

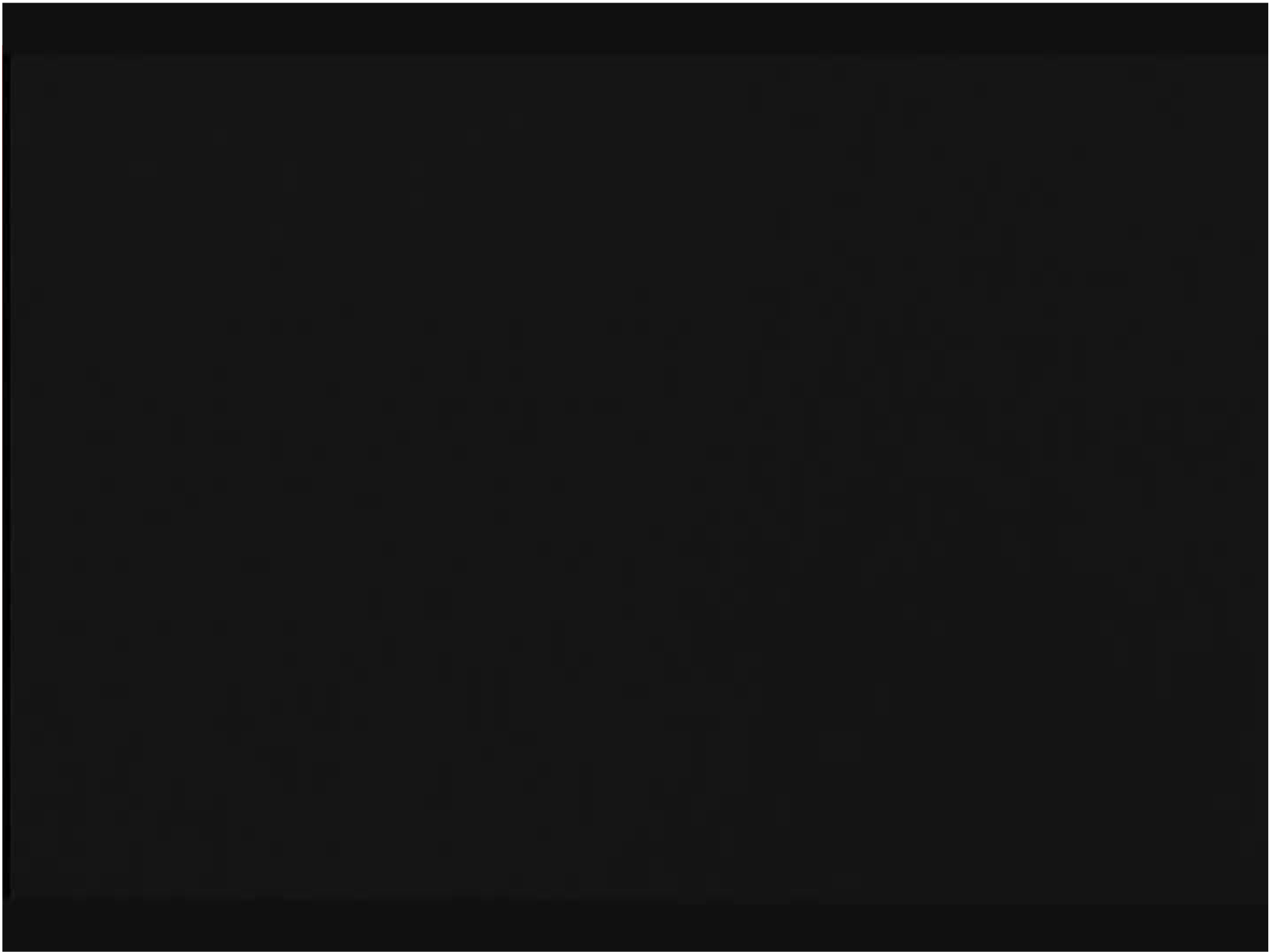


# Law Enforcement National Data Exchange



## Data Analysis and Visualization

03/28/2008





# Law Enforcement National Data Exchange

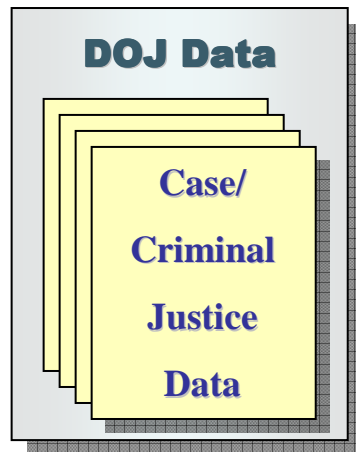
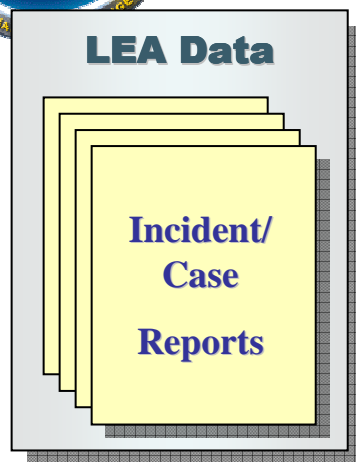


## Data Analysis and Visualization

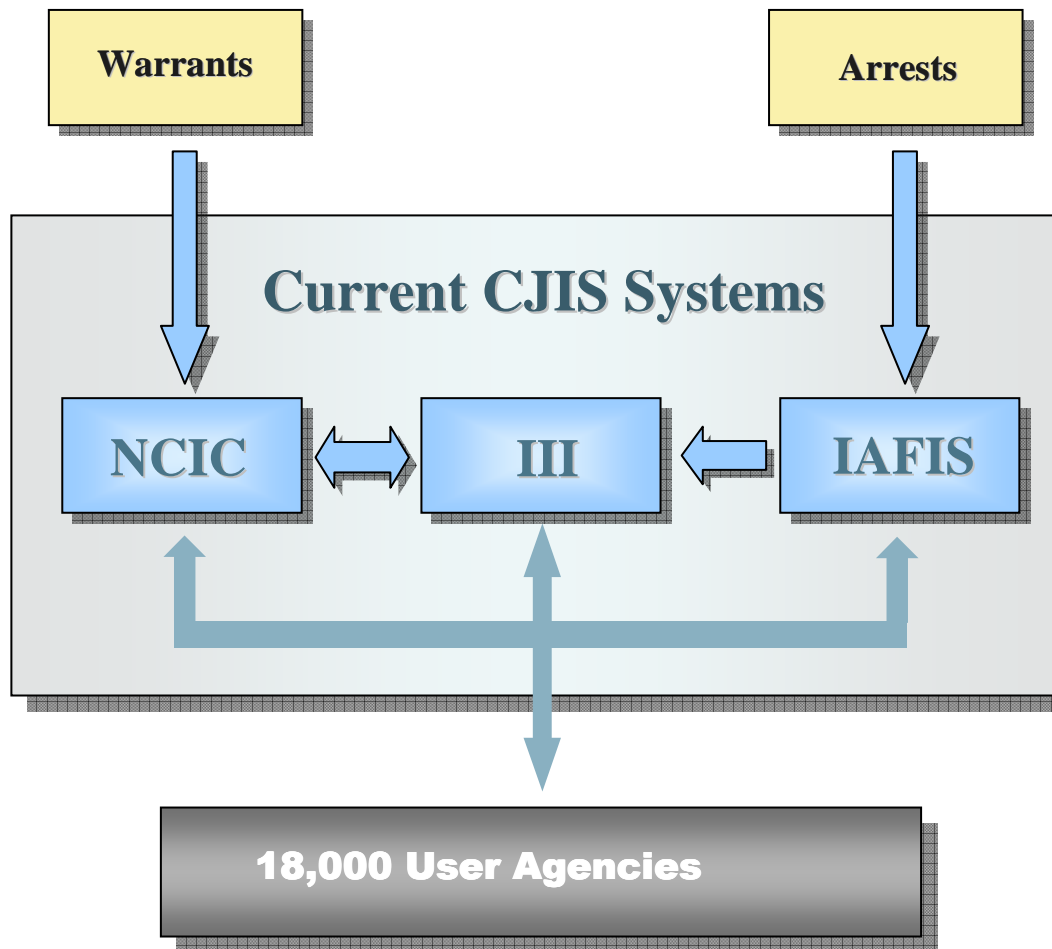
03/28/2008



# CJIS Information Sharing Gap

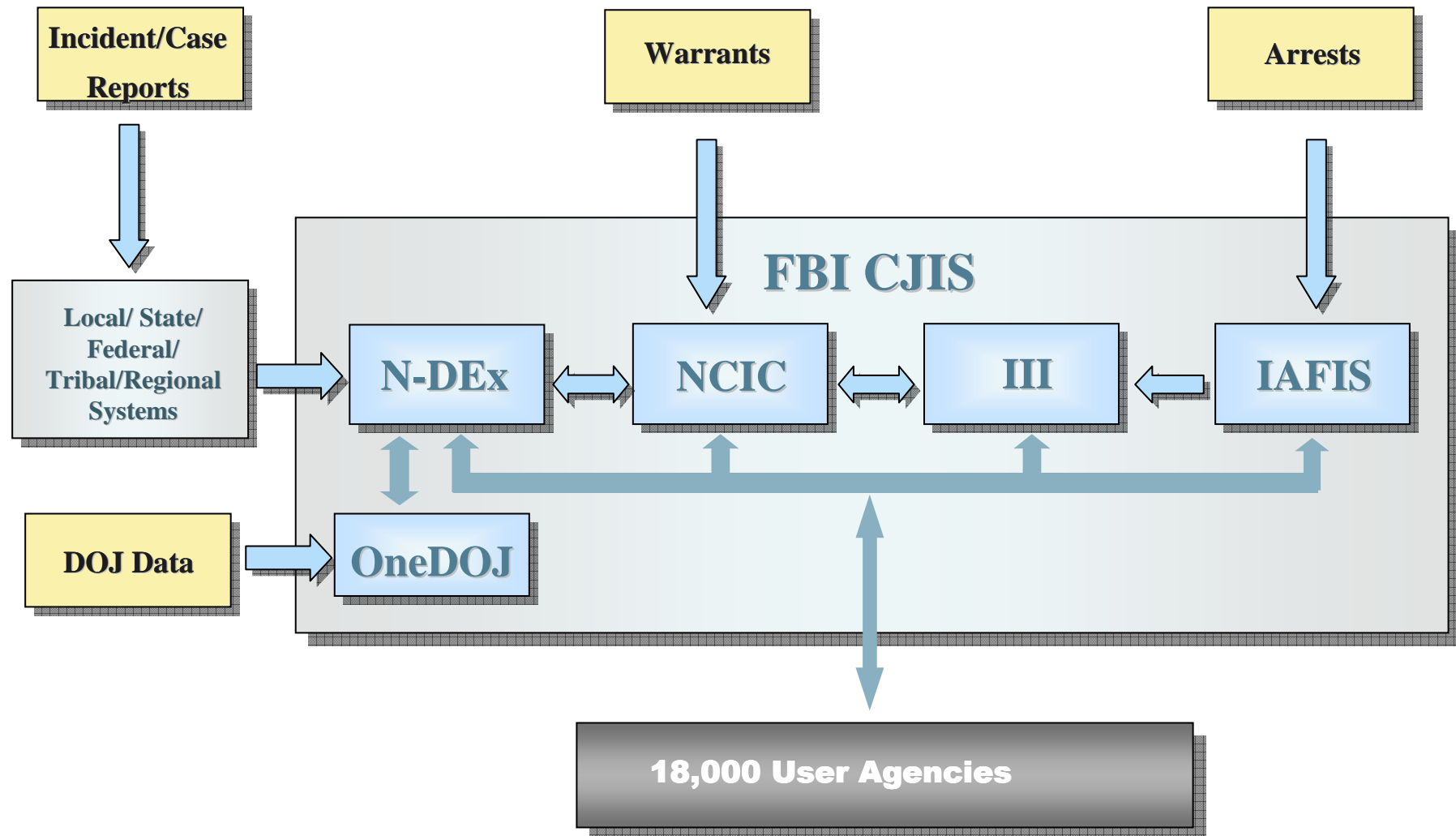


**Data  
Gap**





# CJIS Information Sharing With N-DEx/OneDOJ Integration



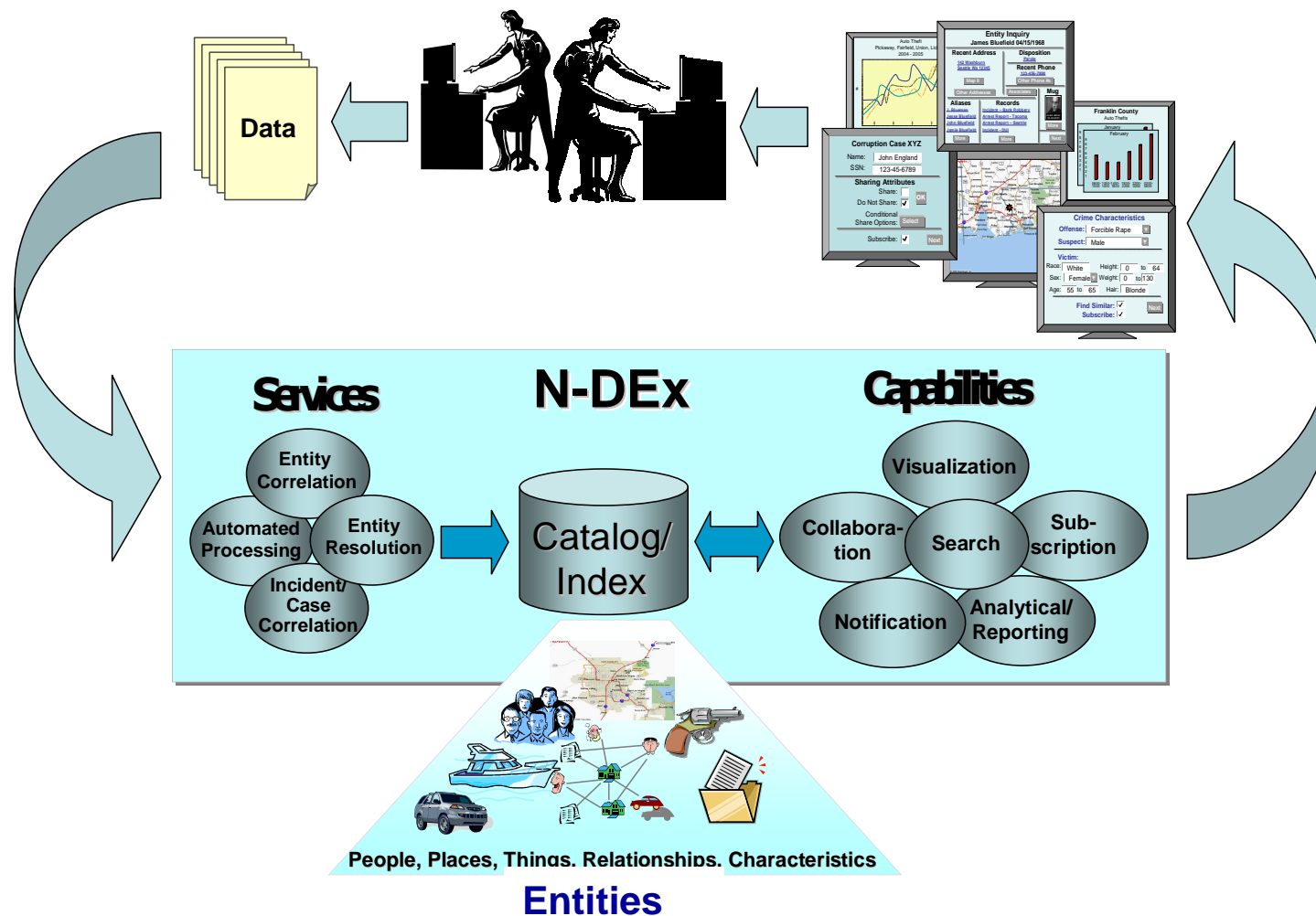


# N-DEX Concept

## Services/Capabilities from Concept of Operations

Data Submitted

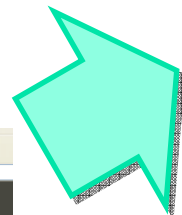
Information Returned





# Enhanced Capabilities Search

Capability	Inc. 1	Inc. 2
Entity Search (Structured)		
Search Multiple Entity Types (e.g. Person, Location)		
Search History		
Display Detailed Record (N-DEx Rendering)		
Display Person Image		
Search Multiple Entity Types (e.g. Multiple People, Property)		
Full-Text Narrative Search		
Geospatial Search		
Limit Search Based on Region		
Limit Search Based on Incident Date Range		
Create Save or Modify Search Preferences/Templates		
Display Per XSLT Rendering Instructions		
Display Other Images		



Increment 1 allows users to view relationships between entities selected from results set





# Enhanced Capabilities Visualization Increment 2

Query Summary  
Person Criteria: FIRST NAME: Cyothia LAST NAME: Carpenter

23 Structured Data Results

check all remove update N-DEX generate report uncheck all

We found a person bean

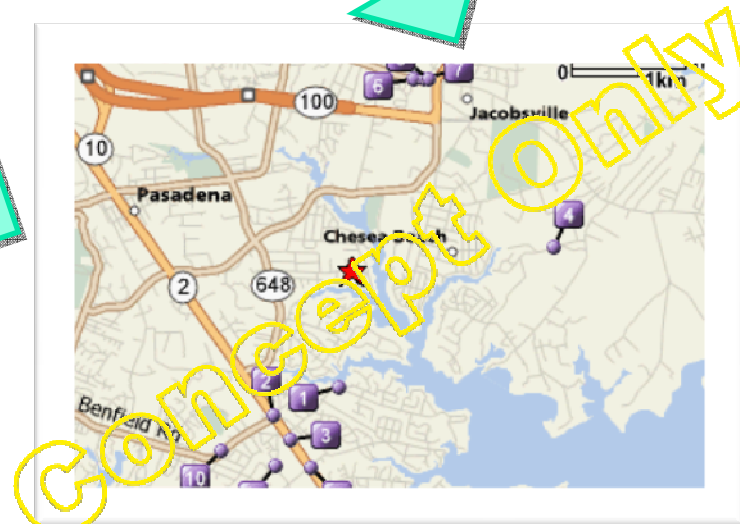
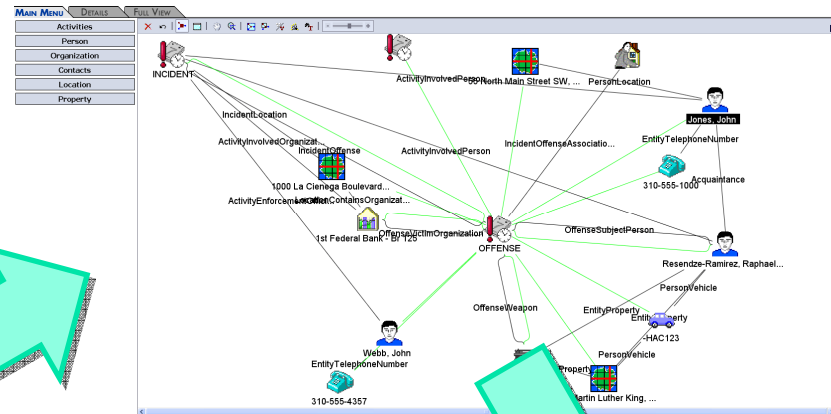
Score	Name	SSN	DOB	Sex	Race	Height	Weight	Data Source	# Records
64	Jones, John A	555115555	1981-05-30	M	W	6' 1"	220	N-DEX	3
71	Jones, Peter A	121551221	1978-06-30	M	W	5' 8"	220	N-DEX	1

Score	Record Type	Person Type	Date Time	Incident #	Submitting Agency
71	Incident	Victim	2005-03-07 24:10:00	LAW121319	LAPD

5 Results by Incident

5 Results by Location

7 Results by Property



Increment 2 will allow users to view:

- relationships of entities selected from a result set
- locations of entities selected from results set
- locations of entities selected from a link visualization

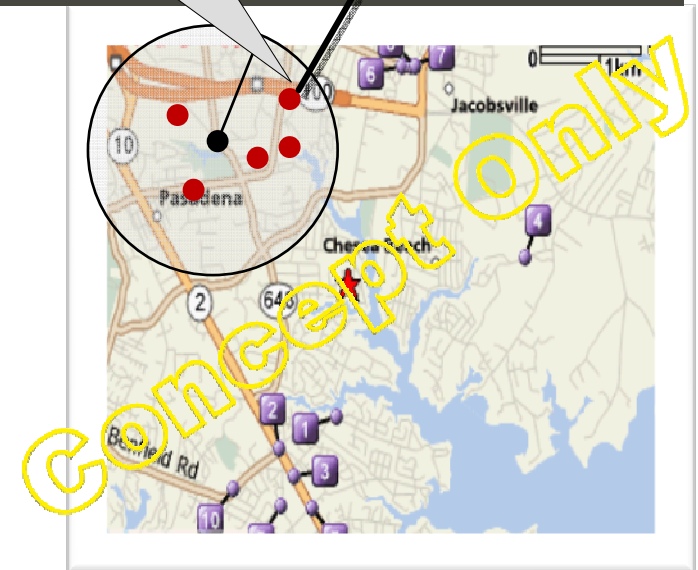


# GeoSpatial Search

Allows users to perform geospatial search

- Search for location types:
  - residence
  - employment
  - last seen
  - arrest
  - seized (property)
  - etc.
- Specify radius
- Show difference between query point and location
- Specify geographic region or geographic point
  - Address
  - Lat/long
  - Zip code
  - City, County, State
- Use Boolean combinations
- Import geographic query point locations from a geo-visualization display

Populate Search Location  
From Visualization





# Enhanced Capabilities Reports

Report Capability	Inc. 1	Inc. 2
Data Management Reports	<input checked="" type="radio"/>	<input checked="" type="radio"/>
LEA/User Reports	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Crime Analysis Reports		<input checked="" type="radio"/>
Audit Reports (CJIS)	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Audit Log Service (LEA)		<input checked="" type="radio"/>
NIBRS Extract		<input checked="" type="radio"/>



# Enhanced Capabilities Additional Data Types/Standards

*Increment 2 will be able to process new data types using latest standards while maintaining backward compatibility with existing submission standards*

Submission Standards	Inc 1	Inc 2
N-DEx IEPD 1.0	<input checked="" type="radio"/>	<input checked="" type="radio"/>
N-DEx Bundle	<input checked="" type="radio"/>	<input checked="" type="radio"/>
N-DEx IEPD 2.0		<input checked="" type="radio"/>
Incarceration/Booking IEPD		<input checked="" type="radio"/>
LEXS 3.1.1		<input checked="" type="radio"/>



# System Capacity/Sizing

	Increment 1	Increment 2
Users	50,000	100,000
Concurrent User Sessions	1,875	3,250
System Search Response Time / Second	6	6
Ingested Records/day	1,000,000	1,000,000
Geo-Coding Records/Day (Ingest)	N/A	1,000,000



# New Capabilities Notification

- **Agency Subscribes** to Automated Process
- Agency selects **who** gets notified

Automated  
Process

Subscription

- **User Subscribes** to entity/record/search
- User Selects **who** gets notified

Recipient decides how/how often

- E-mail
- Portal

Notification

E-Mail

Portal

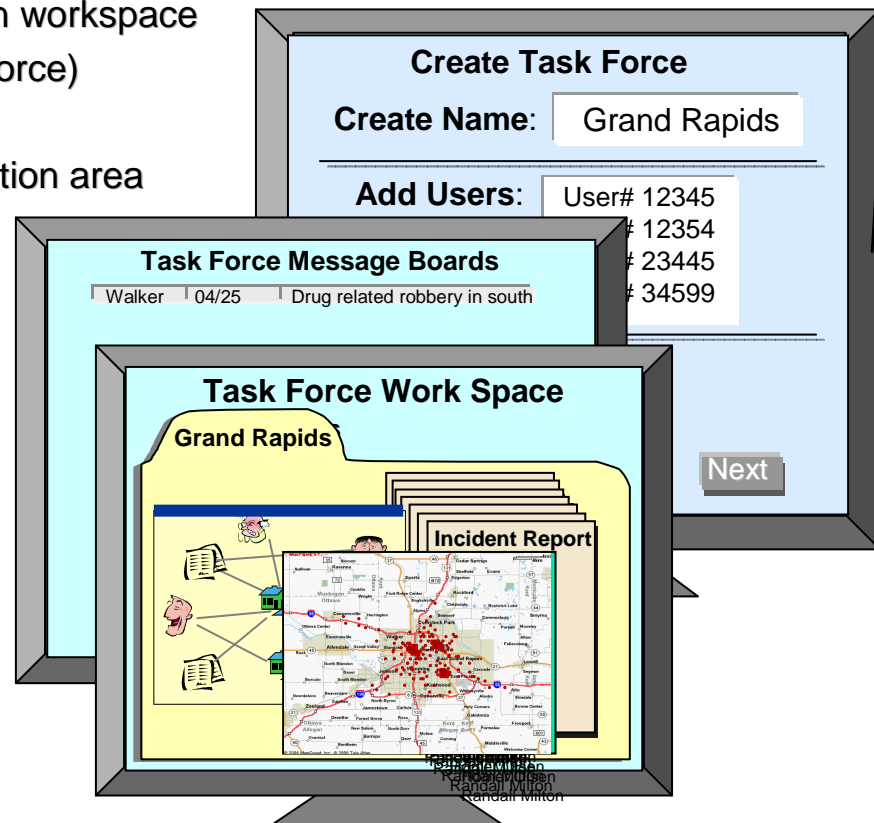




# New Capabilities Collaboration

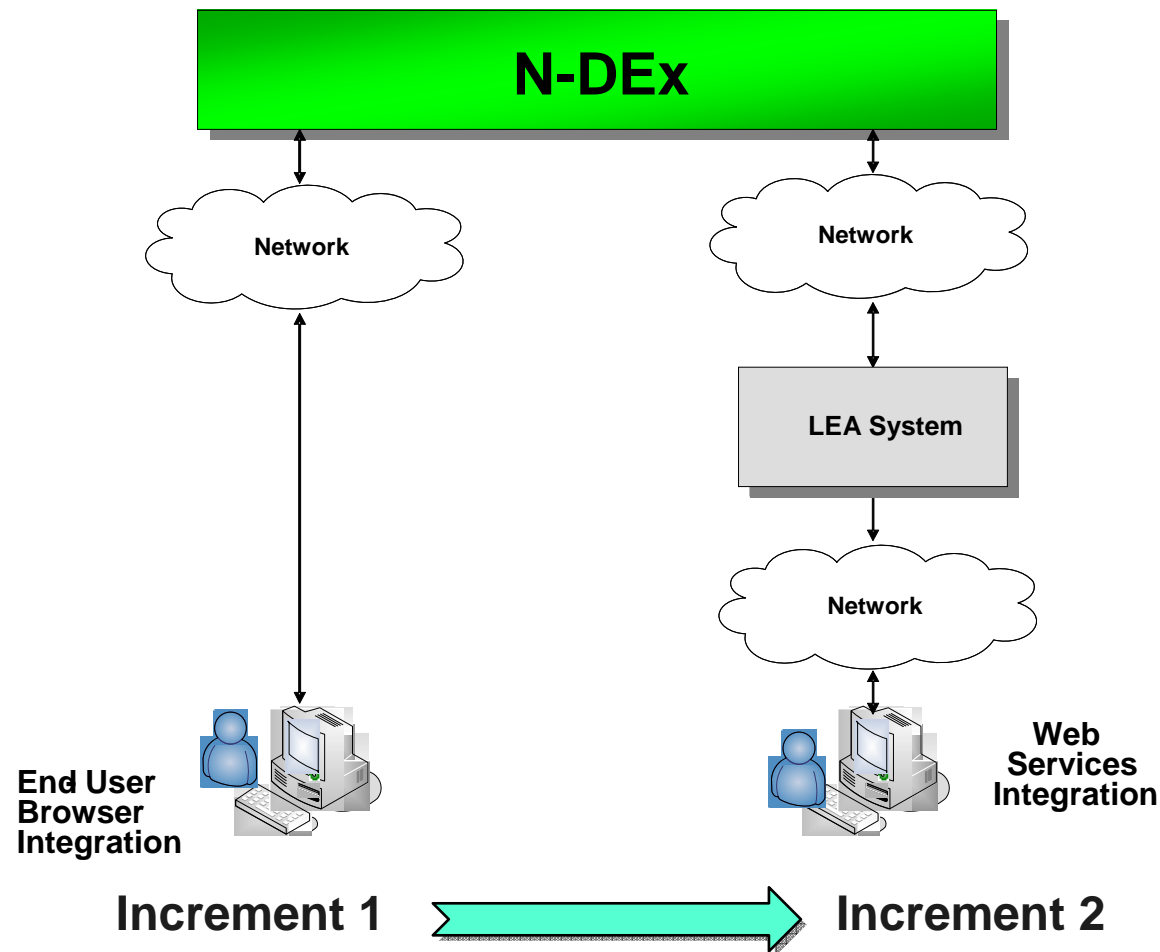
*Increment 2 will provide a collaboration function to enable N-DEX Users to exchange information with other N-DEX Users.*

- Share information from user's desktop
- Capability to create folders/share files within workspace
- Creation of collaboration groups (e.g. task force)
- Capability to send instant messages
- Auditing of user actions within the collaboration area





## New Capabilities Basic Search - Web Service



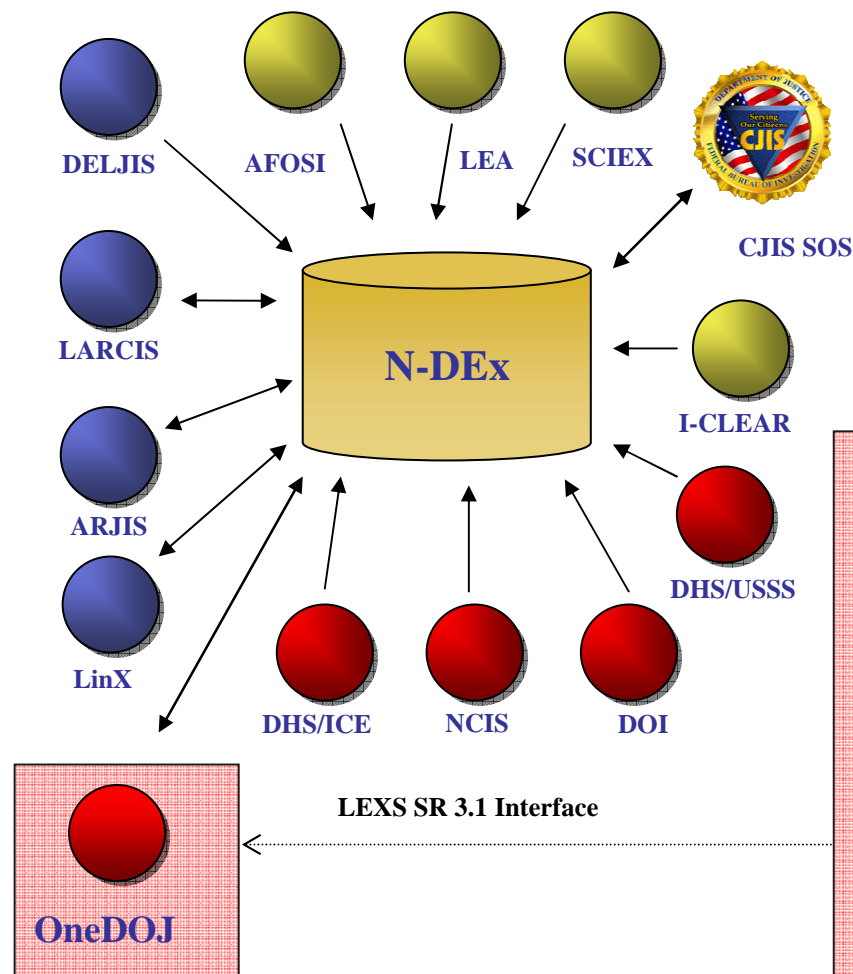
Increment 2 will develop a LEXS Web Services Interface/Prototype with a goal to support a basic search web service in Increment 2.



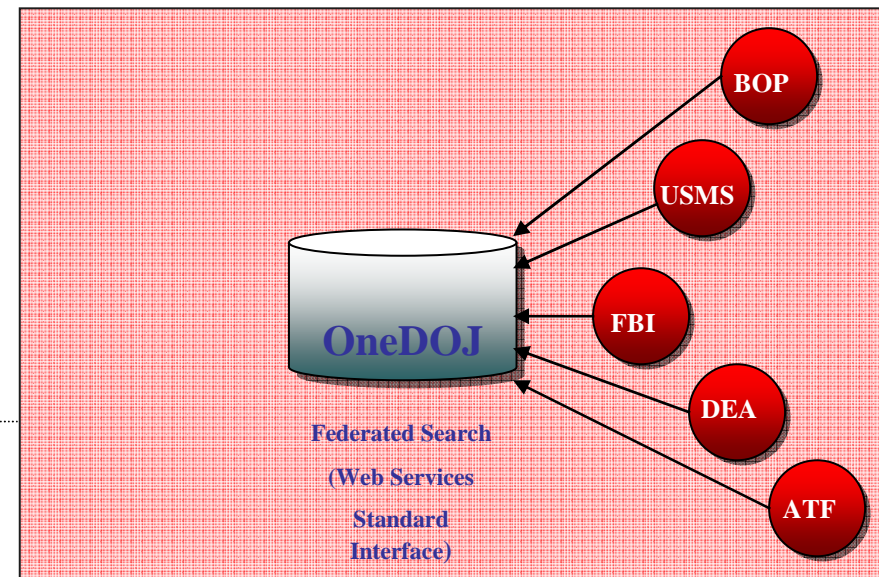


# New Capabilities

## Web Services and Federated Search



- National Information Sharing
- Virtual Regional Information Sharing
- Provides extensibility of systems





# Questions

**N-DEx Program Office  
Criminal Justice Information Services  
Division**

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Clarksburg, WV 26306-0101**

**(304) 625-4219**

**ndex@LEO.GOV**