IJIS Standards -A Reconnaissance Mission

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Introduction

The following report was created by the Integrated Justice Information System (IJIS), Industry Working Group (IWG), Standards Subcommittee. The purpose of this report is to provide a survey of the initiatives that appear to relate to the areas of interest to the IJIS/IWG in the area of standards initiatives that are likely to have an impact on national IJIS standards and therefore the IWG membership. Research was focused specifically in the area of information technology (IT) system integration and data standards.

This report advises the IWG membership regarding our research and findings. Furthermore, the report presents observations regarding these findings and makes specific recommendations to the IWG membership for consideration and potential action.

Standards – Defined

The International Organization for Standardization (ISO) differentiates between standards and regulations as follows:

A standard is a "document approved by a recognized body, that provides, for common and repeated use, rules, guidelines, or characteristics for products, processes or services with which compliance is not mandatory." There are numerous standards in use covering everything from thermal stability of hydraulic fluids to the size of computer diskettes.

A regulation is a "document which lays down product, process or service characteristics, including the applicable administrative provisions, with which compliance is mandatory." Building codes are an example of regulations.

Standards often begin as guidelines that describe a preferred approach, and later, with widespread adoption, become de facto regulations (e.g., the use of the Critical Path Method for scheduling major construction projects). Compliance with a standard may be mandated at different levels (e.g., by a government agency, by the management of the performing organization, or by the project management team).

Standards exist for a variety of categories that we often see in the integrated justice community including:

- ?? Hard Technology – body armor, handcuffs
- ?? Mugshots – subject placement, resolution, compression format
- ?? Fingerprints – classification approach, compression format
- ?? Document Imaging – compression format
- ?? Wireless Communications – carrier protocols, frequency allocation and use
- ?? Data – Element length and type, Electronic Data Interchange (EDI) transactions, Electronic Fingerprint Transmission Standard (EFTS) Type 2 arrest record

?? Functional – Business rules and operational requirements

There are a number of recognized organizations involved in the standard-setting process. The most well known include:

?? **Institute of Electrical and Electronics Engineers (IEEE)** - Advances global prosperity by promoting the engineering process of creating, developing, integrating, sharing, and applying knowledge about electrical and information technologies and sciences for the benefit of humanity and the profession.

?? **International Organization of Standardization (ISO)** - Promotes the development of standardization and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity.

?? **National Information Standards Organization (NISO)** - Develops and promotes technical standards used in a wide variety of information services.

?? **National Institute of Standards and Technology (NIST)** - Established in 1901, NIST strengthens the U.S. economy and improves the quality of life by working with industry to develop and apply technology, measurements, and standards.

?? **NIST Federal Information Processing Standards (FIPS)** – The FIPS standards and guidelines are issued by NIST for use government-wide. NIST develops FIPS when there are compelling Federal government requirements such as for security and interoperability and there are no acceptable industry standards or solutions.

?? **American National Standards Institute (ANSI)** - Has served in its capacity as administrator and coordinator of the United States private sector voluntary standardization system for more than 80 years. ANSI does not itself develop American National Standards (ANSs); rather it facilitates development by establishing consensus among qualified groups.

?? **World Wide Web Consortium (W3C)** - Develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential as a forum for information, commerce, communication, and collective understanding.

?? **Association for Information and Image Management (AIIM)** - AIIM is a neutral and unbiased source of information that is an ANSI/ISO-accredited standards developer.

?? **Internet Engineering Task Force** - The standards-setting body for the web.

?? **Data Interchange Standards Association** - Supports the development and use of EDI standards in electronic commerce.

?? **Organization for the Advancement of Structured Information Standards (OASIS)** - Creates interoperable industry specifications based on public standards such as XML and SGML, as well as others that are related to structured information processing.

Relevant IJIS Standards Initiatives and Projects

The following section provides a highlight of the relevant IJIS standards initiatives or projects that were discovered as a result of a survey conducted for this report. The information was established by attendance at several national conferences and meetings over the last two years, during conversations with IJIS leaders and practitioners in government and industry, and via Internet searches and research. The list is probably incomplete. However, for the purposes of this report, we believe it represents a significant percentage of the major relevant IJIS related standards initiatives.

The following list should be considered a living inventory that will be updated as new information is received. Additional information, corrections, status, or updates should be communicated to Mr. Jim Threatte at (703) 322-5135 or via email to james.l.threatte@us.pwcglobal.com.

DOJ - Global Justice Information Network

The mission of the Department of Justice (DOJ) Global Justice Information Network (Global) is to facilitate mission critical information exchange among law enforcement, courts, corrections, probation, parole, and other justice- related entities across federal, state, tribal, and local jurisdiction boundaries. The vision has been established as: "Global envisions safer communities… through the development and implementation of a standards-based, information exchange capability that provides timely, accurate, complete and accessible information in a secure and trusted environment." The "Global Justice Information Network: An Introductory Report on Infrastructure" was issued by the Infrastructure/Standards Working Group Global Justice Information Network Advisory Committee in June 2000. It contains detailed information regarding standards-setting responsibilities and infrastructure. Since the Committee is a presidential advisory committee chartered under the Federal Advisory Committee Act, it is anticipated that Global will play a significant role in the establishment of integrated justice standards.

OJP - National Integration Resource Center

On January 10, 2000, The Department of Justice, Office of Justice Programs (OJP) announced that it was establishing a multimillion-dollar research center to promote information sharing among state and local law enforcement and justice agencies - the latest move to infuse federal money into an assortment of criminal justice information technology programs. The National Integration Resource Center (NIRC), which was expected to open in April 2000, will serve as a showcase of best practices in industry and government. It also will help bring together disparate groups, such as the police and courts, to improve communication and data exchange among their information technology systems. The NIRC initiative appears to have been revitalized and renamed the Center for Integrated Justice Information (CIJI).

On January 25, 2001, there was meeting of the Practitioners Working Group (PWG) established by DOJ. One of the major topics of this meeting was to review their goal to guide the development of the CIJI that OJP is creating to promote and provide resources

for the implementation of integrated justice information systems. The PWG used to be called the Town Council, but the town square metaphor has been abandoned and the group renamed accordingly. The PWG is composed of practitioners from all parts of the justice system at the state and local level.

The PWG has been refocused on the task of getting the CIJI web site up and running and on outreach activities based off this web site. OJP has contracted with the University of Arkansas's National Center for Rural Law Enforcement to build the content for the site, and intends to contract with REI to create and maintain the site. The PWG has been asked to define the scope of content to be offered and to assist in marketing the site and related activities. The plan is to have the CIJI web site up and running in 90-120 days.

OJP - Demonstration Projects

The establishment of the National Integration Resource Center coincides with an increase in federal funding for criminal justice technology. In the fiscal 2000 budget, Congress approved $130 million for the Crime Identification Technology Act. The act specifies that the funds be used for purposes such as upgrading criminal history and criminal justice record systems, improving criminal justice identification and promoting compatibility and integration of national, state and local systems. Most of the new funds are earmarked for special programs, including two that OJP would like to become demonstration projects for the NIRC. One is a Kentucky Convergence Program to develop a statewide integrated justice network. The second is an initiative by the Southwest Alabama Department of Justice to integrate data among criminal justice agencies.

NIJ – AGILE

The National Institute of Justice's (NIJ) Office of Science and Technology (OST) has launched a comprehensive program called the Advanced Generation of Interoperability for Law Enforcement - AGILE. AGILE activities include research, development, testing and evaluation, standards identification, outreach, and technology assistance. Through NIJ's Office of Law Enforcement Standards (OLES), located within the National Institute of Standards and Technology (NIST), NIJ has partnered with the National Telecommunications and Information Administration (NTIA) and other key organizations to identify, develop and adopt open architecture standards for voice, data, image, and video communication systems for the public safety community. In order to consider the latest technologies that may impact short and long-term interoperability planning, NIJ/OST released a focused solicitation in May 2000 for research and development proposals that address the area of convergence of wireless and information technologies, software, radios and general interoperability technologies.

NIJ - InfoTech

The NIJ InfoTech project vision is to "provide law enforcement agencies affordable information technology solutions that allow sharing of information across jurisdictional

boundaries". The NIJ, through the Joint (Justice-Defense) Program Steering Group (JPSG), is developing an informational technology system providing inter-regional information sharing among law enforcement agencies (LEAs). This system allows LEAs to share information using existing systems and networks. Each agency decides what is to be shared, and with whom. InfoTech is introducing new technologies and methods for ease of use, security/privacy, and information exchange - while minimizing cost and allowing agencies to set their own policies regarding sharing and security.

NIJ –COMPASS: Community Mapping, Planning, and Analysis for Safety Strategies.

COMPASS is a data-driven decision making project that will work to encourage law enforcement agencies to adopt NIBRS compatible crime data. Cities and counties will build data warehouses which will include mapping data in order to support strategic mapping purposes.

OJP/BJA RISS

The Bureau of Justice Assistance (BJA) administers the RISS Program. Each of the six centers has developed operating policies and procedures that comply with Federal guidelines and regulations. One of the key services provided is the information sharing which includes controlled input and dissemination, rapid retrieval, and systematic updating of criminal justice information.

FBI/NCIC:

It was reported at the January 2001 SEARCH membership meeting that a senior FBI representative reported to representatives at the National Law Enforcement Telecommunication System (NLETS) that all FBI transactions would be established in XML format for both the transactions and responses. It was assumed that this included all NCIC transactions including the III, and NICS.

CJIS/APB Electronic Records Taskforce

In 1996, SEARCH, the FBI Criminal Justice Information Services Advisory Policy Board (CJIS/APB), the NLETS, and the FBI formed a Joint Task Force on Rap Sheet Standardization (JTF) and began working on the development of two standards: one for the improvement of the printing of the criminal history record and one to facilitate the transmission of criminal history information. Initial efforts to define the standard using extensions of the Type-2 record defined by the NIST Electronic Fingerprint Transmission Standard (EFTS) appear to have been abandoned. Recent efforts have resulted in the establishment of an XML-based transmission standard. See LegalXML - Integrated Justice.

FBI Criminal Justice Advisory Policy Board (APB) – Public Safety Subcommittee

The CJIS/APB will review the future of CJIS systems and determine the role of the States and the Internet. The subcommittee will also look at how to take advantage of Web technology, emerging requirements, and security issues.

SEARCH – Data Exchange Points Project

This 18-month project, funded by the Bureau of Justice Assistance, is designed to facilitate the development of integrated justice information systems planning and implementation throughout the nation by identifying, describing, documenting, and defining key interagency information exchanges. To accomplish this, SEARCH developed a proprietary tool to capture the workflow, data elements, data sets and their relationships. They have captured and analyzed data from five states. The OJP noted that this project is intended to develop a study of the type of information that should be exchanged and to review the implications of standards. SEARCH has indicated that the outcome of this project will be published within the next quarter. SEARCH anticipates that this project will lead directly to a LegalXML standard for adult and juvenile arrest cycle transactions - See LegalXML - Integrated Justice Working Group.

SEARCH – Law Enforcement Functional Standards

The functional standards for law enforcement will be developed in conjunction with the IACP, NSA, PERF, NOBLE, Police Foundation, and other law enforcement stakeholder organizations, with SEARCH serving as primary staff for the effort. SEARCH is still in the early stages of organizing this effort. A presentation to the IACP CJIS committee approved this initiative, as did the Communications and Technology Committee and the LEIM Chairs, also of the IACP. SEARCH has discussed this initiative with OJP and reports that they are supportive. They have a concept paper completed and expect to meet with relevant parties in the near future. In addition to law enforcement stakeholders, they also expect to involve private sector solution providers -perhaps through the IWG.

NASIRE – "National Information Architecture Toward National Sharing of Government Information"

This National Association of State Information Resource Executives (NASIRE) report is a high level review of efforts that could be undertaken immediately and completed in two years. The scope of the report addresses a national data sharing system that provides for a national data exchange model. This model allows for participation of all entities at the foundation level of municipal government and supports the exchange of data among municipal entities. The model then provides for the exchange of data hierarchically upward to state entities, among state entities, hierarchically upward to federal entities and among federal entities. The focus of the architecture is on dynamic information presented in the form of structured information. To implement this architecture, a national data element dictionary and definitions for all dynamic documents and transactions will need to be defined.

NASIRE - National Information Architecture Toward National Sharing of Government Information - Moving from Concept toward Reality

Building toward a nationwide critical mass in favor of the NASIRE information architecture, NASIRE will utilize the second year program to pursue the next steps detailed in its first-year report. Those steps include: 1) Evangelization, 2) Solicit Endorsement, 3) Defining Major Information Sharing Documents, 4) Detailed Concept of Operations Document on Information Sharing, 5) Selection of Participants in a Pathfinder Project, 6) Execution of a Pathfinder Project, 7) Development of an Observer Agency Process for the Pathfinder Project, 8) Development of Evaluation Program that Minimally Identifies the Cost to Participate, and 9) Decisive DOJ Actions to Require Information Architecture Adoption within 5 years. Other deliverables may include the development of a template for an architecture and a justice-specific architecture that supports their business functions. NASIRE will be coordinating with the NGA on this project and will likely involve the use of SEARCH staff.

COSCA/NACM – National Consortium for State Court Automation Standards

The Joint Technology Committee of the Conference of State Court Administrators (COSCA) and the National Association for Court Management (NACM) has begun a strategic three-year effort to alter fundamentally the way state courts obtain automated systems. The effort is designed to marshal the courts' resources so as to obtain better and cheaper automation products -- either through in-house development or procurement from vendors -- that take advantage of state-of- the-art technology, reduce the time needed to obtain new systems, improve work processes, and reduce staffing needs. The cornerstone of that effort is the National Consortium for State Court Automation Standards and its initial project to define functional standards for trial court case management systems. The draft for civil and domestic case functional standards has been published. The criminal case functional standards, funded by an OJP grant, should be available in the near future.

JEDDI - Judicial Electronic Document and Data Interchange

The National Center for State Courts (NCSC) reports on their JEDDI web site that Electronic Data Interchange (EDI) is the computer to computer exchange of structured business information in recognized formats. JEDDI is the initial attempt to define broad and general guidelines for the possible use of Judicial Electronic Document and Data Interchange in the judicial environment. Concepts for a Judicial XML Name Space and Data Tag Dictionary are a starting point for a standard name space for court data. It appears that JEDDI has transfigured itself into a similar LegalXML initiative.

LegalXML – Court Filings

Founded in November 1998, Legal XML is a non-profit organization comprised of volunteer members from private industry, non-profit organizations, government, and academia. The mission of LegalXML is to develop open, non-proprietary technical standards for legal documents. The widespread adoption of electronic filing systems offers great benefits for all participants in the legal system. But the existence of multiple, incompatible electronic filing systems creates the potential for a legal system counterpart to the biblical Tower of Babel in which lawyers and other court users (and their computers) are unable to communicate because every court uses a different electronic filing "language." The Proposed LegalXML Court Filing Standard 1.0 has been developed to serve as a universal translator among different electronic filing systems. The Legal XML Court Filing "proposed" standard was released for public comment on March 22, 2000. The COSCA/NACM Joint Technology Committee adopted the "proposed" standard at that time.

LegalXML – Integrated Justice

The LegalXML Integrated Justice Work Group focuses on documents (real documents, as well as virtual electronic documents) that are routinely exchanged between justice agency, court, and non-justice stakeholder systems. A working draft standard for transmission of the interstate rap sheet, developed by the NLETS for the JTF has been submitted for their review. The standard was open for discussion through December 2000. The interstate rap sheet standard uses the "schema" approach of XML that is reported to be different than the "DTD" approach used by the Court Filings Standard 1.0. Additionally, it was reported that a comparison of the data element names reveals a different naming convention for the XML tags.

Participants at the last work group meeting endorsed the overall approach of focusing on the documents that are exchanged in justice information processing. This would build, at least initially, on the OJP/BJA-funded Data Exchange Project being conducted by SEARCH – see SEARCH – Data Exchange Points Project.

APCO Project 36

The Association of Public-Safety Communications Officials (APCO) Project 36 is intended to enhance the ability of communications centers to share information through a standard Computer-Aided Dispatch (CAD) data exchange. Because neighboring communications centers often have disparate CAD systems, sharing incident information can be impossible or difficult. For this reason, the development of a CAD interface standard would greatly benefit users and vendors alike. Many of the major CAD product vendors are participating in this project.

IEEE Standard 1512-2000: Standard for Common Incident Management Message Sets for Use by Emergency Management Centers

This IEEE standard addresses the exchange of vital data about transportation-related incidents among emergency management centers (also known as CAD centers) through common incident management message sets. Message sets specified are consistent with the National Intelligent Transportation Systems Architecture (NITSA). This initiative was begun by the Department of Transportation in support of its mission for NITSA

Capital Wireless Integrated Network (CapWIN)

The Capital Wireless Integrated Network (CapWIN) project is a partnership between the States of Maryland and Virginia and the District of Columbia to develop an integrated transportation and criminal justice information wireless network. This unique project will integrate transportation and public safety data and voice communication systems in two states and the District of Columbia and will be the first multi-state transportation and public safety integrated wireless network in the United States. The project will have national implications in technology transfer including image/video transmission and the inclusion of transportation applications in an integrated system. Project sponsors include:

- ?? National Institute of Justice, Office of Science and Technology
- ?? Public Safety Wireless Network (PSWN)
- ?? Maryland State Highway Administration
- ?? Virginia Department of Transportation
- ?? U.S. Department of Transportation (FHWA)

Kentucky Convergence Program Practitioners Initiative/ Practitioner's Working Group

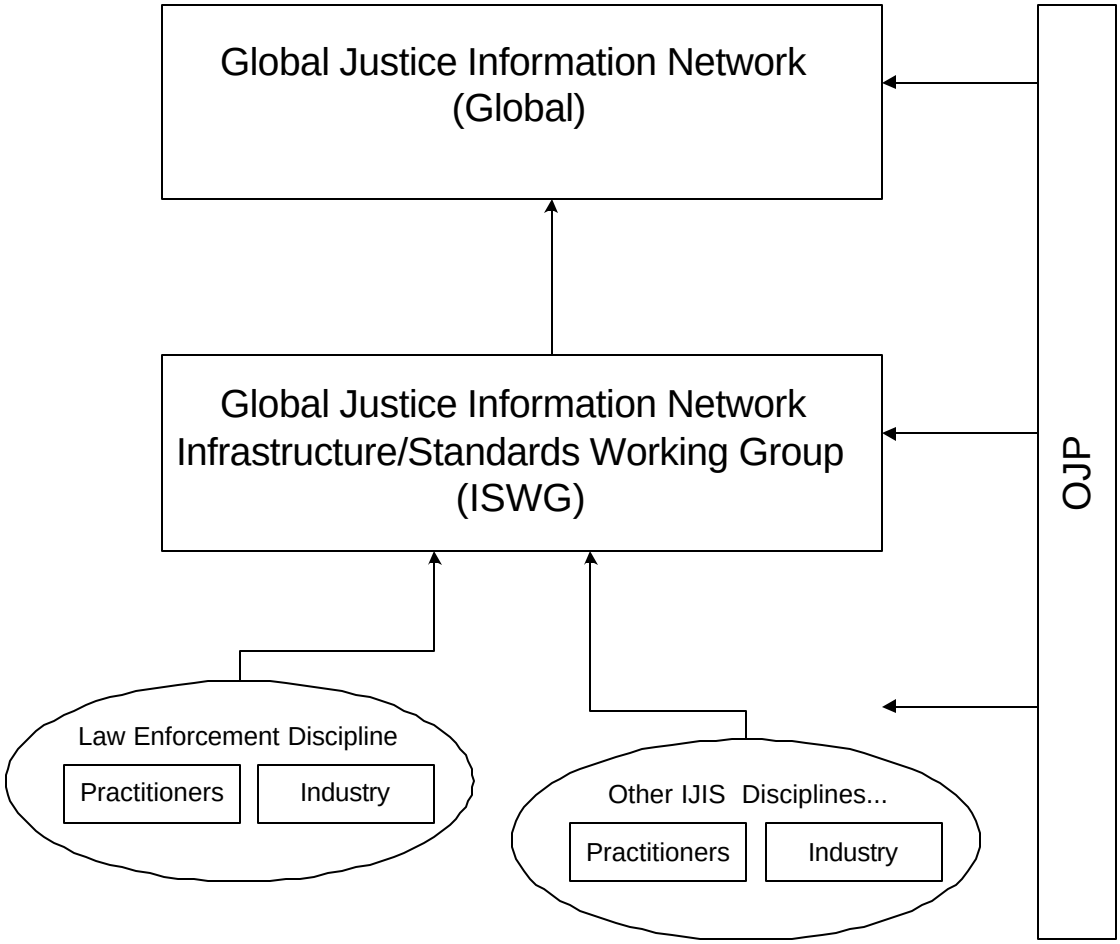
Three separate initiatives appear to be converging. The outcome of this convergence may result in a significant impact on the approach for establishing standards for the IJIS community. A practitioners group has been formed that represented the interests of the Kentucky Convergence Program. This group gathered together several other practitioners especially ones involved in OJP and NIJ projects such as InfoTech, AGILE, CapWIN, and ARGIS.

The initial direction of this group was defined to extract and report on a set of defacto standards from existing or emerging projects in the area of integrated justice systems. A concept introduced by this group was to utilize the standards-making expertise and recognized role of the NIJ and its Office of Law Enforcement Standards (OLES) at NIST for the establishment of a set of national standards for the integration of justice data. Recently the Global Justice Information Network (see above) was reorganized to fall under the purview of the OJP. Since NIJ is also under the purview of the OJP, it was conceived that the standards-making function required to support Global can now more easily be coordinated by the NIJ.

The initial working concept was that the defacto standards will be shared, jointly reviewed with the participation of the IJIS/IWG for consideration and managed by the

process and oversight of the NIJ-OLES/NIST. The practitioners group is being lead by the Kentucky Unified Criminal Justice Information System (UCJIS) project team. A peer group of the IJIS/IWG is the IJIS Practitioner's Working Group (IJIS/PWG). This group was previously named the Town Council. The IJIS/PWG does not appear to have any standards initiatives in process. Recent discussions with members of the Kentucky Convergence Program and the OJP indicate that the IJIS/PWG will be taking on a much less active role in the OJP IJIS initiative. Their focus will be primarily on the establishment of a web site that will be deployed at www.ciji.gov.

On March 1&2, 2001, a meeting was held that was sponsored by the OJP that included the Kentucky Convergence Program practitioners as well as participants from the Global Justice Information Network. Although a formal report regarding this meeting has not been published yet, it is apparent that this group has dedicated itself towards the task of defining a process and authority for some level of IJIS standards. By the end of the meeting, the group had focused on the information exchange component of IJIS standards and established a process by which Justice Information Sharing (JIS) standards could be established, reviewed and recommended to the IJIS community. This process is based on the following model:



This model incorporates the following key responsibilities:

Disciplines
Each discipline will use practitioners familiar with the discipline to define the standards that are applicable to that discipline. Practitioners will be encouraged to involve industry as well as others in related disciplines including non-justice disciplines such as transportation, NASIRE, and welfare. The disciplines will submit standards to the Global Justice Information Network, Infrastructure/Standards Working Group for review and potential endorsement.

Global Justice Information Network, Infrastructure/Standards Working Group (ISWG)
This group will be responsible for the establishment and publishing of a process that will be used to adopt model JIS standards. When a discipline submits a standard, the ISWG will review the proposed standard and will determine if the standard was established in accordance with the defined process.

If the ISWG determines that the proposed standard has adhered to the published process, the proposed standard will then be circulated to the wider Global IJIS community for review and comments. Once all comments have been reconciled with the discipline, the ISWG will forward the standard to Global for placement into a standard repository and recommend that the standard be endorsed by Global.

Standards submitted by a discipline that do not adhere to the process established by the ISWG will be returned to the submitting discipline with comments. If a standard is returned by the ISWG to the discipline, the standard may be updated by the discipline to address the comments or concerns indicated by the ISWG and then resubmitted for endorsement by the ISWG as described above. If the discipline chooses not to address the ISWG concerns, the standard will remain unendorsed. Despite the fact the standard is not endorsed, the ISWG will place the standard in the Global repository with a note that it is not an endorsed standard.

Global Justice Information Network (Global)
Global will receive endorsed standard recommendations from the ISWG. Global will take whatever action is allowed to have these standards formally certified and will promote the use of these standards widely throughout the IJIS community.

OJP
The OJP will provide technical assistance, staff resources and funding to support the standards development and certification process.

This practitioner group is refining and finalizing its report and recommendations from the March 1&2, 2001 meeting. Members of the group will be preparing a plan to support the process and will establish a budgetary estimate for submission to the OJP. The group hopes to have all of these items completed for presentation at the next Global meeting on March 15, 2001 with a presentation planned regarding any outcome to participants of the "XML workshop" meeting that will take place on March 29, 2001.

Although this group only addressed JIS standards, they recognized the urgent need to also establish an approach for addressing all IJIS standards including policy, functional, technology, performance, and other standards.

Who and How IJIS Standards are Established

The following section represents a perspective on who sets standards and how those standards are set within the context of integrated justice. A classification approach is defined and then critiqued.

Classification of IJIS Standards

The following classification view was articulated by staff at the OJP who proposed that integrated justice standards can be described and assigned responsibility based on one of three major categories – Technology, Functional, and Data.

Technology standards are established by the NIJ with its Office of Law Enforcement Standards (OLES) at the National Institute of Standards and Technology (NIST). The establishment of hard technology standards should be accomplished using the NIST process and OLES/NIST technology resources. For example, NIJ Standard–0307.01 establishes performance requirements for double-locking metallic handcuffs. Other standards, such as the NIST Electronic Fingerprint Transmission Standard (EFTS), can be developed by any legitimate entity and subsequently adopted under a NIST process.

Functional standards are established by the practitioner group(s) most familiar working in a particular subject domain. For example, the National Center for State Courts (NCSC), in coordination with the Conference of State Court Administrators (COSCA) and the National Association for Court Management (NACM), is developing functional standards for court case management for Civil, Domestic, and Criminal processing. The Corrections Technology Association and the American Probation and Parole Association may establish functional standards in their area of functional domain. SEARCH is actively engaged in conversations with the IACP to develop functional standards for the law enforcement domain.

Data standards are currently being established by a hodgepodge of initiatives and projects by multiple organizations without any apparent coordination. The survey conducted to prepare this report revealed several initiatives that will result in the establishment of IJIS data standards. For example, there are apparently differences already emerging between peer components even within the LegalXML family. The approach and data tag approach used by the rap sheet standard appears to be out of step with the court filings standard.

Critique of IJIS Standards Approach

It is important to note that standards or the lack thereof have a great impact on the potential implementation of integrated justice information systems. The absence of standards leads to a much higher cost on a national basis than if it were possible to reuse

components and objects that are developed in accordance with standards. Further, the role of the IJIS industry providers in the implementation of standards is critical. If standards are correctly drawn under the right leadership and coordination, and if their adoption is influenced by such means as grant conditions, it is infinitely more likely that the many companies who, in the end, will write software will embody such standards and will pay proper attention to these standards.

Lacking the requisite discipline in the development and implementation of standards will not necessarily result in their adoption. As an example, there has already been a great deal of rhetoric and specific work performed regarding the use of XML and schemas, yet few companies have actually implemented this technology in current products. Industry cooperation and involvement is critical to the rapid development and adoption of standards. This is especially true for integrated justice environments as opposed to component systems.

In the area of hard technology standards, most of the people we have spoken with agree that a rigorous, formal, and proven methodology must be employed by a recognized authority in order to establish and certify hard technology standards such as body armor. Additionally, it was agreed that these standards need to be set by an independent body consisting of premier science and technology experts.

However, some have suggested that a recognized authority and proven process is not required for the establishment of other kinds of standards – such as data element and data naming standards. It is the opinion of this subcommittee that a formal, mature process should be employed as a management method and as an oversight measure by a mutually agreed standards-setting authority for all standards. The process should ensure that all of the appropriate steps and all of the appropriate parties are involved in the establishment, review, and field-testing of a standard before it is adopted.

Furthermore, it is the opinion of this subcommittee that an independent body consisting of premier science and technology experts is not required for the establishment of IT integration and data standards. We believe that with the participation of a range of appropriate practitioners and industry representatives, using a proven standards-setting process, managed by an independent and respected standards-setting authority, a mutually acceptable standard will emerge.

Some believe that rigor and oversight is not required for functional standards. We disagree. One concern that the subcommittee has is that functional standards, such as the COSCA/NACM court case management standard, go beyond simple business rules and operational procedures. For example, the functional standards draft document already produced by the NCSC identifies many elements of technology considerations such as the need for a table-driven system and the use of bar codes for property management. Although technology considerations are not stated as standards, the establishment of functional standards has a spillover into system definition considerations, IT standards and data standards. In fact, the report itself notes the dependent relationship between data standards and functional standards when it states, “Since the functions that most case

processing systems perform are determined by the information that users need from a system, the ideal precursor for functional standards would be output data standards. The Consortium investigated this approach, found that it would lead to an unwieldy list of data elements, and concluded that the more effective approach would be to set forth the functions that case processing systems should support."

Therefore, we believe that functional standards initiatives should also be subject to the discipline and independent management oversight of a standards-setting process that incorporates the involvement of all stakeholders and the coordination with other standards-related efforts.

In order for the NASIRE document exchange architecture to become a reality, a national data element dictionary and definitions for all dynamic documents and transactions will need to be established. This will require the coordination and consent of multiple entities including law enforcement, the courts, prosecutors, corrections, lawyers, and more. The probability for success in establishing the data standards will be significantly increased if there is an authority that is independent of political and jurisdictional affiliations that provides management and oversight for the establishment of the standard. Furthermore, success will be greatly increased by using a mature, proven, and mutually approved formal approach for the establishment of the national data standard.

Findings and Conclusions

The following section presents the findings and conclusions of this report that were reviewed with the entire IWG membership and subsequently tailored to reflect the group consensus.

Findings

1. There are many Integrated Justice Information System (IJIS) standards initiatives underway that directly relate to the interests of the IJIS community. Many of these initiatives are functionally related and are operating without executive leadership that ensures that their goals, objectives, and results will be shared and merged.

2. Many of the current initiatives are operating independently with a narrow set of stakeholders and therefore may result in sub-optimal decisions. The expanded set of stakeholders in integrated justice would include such domains as prosecutors, corrections officers, welfare offices and transportation departments.

3. To the extent that the current initiatives remain only loosely coordinated and not completed under the guidance and direction of a single standard setting authority with the documented participation of all stakeholders, there is a risk that standards will not eventually be adopted by the IJIS community, including the industry participants, and will therefore not achieve the hopes of all stakeholders in facilitating the implementation of integrated justice information systems.

Conclusions

1. It is the position of the IJIS IWG that by managing, coordinating and communicating among the various IJIS related standards setting initiatives, we can achieve the mutual victory of a comprehensive, mutually approved national IJIS standard. It is our view that a comprehensive national IJIS standard will consist of many components including policy standards, functional standards, technical standards, data standards, and performance standards. It is the belief of the IWG that a majority of the critical components of IJIS standards should rapidly converge. This convergence will occur when the definition of the data elements that comprise justice-related documents and transactions is established. This convergence occurs when a comprehensive Justice Information Sharing (JIS) data model is defined and when the definitions of documents and transactions that are exchanged among justice entities is established.

2. The majority of benefit to the national IJIS program will be recognized by delivery of the following critical IJIS standards:

- ?? Data element standards that define the details of each data element including attributes such as length, data type, edits, and a nationally accepted data element naming and tagging convention.
- ?? A justice data model that depicts the relationship of the various data elements in order to paint the larger picture so that all members of the justice enterprise can see how their data is related to the overall community.
- ?? Data exchange standards that define the documents and information that are shared between justice entities. This would include the data elements contained within each of the documents and transactions along with the events that trigger the sharing of information.

Recommendations

It is the recommendation of the IWG Standards Subcommittee that the following actions be taken in order to achieve the above positive outcome:

1. A complete inventory of all IJIS-related initiatives should be conducted and documented.
2. A single authority responsible for the coordination of IJIS standards should be established. This authority could be a justice-related, independent organization such as the Infrastructure/Standards Working Group of the Global Justice Information Network Advisory Committee. Alternatively, the authority could be an independent standards-making body recognized for the impartial coordination of standards using a proven and structured methodology.
3. The selected authority would be responsible to ensure that a mature, proven process was used to establish IJIS standards. The authority would also be responsible for the overall management oversight of the standards-making process to include the involvement of all stakeholders. The organization selected must have the authority for oversight of the standards-making process and be

authorized to certify IJIS standards. The authority for certification by the selected body should carry the weight of OJP endorsement.

4. The priority for IJIS standards should concentrate on the JIS components including a comprehensive national justice data element dictionary, a justice data model, and definitions for all justice dynamic documents and transactions.
5. Federal grants provided to law enforcement and justice organizations should require coordination and conformance with the resulting IJIS standards that are established.

The model suggested above does not break new ground. The establishment of the Electronic Fingerprint Transmission Standard (EFTS) should provide an instructive model on how to proceed and the potential outcome benefits. The EFTS standard was apparently established using a cooperative process involving practitioners, industry, management, and oversight to accomplish a NIST certification. Once the NIST EFTS standard was established, federal grants required that all Automated Fingerprint Identification Systems (AFIS) procured using Federal grant funds adhere to the NIST EFTS standard. Industry modified their products as required to support the new standard. Practitioners then had the option of selecting products from a variety of providers and even mixing and matching provider components that adhered to the EFTS standard.

Although this report is geared toward the national standards initiatives and projects, it is assumed that these national standards will be developed in concert with appropriate representatives of the State justice communities. Just as industry representation should be involved in the review and establishment of standards, State practitioners must also be involved in the process. Many States, such as North Carolina, have developed or are developing standards to which State agency projects must adhere. In some cases, a governing board oversees compliance. From a data standards perspective, a number of States have developed data dictionaries either on a Statewide basis or within a community of common interest such as the criminal justice community.

We believe that this model is a win-win for industry as well as the practitioners. It should result in more efficient use of public dollars for purchasing the technology needed to support IJIS components. It should also result in a better defined and predictable market that will encourage industry.