



Illinois Justice Network

Summary

This document presents a plan to develop integrated justice in Illinois. It addresses the strategic issues that have been identified as being crucial to criminal justice information sharing and recommends the establishment of a justice portal to fulfill these requirements.

Background

Recognizing the need to share critical information, the State of Illinois established the Illinois Integrated Justice Information System (IJIS) Board in 2001. This board, comprised of representatives from state, county, and municipal justice agencies, was charged with the responsibility of developing a plan for justice information sharing in Illinois. Their report, the *Illinois Integrated Justice Information System Strategic Plan* was completed in December 2002. In order to implement the strategic plan developed by the IJIS Board, the State of Illinois created the Illinois Integrated Justice Information System Implementation Board in 2003. (The work of the original IJIS Board ended upon the submission of the strategic plan.)

Strategic Plan

The strategic plan was created to provide a foundation for future projects aimed at automating criminal justice information sharing. It was developed using the strategic planning process adopted by the State of Illinois. Strategic planning is a way of answering the question: "Where should we be going and how will we get there?" The desired future state of justice integration (where we want to be) was determined by the *Scenario for Information Sharing in Illinois*. An inventory of the existing components of the Illinois justice system was also conducted in order to document the gaps between the desired state of integration, as set forth in the scenario, and current information sharing practices in Illinois.

Current State

The following state justice systems have been identified as having a direct impact on integrated justice. The telecommunication networks listed have the capacity to transport justice information throughout the state.

- Automated Victim Notification (AVN) System
- Criminal History Record Information (CHRI)
- IDOC Offender Management Systems
- Law Enforcement Agencies Data System (LEADS)
- POLARIS
- Secretary of State Data Systems
- CMS Frame Relay Network & the Illinois Century Network

Gap Analysis

Current technology was validated against the scenario to identify the gaps, which exist today. The information collected identified the following information needs:

Police

- Probation status information and probation and parole conditions
- Digital photos
- Current bond information
- An improved format for officer safety information communicated to in-car mobile data computers.

Circuit Court Clerks

- The ability to accept charging documents electronically from prosecutors and police.
- The ability to transmit hearing dates and court generated documents electronically to other justice agencies in order to facilitate workflow or place court decision data in the hands of decision-makers more quickly.

Findings

The scenario and gap analysis suggest that two areas of concentration are needed for integrated justice in Illinois:

- 1) Improved access to and enhanced state level systems
- 2) The development of county level justice integration systems

The following are integration projects that would close the gaps identified in the *Scenario* and enhance integrated justice in Illinois:

Improved State Levels Systems

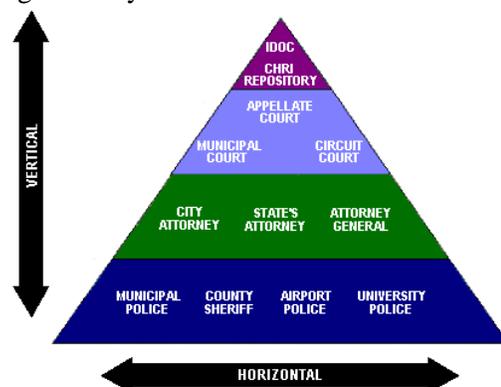
- Probation Status and Probation and Parole Conditions
- Digital Mug Shots
- Inmate Locator
- Bond Information and Conditions
- Juvenile Arrest and Station Adjustment Information
- Local Jail Bookings
- Web based CHRI

County/Local Level Systems

- County Justice Hub
 - ♦ Transfer Information to State Agencies
 - ♦ Facilitate County-Level Integrated Justice
- Standard Police Incident Report
- Standard Police Arrest Report
- Standard Prosecutors Case Management System
- Standard Jail Management System
- Standard Court Management System

Integrated Justice

There are generally two types of integration, vertical and horizontal.



Vertical Integration

Vertical integration involves the upward sharing of information between agencies. It is workflow oriented and designed to automate the data flow. An example would be the sharing of information between law enforcement, prosecutors, courts, and corrections.

Horizontal Integration

Horizontal integration involves data sharing between like agencies. The process is limited to real-time data queries and access. An example would be the sharing of incident level and arrest information between police agencies to assist in criminal investigations.

Architecture

To date, two principle architectures have been used to support integrated justice:

- 1) A central repository for cross agency information
- 2) Distributed Data (Data stored locally by each agency)

Central Repository

A central repository utilizes a unified database to collect and store information from multiple agencies. Each component of the criminal justice system enters and retrieves data from the same computer system. Examples include McLean County, Illinois and Harris County, Texas.



The McLean County Integrated Justice Information System (IJIS) utilizes a unified database that begins with the original police report. Information gathered at each stage of the criminal process is additionally entered into the system and made available to authorized users. Information is collected utilizing the following modules:

- Law Enforcement
- Jail Management
- Courts/State's Attorney
- Probation



The Harris County Justice Information Management System (JIMS) consists of a unified database with over 5,700 access terminals. The system is designed to provide one-time entry of data and efficient access to justice information for all agencies that use the system. Information is collected using the following modules:

- Law Enforcement
- Criminal
- Civil
- Juvenile
- Jury

Distributed Systems

Distributed Systems do not utilize a central repository of data. Rather, each agency maintains its own operational system. Authorized users enter the system and view published data that has been obtained either through direct access to the legacy system or indirect access through an intermediary server. Indirect retrieval is a middleware solution that allows data from one computer system to be moved and adapted for use by another.

Distributed systems are normally dependent on wide-area-network connectivity and utilize Internet technology. They typically use a portal to link end-users to state supported systems, such as criminal history and motor vehicle information. However, they are also being used to provide access to county level data and to facilitate county level integration.

Most states have facilitated integrated justice through the establishment of a justice portal. Distributed systems are in use in Washington DC and San Diego County and by a number of states including Colorado, Nebraska, Pennsylvania, and Kentucky, each using a different architecture.

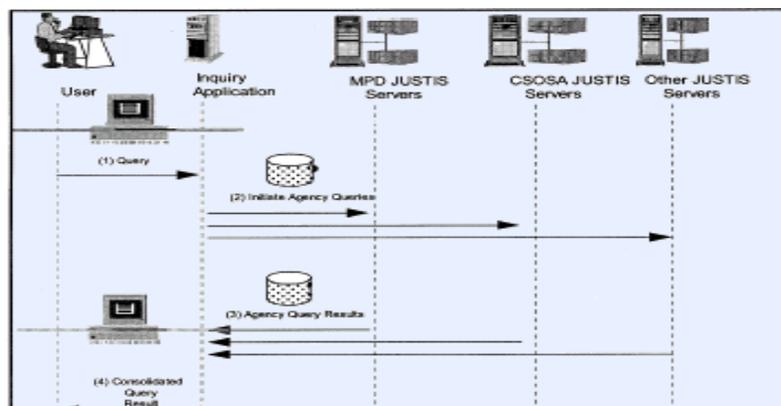


In addition to core data, JUSTIS provides access to a variety of information and services including:

- Arrest Data
- Juvenile Data
- Department of Motor Vehicle Data
- Mug Shots
- Notification Service (flag suspects & wanted persons)
- Public Access (sex offenders, missing and wanted persons etc.)

The Washington DC Justice Information System (JUSTIS) provides for direct data retrieval from participating agencies. JUSTIS allows its users to share information through a variety of modes: Predefined queries allow participants to access data in other agencies' systems; information is shared through the publishing of static screens; and searches can seek information across the entire World Wide Web. Only data that each agency has chosen to share is made available. Secured email and notification services are also available.

Core arrest data is also made available to all participants. The Washington DC Police gather core data at the time of arrest, assign a Public Safety Tracking Number, and forward the data directly to the Core Data Transfer Server. This data is then made available to all participating JUSTIS agencies, which then have the option of downloading the information into their legacy systems to populate their own databases. Once in an agency's legacy system, the agency can use the data as necessary, eliminating redundant data entry.



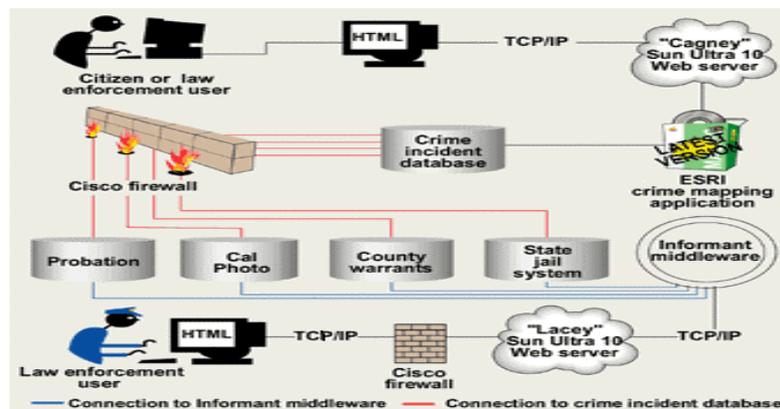
ARJIS

The success of ARJIS is based on the "Google for Cops" function, in which a single query accesses all justice databases. Information available from ARJIS includes:

- Booking Photos
- Arrest Warrants
- Officer Notification - Parole, fugitive, sex offender, gang
- Department of Motor Vehicles
- 911 CAD Data

The Automated Regional Justice Information System (ARJIS) connects all criminal justice databases in San Diego County. ARJIS contains data on police incidents, arrests, citations, field interviews, traffic accidents, gangs, and stolen property. The ARJIS Net intranet integrates over 2,500 workstations and printers throughout San Diego County. There are over 10,000 authorized users generating over 35,000 transactions daily.

ARJIS is also utilized for tactical analysis, investigations, statistics, and crime analysis. Police officers can additionally request an electronic notification whenever information on a flagged individual, location, or vehicle is obtained. ARJIS also contains a public area where anyone can find statistical crime information, most-wanted lists, and interactive crime maps.



ARJIS runs on a Sun Microsystems Ultra 10 server with a 440-MHz Ultra Sparc processor. ARJIS utilizes INFOTECH, a component of a larger program called the Advance Generation of Interoperability for Law Enforcement (AGILE). The user interface is a commercial off-the-shelf (COTS) Web browser, allowing officers using wireless laptops and hand-held personal data assistants, to query the databases.



The Colorado Integrated Criminal Justice Information System (CICJIS) is a middleware solution in which each agency maintains its own legacy system linked by a central index. Information needed by any agency is automatically routed to the requesting agency according to predetermined business rules. This solution allows Colorado to leverage its investment in existing systems without building an entirely new one.

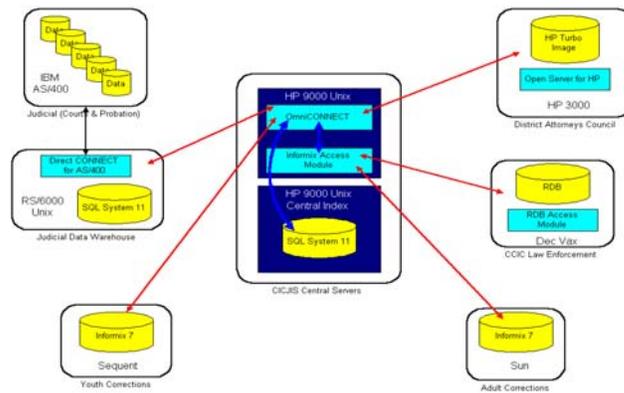
CICJIS creates a virtual database that translates data between systems so users at the receiving agency see information as if they had entered it. CICJIS is designed to handle event-driven transfers, queries between systems, and data extracts for decision support and public access. The system is based on real-time data exchange, which takes data entered by the originating agency and automatically updates the other relevant systems.

CICJIS uses a private network to transfer data and handle inquiries:

- Data Transfers include: court scheduling events, restraining orders, initial case filings, arrests, witness information, amended charges, warrant information, sentencing and case dispositions.
- CICJIS Queries include: driver's history, minute orders, SID, criminal history, restraining orders, warrants, and financial summaries (fines, fees, and restitution).

The main component of CICJIS is the Central Index, which contains a limited amount of information about each subject. This information is used to determine which agencies have data about a person. A common identifier, known as a SID, is used in the central index as a unique identifier for a subject within CICJIS.

CICJIS Information System Architecture



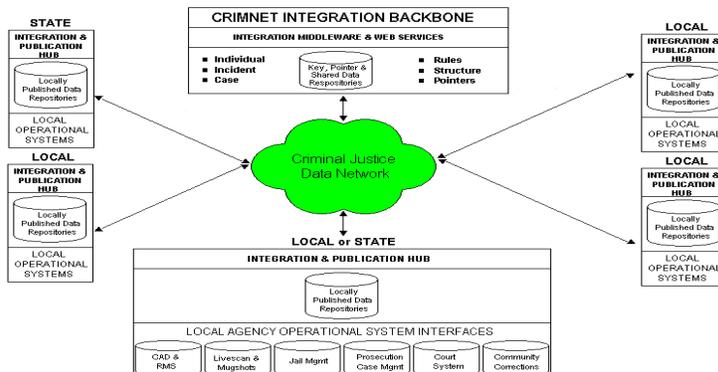
CrimNet provides access to the following information:

- Minnesota Court Information System
- Minnesota Repository of Arrest Photos
- Automated Pawnshop
- Statewide Supervision System
- Predatory Offender Registry
- Card handler /Livescan Project (booking information)
- Victim Information and Notification Everyday (VINE)
- Improved Minnesota Driver's License Record System Project
- Multiple Jurisdiction Network Organization (data sharing)

CrimNet is designed to support the exchange of data across criminal justice information systems. CrimNet is not one single project, but incorporates many projects that are being developed by criminal justice organizations throughout Minnesota. Integration architecture is driven by local operational needs and uses standards that will support the exchange of data across existing and developing systems.

Participating state, county, and municipal criminal justice agencies are connected to CrimNet through their local Integration Middleware and Web Services Hub. Each local hub contains the business rules and data schemes needed to integrate shared criminal justice data within that jurisdiction. The hub provides the means to share and register information with the Integration Backbone and shared data environment; the interface to local systems; and indexes and pointers to additional data. Agencies have control over their own data and determine how and when that data is made accessible via CrimNet. They also have control over the exchange of data between agencies within their jurisdiction.

CrimNet Key Technical Components



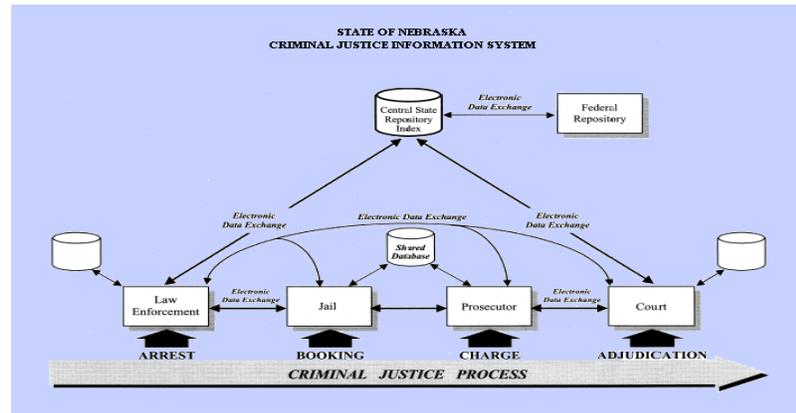


The Nebraska Criminal Justice Information System (NCJIS) is an Internet based system that allows access to a variety of state level criminal justice databases including criminal history, probation, corrections, and sex offender registration.

In addition to name-based searches, subject demographics and other identifiers can also be used to search the data. The following information is available:

- Criminal History
- Local Jail Bookings
- Orders of Protection
- Sex Offender registration
- Drivers License & Vehicle Registration
- Mug shot
- Probation

NCJIS utilizes Internet technology to create a virtual warehouse of criminal justice information that is accessible via the state network or through a secure Internet connection. Data is either copied to the NCJIS server or directly accessed by means of a centralized index. Data files, however, remain under the control and oversight of the contributing agency.



In addition, NCJIS has developed local applications including a standardized law enforcement records management system, a prosecutors case management system, and a jail management system that facilitate the exchange of information between local agencies.



The Justice Hub design enables justice practitioners to perform the following functions in real-time:

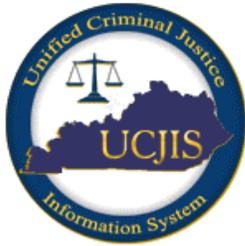
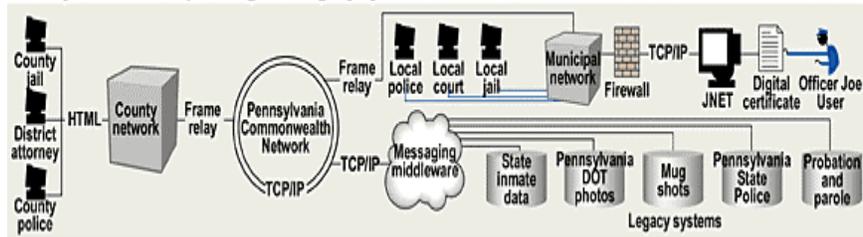
- Obtain Criminal History Records
- Obtain Juvenile Information
- Obtain Driver's License Photos
- Locate Inmates
- Query justice data stored in participating agency systems
- Receive a notification of a change in case status
- Share photographs, fingerprints, and documents

The Pennsylvania Justice Network (JNET) provides a common on-line environment whereby authorized users can access justice information from participating agencies. JNET uses Internet technology to link diverse hardware and software under a common, web-browser interface. A Hub Server provides a shared platform for centralized applications and inter-agency communication, while firewalls protect agency networks and systems from unauthorized intrusion

JNET also serves as a platform for knowledge sharing among state and local justice agencies. Access to JNET not only allows participants to search state-level justice agencies, but also provides county justice practitioners with a single data integration platform, the County Justice Hub, to support local information sharing needs.

The County Justice Hub solution utilizes the JNET Messaging Infrastructure to enable the integration of separate computer systems and allows those computers to communicate by sending messages to each other. The Case File Transfer component enables the transfer of pertinent data from one agency to another as an offender progresses through the justice system.

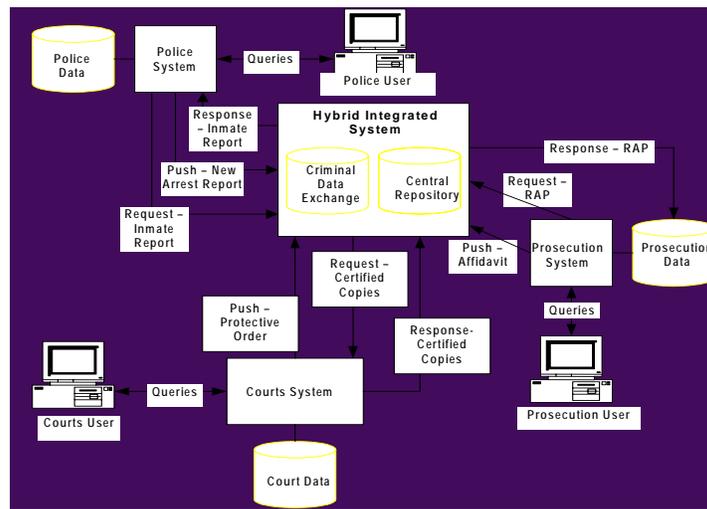
Pennsylvania's JNET pulls together legacy systems over middleware



The UCJIS Document Exchange Information Hub (Store and Forward) manages the receipt and distribution of documents from the provider of the information to all agencies that require it. Functionally, this server acts as a switch routing requests and responses (documents) based on business rules.

The Kentucky Unified Criminal Justice Information System (UCJIS) utilizes a hybrid architecture. The two components of this architecture are a central system that controls the flow of information from information from one system to another and a central repository for cross agency information.

Each agency maintains its own operational systems, but also receives critical information from other agencies and can query a central repository. This approach allows agencies to maintain their individual data, and share information with each other as well as a central database. The central repository provides a resource for inquiry/reporting and serves as an alternate source of data, from which interested agencies can retrieve information.



Document Exchange Architecture is the primary method for the controlled exchange of information between agencies. While the Document Exchange solution can satisfy data entry and standard data viewing needs, it does not provide access to the variety of data needed to answer ad-hoc queries or report generation. Therefore, a separate data storage component is provided which can efficiently receive data from the participating systems for storage. Data integration middleware is used to extract data from operational systems on a timely basis and store data in the repository.

Proposed Illinois Justice Network



The proposed Illinois Justice Network would be a hybrid system that provides information obtained directly from state supported systems, through a justice portal; from local agencies through a county hub application; and from a central data warehouse.

Portals are tools for accessing and organizing information through the Internet or private Intranet. They are like a Web site. Portals provide a single point of contact for access to diverse applications and information throughout the justice enterprise. The portal allows agencies with different computer platforms and information needs to jointly develop a system that benefits them all, without compromising an agency's security or data management requirements.

Portal

It is envisioned that the Illinois Justice Network portal application would support the following:

Criminal Justice Inquiry – “Google for Cops”

The Criminal Justice Inquiry application would integrate justice data from multiple sources in a single search application and user interface. The application calls for a single search that looks for a matching data value, such as the SID number, and associates available information from various participating agencies. The applications to be searched would include:

- LEADS Hot File (warrants)
- Criminal History Record Information (CHRI)
- Illinois Sex Offender Information
- Illinois AVN – Status Information
- POLARIS – Probation Information
- Publicly available Internet responses (FBI most wanted etc.)

The screenshot shows the user interface of the Illinois Integrated Justice Information System (IJNIS). At the top, there is a blue header with the IJNIS logo and the text "Illinois Integrated Justice Information System" and "Illinois Justice Network". Below the header, there is a navigation menu on the left with categories: USER (User Information), JUSTICE (Justice Applications), DMV (Dept. Motor Vehicles), NOTIFY (Subscription Service), and BULLETIN (Bulletin Board). The main content area is divided into two columns. The left column contains sections for "Justice Applications" and "Inmate Locator". The "Justice Applications" section describes the Criminal Justice Inquiry application and lists the data sources to be searched: LEADS Hot File (warrants), LEADS Criminal History Record Information (CHRI), Illinois Sex Offender Information, and Illinois AVN – Status Information. The "Inmate Locator" section describes an application that allows a justice worker to locate an inmate within various correctional facilities, listing the Illinois Department of Corrections and Cook County Department of Corrections. The right column contains a "Bulletin Board" section with text about the need to share critical justice information and the creation of a criminal justice portal, and another section about portals as tools for accessing and organizing information.

Inmate Locator

The Inmate Locator application would allow a justice worker to locate an inmate at an Illinois correctional facility by searching the Illinois Department of Corrections offender management system, Cook County Department of Corrections, and the Attorney General's Automated Victim Notification (AVN) system which contains county jail inmate information. Future expansion of the Inmate Locator application might include police lock-up information.

Mug Shot

The Mug Shot application would allow an authorized user to obtain a digital photo from any system that contains one, such as the Illinois State Police's and Chicago Police Department's criminal history repositories, which contain arrest booking photos, the Secretary of State's data systems which contain driver's license and state identification card photos, as well as the Illinois Department of Corrections inmate photos.

Secretary of State

The Secretary of State application would allow access to Driver's License Information & Soundex as well as Vehicle Registration information.

Juvenile Inquiry

The Juvenile Inquiry application would allow authorized users to access the criminal history repository's juvenile arrest database in order to facilitate station adjustments in accordance with the Illinois Juvenile Court Act by tracking how many station adjustments the juvenile might have had.

SID/IR Look-Up

The SID/IR Look-Up application would allow a justice decision maker to obtain an offender's SID or IR number by entering other forms of identifying information. Future expansion of this function might expand the ability to obtain FBI, Social Security, or Driver's license numbers.

Master Name File

The Master Name File application would allow the user to obtain information based upon a name or Soundex inquiry. The information returned would include subject demographic information such as date of birth, address, eye color, etc., as well as SID, IR, FBI, and social security numbers.

Notification Service

The portal's Notification Service would allow a justice practitioner to subscribe to receive updates on a particular subject's records contained in the system. For example, a parole officer might want to subscribe to receive notification that his parolees were arrested.

Bulletin Board

The Bulletin Board would provide an administrative messaging capability.

County Justice Hub

The County Justice Hub would link local jurisdictions to state applications, as well as provide a mechanism for county level integration. The Justice Hub could be used to transfer warrants to LEADS as well as booking, charging, and disposition information to CHRI. The core data gathered at each of these events could be made available, on the County Hub server, to other county level justice agencies facilitating integrated justice.

Counties in Illinois currently have two state-level sources of core (booking) data. The arrest information reported to the State Police and the arrest information reported to AVN. Much of this data is collected electronically via Live Scan and the AVN system.

The County Hub solution could also be a platform for the development of future systems such as standardized police incident reporting, traffic citations, and court case management. These systems would facilitate horizontal integration between justice agencies. For example, police within a county could use the County Justice Hub to exchange incident level data.

Data Warehouse

The data warehouse application would require the creation of a CHRI data warehouse that would be used for ad-hoc queries similar to those available on the Chicago Police CLEAR system. The data warehouse would be accessed through a screen on the Justice Portal.

Such an application would be a powerful crime-fighting tool. For example, police receive information that a person wanted for an armed robbery lives on a particular street. The data warehouse could be queried for all past offenders living on that street in an effort to obtain possible addresses.

Wide Area Network

The portal, the County Justice Hub, and the data warehouse are dependent on Wide Area Network (WAN) connectivity. Illinois currently operates two statewide network services, the Illinois Century Network and the Illinois Frame Relay Service. Either network could be used to handle justice information in a secure manner.