NAS CIO

Concept For Operations For
Integrated Justice Information Sharing
July 2003   v1.0

**Concept for Operations
for
Integrated Justice Information Sharing**
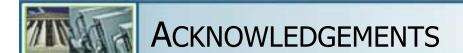
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EXECUTIVE SUMMARY

Agencies nationally recognize the importance of integrating information systems to share critical data, documents, images and key transactions at key decision points throughout the justice enterprise. Many state and local jurisdictions are now actively developing plans and programs to substantially integrate their justice information systems. Integrated systems improve the quality of information by eliminating error-prone redundant data entry, improve timely access to information, increase sharing of crucial information without regard to time or space, and substantially improve the consistency and reliability of information for key decision-makers.

This *Concept for Operations for Integrated Justice Information Sharing,* hereafter referred to as ConOps, provides a discipline-specific focus for justice information sharing, which in turn can be used to identify and expose broader IT architectural and infrastructure issues that must be addressed by state Chief Information Officers (CIOs). While this ConOps focuses primarily on information sharing in the justice arena, the research implications are clearly broader.

ConOps defines the discipline-specific, business functions for integrated justice and explores the architectural implications for state CIOs, who are responsible for planning the IT enterprise architecture. Additionally, ConOps defines fundamental concepts, principles, functions and operational requirements for integrated justice information sharing, presents a scenario of integrated justice information sharing and a general methodology for states to use in validating their IT architecture.   Finally, this document articulates an action plan for the validation, implementation and expansion of this ConOps to other disciplines.

State CIOs will be able to use this *Concept for Operations for Integrated Justice Information Sharing* to assess the performance and completeness of their statewide IT architecture to address discipline-specific objectives of integrated justice and, together with other materials in the NASCIO Enterprise Architecture Development Tool-Kit, to assess, plan and develop an adaptive, enterprise-wide IT architecture.

INTRODUCTION

On September 25, 1997 Ilka Mondane was shot and killed outside her south Minneapolis home

by her ex-husband, Douglas Welch. Welch was on the street in spite of his arrest and conviction

a few weeks earlier as a felon in possession of a gun, an offense which carried a minimum prison

sentence of 18 months. The judge, lacking critical information about Welch's recent

involvement with the justice system (a month earlier he had been arrested for domestic assault

against a girlfriend and a few years earlier another girlfriend had filed a court order for protection

against him for threatening to shoot her), reduced Welch's bail pending sentencing from $15,000

to $5,000. Had he known these facts, the judge indicates he would certainly not have considered

reducing the bail.[1]

This case is a tragic example of the very human costs associated with the flaws, gaps and

imperfections of our justice information systems. It is an unfortunate reality that this case is not

unique. Countless instances of similar, and even more egregious cases demonstrate the

extraordinary human toll in increasingly vivid dimensions. All of these cases share a

fundamental flaw in their justice decision-making paradigm—immediate access to timely,

accurate and complete information.

The Mondane case, together with several other tragic cases, triggered calls for significant

development and improvement in the justice information systems in Minnesota. Other cases

have similarly motivated communities throughout the nation to acknowledge limitations and

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[1] For a general account of this case, and other cases calling for integration in Minnesota, *see* "Minnesota criminal slips through computer net" *St. Paul Pioneer Press*, February 15, 2000.

flaws in existing justice information systems, and to begin building truly integrated justice information systems that will enable broad information sharing.

The integration of justice information systems is not a new idea. Agencies throughout the nation have long recognized the importance of integrating information systems to share critical data, documents, images and key transactions at the point key decisions have to be made. Many state and local jurisdictions are now actively developing plans and programs to substantially integrate their justice information systems.

Nearly every state throughout the nation is actively planning or implementing integrated justice information systems.[2] The US Department of Justice has recognized the importance of integrated information systems strategic planning and coordination, and is sponsoring two important national projects. The Global Justice Information Network and the Office of Justice Programs' Strategic Funding Initiative are both designed to examine justice information system integration and how the U.S. Department of Justice can best assist states in their move toward integration.[3]

In addition, near the end of 1998, Congress passed, and the President signed, historic legislation that vastly improves the business of justice and enhances public safety. Beginning Fiscal Year

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[2] *See* http://www.search.org/integration for profiles of state and local jurisdictions actively in development of integrated justice.

[3] In response to the call for a Global Justice Information Network in then-Vice President Gore's *Access America* report in 1997, then-Attorney General Reno took a leadership role in coordinating with local, State, tribal, Federal and international justice entities. For advice in this effort, Attorney General Reno created the Global Justice Information Network Advisory Committee, which is chartered under the Federal Advisory Committee Act and is presently led by Chairman Col. Michael Robinson, Director, Michigan State Police, and Vice Chairman Gary R. Cooper, Executive Director, SEARCH. For current information on activities supported by Global, *see* http://www.it.ojp.gov/global/index.html, a site developed by the Office of Justice Programs, U.S. Department of Justice. The *Access America: Reengineering Through Information Technology* report is available online at http://www.accessamerica.gov/reports/access.html.

1999, Public Law 105-251, which includes The Crime Identification Technology Act (CITA), authorized $250 million per year for each of the next 5 years ($1.25 billion total) for State grants to promote the integration of justice system information and identification technology. CITA included the first sizable grant program to support justice information systems integration, overcoming one of integration's main obstacles: the lack of funding.

Background

National recognition of these issues has triggered substantial development of integrated justice information systems initiatives, and in 1998 the National Association for State Chief Information Officers (NASCIO[4]), representing the Chief Information Officers (CIO) of the states, joined in partnership with the Office of Justice Programs (OJP), U.S. Department of Justice (DOJ), to define the integral characteristics of an enterprise-wide architecture that would facilitate data and information sharing and exchange across jurisdictions. As a result of that partnership, the report, *National Information Architecture: Toward National Sharing of Governmental Information*, was published in 2000, which identified the motivations, entities, information scope, telecommunications infrastructure, and document definition infrastructure related to information sharing, particularly as they relate to the justice enterprise.[5]

NASCIO and OJP have partnered for a second phase in support of this overall effort. The project deliverable for the second phase of this project is the *Concept for Operations (ConOps) for Integrated Justice* among justice agencies[6] at the state and local levels. ConOps is designed to define the universal attributes for information sharing that are inherent in contemporary visions of integrated justice, and from this research, to the identify the information technology architectural implications for State CIOs.

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[4] NASCIO is the National Association of State Chief Information Officers. It was formerly known as the National Association of State Information Resource Executives (NASIRE).

[5] NASCIO (Formerly NASIRE), *National Information Architecture: Toward National Sharing of Governmental Information,* (Lexington, KY: NASIRE, February 2000). https://www.nascio.org/hotIssues/justice/index.cfm

[6] As referenced in this document, *justice agencies* are meant to include law enforcement agencies, prosecution, corrections, probation and parole services, pre-trial services, as well as the courts at all levels.

Purpose

The purpose of this ConOps is to provide a discipline-specific focus or context for information sharing, which in turn will be used to identify and expose broader IT architectural and infrastructure issues that must be addressed by state CIOs to enable the level of information sharing critical to integrated justice. This includes the identification of the universal properties associated with information exchanges that are inherent in the contemporary vision of integrated justice. The research conducted for ConOps will help to leverage the significant investment federal, state and local governments are currently making in integrated justice, and help coordinate these efforts with broad trends in E-Government objectives and IT development.

Integrated justice requires the on-line, instantaneous sharing of arrest information between law enforcement agencies (at the local level), with the local prosecutor and court, and with the state criminal history records repository, but also with other governmental agencies (e.g., Department of Health and Human Services), private licensing boards (e.g., Day Care Licensing Boards), and the general public. Moreover, the shared information includes not only specific data elements recording the arrest offense and the offender's identification information (e.g., name, date of birth, height, weight, hair color, etc.), but also digital mug-shot photographs, electronic fingerprints, document images and criminal history record information.

For justice information to be optimally collected and transmitted among courts and justice agencies and other relevant stakeholders statewide, there must be sufficient and current IT infrastructure in place throughout the state, together with standards for the exchange of the information. An effective architecture will have a holistic enterprise approach and must align

with the strategic intent of the organization. In short, the enterprise architecture must include business architecture with alignment to all architecture domains. These architectural elements are clearly the province of the state CIO, but coordination and collaboration are critical. Similarly, integration involves electronic filing of court documents, the on-line payment of court costs and fines, broad subscription/notification capabilities, public access to an expanding array of information, the on-line sale of justice information, and a host of other on-line services that support and enhance an agency's business architecture.

Scope

The scope of this effort focuses on providing a business function ConOps related to the sharing and exchange of dynamic, structured information between courts and justice agencies, other governmental agencies, non-governmental entities, and, increasingly, the general public. Although the focus is broadly the justice enterprise, the scope of this effort is narrower still, concentrating primarily on *criminal* justice decision-making. This scope necessarily encompasses the inevitable interplay between criminal justice agencies and key civil justice and non-justice information exchanges, which are incorporated in the general business model of integrated justice presented here.

The scope includes local entities sharing information with other local entities, as well as with state and federal entities; and state entities sharing information with other entities within their state, with other states, with local entities, and with federal entities. The only *exclusion* in the scope is information shared exclusively between federal entities.

Figure 1.1 – Horizontal & Vertical Scope

INTEGRATION OF INFORMATION

The concept of integrated justice information sharing refers to the ability to "share critical information at key decision points throughout the justice enterprise."[7] It should be noted that integration also includes the sharing of information with traditionally non-justice agencies (e.g., other governmental agencies, health and human service organizations, treatment service providers, schools and educational institutions, licensing authorities, etc.), and with the public, which increasingly is demanding greater and more varied access to an expanding array of government information and services. Moreover, this information sharing and access extends across agencies and branches of government at the local level (i.e., horizontal integration), to include users/consumers in local, state and federal jurisdictions (i.e., vertical integration).

Partnering with relevant national forums is highly productive and will provide access to many resources such as position papers, guides, technical assistance, and software tools. Efforts at the federal, state, and local levels should partner with and leverage these forums. These include but are not limited to:

- š Global Justice Information Sharing Initiative (Global) Advisory Committee (GAC)
- š Integrated Justice Information Systems (IJIS) Institute
- š National Association of State Chief Information Officers (NASCIO)
- š National Governor's Association (NGA)
- š National Task Force for Interoperability (NTFI)

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[7] David J. Roberts, *Integration in the Context of Justice Information Systems: A Common Understanding* (Sacramento, CA: SEARCH, October 2001). http://www.search.org/integration/pdf/Integration%20def.pdf

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- š   Office of Justice Programs (OJP)

- š   The Federal CIO Council

- š   The Federal Enterprise Architecture Management Office (FEAPMO)

- š   The National Consortium for Justice Information and Statistics - SEARCH

Knowledge of current forums, and the products and services they offer, can accelerate initiatives chartered to develop or further leverage integration capabilities. For example, OJP has published an XML Data Model as part of it Global Justice Information Sharing Initiative. SEARCH has developed the Justice Information Exchange Model (JIEM), which is a software tool for recording and analyzing all dimensions and processes related to information exchanges. The Federal CIO Council has published a number of reference models, and guides related to enterprise architecture. NASCIO has published the Enterprise Architecture Development Tool-Kit, which describes enterprise architecture and its components. NASCIO has also published numerous additional resources dealing with the subjects of enterprise architecture, security, and business case development.

The building of integrated justice information systems does not mean that all information between agencies is shared, without regard to the event, the agencies involved or the sensitivity of the information available. Rather, agencies need to share critical information at key decision points throughout the justice process. There is explicit recognition that this sharing of information can be accomplished by any of a variety of technical solutions, or a combination of technical solutions, including data warehouses, consolidated information systems, middle-ware applications, standards-based document sharing, etc. Integrated justice does not presume any particular technological solution or architectural model.

Moreover, the integration of justice information is properly viewed as a broad and significant *process* that is dynamic and multi-faceted in nature, and part of the ongoing evolution in justice business practices, not as a simple project to share information with discrete beginning and termination points.

Benefits

Building integration and information sharing capabilities in justice often requires fundamental changes in business practices across agencies and jurisdictions, and between branches of government. As a consequence, integration typically raises important legal, constitutional and policy issues that must be addressed. Moreover, integration and sharing of information between justice agencies, with other governmental agencies, and with the general public raises new and important privacy and confidentiality issues that must also be addressed.[8]

Integration also affords an important opportunity to re-engineer operations in substantive respects. Mapping the information exchanges among justice agencies, and between justice and non-justice agencies and other users, often identifies significant duplication in data entry, redundant processing, and circuitous business processes that are evidence of the piecemeal automation practices endemic in most jurisdictions. Careful strategic planning and attention to detail in design sessions can illuminate fundamental flaws in information exchange that can be corrected in integrated systems development. Too often agencies have simply "paved the cow path," rather than critically examining the dynamics of information exchange and building automation solutions that incorporate the reengineering of business processes.

These factors demonstrate the inherent complexity of building information sharing capabilities in the justice enterprise, and underscore the importance of focusing on the on-going *process* of information exchange. Because of its importance, information sharing capabilities should be included in the ongoing audit activities of the organization. Internal controls must be in place for

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[8] See http://it.ojp.gov/initiatives/public_access.html for references to documents addressing privacy and confidentiality of justice information.

protecting content and insuring that the content and process is appropriate for each exchange partner.

Outcome Focus

It is important to recognize that integration is designed not only to meet the operational needs of participating justice agencies, but also to address the increasingly expansive information demands of society. The need to electronically share accurate and complete information in a timely and secure manner has been triggered by a host of state and federal legislative directives enacted in recent years.[9] These mandates represent significant new expectations related to reporting provisions and information sharing requirements, which have served as national catalysts to integrated systems development at the state and local levels.[10]

These programs are designed to improve public safety and the well-being of our citizens in such ways as:

- š Restricting the sales of firearms to persons without criminal records, a history of mental illness, or other prohibiting factors;[11]

- š Restricting and/or monitoring licensing of elder-care, child-care, health-care service providers, and other occupations with special access to disadvantaged or vulnerable persons;[12]

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[9] See, for example, the National Child Protection Act of 1993, Pub. L. 103-159, codified in 42 U.S.C. §§ 5119 et seq.; The Brady Handgun Violence Prevention Act, Pub. L. 103-159, 107 Stat. 1536, as codified in 18 U.S.C. § 922; The Lautenberg Amendment, Pub. L. 104-208 (contained in the 1997 Omnibus Appropriations Act), codified as 18 U.S.C. § 922(g); INS Alien Conviction Notification, 42 U.S.C. § 3753(a)(11); the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act (including Megan's Law), Pub. L. 103-322, § 170101 codified as 42 U.S.C. § 14071; and National Protection Order File, Pub. L. 104-236, codified as 42 U.S.C. § 14072.

[10] SEARCH, *Report of the National Task Force on Federal Legislation Imposing Reporting Requirements and Expectations on the Criminal Justice System* (Washington, DC: Bureau of Justice Statistics, US Department of Justice, August 2000), NCJ 183458.

[11] Gun Control Act of 1968, as amended, 18 U.S.C. § 922(g).

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- š   Dealing with significant financial responsibilities;[13]

- š   Community notification of the location or release of sexually violent predators;[14]

- š   Deportation of illegal aliens who have been convicted of crimes;[15]

- š   Location of missing children;

- š   Protection from domestic violence and stalking;[16]

- š   Safety of abused and neglected children;[17]

- š   Support of children and denial of benefits to some law violators and those incarcerated;[18]

- š   National security background checks for specified agencies, such as the Central Intelligence Agency and the Department of Defense;[19]

- š   Eligibility for enlistment in the armed forces and participation in programs that require a determination of trustworthiness;[20]

- š   Identification and clearance of partners, directors, officers and employees of the National Securities Exchange and members, brokers, dealers, registered transfer agents, and registered clearing agencies;[21] and

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[12] National Child Protection Act, as amended, 42 U.S.C. § 5119.

[13] Pub. L. 92-544.

[14] Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act, (as amended by Megan's Law) Pub. L. 103-322, § 170101 codified as 42 U.S.C. § 14071; Pam Lychner Sexual Offender Tracking and Identification Act of 1996, 42 U.S.C. § 14072; and Victims of Trafficking and Violence Protection Act of 2000 (Aimee's Law), Pub. L. 106-386 § 2001.

[15] Immigration and Naturalization Service alien conviction notification provisions, 42 U.S.C. § 3753(a)(11).

[16] National Protection Order File provision of the 1999 Violent Crime Control and Enforcement Act, Pub. L. 103-322, amending 28 U.S.C. § 534; and the Gun Control Act of 1968, as amended, 18 U.S.C. § 922(g)(8).

[17] Adoption and Safe Families Act of 1997, Pub. L. 105-89.

[18] Welfare Reform Act of 1996, Pub. L. 105-89.

[19] Security Clearance Information Act, Pub. L. 99-169, codified in part at 5 U.S.C.A. § 9101(b)(1), as amended.

[20] 10 U.S.C.A. § 520a.

[21] 15 U.S.C. § 78q(f)(2).

š   Individuals granted unescorted access to nuclear power facilities or access to safeguards information by power reactor licensees,[22] as well as a plethora of state occupational licensing laws for the medical profession, attorneys, private investigators and others.

These forces, effectively external to the justice system, nevertheless profoundly influence the design and development of information systems and the plans for information sharing/integration. The systems that are integrated will improve the capacity to meet the reporting requirements arising from implementing federal legislation as well as state legislation and policies. Integrated systems, therefore, enhance the ability of the decision-maker by enabling more efficient access to justice information. As a result, the goal of protecting the public is more effectively achieved.

Moreover, these legislative requirements frequently spawn funding programs to support state and local jurisdictions in the development of systems, or the resources for these efforts. Several of the reporting requirements and other requirements imposed on state criminal justice agencies by the Congress are tied to federal funding, i.e., these obligations are established as conditions of federal funding, in some cases, and in other cases, failure to implement particular requirements result in a loss of existing grant entitlements. For example, National Criminal History Improvement Program (NCHIP) implements grant provisions in the Brady Act, the National Child Protection Act, the 1994 Violent Crime Control Act, the Wetterling and related Acts, and the Crime Identification Technology Act of 1999, which pertain to the improvement of criminal history record systems. Primarily, the program is aimed at increasing the accuracy and completeness of state criminal records and the extent to which these records are maintained in automated systems, and appropriately flagged, so as to be immediately available to the National Instant Criminal Background Check System (NICS).

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[22] 10 C.F.R. § 73.57

Another example is the Five-Percent Set Aside program, which is a part of the Edward Byrne Memorial State and Local Law Enforcement Assistance Formula Grant funds allocated to states. This program requires that each state receiving Byrne funds use at least five percent of its total award for the improvement of criminal justice records.[23] Included in this program are the requirements to establish a criminal justice records improvement task force, conduct an assessment of the completeness and accuracy of criminal history records within the state, identification of the reasons that record quality is low, and development of a records improvement plan. On the other hand, states that failed to meet applicable deadlines imposed by the Wetterling and related Acts for registration of specific classes of sex offenders, establishment of methods for community notification, and participation in the National Sex Offender Registry maintained by the FBI, are subject to a mandatory 10 percent reduction of Byrne funding.

The specific requirements, whether they are by direct order of the Congress or by being made conditions of grant funds, are all designed to promote public safety. To do this, local agencies, where the work of criminal justice is largely done (prosecutors, trial courts, corrections agencies, parole), must be able to promptly and accurately transfer information to the state criminal history repositories and other agencies in need of essentially "real time" data.

These programs not only represent demands placed on justice and governmental information systems, and external pressures to integrate and enable information sharing, but they also often provide needed federal support for state and local development and implementation. Nevertheless, to be successful, federal funding by itself is never sufficient, and state and local jurisdictions must also support the initiatives.

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[23] Crime Control Act of 1990 § 509, codified at 42 U.S.C. § 3759.

Guiding Principles for Integrated Justice

As has been noted, integration is designed to address the operational needs of justice agencies, as well as a host of outcome-based societal objectives. In spite of these varying objectives, there are several fundamental principles that guide the development of integrated justice information systems.[24]

- š There must be clear traceability from explicit strategic business intent, as articulated in the business architecture, to the functionalities described in the information systems, and technical architectures;

- š Technical solutions must be driven by business requirements;

- š Information is captured at the originating point, rather than reconstructing it later;

- š Information is captured once and reused, rather then re-captured when needed again;

- š Integrated systems fulfilling these functions are comprised of, or derived from, the operational systems of the participating agencies; they are not separate from the systems supporting the agencies;

- š Justice organizations will retain the right to design, operate, and maintain systems to meet their own operational requirements. However, as with any network capability, participants must meet agreed upon data, communication, and security requirements and standards in order to participate;

- š Whenever appropriate, standards will be defined, with user input, in terms of performance requirements and functional capabilities, rather than hardware and software brand names;

- š Security and privacy are priorities in the development of integrated justice capabilities, and in the determination of standards;

- š Integration builds on current infrastructure and incorporates capabilities and functionality of existing information systems, where possible; and

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[24] For a similar discussion of guiding principles for integrated justice, *see* Infrastructure/Standards Working Group, Global Criminal Justice Advisory Committee, *The Global Justice Information Network: An Introductory Report on Infrastructure* (Washington, DC: US Department of Justice, June 2000), p. 11. https://www.nascio.org/hotIssues/justice/index.cfm

š   Because of the singular consequences of decision-making throughout the justice
    enterprise, establishing and confirming the positive identity of the record subject is
    crucial.

These guiding principles are fundamental to integrated systems development in justice, and

clearly apply to IT systems development generally as well.

Integration as Information Exchange

Defining integration as the ability to share critical data at key decision points throughout the

justice process, properly focuses attention on information sharing as the principal objective.

Justice agencies have a series of transactions at these decision points. At arrest, for example, the

arresting agency typically transmits certain information regarding the arrestee to the state

criminal history records repository (for example, name, age, sex, race, driver's license number,

electronic image of the arrestee's fingerprints, etc.) to record the arrest transaction in the instant

case, but also to verify the arrested person's identity and determine whether the person has a

criminal history record in the resident state, or in other jurisdictions around the nation. In

addition, this transaction may also query other state and national information systems, to

determine whether there are any outstanding warrants, detainers or other holds on the arrestee.

Moreover, this transaction may also trigger automatic "notification" of the arrest to the state or

county Department of Health and Human Services (HHS), e.g., if the arrestee is a foster parent

on whom HHS has "subscribed" for "notification" of arrests for disqualifying offenses, as well

as similar "notifications" to the Departments of Welfare, Motor Vehicles, Education, etc.

For these transactions, the local arresting agency does not need to share all information regarding

the arrestee or the event leading to the arrest, but only that information necessary for the discrete

transactions "check for outstanding warrants" and "verify identity and report arrest transaction to

the criminal history repository." These same transactions are completed by law enforcement agencies throughout the nation whenever they make an arrest.

These transactions, and many other routine information exchanges and queries, might be characterized as *conversations*, i.e., discrete exchanges of information between two or more agencies. These conversations occur at regular events (for example, at arrest, charging, initial appearance, adjudication, sentencing, licensing, registration, etc.), and it is believed that the transactions are remarkably consistent in jurisdictions throughout the nation.

Some of the conversations are very basic: "Give me information on anyone with a like name and date of birth," followed by, "Here is the information you requested on all the subjects I have with similar names and dates of birth." In this conversation, the agency requested information from another agency, which returned nonspecific information; the sending agency did not need to know how the requesting agency would use the information or what further actions the requesting agency might need to take. Other conversations affect the recipient system more directly: "Here is a disposition report and sentence to append to a specific person's criminal history record." This conversation requires the recipient agency to know exactly to whose record the new information should be appended in order to store it in its database. It might also trigger some form of notification to other interested agencies. Some conversations can be complex: "Based on the enclosed set of charges, issue a warrant for the subject's arrest," followed by, "I will set up a case and issue a warrant, while notifying the sheriff whose jurisdiction this falls under, and at the same time indicating the geographic radius for extradition based on the seriousness of the offense."

The analogy to a "conversation" is particularly appropriate, given the nature of the information exchanges contemplated in integrated justice. The exchange is complex and evolving: one agency may initiate an exchange, which will trigger a response by a second (recipient) agency; this response, in turn, may trigger additional value-added exchanges by the (original) initiating agency, which can then incorporate information — such as a state identification number (SID) — generated in the first exchange.

Content is a fundamental component of the conversation or exchange. The substance of the exchange is the information itself. Exchanges, to be effective, must convey appropriate information (that is, information that is relevant and responsive) in sufficient detail to meet the needs of the initiating/recipient agency.

In addition to content, however, it is also important to recognize that these exchanges, like conversations, must have both a *context* and a *protocol*. Parties to a conversation must have some agreement, formal or implicit, that their communication is going to focus on a topic of relevance (or at least interest) to each party. There may also be specific objectives for the conversation, as seen in the examples below:

Action	Objective
Requesting a query of a statewide warrant system	To determine whether an arrest has an outstanding warrant
Sending disposition and sentencing data to the criminal history records repository	To update an offender's criminal history record

In addition to context, there must also be agreement regarding the *protocol* for the conversation, which may include such elements as the language that will be used, the roles of the participants, and methods for resolving misunderstandings. Automated exchange of charging information

between the local prosecutor and the local court must be in terms that are understandable and interpretable by both. Local jails, for example, may be required to submit booking records, fingerprint images and mug shots to the state criminal history records repository in mutually agreed-upon formats for the repository to properly interpret the information and append it to the appropriate record. *Protocol*, in the context of justice information sharing, largely refers to *standards* that enable sharing of critical information.

Many of the primary events that trigger conversations between agencies in the criminal justice process were generally identified in the excellent schematic of the criminal justice process created in 1967 for the President's Commission on Law Enforcement and the Administration of Justice,[25] recently updated by the Bureau of Justice Statistics.[26] From this historical research, and from the ongoing work of several jurisdictions in integrated systems implementation, we know many of the key events that trigger the conversations, the agencies involved, and the general nature and content of information exchanged in the conversations. It is important to note, however, that this schematic represents the general life cycle of criminal justice case processing, not the systematic processing of information throughout the entirety of the justice enterprise.

Documenting the key information exchange points, and the context and content of the conversations that occur at each of these events — that is, creating an accurate model of justice information system processing, which includes identifying common events that trigger conversations, the agencies involved, the nature and content of these conversations, and the exchange conditions affecting the transactions — will greatly facilitate integrated systems

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[25] President's Commission on Law Enforcement and the Administration of Justice, *The Challenge of Crime in a Free Society* (Washington, D.C.: Government Printing Office, 1967).

[26] *See* revised schematic at http://www.ojp.usdoj.gov/bjs/flowchart.htm.

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planning and design. The Bureau of Justice Assistance (BJA) has funded a project by SEARCH to complete this important research[27] and in doing so, to lay the foundation for integrated systems planning and implementation at the local, regional, state and federal levels.

There are at least four principal dimensions of information exchange that are relevant to integrated justice systems research, design, development and implementation. The four dimensions; *Event*, *Agencies*, *Information* and *Exchange Conditions* are described in the following table:

Dimension	Description
Event	Triggers the information exchange, for example, arrest, issuance of a warrant, sentencing, correctional discharge
Agencies	The entities involved in the information exchange; for example, local police department, prosecuting attorney, pretrial services agency, trial court, and treatment providers
Information	That which is actually exchanged between agencies, which may include documents, data sets, and/or specific data elements, images, video, etc. This is the content element previously discussed
Exchange Conditions	Factors associated with the case(such as whether the case is a felony or misdemeanor, the defendant an adult or a juvenile, and the defendant in custody or on release),
	Person or event that governs the exchange of information and define the processing flow and circumstances surrounding information exchange between agencies
	Together with *event* and *agencies* involved in the exchange, these conditions address the context element previously discussed

SEARCH has completed research in several jurisdictions and has documented the commonalities in justice information processing across each of the dimensions described above, and this

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[27] SEARCH, The National Consortium for Justice Information and Statistics, is presently engaged in a project funded by the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice to identify key dimensions in the exchange of critical information at key decision points in adult felony and misdemeanor case processing in several jurisdictions throughout the nation. The research is aimed at defining fundamental attributes of justice information sharing. *See* David J. Roberts, David H. Usery and Amir Holmes, *Background Report Planning the Integration of Justice Information Systems: Developing Justice Information Exchange Points* (Sacramento, CA: SEARCH, February 2000). For current information regarding the project, *see* http://www.search.org.

research[28] is forthcoming and will assist in the development of standards for information exchange. In addition, SEARCH has developed a research tool and methodology to identify common information exchanges in jurisdictions and to illuminate the workflow associated with information sharing. This web-based tool is presently being used in several jurisdictions, not only to document the exchanges, but also to map business processes and facilitate business process reengineering.

Model Functions for Information Sharing

Although these conversations vary significantly in terms of the countless operational decisions daily addressed by justice and non-justice agencies throughout the nation, the exchanges share common functions, as defined below:

- š *Query* (and receive a *response*) local, regional, state, and national databases;

- š *Push* operational information from one agency to another based upon actions taken regarding subjects or cases by the sending agency;

- š *Pull* operational information from another agency based upon actions the other agency has taken regarding subjects or cases;

- š *Publish* operational information on key transactions and events regarding subjects, events and cases in traditional (e.g., paper) and electronic media (e.g., to publicly accessible web-pages, secure servers, etc.);

- š *Subscription/Notification* of key transactions and events regarding subjects, events and cases.

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[28] David J. Roberts and Amir Holmes, *Planning the Integration of Justice Information Systems: Developing Justice Information Exchange Points Final Report* (Sacramento, CA: SEARCH, Forthcoming).

Justice agencies should be aware of these common functions when adopting field reporting,

records management, and other programs and standards. These functions should be recognized

and uniform software protocols developed or purchased to enable integration of the information.

ROLES & RESPONSIBILITIES

For infrastructure and architectural planning purposes, integrated justice acknowledges the following generalized information management roles and responsibilities of agencies and units of government within and between local, state and federal levels.

Local

Local agencies and jurisdictions have primary responsibility to:

- š Support and maintain information systems within their own, individual agencies;

- š Establish and enable the sharing of the day-to-day information that serves as the operational currency of locally integrated systems, (e.g., sharing of general case information, court calendar and scheduling information, etc.);

- š Participate in statewide integrated systems planning efforts;

- š Implement standards jointly developed with the state in support of statewide systems and integrated justice; and

- š Accept and implement an interface with state systems or other solutions that support statewide integrated justice initiatives.

State

States have primary responsibility for:

- š Building statewide information repositories/systems that support the operational information needs of local and state users (e.g., criminal history records, statewide warrants database, correctional information systems, including non-justice systems and users, such as social services, education, and the general public etc.);

š   Developing and supporting standards consistent with national standards to enable sharing of information between local jurisdictions, to state systems and other states, as well as with national systems;

š   Operating as a gateway to relevant national/federal information repositories/systems (e.g., IAFIS, NCIC, NIBRS, etc.);

š   Developing the infrastructure that will support and enable integration of local agencies statewide (i.e., to share data within their local environment, as well as with the state and national systems). Infrastructure development in this sense means that the state has responsibility for technical systems (e.g., statewide fiber optic lines that permit sharing of information, law enforcement teletype systems, radio systems, as well as programs that will support general levels of automation within justice agencies), as well as the development of open system standards that will lay the foundation for integrated systems planning and implementation at the state and local levels;

š   Mandating statewide coverage for critical systems, functions and capabilities;

š   Enabling sharing of information statewide;

š   Enabling local agencies and jurisdictions to buy IT resources and solutions off state contracts;

š   Providing leadership for statewide IT planning and development and, in the context of this effort, particularly focusing on integrated justice; and

š   Providing funding for statewide IT and integrated justice initiatives, and in support of local jurisdictions and agencies to enable their active participation.

Federal

The federal government has similar responsibilities to the state government:

š   Developing, maintaining and supporting national and federal systems;

š   Ensuring integration of national systems;

š   Serving as gateway to international systems; and

š   Creating and maintaining the national and federal infrastructure necessary to support integration of federal, state and local systems:

- š Nationwide information repositories/systems;

- š Technical infrastructure that enables the automated sharing of information between agencies and jurisdictions;

- š Data and information standards to enable sharing of information between local jurisdictions, to state systems, and to national systems;

- š Leadership for IT planning and development and, in the context of this effort, particularly focusing on integrated justice; and

- š Funding for statewide IT and integrated justice initiatives that will help build information sharing capabilities nationwide, and will further support local jurisdictions and agencies and enable their active participation.

Recognizing these fundamental differences in roles and responsibilities is critical in planning and implementing integrated justice information sharing.

INTEGRATED JUSTICE SCENARIO

Defining a ConOps for integrated justice is a large and complex task, involving many agencies, levels of government, jurisdictions, organizations, systems, and management structures. This scenario demonstrates some of the general capabilities of integrated justice, and it builds upon the general scenario of governmental information sharing, which first appeared in the NASCIO report, *Toward National Sharing of Governmental Information*.[29]

Sample Scenario

Please note, *functions* appear in *italics*; **systems** appear in **bold**, and documents appear in underline.

1) A police officer submits a *query* to the **statewide warrant system** and discovers from the *response* that the subject of his car stop is wanted on an outstanding arrest warrant.

2) The police officer arrests the subject, completes and signs (digitally) an arrest report which describes the incident, offense, arrest circumstances and the arrestee. The arrest report is stored in the **police information system**, which *pushes* either the full arrest report, or certain segments and elements of information to the sheriff's **booking information system**.

3) The arrestee is taken to the sheriff's office to be booked. The sheriff's **booking information system** uses the arrest report number to *pull* the arrest report from the **police information system**, and uses data from that report to (partially) complete the booking document.

4) The sheriff's **booking information system***,* using personal-description data in the arrest report and biometric identifiers, *pulls* information from the **state criminal history records repository**. Based on information from the criminal history record, the jailer makes a security decision and enters that decision into the sheriff's **booking information system**, which assigns an appropriate cell.

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[29] NASCIO, *Justice National Information Architecture: Toward National Sharing of Governmental Information*, (Lexington, KY: NASCIO, February 2000), pp. 10-11. https://www.nascio.org/hotIssues/justice/index.cfm

5) The sheriff's **booking information system** uses information from the <u>arrest report</u> and <u>booking document</u> to generate a standard <u>press release</u> and *pushes* it to the department's **web page**, which posts information regarding arrests recorded over the past 24 hours.

6) The sheriff's **booking information system** uses information from the <u>arrest report</u> and <u>booking document</u>, together with the <u>booking fingerprint images</u> and <u>mug shot</u> to *push* required identification and arrest information to the **state criminal history records repository**, where the arrest event information is *pulled* into the arrestee's <u>criminal history record</u>.

7) The **state criminal history records repository**, after its own internal processing, will *publish* the arrest and identification information to a **justice information server**[30], which in turn will *notify* (electronically) justice (e.g., Department of Probation and Parole) and other governmental agencies (e.g., Department of Health and Human Services, Department of Welfare, Department of Education, Department of Motor Vehicles, etc.), and authorized non-governmental agencies (e.g., licensing boards, treatment service providers, etc.) who have *subscribed* to *notification* of relevant changes in legal status (e.g., an arrest and/or conviction for a disqualifying offense) of the arrest of the subject. The **state criminal history records repository** will also *push* identification and arrest event information from the <u>arrest report</u> and <u>booking documents</u> to the **national criminal history records repository** maintained by the FBI.

8) Upon *notification* (electronically) of the arrest:
   a) the **Department of Health and Human Services Information System** may trigger an investigation of the arrestee to determine whether continued placement of children in the subject's home for Foster Parent care is appropriate;
   b) the **Department of Welfare Information System** may trigger an investigation of the arrestee to determine whether the subject continues to qualify for welfare benefits;
   c) the **Department of Education Information System** may trigger an investigation that will result in the altering or suspending duties, depending on the subject's job responsibilities and the nature of the offense;
   d) the **Department of Motor Vehicles Information System** may trigger an investigation of the subject regarding driver license privileges, provided the charges are relevant to the licensing status (e.g., a driving while intoxicated (DWI) arrest for a licensed school bus driver);
   e) the **Medical Licensing Board Information System** may trigger an investigation of the subject to determine whether disciplinary action (including license revocation) is warranted, depending nature of the offense and the responsibilities of the subject.;
   f) the **State or County Day Care Licensing Board Information System** may trigger an investigation of the subject to determine whether to suspend the subject's license to provide day care services.
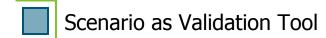
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[30] The state **criminal history records repository** may, in fact, operate the **justice information server** as a component or parallel system or application, rather than an entirely separate system.

9) The sheriff's **booking information system** *pushes* identification and arrest information from the <u>arrest report</u>, <u>booking document</u> and <u>criminal history records</u> to the **prosecutor information system**, which uses some of this information to (partially) complete a <u>prosecution case intake document</u>. An assistant prosecutor views all the available information and makes the decision to prosecute.

10) The assistant prosecutor decides the specific charges to be filed and the **prosecutor information system** prepares the <u>charging document</u> using statute-specific standard charging language plus information from the earlier police <u>arrest document</u> and the sheriff's <u>booking document</u>. The assistant prosecutor signs (digitally) the <u>charging document</u> and the **prosecutor information system** *pushes* the charges with tagged elements to the **court information system**.

11) The **court information system** reviews the court calendar and schedules times for initial appearance, bond hearings, and a preliminary hearing, and *pushes* information to the **prosecutor information system** and the **public defender information system** information concerning the assigned courtroom, date and time, and to the **pre-trial services information system** for preparation of <u>pre-trial report</u> on the defendant, assessing flight risk, community ties, and recommending bonding decision. The **prosecution information system** reviews its workload and fills in its calendar by assigning the hearing to one of its assistant prosecutors, and the **public defender information system** similarly assigns the hearing to one of its defenders.

12) Throughout the events leading up to the trial the **prosecutor** and **public defender information systems** *push* signed (digitally) <u>motions</u> to the **court information system**; the **court information system**, in turn, *pushes* copies of <u>motions</u> and <u>notifications of hearings</u> to the **prosecutor** and **defender information systems**, and the human parties, namely the prosecutor, defender, defendant and judge, meet and make decisions. At appropriate times the **court information systems** *pushes* <u>subpoenas</u> to witnesses who are required to attend a given hearing or trial portion, and the **prosecutor information system** *pushes* <u>subpoenas</u> to victims at important milestones of the case.

13) At one point the defendant, who is free on his/her own recognizance, fails to appear for a court date and the judge issues and digitally signs an <u>arrest warrant</u>, which the **court information system** *pushes* to the original arresting agency for service, and *publishes* the warrant to a **statewide warrant system**.

14) The trial ends; the judge decides the case, and convicts the defendant. Upon conviction, the probation department initiates a <u>pre-sentence investigation</u>, which *pulls* information from the <u>arrest report</u>, <u>incident report</u>, <u>criminal history record</u>, <u>pre-trial services report</u> and <u>other reports</u> relating to the offender's family, social, educational, vocational, and substance abuse history, as well as independent investigation. The probation department completes the <u>pre-sentence report</u>, including a sentence recommendation, which is electronically submitted to the court for review and consideration at sentencing.

15) The court passes sentence, which the **court information system** transforms into a (digitally) signed <u>sentencing order,</u> which it then *pushes* to:

a) the **sheriff information system** to send the newly convicted prisoner to the state prison for confinement;
b) the **prison information system** to receive the prisoner;
c) the **public defender information system** to assign an appellate attorney for possible appeal;
d) the **state criminal history records repository** to record the disposition and sentence in the case, which will be appended to the subject's formal <u>criminal history record;</u>
e) the **victim's compensation fund**, in the event that the court has ordered the offender to pay restitution to the victim;
f) the **state/county treasurer's information system**, in the event that the offender is ordered to pay court costs, fees, fines, or other compensation; etc.

16) The **state criminal history records repository** in turn, *publishes* the conviction, sentence and identification information to the **justice information server**, which *notifies* (electronically) justice (e.g., Department of Probation and Parole) and other governmental agencies (e.g., Department of Health and Human Services, Department of Welfare, Department of Education, Department of Motor Vehicles, etc.), and authorized non-governmental agencies (e.g., licensing boards, treatment service providers, etc.) who have *subscribed* to notification of relevant changes in legal status (e.g., the conviction for a disqualifying offense) of the conviction of the subject. Depending on the nature and seriousness of the offense, the **state criminal history records repository** may also *publish* conviction, sentence and identification information to the **Sex Offender Registry**, which may be available on-line and accessible by the public, and may affirmatively *notify* members of the public and public service groups of the conviction of the offender for qualifying offenses.

17) Upon *notification* (electronically) of the conviction:
a) the Department of **Health and Human Services Information System** may, depending on the nature and seriousness of the offense, trigger proceedings to disqualify the offender from serving as a Foster Parent;
b) the **Department of Welfare Information System** may, depending the nature and seriousness of the offense, trigger proceedings to disqualify the offender from continued receipt of welfare benefits;
c) the **Department of Education Information System** may trigger proceedings to alter or suspend duties, depending on the subject's job responsibilities and the nature and seriousness of the offense;
d) the **Department of Motor Vehicles Information System** may trigger proceedings to restrict or revoke driver license privileges, depending on the nature and seriousness of the offense, and provided the charges are relevant to the licensing status (e.g., a driving while intoxicated (DWI) arrest for a licensed school bus driver);
e) the **Medical Licensing Board Information System** may trigger proceedings to restrict or revoke the license of the offender depending nature and seriousness of the offense and the responsibilities of the subject;
f) the **State or County Day Care Licensing Board Information System** may trigger proceedings to restrict or revoke the offender's license to provide day care services, depending on the nature and seriousness of the offense.

18) Subsequently, the **prison information system** and, eventually the **parole information system**, will track confinement and release to, and supervision within, the community. During the period of confinement, the **prison information system** may *notify* the **prosecutor information system**, **public defender information system**, as well as victims of the offense, of parole hearing dates, where they can testify in support or opposition to release on parole. Additionally the **parole information system** may *notify* victims of the release and location of the offender, once released from confinement.

The scenario has shown only a sample of the range of information exchanges and interactions among primary entities throughout the justice enterprise. The scenario nevertheless, demonstrates the complexity of information interactions throughout the whole of the justice enterprise, and the significant role non-justice, non-governmental and public users play in defining the objectives of integrated justice.

Scenario as Validation Tool

This scenario can be effectively used to validate a State's IT architecture. In Table 1 (p. 28), for example, the IT architecture for the State of Kansas is validated against the scenario. The exercise enables the State CIO to assess the ability of existing and planned IT architecture to accomplish the functions described in the scenario.

Table 1. Sample Validation - State of Kansas

No.	Who	Action	Data	From/To	Owner	KS	Comments	% Impl.
1	Officer	Queries	Outstanding Warrant	From Warrant System	State	Y	NCIC/Alert Only	100
					Local	Y	Apps Also Maintain Local Warrant Files, That Get Queried	10
2	Officer	Prepares	Arrest Report	Laptop/Terminal	Local	Y	Local CJIS LE APP	10
		Pushes	Arrest Report	To Police Info System	Local	Y	Local CJIS LE APP	10
3	Sheriff	Pulls	Arrest Report	From Police Info Sys	Local	Y	Local CJIS LE APP	5
		Updates	Arrest Report	To Booking Info Sys	County	Y	Local CJIS LE APP	5
4	Jailor	Pulls	Arrest Report ID's	From Booking Info Sys	County	Y	Local CJIS LE APP	5
		Queries	State Criminal History	For Making Cell Assignment	County	Y	100% Possible but Rarely Done	-
		Pushes	Cell Assignment	To Booking Info Sys	County	N	Jail Mgmt not in Local CJIS LE App	-
5	Sheriff	Pushes	Arrest & Booking Notice	To Media (Press Release)	County	Y	Public Record Blotter Various Implementations	100
				To Dept Web Page	County	Y	Public Record Blotter Various Implementations	0
6	Sheriff	Pulls	Fingerprint Mug Shots	From AFIS-Local Sys&	State	N	No Local AFIS in KS	0
			Arrest & Booking Info	From Booking Info Sys	County	Y	Local CJIS LE APP	10
		Creates	ID & Arrest Info Query	(Based on Query…)		Y	Done by FPC/AFIS	40
		Pulls	Arrest Event Info	From State Repository	State	Y	Done by FPC/AFIS	40
		Pushes	Arrest Event Info	To Criminal History Record	County	Y	Done by FPC/AFIS	40
7	State	Publishes	Arrest & ID Info	To Justice Info Server From Criminal History Repository	State	Y	Pub CJIS Web Server/lnk	100
	State	Pushes	Arrest Data	Arrest Data to IAFIS/FBI/CCH	State	Y		100
		Notifies	Change of Legal Status	To Dept of Probation	State	N	Planned	0
				To Dept of Health & Human Services	State	N	Discussed	0
				To Dept of Education	State	N	Discussed	0
				To Dept of Motor Vehicles	State	N	Discussed	0
				To Medical Licensing	State	N	Discussed	0

No.	Who	Action	Data	From/To	Owner	KS	Comments	% Impl
				To State/County Day Care Licensing	State/ County		Discussed	0
8	State	Investigates	Child Placement	By Health & Human Services	State	N	Discussed	0
			Welfare Benefit Qualifications	By Dept. of Welfare	State	N	Discussed	0
			Suspending Teachers	By Dept of Education	State	N	Discussed	0
			Suspending Driver License	By Dept Motor Vehicles	State	N	Discussed	0
			Disciplinary Action	By Medical License Boards	State	N	Discussed	0
			Day Care License	By St/County License Board	State/ County	N	Discussed	0
9	Sheriff	Pushes	ID & Arrest Info	To Prosecutor System From Arrest Report & Booking-Criminal History Systems	Local	Y	CJIS Local LE to Pros APP	1
	Prosecutor	Prepares	Case Intake for Decision to Prosecutor		Local	Y	CJIS Local Pros APP	1
10	Prosecutor	Prepares	Charges to be Filed	From Arrest-Booking Information	Local	Y	CJIS Local Pros APP	1
		Signs	Charging Documents			Y	CJIS Local Pros APP	1
		Pushes	Charging Documents	To Prosecutor Info Sys	Local	Y	CJIS Local Pros APP	1
		Pushes	Charging Documents	Fr Prosecutor Info Sys To Court Info Sys	Local	N	No Court Systems in KS	0
11	Court	Updates	Court Appearance Schedule.	To Court Info Sys	Court	N	No Court Systems in KS	0
		Pushes	Court Appearance Schedule	To Prosecutor Info Sys	Local	N	No Court Systems in KS	0
				To Public Defender Sys	State	N	No Court Systems in KS	0
				To Pretrial Services Info Sys	Court	N	No Court Systems in KS	0
		Pushes	Name of Case Defender	To Public Defender Sys	State	N	No Court Systems in KS	0
12	Court	Pushes	Signed Motions	To Prosecutor Info Sys	Local	N	No Court Systems in KS	0
		Pushes	Signed Motions	To Court Info Sys	Court	N	No Court Systems in KS	0
		Pushes	Subpoenas	To Prosecutor Info Sys	Local	N	No Court Systems in KS	0
				To Involved Parties		N	No Court Systems in KS	0

No.	Who	Action	Data	From/To	Owner	KS	Comments	% Impl
13	Court	Pushes	Failure to Appear Warrant	To Court Info Sys	Court	N	No Court Systems in KS	0
		Pushes	Failure to Appear Warrant	To Statewide Warrant Sys	State	N	Warrant to Sheriff (Hard Copy Only)	0
	Sheriff	Enters	Warrant in Local Warrant File Enters Warrant in State Warrant File Enters Warrant in NATL/ NCIC Warrant File		Local State National	Y N Y	CJIS Local LE App (If it meets criteria)	10 Planned 100
14	Probation	Prepares	Pre-sentence Investigation		Local	Y	CJIS Court Services APP	100
		Pulls	Arrest-Incident Report	From	Local	Y	From KBI CCH Primarily	100
			Criminal History	To Pre-sentence Investigation	Court	Y	From KBI CCH Primarily	100
		Pushes	Completed Pre-sentence Investigation	To Court Info Sys	Court	Y	Internal to Court	100
15	Court	Pushes	Signed Sentence Order	To Sheriff's Info Sys	County	N	Manual Only	0
				To Prison Info Sys	State	N	No court Systems (Manual Only)	0
				To Public Defender	Local	N	No Court Systems	0
				To State Repository	State	N	No Court Systems (Manual Only)	0
				To Victim Compensation Fund	State	N	No Court Systems	0
				To St/County Treasurer Info Systems	St/ County	N	No Court Systems	0
	Court	Administers		Probation w/ Probation System – Schedules Visits, Appointment, Drug Tests, Tracks Work, Residence, School Info Etc., Progress Notes @ End of Probation	Local	Y	All Judicial Districts have Adopted CJIS Court Services APP	100
	Court	Pushes		Probation Closure Report to Supervision – Repository	Local	N	Depends on Completion of Supervision Repository	Planned
				Supervision Repository Pushes Closure Data to State CCH Repository @KBI	State	N	Depends on Completion of Supervision Repository	Planned

No.	Who	Action	Data	From/To	Owner	KS	Comments	% Impl
16	State	Publishes	Conviction Sentence ID's	To Justice Info Sys	State	Y	DOC to KBI CCH	100
		Notifies	Conviction Sentence ID's	To Subscribers:		N		
				Dept of Probation & Parole	State	Y	Internal to DOC	100
				Dept of Health & Human Services	State	N		0
				Dept of Welfare	State	N		0
				Dept of Motor Vehicles	State	N		0
				Licensing Boards	State	N		0
	State	Publishes	Conviction Sentence ID's	From State Repository to Sex Offender Registry	State	N	Sex Offender Must Register on Release	0
	State	Notifies	Conviction Sentence ID's	To Member of Public & Public Service Group	State	N		0
17	State	Notifies	Conviction Sentence ID's	To Health & Human Services Info Sys	State	N		0
				To Dept of Welfare	State	N		0
				To Dept Education Info Sys	State	N		0
				To Dept of Motor Vehicle Info Sys	State	N		0
				To Medical License Info Sys	State	N		0
				To State & County Info Sys	State	N		0
18	State	Notifies	Parole Hearing Dates	From Parole Info Sys	State			0
				To Prosecutor's Info Sys		N		0
				To Public Defender Sys		N		0
				To Victims		N		0
	State	Notifies	Release Date-Location	From Parole Info Sys	State	N		0
				To Victim				

Note: There is an entire almost mirrored system for the Juvenile Justice system and the two intersect/overlap/interface in many areas, especially when a juvenile offender is certified as an adult. In lots of ways, the Juvenile system is more complex than the adult system. The Kansas JJIS is largely modeled on the CJIS architecture. This Validation was completed in 2001. Since that time, many improvements have been implemented and are not reflected in this sample.

For Kansas, the existing IT architecture is evaluated with regard to its ability to accomplish each of the integration functions described in each step of the scenario. As can be observed in Table 1, some of the functions contained in the scenario are largely supported with existing architecture, but other functions are not (e.g., the law enforcement officer in the field can initiate a full query of the statewide and national warrants system, but only partially of local warrants databases). Validating existing and planned architecture against this, and other scenarios, will enable CIOs to effectively plan for integrated justice information sharing, and will help identify gaps in existing systems.

Similar scenarios can be constructed to illustrate user requirements from entirely different perspectives. For example, another scenario might begin with a person seeking a license to operate a day care center, which will trigger exchanges to determine if there are criminal offenses or other circumstances in the person's background that would disqualify them from receiving the license or restrict their licensing in some respect. Similar additional scenarios could easily be constructed to demonstrate similar capabilities of integrated justice covering the range of outcome orientations previously discussed. Fundamentally, the scenarios illustrate the business, performance and operational requirements for integrated justice, which are addressed in detail in the following section.

OPERATIONAL REQUIREMENTS

The detailed scenario presented in the previous section demonstrates the functional complexity, content density, and the multi-jurisdictional character of information sharing inherent in contemporary visions of integrated justice. Moreover, the scenario demonstrates, at a very practical level, the fundamental operational requirements of integrated justice initiatives that have significant implications for infrastructure development and statewide IT architecture.

As indicated earlier in this report, nearly every state in the nation, and multiple communities in most states, are actively involved in planning and implementing integrated justice information sharing initiatives. The initiatives are designed to improve the sharing of critical information at key decision points throughout the justice enterprise, to improve the quality of information, to expand accessibility to the information, and a host of other common objectives.

State and local jurisdictions developing integrated justice information sharing capabilities will generate a substantial number of jurisdiction-specific operational requirements that include time performance measures (such as response time and information currency requirements noted above), and will relate to the specific information systems, operations and demands within their jurisdiction.

Universal Operational Requirements

The universal operational requirements for integrated justice information sharing, which appear here, are derived from the general principles for integrated justice previously discussed, as well as the common operational requirements drawn from a study of the operational requirements from representative jurisdictions, including Maricopa County, Arizona, and the states of Alaska, Michigan, Colorado and Pennsylvania.

Universal Operational Requirements of Integrated Justice Information Sharing
1. Ability to query and retrieve information from relevant information systems throughout the justice system, and other relevant governmental agencies, without having to have prior specific knowledge of the detailed structure of these systems
2. Ability to electronically send/transmit information from operational information systems in one agency/jurisdiction, for inclusion in another (recipient) information system
3. Ability to request information from one system and incorporate it into another system, without human intervention
4. Ability to be notified of critical events, actions, and transactions on a case, person or event
5. Ability to trigger events and other actions in other systems based on actions taken in operational justice information systems
6. Ability to transmit electronic documents between organizations, including tagged data elements
7. Ability to ascertain or confirm the identity of an individual, and link identity to documents, decisions and other official actions
8. Ability to determine the current legal status of an individual
9. Ability to manage and process the collection and distribution of fines, fees, costs, restitution, assessments, and other types of monetary accounts across organizational boundaries
10. Ability to discover agencies which have information concerning a specified individual (raises question concerning need for centralized indices or search engines operating against 'exposed' portions of CJ databases
11. Ability to discover the information needed to address a message to the criminal justice agency having jurisdiction in a specific geographic locale

These **universal** operational requirements for integrated justice, are broadly applicable and representative of integrated justice initiatives nationally. These universal operational requirements should not be viewed as exhaustive, but are representative of requirements commonly incorporated in integrated justice information sharing initiatives.

Examples from Representative Jurisdictions

This section provides examples of operational requirements for integrated justice from five jurisdictions:

- š Maricopa County, Arizona

- š State of Alaska

- š State of Michigan

- š State of Colorado

- š State of Pennsylvania

These represent a cross-section of jurisdictions throughout the nation. While the requirements vary in detail, common features are apparent. Universal operational requirements for integrated justice were derived from the commonality of requirements identified in these examples.

MARICOPA COUNTY, ARIZONA

Mission:
"The Mission of the Integrated Criminal Justice Information system is to enhance public safety, improve service to the community, and promote quality justice and law enforcement decision making by sharing information that is timely, secure, reliable, and comprehensive."[31]

The Basic Principles of Integration and its Beneficial Results of integration are:[32]
1. Common information is captured at its point of origin, and is entered into a system that makes it possible for all authorized criminal justice agency participants to immediately access the information.
2. Criminal justice information will be consistent, reliable, and in the same format as each "proprietor agency" inputs the original data through templates.
3. Redundant data collection and entry is eliminated as criminal justice agencies rely upon the integrated criminal justice information system.
4. Errors in criminal justice information are greatly reduced by eliminating redundant data entry after original entry.
5. System-wide labor costs are reduced by reusing data as the integrated system eliminates the demand for data entry.
6. Reports are available from the integrated criminal justice information system, including periodic and *ad hoc* published reports, query results, and subscription reports.
7. Relevant information is immediately available to all stakeholder criminal justice agencies at the time it comes into existence during each stage of the criminal justice process.
8. Data used downstream from its creation will comply with data dictionary specifications, providing the consistency needed to produce efficient and effective operations.
9. Demand for paper forms, files, and documentation will diminish as agencies rely on the electronic record. The problem of losing the paper file and making the record unavailable will be eliminated. The problem of one party checking out the court file and making the record unavailable to others will be eliminated. Need for costly space for paper storage will be reduced.
10. Many stakeholders will be able to view the file simultaneously from the electronic record.
11. Requests to transfer and transport the record will be eliminated with electronic available of the information, resulting in a significant cost reduction.
12. The Automated Fingerprint Identification System (AFIS) will eliminate costly mistakes in identifying defendants.
13. Criminal justice agencies will be able to efficiently track individuals throughout the criminal justice system.
14. Management decisions will be qualitatively better through efficient and effective fact gathering queries.
15. The relationship between the judiciary and law enforcement will improve with greater flow of reliable information.

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[31] ICJIS Group, Maricopa County Integrated Criminal Justice Information System Business Plan (Maricopa, AZ: ICJIS, November 15, 2000), pp. 5-6.

[32] *Ibid.,* at pp. 11-12.

16. System-wide access to warrants will result in swifter and more efficient accountability and justice.
17. Integration will result in a reduction of errors in criminal justice decision-making due to lack of current criminal history information.

Maricopa County ICJIS Services include[33]:
1. Event Coordination Assistance;
2. Appropriate Information to the Public;
3. External Linkages (Intergovernmental Linkages);
4. Real-time Access to Accurate Automated Data or Documents;
5. Shared Secured Data Facilitation;
6. Management Reports/Statistics;
7. Process Improvement Assistance;
8. Central Lookup for Defendant Data.

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[33] *Ibid.*, at pp. 13-14.

STATE OF ALASKA

The primary goals and objectives defined in the Strategic Plan for Alaska's Criminal Justice Information System Integration were defined as[34]:

1. Leverage resources to identify and locate dangerous, wanted, and missing persons by alerting and enlisting help from more agencies and private citizens through use of a secure intranet and, when appropriate, the Internet, to post electronic fingerprint images, photo-graphs, and other critical information.
2. Improve criminal justice decision-making ability by reliably providing authorized users with faster access to more information of better quality upon which to base arrest, bail, prosecution, adjudication, sentencing, correctional supervision, and employment/licensing decisions.
3. Improve public policy decision-making ability by producing planned, readable, consistent, system-wide criminal justice statistics that are based on shared definitions and occur as a by-product of agency operations, rather than an afterthought that requires additional programming.
4. Balance public safety versus individual privacy interests by enabling all Alaskan criminal justice agencies to achieve full compliance with local, state, and federal laws that require collection and restrict use of criminal justice information.
5. Improve customer service by providing information in an easy-to-read format that can be understood without specialized training, and by reducing the time and cost to the consumer by allowing "one-stop shopping" instead of requiring multiple agency requests and fees for information concerning a single case, event, or person.
6. Make government operations more efficient by eliminating or reducing paper-based case processing and redundant data entry by entities other than the originating agency.
7. Minimize costs of initial development and future enhancements by adhering to clearly defined international, then national, then state standards, unless a reason for departure from a standard is articulated and formally agreed upon by all agencies.

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[34] *Strategic Plan for Alaska's Criminal Justice Information System Integration*, Version 1.1), March 16, 1999, p. 20. Plan is available in PDF format at: www.search.org/integration/Alaska/AKStrategicPlan.pdf?KeyID=38

Concept for Operations for Integrated Justice Sharing v1.0

Michigan CJIS Integration Operational Requirements[35]
(CJIS Policy Council approved 4/19/01)

1. Every Michigan public safety agency shall be able to determine the Michigan correctional status (i.e., incarceration in a state correctional facility, local jail or holding facility, on probation or parole, and the terms and conditions of parole and probation, under community supervision, or some other form of correctional supervision and/or release) within 2 minutes with status currency of 24 hours.

2. Every Michigan public safety agency shall be able to obtain a record through an inquiry by name and date of birth, of a person who has one, within 1 minute and to the officer within 2 minutes, with history currency of 24 hours. The records received should include all those records available in the current LEIN, Criminal History, SOS, NLETS, NCIC and III files.

3. Every public safety agency with a live scan terminal connected to the state shall receive positive fingerprint identification within 2 hours of the submission.

4. Every law enforcement agency shall be able to forward to the appropriate criminal justice agency a warrant request for electronic review, approval and entry into the LEIN system.

5. Every public safety agency should be able to determine pre-adjudication information including pending charges, bail and bond release, and conditions within 24 hours accuracy.

6. Every public safety agency should be able to determine non-criminal case information within a 24 hour currency (i.e., PPO status, civil warrants, divorce case information, diversion status)
   a. This should be accomplished through a web browser front-end which would identify a broad range of records and their availability.
   b. The records returned should have hotlinks to other available datasets both in centrally held database and in other contributing databases. These databases may be other public safety agencies or others.

7. Every public safety agency should have the capability to download records from all centrally held databases with security established according to legal capabilities. Reporting and analysis capability down to the ORI level with security to provide the potential for ad-hoc reporting.

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[35] Correspondence from Michigan CJIS planning office on file at SEARCH.

8. Every public safety agency shall have access to a newly created, centrally held image repository. This repository shall maintain mug shots, palm prints and images of scars, marks and tattoos. This information shall be returned to a search request as a supplement to the CHRIS.

9. Each public safety agency shall have the general ability as an authorized subscriber to information regarding a broad range of actions taken associated with specific people, cases and addresses.
   a. The ability to subscribe to activity on registered records
   b. Or to additional activity on investigation systems (STATIS) and inquiries.
   c. Electronic notification of justice agency actions.
   d. Notification of court actions, prosecutor actions, etc.

10. Each public safety agency shall have a minimum capability to capture and submit electronic records to the state repository.

11. The CJIS policy council or designee will agree upon standards, which must be followed while using the integrated data system. Those standards will include:
    a. Data standards
    b. Operational standards
    c. Security standards

12. Every public safety agency will have available to them all centrally held databases a minimum of 99% of the time.

STATE OF COLORADO

The goals of CICJIS [Colorado Integrated Criminal Justice Information System] … are:[36]

1. To improve public safety by making more timely, accurate and complete information concerning offenders available statewide to all criminal justice agencies and to individual decision-makers in the system including police officer, judges, and corrections officers.

2. To improve decision-making by increasing the availability of statistical measures for evaluating public policy.

3. To improve productivity of existing staff by working towards eliminating redundant data collections and input efforts among the agencies and by reducing or eliminating paper-based processing.

4. To provide access to timely, accurate, and complete information by criminal justice agencies and the public when permitted by article 72 of title 24, C.R.S.

In addition to these general goals, more detailed and performance measured business objectives, technology system objectives, IT project objectives, and department-specific objectives (for Colorado Department of Public Safety, Colorado Judicial Branch, Department of Human Services (Division of Youth Corrections), Department of Corrections) are also provided in the FY 2000-2001 Strategic Plan and Budget Request.[37]

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[36] *Colorado Integrated Criminal Justice Information System (CICJIS) FY 2000-2001 Strategic Plan and Budget Request, IT Plan* which can be found at:
http://www.state.co.us/gov_dir/cicjis/strategicplans/2001_CICJIS_Strat_Plan_for_Budget_ Final1.html

[37] *Ibid.* at pp. 4-11.

STATE OF PENNSYLVANIA

Vision

The JNET Steering Committee established the following vision for the JNET System[38]:

To enhance public safety through the integration of criminal justice information throughout the Commonwealth of Pennsylvania by adopting business practices that promote cost effectiveness, information sharing and timely and appropriate access to information while recognizing the independence of each agency.

Two critical goals were identified while determining the appropriate access to information for the agencies. These two goals, Information Sharing, and Information Recording and Updating, need to be met in order to achieve the JNET vision.

Information Sharing

The immediate priority of the JNET project was to provide a platform for sharing critical justice information among the participating agencies. Information sharing is characterized by:

- · Timely posting of information
- · Secure communication of information
- · Exploitation of current Internet/intranet technologies
- · Use of an interface familiar to potential users
- · Integration of standard web-accessible formats
- · Agency control of access to the data it is sharing
- · Protection of agency back-end systems

Recording and Updating Information

An ultimate goal of the JNET system is to provide a "virtual single system" that records and updates justice-related information shared among the participating agencies. Information recording and updating is characterized by:

- · A single point of entry for shared data items
- · Incremental updating of records as an individual progresses through the justice process
- · Timely entry of information
- · Timely availability of information to all authorized users

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[38] Commonwealth of Pennsylvania Justice Network, *Pennsylvania Justice Network Project Blueprint, Preface – Draft,* Version 3.0, at pp. 3-4.

Outcome Measures and Performance Metrics

These operational requirements define universal objectives for integrated justice, but they must also be tied to specific outcome measures and performance metrics if jurisdictions hope to succeed in their realization of integrated justice information sharing. Moreover, the performance metrics have important implications for CIOs in defining the enterprise-wide architecture that will support integrated justice, as well as other statewide IT initiatives.

Metrics must be more meaningful than merely a tally of processed records, such as number of fingerprint cards, record checks processed, or number of calls dispatched. Performance metrics must be tied to the ultimate mission of the agency and its business architecture. The analysis of performance metrics should motivate process changes that impact the true intent of the agency. Effective agencies, utilizing meaningful metrics, will reduce crime, which will result in safer environments that can be felt by the citizens.

A review of the integrated justice planning initiatives of a variety of state and local jurisdictions suggests the following series of seven broad outcome measures, and a host of specific performance metrics generally associated with integrated justice:

OUTCOME MEASUREMENT CATEGORIES

- š   Improve Data Quality
- š   Improve Public Safety
- š   Improve the Administration of Justice
- š   Improve Information Accessibility
- š   Improve Information Management Efficiency
- š   Improve Public Access
- š   Improve Management Reporting and Statistics

CATEGORY 1: IMPROVE DATA QUALITY

Outcome: *Improve the overall quality of justice-relevant data.*
Measure: % reduction in data entry error rate
Measure: # reduction of manual transactions (replaced by automated data transfers)
Measure: % reduction of complaints due to incorrect information

CATEGORY 2: IMPROVE PUBLIC SAFETY

Outcome: *Record justice-relevant information faster and more accurately.*
Measure: % improvement in arrest-to-disposition matching
Measure: % increase in positive identification rates
Measure: % improved response time in receiving positive identification
Measure: # incidents where wrong person released because of no positive identification
Measure: # incidents where criminal records associated to incorrect person because of no
          positive id

CATEGORY 3: IMPROVE THE ADMINISTRATION OF JUSTICE

Outcome: *Improve the quality of justice.*
Measure: % reduction of continuances due to scheduling conflicts
Measure: % of hearings held as scheduled
Measure: % reduction in average days from arrest to arraignment
Measure: % reduction in average days held waiting for bond decisions

CATEGORY 4: IMPROVE INFORMATION ACCESSIBILITY

Outcome: *Improve complete and timely sharing of justice-relevant data.*
Measure: % reduction in staff time associated with searching multiple automated systems
Measure: % reduction in staff time associated with manually searching for information
Measure: Improved % response time within target range
Measure: Increased # of key decision points where data is available
Measure: Increased # of search criteria available in automated system
Measure: % reduction in staff time associated with automatic notifications of cases status,
          persons rearrested, etc.

CATEGORY 5: IMPROVE INFORMATION MANAGEMENT EFFICIENCY

Outcome: *Reduce staff and information collection/processing costs.*
Measure: # reduction of input systems
Measure: % reduction in staff time associated with entering data in multiple systems
Measure: % reduction in staff time associated with manual data collection
Measure: % reduction in paper transactions
Measure: % reduction in time required to complete a process

Measure: # of business processes positively impacted by automation
Measure: % increase in number of transactions
Measure: % reduction in copying/mailing costs because documents are available
electronically

CATEGORY 6: IMPROVE PUBLIC ACCESS

Outcome: *Provide accurate and timely information to the public.*
Measure: # phone calls required to obtain case information
Measure: % reduction in phone calls required to obtain case information
Measure: % reduction in complaints due to inaccurate/incomplete information
Measure: # of web page hits
Measure: % user satisfaction (survey)

CATEGORY 7: IMPROVE MANAGEMENT REPORTING/STATISTICS

Outcome: *Improve the accuracy and timeliness of management information.*
Measure: # of cases per case type
Measure: # of cases assigned per attorney
Measure: % reduction in days to process case from arrest to disposition

Integrated justice information sharing initiatives must incorporate well-defined operational

requirements, articulate measurable performance requirements for general planning

efficiency and ensure that the needs of users are properly addressed. Performance metrics

should be included in ongoing audit activities to insure the program continues to operate as

intended.

CONCLUSION

Summary

This ConOps defines fundamental concepts, principles, functions and operational requirements for integrated justice information sharing. These universal elements of integrated justice have significant IT architectural implications for state chief information officers. Understanding the roles and responsibilities of local, state and federal jurisdictions helps focus the attention on building an effective architectural foundation to support a broad range of business imperatives, including integrated justice.

A parallel effort of the Architecture Committee of NASCIO has focused on analyzing and defining key elements of statewide IT architecture. This research has resulted in an architectural Tool-Kit that states can apply to E-Government initiatives generally and, by extension through this research effort, to integrated justice information sharing specifically.[39]

Building on the broad architectural foundation established by NASCIO, and applying and validating this adaptive, enterprise-wide architecture against the ConOps for integrated justice, will ensure that the business requirements of justice are appropriately addressed. Moreover, this validation exercise also demonstrates a successful methodology for evaluating specific business requirements against the established enterprise-wide IT architecture. This same approach can apply to other disciplines such as health and human services, education, etc.

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[39] *See* NASCIO, *Enterprise Architecture Development Tool-Kit,* (Lexington, KY: NASCIO, Version 2.0, July, 2002).
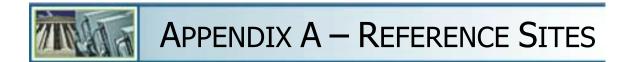
Action Plan for ConOps

The steps in support of this initiative are to validate, disseminate and implement this ConOps for integration justice information sharing, and to develop parallel ConOps documents in other disciplines.

- š **Activity Area:** *Validation* of this ConOps at local, regional and statewide levels. Integrated justice information sharing initiatives are presently operating or in various stages of development in many jurisdictions throughout the nation. This ConOps should be validated in several jurisdictions, representing local, regional and statewide initiatives. Through validation, this ConOps effectively becomes the business function standard against which planning and development can be benchmarked. *Validation was completed in Illinois and Maryland during the Third Quarter of 2003 (Validation Report available).*

- š **Activity Area:** *Endorsement* of this ConOps by major membership groups representing justice system information executives, practitioners, and other key stakeholders.

- š **Activity Area:** *Implementation* of this ConOps through a series of workshops that bring together justice system information executives, practitioners, other key stakeholders, and state CIOs. The workshops should be designed to train participants in implementing the ConOps to assess current IT architecture and to develop strategies to for future development and implementation.

š **Activity Area:** *Dissemination* of this ConOps broadly to justice system information executives, practitioners, other key stakeholders, and state CIOs. This ConOps should be published (paper and electronically) and broadly disseminated throughout the government, justice and IT communities.

š **Activity Area:** *Development* of similar ConOps in other business disciplines. This ConOps has focused on universal elements of information sharing within the business discipline of justice. Similar Concepts for Operation for information sharing should be developed, validated and implemented in other critical business disciplines (e.g., social services, education, transportation).

APPENDIX A – REFERENCE SITES

Related Web Sites

Global Justice Information Sharing Initiative (Global) Advisory Committee (GAC)
  http://it.ojp.gov/topic.jsp?topic_id=8

Integrated Justice Information Systems (IJIS) Institute
  http://www.ijisinstitute.org/

Integrated Justice Information Systems (IJIS) Industry Working Group (IWG)
  http://www.ijis.org/

National Association of State Chief Information Officers (NASCIO)
  https://www.nascio.org/

National Governor's Association (NGA)
  http://www.nga.org/

National Institute of Justice
  http://www.ojp.usdoj.gov/nij/

National Task Force on Interoperability (NTFI)
  http://www.agileprogram.org/ntfi/publications.html

Office of Justice Programs (OJP)
  http://www.ojp.usdoj.gov/

The Federal CIO Council
  http://www.cio.gov/

The Federal Enterprise Architecture Management Office (FEAPMO)
  http://www.feapmo.gov/

SEARCH - The National Consortium for Justice Information and Statistics
  http://www.search.org/

United States Department of Justice
  http://www.usdoj.gov/

Reports

Justice Information Exchange Model
   http://www.search.org/integration/info_exchange.asp

NASCIO Enterprise Architecture Development Tool-Kit v2.0
   http://www.nascio.org/publications/index.cfm#architecture

NASCIO Justice Report - Toward National Sharing of Governmental Information
   http://www.nascio.org/publications/index.cfm - architecture

A Practical Guide to Federal Enterprise Architecture
   http://www.cio.gov/documents/bpeaguide.pdf