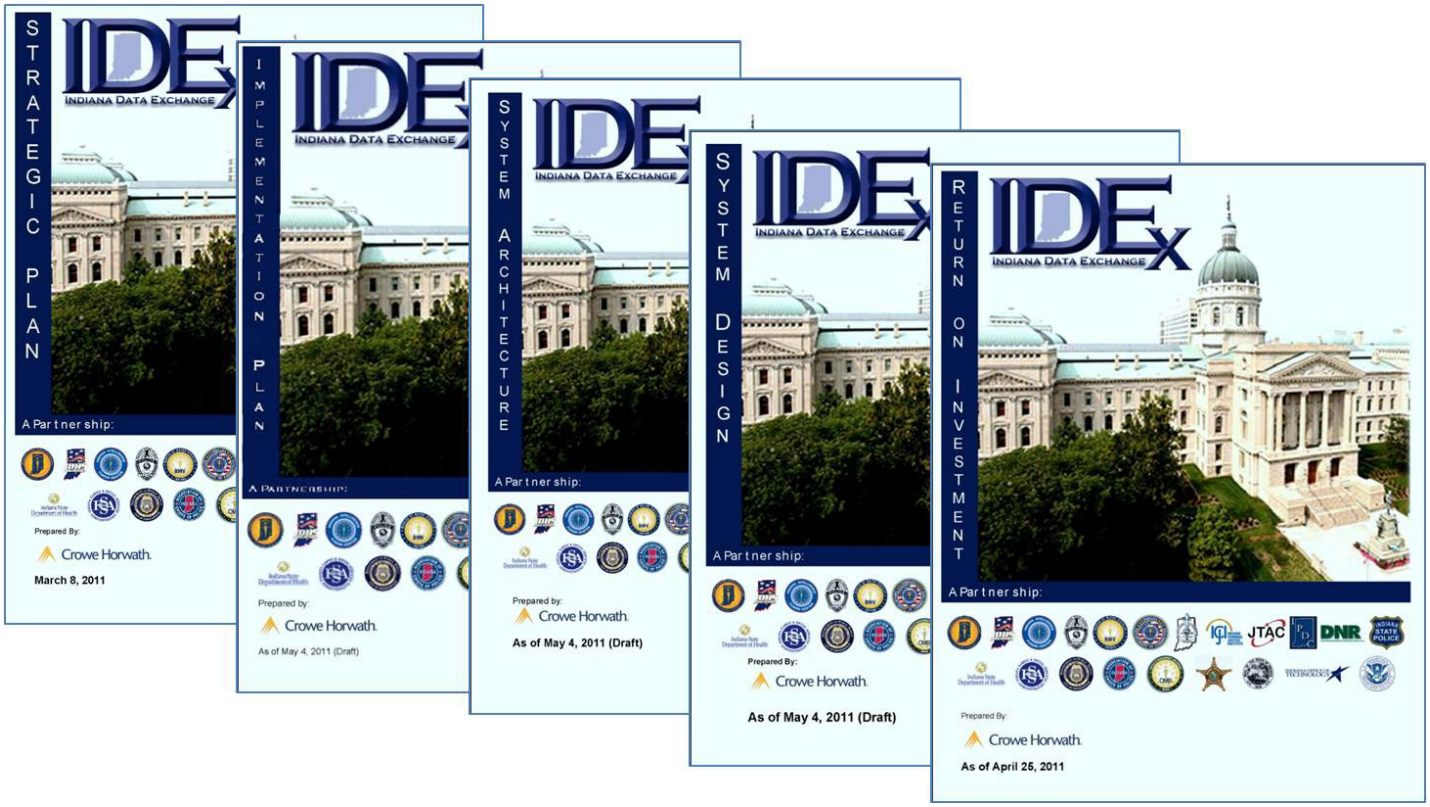
Primary Guiding Documents



"This is not rocket science, but it does represent a kind of discipline."
-From: Crossing the Chasm, page 67, Geoffery A. Moore

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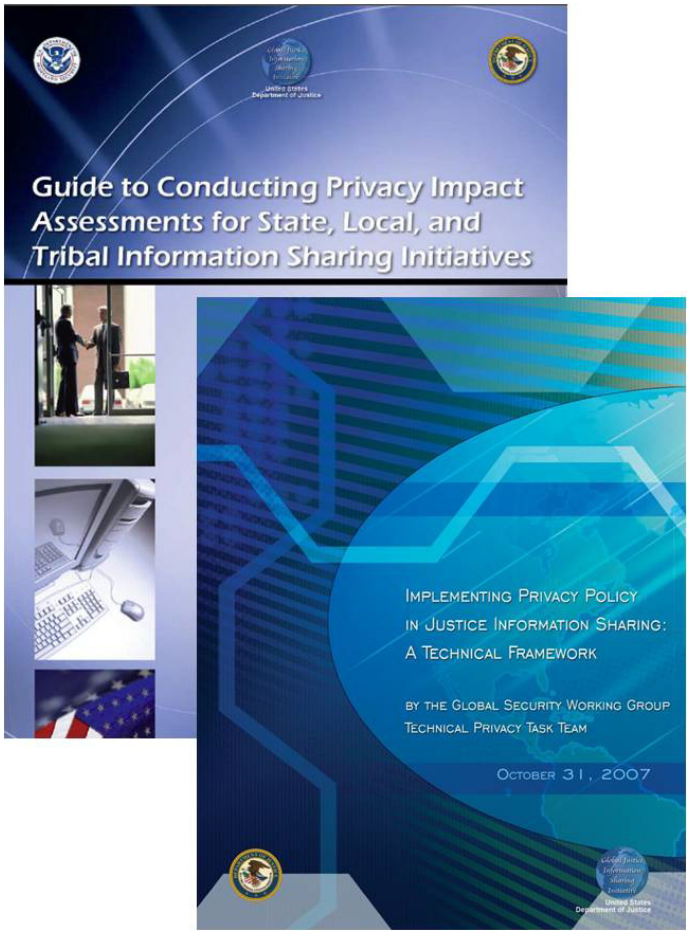
IDEx Privacy Policy

- Developed a Privacy Policy to support IDEx
- Received TA from BJA/IIR to draft the initial policy
- Leveraged best practices from fusion center policy development, Global publications, and other state information sharing policies including from Alabama and Hawaii



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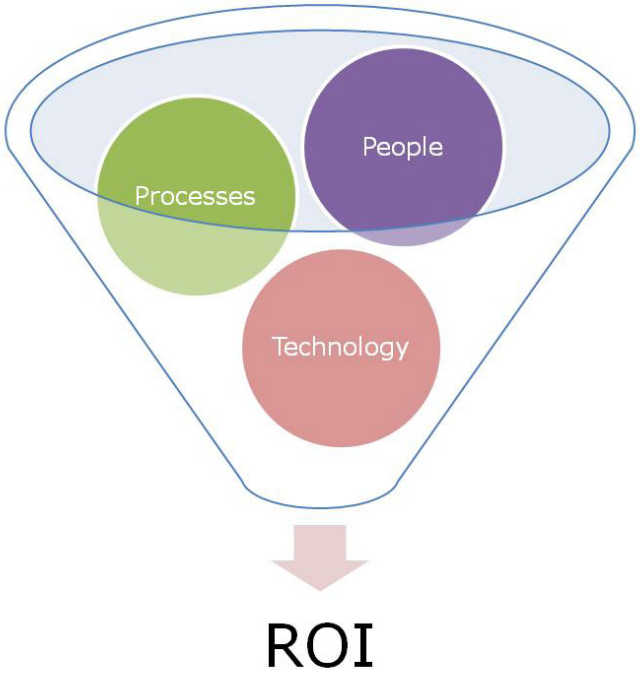
The Importance of a Demonstrable ROI

- Support for information sharing goes beyond the business case
- In today's economic climate, information sharing initiatives need to demonstrate a Return on Investment (ROI)
- Cost savings (spending less than previously spent) and cost avoidance (expenses that are no longer needed) can be demonstrated in three areas:
  - People
  - Processes
  - Technology



"You can't allow tradition to get in the way of innovation."
-From: Disney CEO, Robert Iger, HBR July/August 2011

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Return on Investment – Approach

- The return on investment estimates the potential cost savings and cost avoidance achieved through standards-based information sharing using an enterprise data integration environment for the identified gaps/needs (350+)
- Focus on two components:

Cost Savings

- Cost savings is spending less than previously spent or less than quoted options.

Cost Avoidance

- Cost avoidance is used to communicate the expenses that will no longer be incurred as a result of an increase in efficiencies.

ROI looked to the **enterprise data sharing environment and leveraged national information sharing models** including JIEM, NIEM, GRA and GFIPM.

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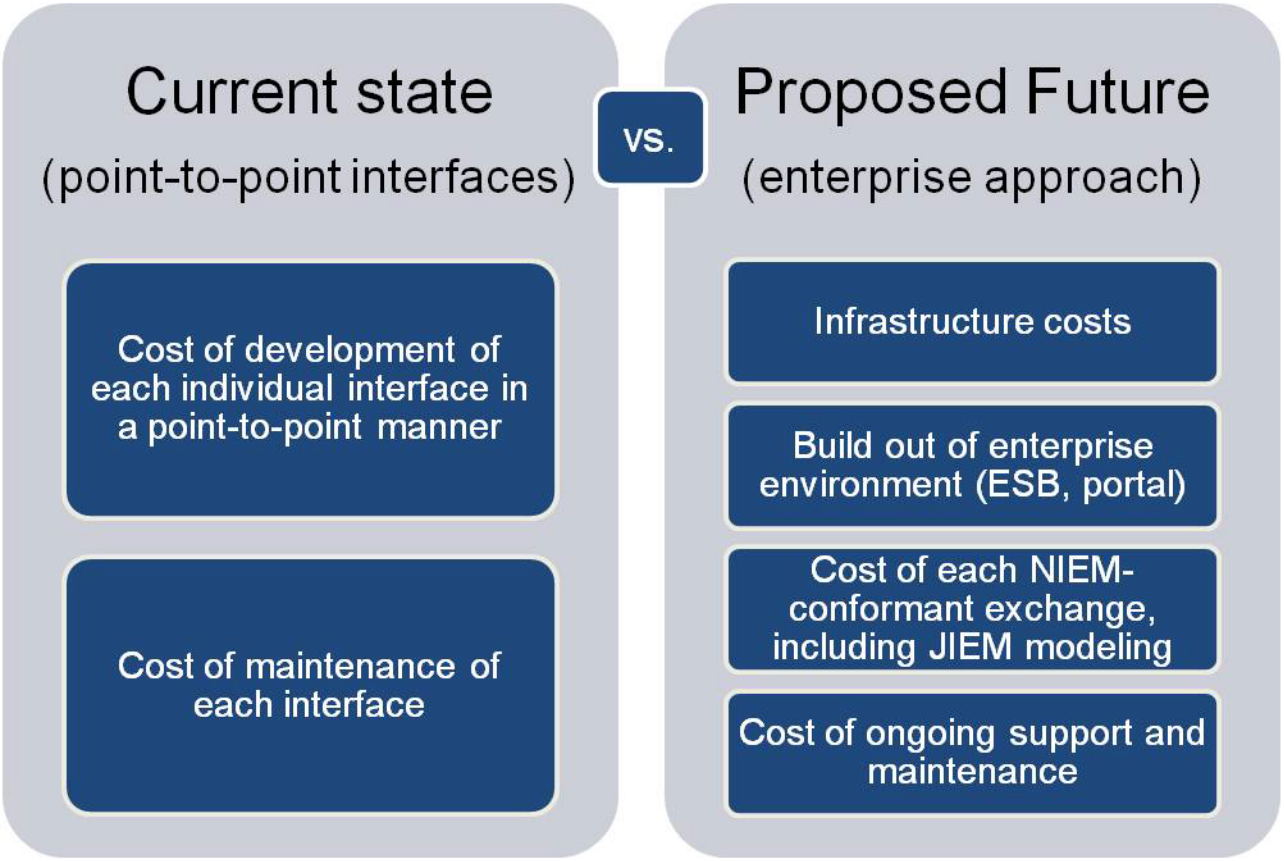
Approach: Estimated Cost Savings (Current vs. Future)



- Estimated current vs. proposed future for 350+ data sharing gaps/needs
- Savings exists when more than two agencies desire access to same data set
- Results indicated a savings of over 13% to develop all desired exchanges in the enterprise environment
  - Range as high as 35-40% for some exchanges (multi-agency, multi-domains)

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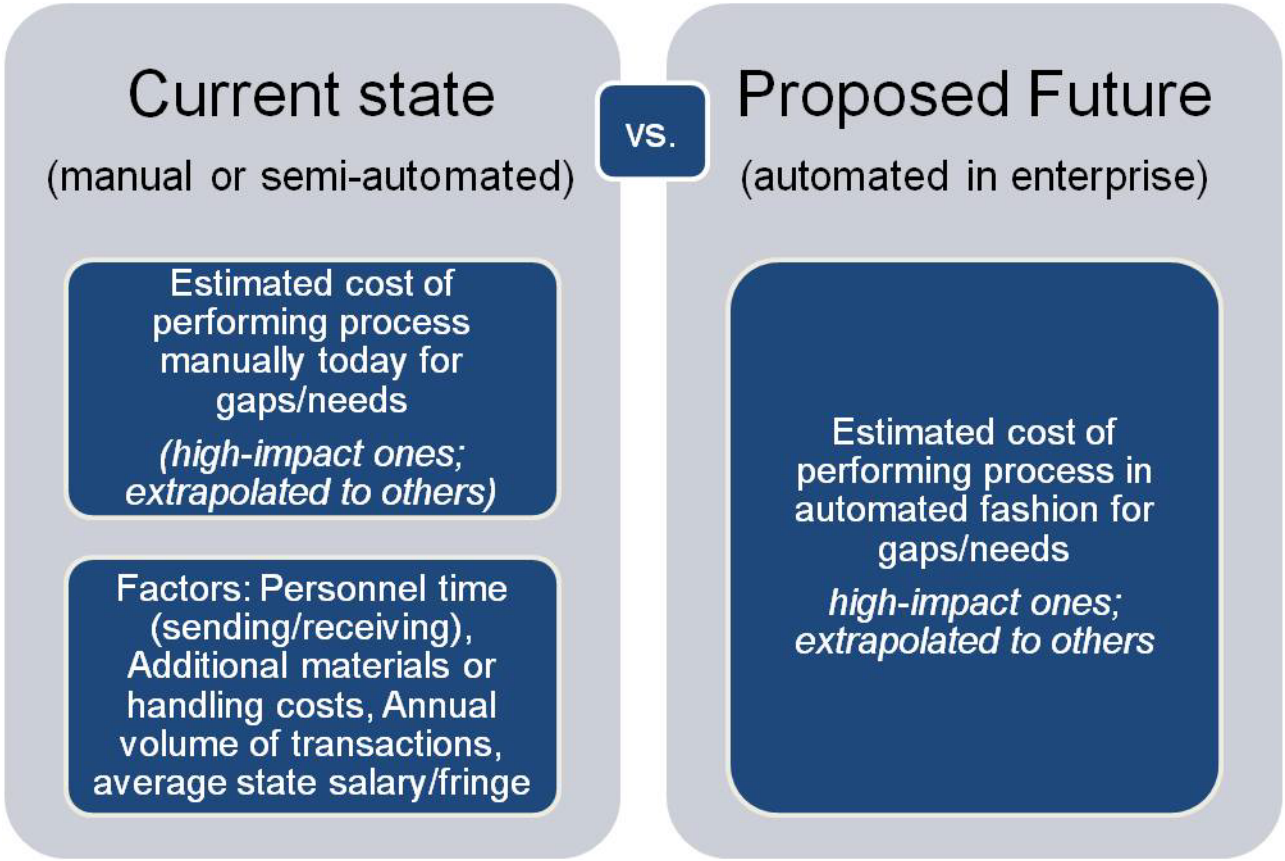
Approach: Estimated Cost Avoidance (Current vs. Future)



- Estimated process cost for current vs. proposed future for 350+ data sharing gaps/needs were
- Results indicated a savings of over $3 million annually from gained process efficiencies

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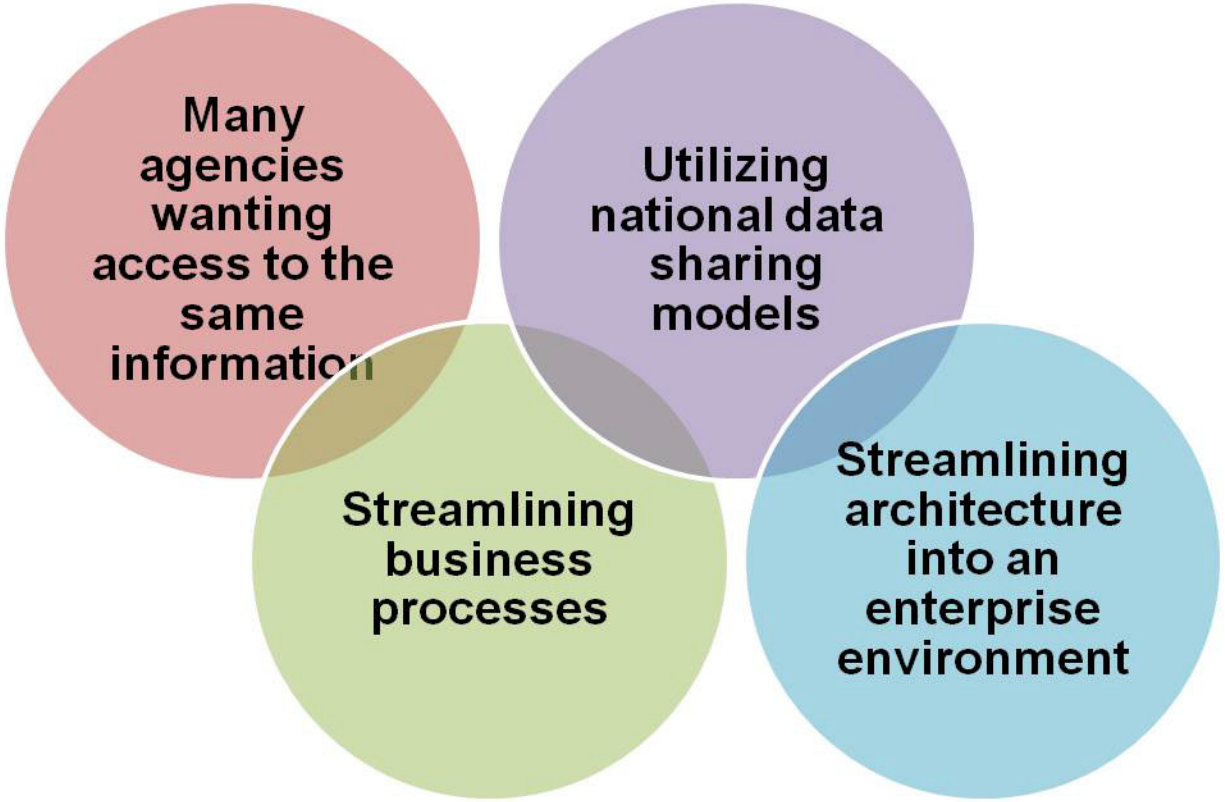
Findings

- The demonstrated ROI is a result of the following combination of items:



"Gentlemen, we have run out of money. Now we must think."
-Winston Churchill

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Thank You and Questions

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