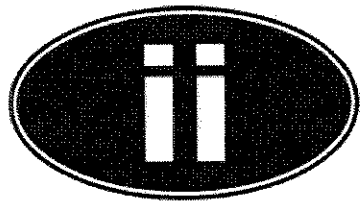
QUESTIONS & ANSWERS
RFP # 14-007-02
INFO-HUB SYSTEM INTEGRATION

PART # 2



IJIS Institute

County Criminal Justice Coordinating Committee, Shelby County Tennessee

Technology Assistance Engagement Report

High-Level Vision, Plan, and Recommendations Regarding the Development and Issuance of RFPs in Support of Their Integrated Criminal Justice Information Project

Draft Report Submitted	February 11, 2011
Consultants	Jeff Hellzen Public Consulting Group, Inc. George W. Hogshead The Amicus Group
IJIS Institute Staff	Scott Parker Program Manager, Public Safety Information Sharing and Interoperability

U.S. Department of Justice
Office of Justice Programs
810 Seventh Street, NW.
Washington, DC 20531

The Honorable Eric H. Holder, Jr.
Attorney General

The Honorable James Cole
Deputy Attorney General

The Honorable Thomas Perrelli
Associate Attorney General

The Honorable Laurie Robinson
Assistant Attorney General

The Honorable James H. Burch II
Acting Director, Bureau of Justice Assistance

Office of Justice Programs
World Wide Web Home Page
www.ojp.usdoj.gov

Bureau of Justice Assistance
World Wide Web Home Page
www.ojp.usdoj.gov/BJA

For grant and funding information contact
U.S. Department of Justice, Office of Justice Programs
Funding Opportunities
http://www.ojp.usdoj.gov/funding

BJA Bureau of Justice Assistance

This project was supported by Grant No. 2009-DB-BX-K107 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not represent the official position or policies of the United States Department of Justice.

Table of Contents

List of Figures and Tables

1 Executive Summary

The County Criminal Justice Coordinating Committee (CCJCC) of Shelby County, Tennessee, is currently engaged in a process to purchase and deploy, via a Request for Proposal (RFP) process, a Criminal Courts Case Management System, an Offender Management System and possibly a Case Management System for the Public Defender. The County also plans to acquire the services of an independent project manager, consultant group and/or system integrator to assist them with the management and implementation of the aforementioned project(s).

Shelby County requested a Technology Assistance (TA) engagement to assist them by providing a high-level vision, plan, and supporting recommendations regarding the development and issuance of RFPs in support of their project. This vision, plan and recommendations support the goal of establishing an enterprise-level architecture and integrated approach that will establish a comprehensive information management environment, and enable both the sharing and the exchange of information of interest among and between justice and public safety jurisdictions and agencies. This TA was conducted remotely via teleconferences. Shelby County also provided numerous reference materials and documents. The report provides discussion, including: current assessments, future vision, plan and recommendations for each major system/component.

For the purposes of this executive summary, the assessment, or vision for new components and recommendations highlights follow.

Criminal Courts Case Management System

- Assessment
  - Justice Support System (JSS) application and the Justice Support System Interface (JSSI), in use by the two criminal courts, needs to be replaced due to its outdated technology, maintenance difficulty and shortcomings to meet the needs of the criminal courts in a modern criminal justice.
- Recommendations
  - Acquire and deploy a Court Management System.
  - With respect to the acquisition and deployment of a new Criminal Case Management System (CMS) and the release of an RFP, it is important that the judges, clerks of court and court administrators of the respective courts discuss and agree with or otherwise modify or reject the statements of "differences" presented herein. The outcome of these discussions will establish the "rules of engagement" regarding how the new Court CMS is to be acquired and deployed to serve needs of the respective jurisdictions of court.
  - Prior to preparation and release of an RFP, the respective courts should sponsor and participate in "Provider Days" to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each court's needs.
  - The criminal courts should embrace the deployment of the Integrated Criminal Justice Information Project (I-CJIS) Master Person Index Service on some form of I-CJIS Integration Hub.
  - The criminal courts should embrace the deployment of the I-CJIS Document Imaging and Workflow Management Service on some form of Integration Hub, using the existing OnBase™ product license.

Offender Management System

- Assessment
  - The Offender Management System includes the use of the Jail Management System (JMS) and the Inmate Management System (IMS) applications. Both the JMS and the IMS need to be replaced due to being outdated, not meeting operational or management needs and having a high cost of owning, operating, and supplementing missing critical functionality (booking photos/mug shots, Livescan fingerprint capture, management of keep-separates, inmate classification and medical alerts). Additionally, coordination and information sharing between the jail and the corrections center would be greatly enhanced if both were using the same system.
- Recommendations
  - Acquire and deploy a Corrections Management System to handle the jail and corrections center.
  - With respect to the acquisition and deployment of an Inmate Management System to serve the needs of the county jail and county prison, as well as the release of an RFP, it is important that the directors and staff of both agencies discuss and agree with the concept and approach of acquiring a single IMS to address the operational and business needs of the respective agencies.
  - Prior to preparation and release of an RFP, the respective agencies should sponsor and participate in "Provider Days" to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each agency's needs.
  - The jail and prison agencies should embrace the deployment of the I-CJIS Person Index Service on some form of I-CJIS Integration Hub.
  - The jail and prison agencies should embrace the deployment of the I-CJIS Document, Imaging, and Workflow Management Service on some form of Integration Hub, using the existing OnBase™ product license.

Pretrial Release / Adult Probation Supervision Case Management System

- Assessment
  - In most jurisdictions, there are two typical separate processes that address the investigation and supervision of individuals in either or both of their pretrial criminal defendant or their post-trial convicted stages of criminal due process. These are the pretrial release supervision and the probation supervision business functions. What they do is very similar in terms of business functions and processes, however, the defendant vs. offender status of a person, and the power of arrest and other authorities of the staff of each agency are materially different. In some jurisdictions, the probation agency handles ***both*** the responsibilities of pretrial and the probation supervision. The important thing from an I-CJIS viewpoint is that it is possible, subject to the constraints of local legal culture and historical and traditional practices, to procure and deploy a single commercial off-the-shelf (COTS) solution to address the common business needs of both, and to do so without violating the operational independence or sovereignty of either agency. There are providers offering top-shelf court CMS solutions in today's market, who provide an integrated module(s) and solution to address these common agency business needs. There are also providers that offer stand-alone

solutions to these needs that may be interfaced, or even better, integrated with a court CMS solution.

- Recommendations
  - Acquire and deploy a Pretrial and Probation Services Management System.
  - With respect to the acquisition and deployment of a Pretrial and Probation Services CMS and the release of an RFP, it is important that the directors and staff of both agencies discuss and agree with the concept and approach of acquiring a single CMS to address the operational and business needs of the respective agencies.
  - Prior to preparation and release of an RFP, the respective agencies should sponsor and participate in "Provider Days" to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each agency's needs.
  - The pre-trial and probation agencies should embrace the deployment of the I-CJIS Person Index Service on the I-CJIS Integration Hub.
  - The pre-trial and probation agencies should embrace the deployment of the I-CJIS Document, Imaging, and Workflow Management Service using the existing OnBase™ product license and supported on some form of Integration Hub.

Public Defender Litigation Case Management System

- Assessment
  - The Public Defender's Office uses the PowerBuilder application. As the current application is no longer supported by the original developer/provider, a new CMS is needed. Additionally, the application's 4GL platform is no longer mainstream (adding to support complexity and cost. The availability of tools for report generation and cross-system integration and the smaller pool of available PowerBuilder resources also necessitates replacement.
- Recommendations
  - Acquire and deploy a Public Defender Litigation Case Management System.
  - With respect to the acquisition and deployment of a Public Defender Litigation CMS and the release of an RFP, it is important that the Public Defender and staff discuss and agree with the concept of acquiring a CMS to address the operational and business needs of the office.
  - Prior to preparation and release of an RFP, the public defender's office should sponsor and participate in "Provider Days" to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to needs.
  - The Public Defender CMS should embrace the deployment of the I-CJIS Person Index supported as a service on some form of I-CJIS Integration Hub.
  - The PD should embrace the deployment of the I-CJIS Document, Imaging and Workflow Management Service as a service on some form of I-CJIS Integration Hub, using the existing OnBase™ product license.

The following items are portions of the plan and vision for the future environment only and as such, do not have a "current assessment."

Independent Project Manager, Project Manager Office (PMO), Consultant Group and/or System Integrator

- Vision

- The term "independent Project Manager (PM)" speaks to the need for independent, experienced, objective, methods-driven management of large, complex, multi-jurisdictional, programs and projects at the Federal, State and local levels of government. Experience and the lessons learned of I-CJIS deployments over the last four decades tell us that one of the critical factors for the successful completion of an I-CJIS project is the existence of an Independent PM.
- An Independent PM Office establishes the organization, staffing and resources essential to the accomplishment of the independent PM mission. A key attribute of this charter and organization is the obligation of all participating agencies to put "skin-in-the game" through the appointment of a senior member of their management team to serve as each agency's "coordinator", working closely with the Independent PM Office in executing each agency's responsibilities under a specific program or segment of the overall project plan.

- Recommendations
  - Define and approve an Independent Project Management Office (PMO) structure and charter under the auspices of the CCJCC — as soon as possible.
  - Engage the services of an Independent PM, to provide overall management and coordination prior to the onset of planning and procurement activities. Delegate all planning and procurement responsibilities to the Independent PM. A qualified project manager should possess a combination of knowledge and experience, in the following priority order: 1) prior successful experience with the management of a large, complex, multi-jurisdictional program or project at the local, State or Federal levels of government; 2) commensurate education or training in criminal justice information technology or related fields; and 3) certification in project management such as that of a certified Project Manager Professional (PMP), or equivalent experience thereof. An independent PM would be responsible for providing the CCJCC a dedicated resource to manage the planning and coordination of all project activities (tasks, timing and resources) required to implement the future I-CJIS environment, including: requirement definitions; integration architecture and solution designs; technology acquisitions (RFP); technical integration (exchanges, data conversions, etc.); technology deployments (bill of materials); and, testing, training and implementation. In this approach, the PM would be directly responsible for preparing and maintaining project plans, project communications, oversight of selected solution providers and project status reporting. As an extension of this, as a recommended approach, the services of the independent PM could be augmented with specific technical expertise through the engagement of qualified consultants or consultant groups on an as-needed basis. It is important to note that the independent PM would not be the contracting agent with selected solution providers and technical consultants. As such, the independent PM would not be accountable for the contractual performance of these selected providers. These relationships would remain with the county.
  - Alternate recommendation (to the independent PM recommendation above): If the CCJCC decides there is a need to hold an Independent PM accountable for the contractual performance of all providers and consultants, then the System Integrator (SI) approach should be considered. In this approach, the SI would provide the same services as the Independent PM, but would also directly engage solution providers and consultants by subcontracting their services under the

provisions of a "prime" contract with the county. This would make the SI accountable for the contractual performance of the selected providers, with the county holding the SI accountable for overall performance. To help put the SI approach in context, it should be considered in the same manner as a decision to engage a general contractor in the construction of a building, versus independently managing the performance of the various disciplines (plumbing, electrical, etc.) with multiple subcontracts. While both the SI and Independent PM approaches have their respective merits, the simple differentiation can be viewed as the shift of performance risk and its economic impacts. The SI approach will reduce the instance of finger pointing by giving the county a single and contractually obligated point of accountability. However, this will have an impact of higher cost to the county to offset the increased risk taken in the SI approach.

- Recruit a qualified PM prior to the onset of planning and procurement activities and delegate all planning and procurement responsibilities to the Independent PM.
- Identify and formally appoint a coordinator for each participating agency to work in partnership with the PM in accomplishing the I-CJIS goal.
- The Independent PM should develop and submit the following to the CCJCC for review and approval: Detailed Project Plan, Communications Plan, Change Management Plan, Quality Management Plan and a Solution Development Framework (SDF).
- Use the IJIS Institute's Pre-RFP Toolkit that is available on CD media.

Enterprise Level Services

- Recommendations
  - The County should champion, sponsor, acquire and deploy an enterprise-level I-CJIS **Master Person Index Service**. This is separate from, and in addition to, the person indexes provided as part of the functionality of COTS-based or in-house developed CMSs. The purpose of the I-CJIS Master Person Index Service is to establish a persistent, consistently managed central repository of historical information about all persons who come in contact with the county criminal justice process. Access to the information would be secured by authorization and authentication rules and controls.
  - The county should expand the use of the current licensed document, imaging and workflow management product, known as **OnBase™**. The current product license should be expanded to establish an enterprise-level service running on the Integration Hub, supporting all of the initial and future components of the I-CJIS. This should be done separate from and/or in addition to the use of imaging and document management capabilities that may be provided as part of the functionality of the COTS-based CMS products procured by the county. The purpose of this service is to provide an enterprise-level, uniform, central set of electronic document, imaging and workflow management services to all participating I-CJIS.

Integration Hub

- Vision
  - A hub architecture and approach is intended to eliminate the need to engineer, implement and maintain individual, closely coupled interfaces (as is the case with the current legacy systems) between the components, and between those and additional components to be added to the I-CJIS in the future. The deployment of

COTS-based, licensed software solutions from a potential range of component providers naturally drives the county in this direction, given the complexity of developing, tuning and maintaining closely coupled interfaces between proprietary, licensed provider products involving separate on-going software maintenance agreements. Loosely coupled, "open" interfaces would seem a prudent approach, but one not without its own set of issues and complexities. The eventual deployment of some form of hub architecture (there are many technical approaches and "stages") would provide for flexible and adaptable "sharing" and "exchange" of information between all of the I-CJIS components. Further, the hub could provide additional sharing and exchange with: Federal, State and regional criminal justice, emergency management and homeland security systems; other emergency management and public safety systems in Shelby County; handheld, secure wireless end user devices, as well as public domain intelligent cell phones; other municipal criminal justice and public safety systems within Shelby County and other criminal justice, emergency management, and public safety systems in the State.

- Recommendations
  - As the first step, the respective agencies should sponsor and participate in "Provider Days" to obtain as much information as possible about the state of integration hub technology and the availability of COTS-based solutions. Thereafter, the PM should prepare a report presenting initial findings, conclusions and recommendations. The recommendation is to suggest the best initial concept and step-by-step approach, based on the tradeoffs between the level and quality of services, technical complexity, risk and cost.
  - With respect to the acquisition and deployment of an I-CJIS Integration Hub and the release of the first CMS RFP, it is important that the PM present the above referenced report to the CCJCC and the directors and staff of all I-CJIS agencies to discuss and agree in principle (subject to further definition of a final architecture and estimated costs for engineering, deployment and on-going maintenance and support) on the best concept and approach to deployment of an I-CJIS Integration Hub, as the primary vehicle for delivery of I-CJIS services, information sharing and exchange.
  - After the CCJCC adopts (in principle) the concept of the deployment of an I-CJIS Integration Hub, the Independent PM should: confirm that the technical concept, architecture and specifications for the initial Integration Hub are defined, documented and published; confirm that the build-buy decision regarding a COTS-based approach to deployment of the Integration Hub has been made, and the physical solution is fully understood, and at least demonstrable to potential COTS providers in a laboratory setting; develop an estimate of the cost to acquire, engineer, deploy and maintain/support the I-CJIS Integration Hub; and present the information developed to the CJCC for approval and authorization to proceed with the next step in compliance with the to-be-developed I-CJIS implementation plan. Ensure that the first three steps are completed before releasing the first RFP to procure the first component of the I-CJIS. The details of steps one and two should be incorporated into the RFP as a set of requirements.
  - All RFP's for application solutions should include the information concerning the County's I-CJIS Integration Hub Architecture, as envisioned to be deployed. It should stipulate the technical requirements and capabilities necessary to integrate

each COTS-based provider solution with the I-CJIS Integration Hub, either initially or at some future date.

I-CJIS Construction

- Recommendations
  - A structured approach for the management and deployment of the I-CJIS system is recommended to: 1) set a logical sequence for design and development of an "integrated" set of new application and technology solutions; 2) establish manageable groups of work in discrete projects; 3) provide flexibility in the allocation of resources to the projects (leveling the spike in overall I-CJIS project activity); and, 4) where possible, to expand the periods of benefit to the user communities through earlier implementation. ***The specific plan and schedule for the rollout, or "go-live," of each component and system will need to be determined by the independent PM and the consultant group/SI.***

I-CJIS Procurement

- Recommendations
  - When conducting any procurement, it is a best practice to plan for and allow for 2-5 changes (addenda) to the RFP. Addenda to an RFP allows the procuring entity to accommodate unexpected or unrealized changes or additions to the original requirements encountered during the procurement process.
  - Consider using a multi-step approach to the procurement – having the RFP respondents submit a draft version of their vision for review by the county to "flesh out" any misconceptions or differences in the provider's vision of what the RFP intends to procure, followed by a final response to incorporate changes to identified deficiencies or comments from the county to the draft responses.
  - Allow for confidential provider discussions with the county. By giving the RFP respondents a chance to speak with the county about areas of misunderstanding or additional questions regarding the RFP, the county can receive more responsive or compliant RFP proposals from its providers.
  - Don't put too much weight on the cost portion of the proposals. Concentrate on getting the features and functionalities you need and want first, then proceed to negotiate the business arrangements.
  - Define and determine the evaluation criteria before you write the RFP.

2 Introduction

2.1 The Need for Technical Assistance

The CCJCC of Shelby County, Tennessee is currently engaged in a process to purchase and deploy, via an RFP process, a Criminal Courts Case Management System, an Offender Management System and possibly a CMS for the public defender, the pre-trial services and the adult probation offices/agencies. The county also plans to acquire the services of an independent PM/consultant group/systems integrator to assist them with the management of the aforementioned project(s).

The CCJCC is seeking Court Management System and Offender Management System solutions that meet a variety of application, technology and integration goals. The county is replacing existing applications with the goal of moving to a fully modernized platform. Additionally, there is a clear requirement for the new systems to fit with an architecture that will ensure a comprehensive information management environment, supporting capabilities for active process interaction and information sharing and exchange between the systems and other Shelby County justice and public safety agencies. Finally, there is a requirement for these capabilities to support information sharing with and between other governmental agencies and systems at the local, State, tribal, and Federal levels of government.

The CCJCC requires the selected solutions to include all the functionality contained in their legacy systems and be National Information Exchange Model (NIEM) conformant. Shelby County hopes the selected solution(s) include additional "wish list" functionality as well. In addition, Shelby County would like to participate in statewide information sharing efforts, as well as the Federal National Consortium for Offender Management Systems (NCOMS) program. It is expected that the new solutions will help better deliver critical, accurate information to criminal justice professionals essential to making timely and effective decisions.

The county wishes to begin this process as soon as possible. Accordingly, the sheriff in the capacity of a member of the CCJCC requested the IJIS Institute provide TA and guidance in the form of a vision and high-level plan for their project.

The primary goal of the TA engagement is to assist the CCJCC initiative of Shelby County in the development of a high-level vision, plan and supporting recommendations regarding the development and issuance of RFPs in support of its project. As these new systems are implemented across the primary justice and public safety organizations, it is imperative that they are not developed as information islands and non-integrated silos. The goal is to establish an enterprise-level architecture and integrated approach that will establish a comprehensive information management environment, and enable both the sharing and the exchange of information of interest among and between all justice and public safety jurisdictions and agencies.

The TA services are necessary to provide the CCJCC and Shelby County with expertise, suggested best practices and lessons learned from other information sharing and exchange programs conducted by local government jurisdictions throughout the U.S. This includes raising awareness of programs like the NIEM, the Global Reference Architecture (GRA), and the Global Federated Identification and Privilege Management (GFIPM).

2.2 Technical Assistance Team

This TA engagement provided the sheriff's office with a product neutral team of qualified consultants selected from IJIS Institute senior staff and industry partners who possess expertise in criminal justice records management systems and solution and service provider selection methodology. This team also offers expertise in relevant national programs, including: the NIEM, the GRA and others, as required. The team was selected from a group of candidates based upon the requirements of this engagement and the applicability of skill sets and experience offered, both individually and as a team.

2.2.1 Primary Consultants

Jeff Hellzen
Vice President, Enterprise Architecture Solutions
Public Consulting Group, Inc.

George W. Hogshead
Director, Systems Integration Services
The Amicus Group

2.2.2 Advisor

Tim Walker
Vice President, Business Development
Public Consulting Group, Inc.

2.2.3 IJIS Institute Staff

Scott Parker
Program Manager
IJIS Institute

2.2.4 Shelby County Staff (Client)

Ed Raper – TA Lead
Manager of Information Systems
Shelby County Sheriff's Office

Jack Applegate
Manager – Information Services
Criminal Court Clerk's Office

Bill Pounders
Sr. Systems Analyst, Central Information Technology

Bill Powell
CJ Coordinator

Lee Wessels
Manager, Development Center, Central Information Technology

3 Engagement Methodology

The IJIS Institute uses a comprehensive methodology and approach in the execution of TA engagements. The figure below illustrates the components of this methodology by life cycle activity and major issue area. While not all of these components are equally applicable to a single TA engagement, all were considered when preparing for the Shelby County engagement. For Shelby County, the focus of this report was in the following stages of the life cycle –current situation assessment, needs analysis and recommendations.

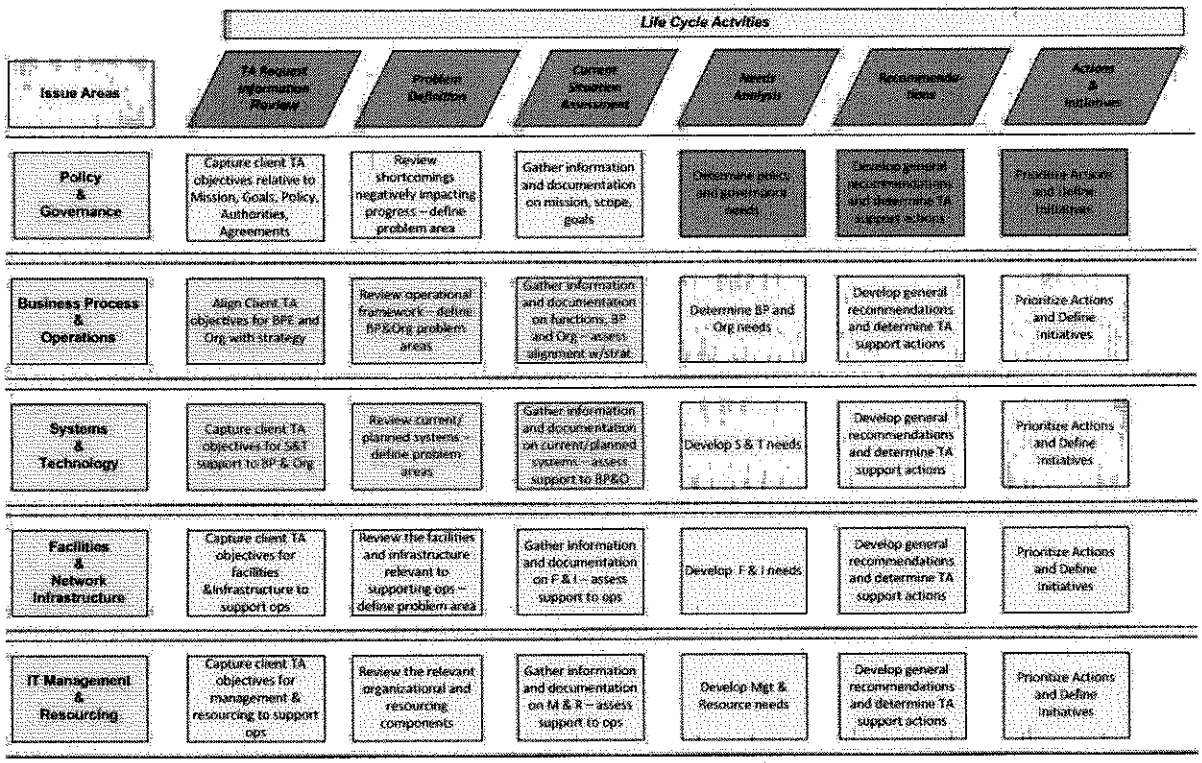


Figure 1: IJIS Institute TA Life Cycle

3.1 Purpose and Objectives

The purpose of this engagement is two-fold:

1. **Assessment**: to gain a clear of understanding of the CCJCC Initiative, including goals, critical needs and priorities for information sharing; and,
2. **High-level Vision, Plan and Recommendations**: to assist the CCJCC initiative and Shelby County through the preparation and publication of a high-level vision, plan and recommendations regarding the proposed planning, acquisition, engineering, integration, deployment and implementation of a portfolio of CMSs serving the justice process and agencies of the County.

3.2 Major Activities

This engagement was executed via a progressive set of TA review and assessment activities, integrating multiple issue areas affecting Shelby County's criminal justice process and

environment, leading to the presentation of high-level vision, plan and recommendations. Each of these activities is represented in sections 5 and 6 of this report.

Current Situation Assessment and Needs Analysis

The current situation assessment and needs analysis captures the observations of the consultant team regarding Shelby County's current business processes, historical practices, technology environment and cultural and political environments, as they relate to the current CCJCC initiative. In this step, the team developed preliminary understandings of the overall business drivers of Shelby County's current environment and goals. Supporting requirements for future integration were captured from multiple perspectives – from policy and governance needs to facilities and infrastructure. Both the situation assessment and needs analysis were conducted via preliminary conference calls and documentation reviews.

Recommendations

Following the current situation assessment and needs analysis, the consultant team developed a high-level vision and plan presented as described below:

- I-CJIS vision – recommendations – This section presents the TA Team's vision (i.e. high-level definition) of the outcome or "end state" of the initial re-engineering, integration and deployment of an I-CJIS. I-CJIS refers to an environment where the scope of the information sharing and exchange is typically between agencies focused on adult criminal and juvenile justice status or delinquency laws, and are involved in the criminal justice system and process.

  The stepping off point for the initial vision developed by the TA Team is the content of "Option 2," as presented in the National Center for State Courts (NCSC) Report[1].

  It is anticipated that Shelby County will, over the next 10 years, leveraging the initial investment in "hub" architecture described in this report, expand the initial I-CJIS into a full deployment (i.e. the scope of information sharing and exchange is expanded to include all areas of law. This includes civil, probate, regulatory, administrative, maritime, military and international laws and the agencies involved in the broader context of the justice system, the rule of law and due process). The discussions of this section establish the foundation for the description of the high-level plan discussed below.

- I-CJIS high-plan – recommendations – This section presents the high-level plan to achieve this future environment defined in the Vision section, and this plan is the critical part of this TA Report. Not only does the plan provide a structured approach, it also defines suggested best practices and recommendations, as appropriate.

3.3 Key Deliverables

The assistance services focus on the definition of an I-CJIS vision and a high-level plan for the acquisition of:

- Independent PM/consultant services;
- A Criminal Courts CMS;
- An Offender Management System; and

[1] Shelby County, Tennessee, Integrated Justice Information Assessment, National Center for State Courts (NCSC), June 2010.

- A Public Defender Litigation Case Management System.

In addition, the report provides guidance with regard to the establishment of an I-CJIS Integration Services Hub, specific enterprise services and the acquisition of a CMS to serve the needs of both pre-trial services and adult probation.

The high-level plan includes:

- A structured approach to conducting the work
- Considerations for each phase
- Best practices and solution-neutral recommendations typically considered when determining a "best fit" solution

4 Current Situation Assessment and Needs Analysis

As discussed previously, this section of the technical assessment deals with the consultant team observations of Shelby County's current business, technical, resource and political environments, as noted during conference calls with county personnel and stakeholders. The conference calls were conducted after Shelby County provided documentation and materials requested by the IJIS Institute consultant team.

The TA Team observed that Shelby County is making progress in identifying its vision as well as a viable architecture to support it. That said, the TA Team also noted that the county still faces significant challenges and unresolved issues in its efforts to better integrate specific policy and governance, business processes and systems and technologies.

4.1 Criminal Courts Case Management System

As noted in a number of documents the TA Team received from Shelby County, NIEM conformance is one of the top priorities for any new exchange. As Shelby County accounts for a significant portion of the criminal justice information in Tennessee, it is imperative that Shelby County have the ability to share data – as both a sender and a receiver – with the rest of the State and the Federal government in a standards-based, NIEM-conformant manner.

Shelby County has:

- Two criminal courts:
    1. Criminal Court
    2. General Sessions Court – Criminal Division
- Three civil courts:
    1. Chancery Court
    2. Circuit Court
    3. General Sessions Court – Civil Division
- Juvenile Court
- Probate Court

The two criminal courts use the JSS application and the JSSI, the web-based application for internal and external access to the JSS application. JSS is a custom-developed Court Information System, implemented in 1996. It is based on relational database management technology, written in COBOL, and resides on a Tandem mainframe computer.

The three civil courts use the Contexte – Adult Court Case Management System application. Contexte is a software product from Affiliated Computer Services (ACS). ACS has recently been acquired by Xerox. Contexte is a web- and Java-based, Java 2 Platform, Enterprise Edition (J2EE) Court Management Suite.

Since the county has several different court management system applications that are unable to share information electronically through standards-based interfaces, the information must be shared through some manual method: paper forms, reports and even verbal communications. Having only this form of data requires numerous handoffs and manual re-entry of key data that can result in unnecessary delays or incomplete information.

4.1.1 Needs Assessment

JSS employs outdated technology, is difficult to maintain and does not meet the needs of the criminal courts in a modern criminal justice ecosystem. JSS is written in COBOL, a computer language that is becoming increasingly difficult to support. Most programmers fluent in COBOL have reached or are nearing retirement age. COBOL programmers experienced a renaissance during the late 1990s, prior to the year 2000 (Y2K), but most have since retired or chosen to learn newer, more modern programming languages. Combine this with a decline in the availability of tools for COBOL report generation and cross-system integration, the JSS application is becoming more and more difficult to support in a cost-effective manner.

For these reasons, the CCJCC and the Criminal Courts will procure a new CMS to address the specific criminal due process and case management needs of these general and limited jurisdiction trial courts. They will also seek some means to support the electronic sharing and exchange of information between the criminal courts and between those and all other courts in the county. The CCJCC and the county are considering some form of Integration Services Hub to address the information exchange needs of the courts and similar needs between all participating criminal justice agencies of the county and State levels of government.

4.2 Offender Management System

The Offender Management System used by the county currently includes the JMS and the IMS from Tiburon. The JMS application was implemented around 1996 and the IMS application was implemented in 1999. The JMS application is an outdated text-based application that has been updated with a graphical user interface. Shelby County has found that it does not meet the operational or management needs of the county jail.

Over time, Shelby County has acquired or developed numerous applications to overcome functional shortcomings of the JMS and IMS applications. These limitations and shortcomings are not unique to Shelby County; many jurisdictions around the country have found the same problems. Shelby County Corrections has noted problems with booking records getting lost, individuals needing to be entered into the system numerous times and navigation of IMS has become cumbersome.

4.2.1 Needs Assessment

The JMS application needs to be replaced. The cost of owning, operating and supplementing the missing JMS application functionality with other third party applications makes keeping the current system cost prohibitive. While the replacement of the IMS application is not as time-critical as replacement of the JMS, it should be considered as JMS replacement is planned. Coordination between the jail and the corrections center would be greatly enhanced if both were using the same system.

JMS is outdated and does not meet operational or management needs of the county jail. As noted above, the sheriff's office has implemented numerous separate applications that are not included in the JMS application. Most replacements for the JMS application would already include these adjunct applications and functionalities.

IMS suffers from similar problems as JMS. Specific application functions needed by the correctional center are not available within the IMS application and must be augmented by separate third-party and internally developed applications.

Certain missing functionalities should be noted due to their critical nature:

- Booking photos / mug shots – jail
- Livescan fingerprint capture – jail
- Management of keep-separates – corrections
- Inmate classification – corrections
- Medical Alert – notification of intake staff of any critical medical issues

4.3 Public Defender Litigation Case Management System

The public defender's office used by the county is a PowerBuilder application. PowerBuilder is a fourth generation language (4GL), originally available in 1991. The PowerBuilder language and integrated development environment were very popular during the mid-1990s, but has lost ground and market share to more mainstream programming languages and development environments over the last decade. The original developer of the public defender's office application, Case in Point, no longer offers support for the application.

4.3.1 Needs Assessment

As the current application is no longer supported by the original developer/provider, a new CMS is needed by the public defender's office. Because of the decline in use of the PowerBuilder platform, the availability of tools for report generation and cross-system integration, coupled with the smaller pool of available PowerBuilder resources, puts this application in the same boat as JSS.

It is noted that the public defender's office has been discussing a potential replacement for Case in Point with Hyland, the provider that supports OnBase, the document management system employed by Criminal Court and Juvenile Court.

5 I-CJIS Vision and Recommendations

This section presents the TA Team's "initial vision" and "concept" of an I-CJIS designed to better serve the information sharing and exchange needs of the agencies represented on the CCJCC. The vision and recommendations for the I-CJIS are presented in eight parts as follows:

1. I-CJIS Vision – overview;
2. I-CJIS Vision – enterprise-level services;
3. I-CJIS Vision – independent project management;
4. I-CJIS Vision – Criminal Courts Case Management System;
5. I-CJIS Vision – Pre-trial Release/Adult Probation Supervision CMS;
6. I-CJIS Vision – Public Defender Litigation CMS;
7. I-CJIS Vision – Jail/Prison Inmate Management System; and
8. I-CJIS Vision – Integration Hub.

The discussion of each part includes a:

- Brief operational overview of each component;
- Description of the primary business functions and processes of each component;
- Definition of the primary functions and features of the CMS or other elements of each component; and
- Presentation of recommendations regarding the planning, acquisition and deployment of each component as appropriate.

> **Note**: *the listing of selected functions, features and processes in the above referenced components are intended to briefly illustrate the "common" and "unique" characteristics of each. The descriptions do not represent a complete and exhaustive listing suitable for inclusion in an RFP. It is understood the independent PM and the PMO will oversee the development of the detailed functional and technical specifications to be included in each I-CJIS RFP.*

The I-CJIS vision and the associated recommendations are presented based on the TA Team's:

- Findings of the review and assessment of documents and reports provided by the county;
- Information obtained from the county's response to a pre-assessment questionnaire completed by members of the Criminal Justice System of Shelby County;
- Information obtained from conference calls held with members of the Criminal Justice System of Shelby County as listed in the Introduction to this report;
- Knowledge of best practices for integrated criminal justice information environments; and
- Collective years of professional experience in implementing I-CJIS and IJIS programs for State and local government agencies in the USA.

5.1 *I-CJIS Vision – Overview*

As stated earlier, the stepping off point for the initial vision developed by the TA Team is the content of "Option 2," as presented in the NCSC Report[2].

Based on information presented in Option 2 of the Report, the TA Team determined that Shelby County plans to acquire, engineer, integrate and implement an I-CJIS for Shelby County. It is understood that the TA Team's initial vision and scope of a county CJIS is only a starting point and the vision will most surely evolve as the county proceeds with the pre-procurement planning, and as it makes investments in solutions over the next five to 10 years.

Figure 2 below presents a graphic overview of the seven components of the initial I-CJIS Vision, and their conceptual relationships. The remainder of this section presents more detailed descriptions and discussions of each of the components.

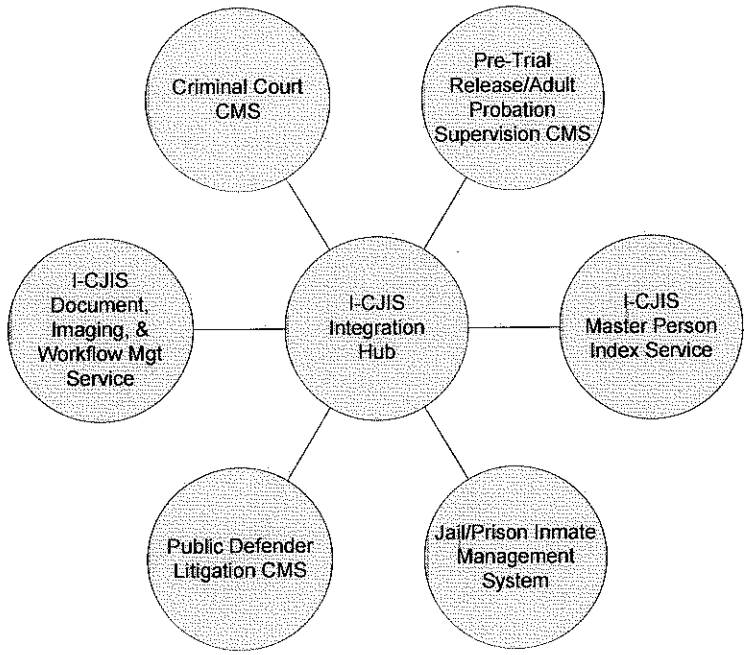


Figure 2: I-CJIS Overview

5.2 *I-CJIS Vision – Enterprise-level Services*

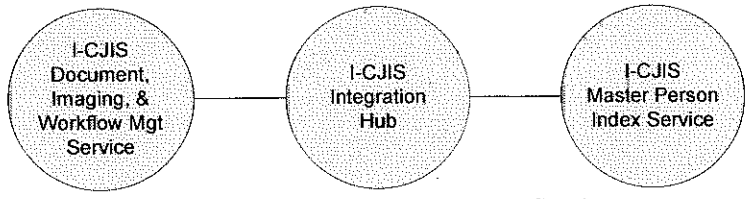


Figure 3: I-CJIS – Enterprise-level Services

[2] Shelby County, Tennessee, Integrated Justice Information Assessment, National Center for State Courts (NCSC), June 2010.

As depicted in Figure 3, the I-CJIS Vision begins with the concept of an *Integration Hub* (discussed later in this section) and the identification of at least *two potential enterprise-level services* to be supported on the hub. The Services are the:

1) I-CJIS Master Person Index Service; and
2) I-CJIS Document, Imaging, and Workflow Management Service.

5.2.1 I-CJIS Master Person Index Service

The CCJCC and the county should champion, sponsor, acquire and deploy an enterprise-level *I-CJIS Master Person Index Service*. This is separate from, and in addition to, the person indexes provided as part of the functionality of COTS-based or in-house developed CMS's. The purpose of the I-CJIS Master Person Index Service is to establish a persistent, consistently managed central repository of historical information about all persons who come in contact with the county criminal justice process. The amount of information captured on an individual and made available for inquiry by the I-CJIS participating agencies is defined by the "role" of the person at the time of each entry — for example, an individual in one or more of the following roles: offender, defendant, witness, victim, attorney of record, expert witness, friend of the court, etc.

Access to the information should be secured by authorization and authentication rules and controls. The full range of personal identifiers (i.e. Federal Bureau of Investigation (FBI) number, National Crime Information Center (NCIC) number, State Identification Number (SID) number, etc.) and aliases are maintained for entries involving a person in a defendant and/or offender role. The CCJCC should serve as the champion and sponsor of the service, and be responsible for oversight wherever it may be operationally housed.

5.2.2 I-CJIS Document, Image, and Workflow Management Service

The CCJCC and the county should expand the use of the current licensed document, imaging and workflow management product known as OnBase™. The current product license should be expanded to establish an enterprise-level service running on the Integration Hub, supporting all of the initial and future components of the I-CJIS. This should be done separate from and/or in addition to the use of imaging and document management capabilities that may be provided as part of the functionality of the COTS-based CMS products procured by the county.

The purpose of this service is to provide an enterprise-level, uniform, central set of electronic document, imaging and workflow management services to all participating I-CJIS. For example, the service should support high-volume scanning through the use of barcode generation. In this scenario, the service can produce barcodes to be applied to the physical documents that flow through the criminal justice processes. The documents may then be centrally scanned and indexed in bulk directly from the barcode information. Other sites may remotely scan and index documents directly into the electronic document databases maintained by the service. All documents thereafter will be available/viewable, enterprise-wide, by all authorized I-CJIS users.

The service should provide and support predefined enterprise-wide document workflows. One of the nodes in the workflow should link a document (if appropriate) to the case and person records as part of the docketing process. For low-volume sites, it may be preferable to scan the document as part of an agencies internal records management and presentation processes.

5.3 I-CJIS Vision – Independent Project Management

The second element of the I-CJIS Vision is the concept of an Independent Project Management and is presented in five parts:

1. Independent PM – Charter and Organization;
2. Independent PM – Project Management Office (PMO);
3. Independent PM – Task Groups;
4. Independent PM – Methodologies; and
5. Independent PM – Recommendations.

5.3.1 Independent PM – Charter and Organization

The term "independent PM" speaks to the need for independent, experienced, objective, methods driven management of large, complex, multi-jurisdictional, programs and projects at the Federal, State and local levels of government. This is particularly true of programs and projects executed in the "adversarial" culture of the Criminal Justice System. Accordingly, experience and the lessons learned of I-CJIS deployments over the last four decades tell us that one of the critical factors for the successful completion of an I-CJIS project is the existence of an Independent PM. Lessons learned also tell us that the establishment of a proper PM governance structure is essential — inclusive of charter and organization.

One essential prerequisite of independent PM is the establishment of a public forum of elected officials and agency heads focused on the effective cross-entity management and coordination of the Criminal Justice System, the local legal culture and the adversarial process of a jurisdiction. In Shelby County, the public forum has been established following the national Criminal Justice Coordinating Council (CJCC) model. The fundamental CJCC charter, by-laws, policies, funding, etc. have, or are being put in place as of the date of this report.

With respect to funding, the IJIS Team understands the following multi-year fiscal year budget that has been established and appropriated for the creation of the I-CJIS:

- FY11 (current year) $300 thousand;
- FY12 $400 thousand;
- FY13 $5 million; and
- FY14 $1 million.

Further, it is understood that the budget and multi-year appropriation could be amended to move funds around and even bring it all into one fiscal year if needed, so funding is both available and flexible.

One of the critical responsibilities of a CJCC is the formal approval and championing of criminal justice programs and projects. This includes the charter of an Independent PM, and the documentation of the body's expectations regarding the size, organization, staffing and budget of some form of Independent PM Office. The documentation should, at a minimum, define how sponsored projects are independently managed, how results and outcomes are objectively measured and how PM's are held accountable through mechanisms like employment contracts, independent reviews, inclusion of outside technical resources and reporting.

5.3.2 Independent PM – Project Management Office (PMO)

An Independent PM Office establishes the organization, staffing and resources essential to the accomplishment of the independent PM mission. The figure below depicts the organizational placement and relationships of a typical Office operating under the Charter of a CJCC.

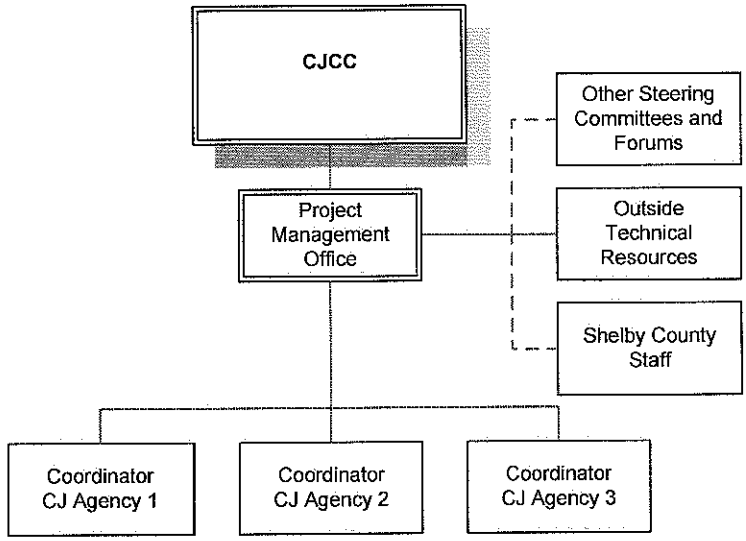


Figure 4: PM Office Organizational Placement/Relationships

A key attribute of this charter and organization is the obligation of all participating agencies to put "skin-in-the-game" through the appointment of a senior member of their management team to serve as each agency's "coordinator," working closely with the Independent PM office in executing each agency's responsibilities under a specific program or segment of the overall project plan.

5.3.3 Independent PM – Task Groups

A PM is typically responsible for the day-to-day operations of each project placed under his/her direct management and control. The PM may be responsible for a single project, or for a "program" involving a series of projects focused on the accomplishment of a common goal. In the second instance, the individual may be referred to as a PM. A PM typically, and at a minimum, ensures the timely completion of seven groups of PM tasks. Any of the task groups may be delegated whole or in part to a subordinate member of the Independent PM Office staff. The following PM task groups are listed below and described in Table 1:

- PM Task Group 1: Project Procurement Management;
- PM Task Group 2: Project Operations Management;
- PM Task Group 3: Project Contacts Management;
- PM Task Group 4: Project Resource Management;
- PM Task Group 5: Project Financial Management;
- PM Task Group 6: Project Communications Management; and
- PM Task Group 7: Project Change Management.

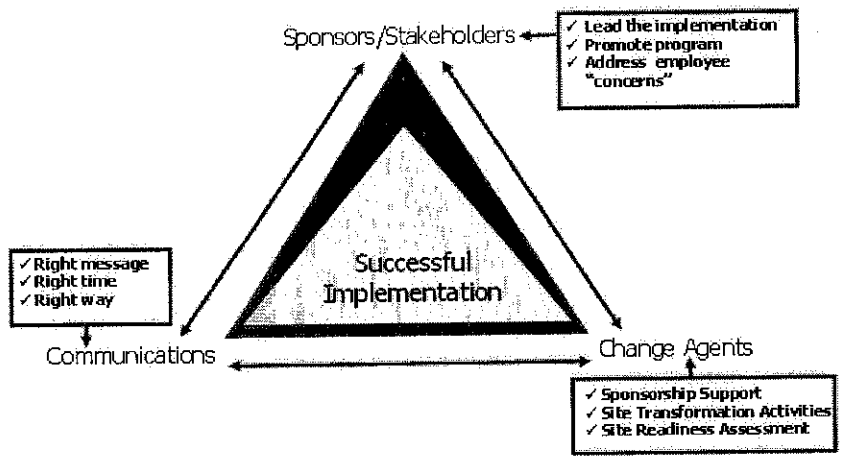
Table 1: PM Task Groups

PM Task Group	Description
PM Task Group 1: Project Procurement Management	To quote an old statement of the responsibilities of a father — *"he must be there for both the "conception" and at the "birth".* **It is therefore, essential that the PM be on board as early as possible, no later than the planning and execution of the first procurement cycle.** It is difficult for a PM to manage a program or project effectively for which he has not participated in and influenced the initial planning and procurement (i.e. RFP) processes.

PM Task Group	Description
	The PM is responsible for working with the procurement office, legal counsel and the participating agencies in the management of the procurement of provider's products, solutions and services. Typically, procurement involves the completion of the following steps: • **Request for Information (RFI).** Information obtained from each RFI is used in the preparation of final plans and budgets required to obtain project or program approval and authorization to proceed with a procurement cycle. • **Provider Days.** First, system and solution providers are invited to tour the participating agencies facilities and observer their operations. Each provider receives a formal presentation on the history and governance of the project or program, and the problems and needs of each agency involved in the upcoming procurement. Second, each provider is asked to present and demonstrate its technology, products and solutions. • **RFP** • **RFP Compliance Review.** Each RFP is initially reviewed by the procurement and legal office staff to confirm that all mandatory requirements are addressed in compliance with the terms and conditions of the RFP. Any issues are addressed and resolved at this stage with the providers whose proposals are determined to be substantially non-compliant. • **First Round - RFP Review and Score Carding.** The Procurement Evaluation Team reads, discusses and publishes an initial SWOT (Strengths, Weakness, Opportunities and Threats) assessment of each RFP. Thereafter, the responses are scored and ranked. Next, provider background and references checks are performed and, thereafter, the responses are re-scored and re-ranked, based upon the information obtained. Thereafter, the top three ranked providers are notified that they are on the short-list. The remaining providers are notified that they did not make the first cut, but may be short-listed at a later date if the procuring agency determines it is in its best interest. • **Provider Proposal Presentations.** Each of the short-listed providers is invited to present and discuss the contents of its proposal to the RFP Evaluation Team. The presentations are presented in accordance with the pre-written "rules of engagement". • **Second Round - RFP Review and Score Carding.** The Procurement Evaluation Team discusses the findings and outcomes of each provider's presentation and, thereafter, re-scores and re-ranks each of the three proposals. • **Best and Final Offer (BAFO).** Thereafter, each provider is invited to provide (at its option) a BAFO, with regard to the price it originally bid to perform the work detailed in the original RFP Statement of Work (SOW). • **Final Round – BAFO Review and Score Carding.** The Procurement Evaluation Team, the procurement and legal officer review and discuss each BAFO. Thereafter, the RFP Evaluation Team re-scores and re-ranks the three proposals and publishes a written statement of the final scores and rankings, and the recommended winning provider and proposal. • **Verification, Approval and Announcement.** The final recommendation is

PM Task Group	Description
	submitted to a separate internal review process to make sure all procedures and recordings are prepared in full compliance with law and procurement rules and procedures. The recommendation is presented to the appropriate oversight and authorization forums and committees, and a formal public announcement is issued. • **Contract Negotiation.** The parties enter into negotiation and signature of a final contract including a final, detailed work breakdown structure (WBS), statement of deliverables, and timeline.
PM Task Group 2: Project Operations Management	The PM is responsible for the management and direction of the day-to-day operations of each project placed under his/her control. Tasks include: • Work planning and schedule control; • Meeting scheduling, chairing and minutes preparation and distribution; • Quality control • Issue management and reporting; • Change request management and reporting; • Risk management and reporting; • Contractor performance oversight, coordination and reporting; • Project library management; and • PM policies, standards, procedures, guidelines and protocols
PM Task Group 3: Project Contracts Management	The PM is responsible for managing each contractor's compliance with the terms, conditions and obligations of their contract, inclusive of the WBS, the deliverables, and the timeline set forth therein. At a minimum, the PM: • Reviews/evaluates, and if in compliance, approves and signs-off on each contractual deliverable or successfully completed schedule milestone; • Verifies, substantiates, and recommends or denies any changes to the contract requested by a contractor; • Monitors each participating agency's compliance with its obligations under the contract; • Publishes periodic, official external memoranda regarding each contractor's contractual progress and performance. The reports are provided to agency heads, appropriating authorities, governance committees, public forums and the media.
PM Task Group 4: Project Resource Management	The PM is responsible for management and control of all non-contractual resources defined in the project plan. This includes: • Physical logistics: acquiring physical assets and resources such as office space, desks, computers, printers, phones, security access/clearances, e-mail accounts and any travel and accommodation/housing requirements; • Team Resources: includes communicating needs for qualified staff and collaboration with Human Resources (HR) and agency resource managers to acquire qualified staff at the planned date; scheduling and participating in interviews, developing and providing team member briefing packages, and welcoming and introducing new members of the team; • Performance Evaluation: tracking and managing the evaluation of the performance of project team members at appropriate intervals; and • Third party resources: monitors and verifies the performance of contractor staff participating as members of the project team, and reports problems to the contractor

PM Task Group	Description
	and approves the resolution.
PM Task Group 5: Project Financial Management	The PM is responsible for the overall financial management of the project. To this end the PM: • Develops, maintains, periodically audits and reports on the status and burn-rate of the budget. He/she provides periodic (no less than monthly) Financial Variance Reports and develops and executes controls to ensure that budget overruns do not occur; • Develops and updates monthly estimates to completion (ETC) for all major tasks of a project task plan. The results of the ETCs are one of the major inputs to the Financial Variance Reports; • Maintains sign-off authority and control over all purchase orders, invoice payments and internal resource charges made to a project account number, and the project in general.



PM Task Group 6: Project Communications Management	The PM is responsible for developing and executing a Project Communications Plan for each program or project. The plan addresses how information may be classified, and how and in what medium (electronic or hardcopy) information is verified, authenticated and communicated in a timely manner to the CJCC, steering and other forums, to the participating agencies, and out to the public and the media.
PM Task Group 7: Project Change Management	The PM is responsible for developing and executing a Project Change Management Plan for each program or project. The plan addresses how policies, procedures, processes, practices and employee training and on-going development will occur and be managed across the life-cycle of a program or project. Change is by its nature labor intensive, stressful, and it involves the change of human and organizational behaviors. Change involves such factors as: • New roles and responsibilities; • Acquisition of new skill sets; • Altered communication patterns; • Altered work relationships;

	• New work schedules; • New work approaches (individual verses team); • Redefined points of influence and authority; • Less predictability and individual control of outcomes; and • New management approaches (coach verses supervise). As a result, individuals and organizations are reluctant for any or all of the following reasons: • Unwillingness to change from status quo (safety); • Difficulty in disconnecting from the past (habit); • Uncertainty of what the future holds (fear of unknown); and • Fear of loss of economic security, friendships, self-respect and self-fulfillment. The management of change is a critical success factor for a project or program, and presents the single most complex and difficult challenge for a PM.

5.3.4 Independent PM – Tools and Methodologies

A PM is typically responsible for ensuring that the requisite methodologies and tools are in place, and, further, that all project participants are trained and proficient in their use. A toolset may be as simple as that provided as part of the Microsoft Office Suite or similar off-the–shelf software products. While software projects may involve a number of software engineering and process re-engineering methods and tools, at a minimum, the PM must ensure that some type and form of ***SDF*** is in place to support a management and control of an integration project, like the Shelby County I-CJIS.

A SDF is typically an off-the-shelf product that is purchased by a jurisdiction, and includes software, templates, training and consulting assistance that is purchased at an additional price. It establishes an overall structure and frame-of-reference for all aspects of solution planning, design, development and implementation, whether the project deals with a: legacy system, system migration, system integration, web portal or other specialized areas such as data warehousing, data cleansing and transition, or implementation and configuration of COTS software.

It provides a common framework of understanding and discipline for all team members and defines a consistent and reliable way of developing a solution that can be tailored to the specific needs of the project. A SDF is relevant for all projects, independent of scale and specific implementation approach. A SDF describes the development of a solution in phases tailored to the nature of an agency's requirements and needs. A sample list of typical SDF phases is presented below:

- Solution Strategy;
- Solution Architecture;
- Solution Design;
- Solution Build versus Buy;
- Solution Procurement;
- Solution Engineering and Integration;

- Solution Migration/Deployment;
- Solution Implementation;
- Solution Production Cutover; and
- Solution Maintenance and Support.
- Project Management
- Risk Management
- Quality Control; and
- Change Management.

An SDF effectively addresses scalability and complexity issues. Solutions vary in complexity and nature from one project to another. A project becomes more complex if the solution must accommodate multiple platforms, providers, telecommunications user groups and different interests. A SDF is designed so even the most complex development projects produce results that are fully functional and robust.

The CDF structures the way participants develop solutions so that all team members perform project activities in a disciplined, consistent and repeatable manner throughout each project initiative. Within a single project, this benefits the project in the following ways:

- Provides a common understanding of the overall project, even though team members may be spread out among diverse activities
- Provides a checklist to verify that participants have not overlooked anything important
- Defines solution development in terms of well-defined deliverables
- Defines the relationships among the activities that constitute a project
- Assists in the develop work breakdown structures and project schedules
- Defines tasks so that participants can measure their success
- Saves time and effort by leveraging reuse of repeatable processes and definitions
- Allows participants to implement proven design techniques
- Brings clarity to project scope, identifying the specific activities and deliverables that are within scope and those that are out of scope
- Facilitates Capability Maturity Model (CMM) compliance by establishing a project-wide knowledge framework with common terminology, approaches, tools and deliverables. Each activity of the proposed solution corresponds to CMM compliance areas
- Provides the means to rationalize the projected activities and providers and subcontractors for large, multi-provider engagements
- Expedites the development of solutions by leveraging appropriate methodologies, artifacts and resources
- Provides a common definition of the work of a project that all participants, including providers and contractors, are obligated to conform to. All contractual WBS and SOW statements must follow the basic phase and task structure dictated by the SDF.

5.3.5 Independent PM – Recommendations

Recommendation: Define and approve a PMO structure, (i.e. size, organization, chain-of-command and reporting, staffing and budget) as well as charter under the auspices of the CCJCC.

Recommendation: Engage the services of an Independent PM, to provide overall management and coordination prior to the onset of planning and procurement activities. Delegate all planning and procurement responsibilities to the Independent PM. A qualified project manager should possess a combination of knowledge and experience, in the following priority order: 1) prior successful experience with the management of a large, complex, multi-jurisdictional program or project at the local, State or Federal levels of government; 2) commensurate education or training in criminal justice information technology or related fields; and 3) certification in project management, such as that of a certified PMP, or equivalent experience.

An Independent PM would be responsible for providing the CCJCC a dedicated resource to manage the planning and coordination of all project activities (tasks, timing and resources) required to implement the future I-CJIS environment, including: requirements definitions, integration architecture and solution designs, technology acquisitions (RFP), technical integration (exchanges, data conversions, etc.), technology deployments (Bill of Materials), and testing, training and implementation.

In this approach, the PM would be directly responsible for preparing and maintaining project plans, project communications, oversight of selected solution providers and project status reporting. As an extension of this as a recommended approach, the services of the independent PM could be augmented with specific technical expertise through the engagement of qualified consultants, or consultant groups, on an as-needed basis. It is important to note that the independent PM would not be the contracting agent with selected solution providers and technical consultants. As such, the Independent PM would not be accountable for the contractual performance of these selected providers. These relationships would remain with the county.

Alternate Recommendation (to the Independent PM recommendation above): If the CCJCC decides there is a need to hold an Independent PM) accountable for the contractual performance of all providers and consultants, then the SI approach should be considered. In this approach, the SI would provide the same services as the Independent PM, but would also directly engage solution providers and consultants by subcontracting their services under the provisions of a "prime" contract with the county. This would make the SI accountable for the contractual performance of the selected providers, with the county holding the SI accountable for overall performance. To help put the SI approach in context, it should be considered in the same manner as a decision to engage a general contractor in the construction of a building, versus independently managing the performance of the various disciplines (plumbing, electrical, etc.) with multiple subcontracts.

While both the SI and Independent PM approaches have their respective merits, the simple differentiation can be viewed as the shift of performance risk and its economic impacts. The SI approach will reduce the instance of finger pointing by giving the county a single and contractually obligated point of accountability. However, this will have an impact of higher cost to the county to offset the increased risk taken in the SI approach.

Recommendation: Identify and formally appoint a coordinator for each participating agency to work in partnership with the PM in accomplishing the I-CJIS goal.

Recommendation: The Independent PM should develop and submit the following to the CCJCC for review and approval:

- Detailed Project Plan - inclusive of a WBS, a multi-year forecasted Gantt Schedule, a definition of milestones, deliverables and measurable outcomes, required resources, and a multi-year forecasted budget.
- Communications plan;
- Change management plan;
- Quality management plan;
- SDF

Recommendation: The IJIS Institute has published a *Pre-RFP Toolkit* that is available on CD media. The county may find the information presented therein valuable in the preparation of the RFPs. See http://www.ijis.org/_resources/pre_rfpCD.html for more information.

5.4 I-CJIS Vision – Criminal Courts Case Management System

As discussed earlier in this report, the step-off -point for the initial vision of the Criminal Courts CMS is "Option 2," as is presented in the NCSC Report[3]. In Shelby County, the adjudication of adult criminal charges and cases is handled by the following general and limited jurisdiction courts:

- General Sessions Court – Criminal Division: a limited jurisdiction tribunal that handles the following types of charges, violations, and hearings: misdemeanor, felony preliminary hearings, and traffic and environmental violations; and
- Criminal Court: a general jurisdiction tribunal that handles the following types of charges: murder in the first degree, conspiracy to commit first degree murder, second degree murder, aggravated kidnapping, especially aggravated robbery, aggravated rape, aggravated arson, aggravated robbery, rape, aggravated sexual battery, voluntary manslaughter, vehicular homicide, kidnapping, robbery, spousal rape and incest.

5.4.1 Criminal Courts CMS – Differences

The TA Team understands that at this point in the planning for the I-CJIS project, the objective is to acquire, engineer, integrate and deploy a single, licensed, COTS software solution to the adjudication, operations, records management, documents management and information sharing and exchange needs of the judicial, court administration, clerk of court and court staff of the respective courts. With respect to court CMS deployment, lessons learned tell us this is a worthy and highly achievable objective. The same lessons tell us that there are certain differences that must be acknowledged, addressed and managed throughout the CMS acquisition and deployment process. A few examples of these key differences are discussed below.

Table 2: Criminal Courts Differences

Criminal Court Differences	Discussion
Jurisdictions	All COTS solution deployments require some level of change to existing business processes and historical and cultural practices of an organization. This is in order to align the organizational processes with the systems processes of the COTS solution. Only through this exercise does the organization realize the full operational and financial benefits of the software investment.

[3] IBID, National Center for State Courts (NCSC), June 2010.

Criminal Court Differences	Discussion
	Courts are legal institutions, focused on "precedence" and steeped in historical legal culture. They are not by nature "change agents," as they always seek to maintain consistency, stability and predictability of outcomes. It has been said that managing a court is like driving a car looking through the rear-view mirror. The existence of a "hierarchy" of legal jurisdictions of tribunals often promotes a cultural belief that "we are unique." Therefore, a given solution must be tailored to "our unique" jurisdiction of court. This is true with respect to the level of matters to be adjudicated, and there are certain jurisdictions of court that are clearly unique, (i.e. probate, juvenile and appellate courts). This should not be a factor with respect to deployment of a single CMS solution for both a general and a limited jurisdiction criminal court. There are some differences that need to be recognized, addressed and managed during the planning and deployment and these are discussed in the following segments of this table.
Caseload Volumes and Lifecycles	By court rule, a criminal case must be processed to final disposition within a specified time period, unless the right is waived by the defendant. In a general jurisdiction criminal court that handles complex and time consuming felony matters. A felony case typically takes from many months to over a year to progress through the adjudication stages to final disposition. A limited jurisdiction criminal court typically handles a very high volume of misdemeanor offences, traffic and ordinance violations. The life cycle of a large number of these matters may be no more than a month, and may be resolved in one appearance before the bench. Many of the matters may involve no appearance at all (traffic and ordinance), as they are plead-out and are typically handled by "batch" processing of tickets and citations. This process has been impacted further with the advent of photo violation for moving violations. This brings a third-party provider into the process and greatly increases and complicates the court recording process. A single CMS solution must support these differences in the courtroom, to include: workflow management, document imaging and management processes. A case can move from plea to disposition in a matter of minutes, and can involve the appearance of hundreds of defendants in a given courtroom session. All of the paper work and entry processes must be streamlined to avoid delays, and often are pushed to the backroom after the court session. All of the top-tier CMS solutions in the market today provide robust and highly configurable workflow management, courtroom support processes, integrated imaging and document management capabilities that support these general verses limited jurisdiction differences.
Calendar Management	Another difference between general and limited jurisdiction criminal courts has to do with the dynamics and management of day-to-day session appearance calendars. All calendar management modules must be able to handle both master and individual calendaring processes and mixes and versions thereof. In the case of high volume limited jurisdiction criminal courts, additional flexibility is required to allow assignment of defendants to a courtroom, as "walk-ins", either before or after a pre-scheduled date. This is always a key public service issue and requirement at the limited jurisdiction court, however, it is not so at the general jurisdiction level. The process also needs to support the re-assign defendants after they are in the courthouse. This is often required to dynamically balance the volume of cases being heard across multiple active courtrooms in a given morning or afternoon session time period. Again, all of the top-tier CMS products in the market today provide robust and highly adaptable calendaring and scheduling modules that may be configured to these lower court process differences.
Workload Specialization	As a rule, the larger the caseload and greater the number of judges in a court, the higher the degree of specialization of the court clerks and their individual workflows. In a lower volume court, the clerk must be able to perform all or most of the work associated with the

Criminal Court Differences	Discussion
	lifecycle of a case. In a higher volume court, the clerks tend to specialize (for example handle only filings). This means that both the presentation, navigation and workflow processes supported must be highly configurable to the degree of specialization. This is always an issue with the court staff and must not be underestimated in its importance. Resistance and issues are seldom a function of resistance to change but more driven by need to tailor to real efficiency and productivity needs. Again, all of the top-tier CMS products in the market today provide robust and highly configurable or adaptable search, navigation, presentation, and tabular driven solutions to this need.

5.4.2 Criminal Courts CMS – Value Proposition

In the last 10 years, the COTS CMS market has seen several top-tier providers and products emerge. Some have gone through mergers and acquisitions that always result in a brief period of organizational instability. Of course, all solution providers have been impacted by the depth and length of the current recession.

Given this background, it is highly likely that the county could procure an acceptable COTS solution, in a buyer's price-point market, thereby potentially reducing its operating, overhead, training and technical maintenance and support costs of the expected life time of the product. Further, by entering into a sound licensing agreement, the county may extend the useful replacement life of the solution in an ever changing technology environment — this through rights to future software releases or upgrades at a reduced additional charge. In this way, the county can better manage both its year-to-year cash outlays, and better predict and control growth in its operating budget, with respect to the CMS. Again, given the current national financial crisis, one that is predicted to continue for many years, these factors add to the value proposition of the proposed acquisition at this time.

5.4.3 Criminal Courts CMS – Primary Functions and Features

The IJIS Team's vision of the primary functions and features of the Criminal Courts CMS is depicted in the figure below and further described in the table that follows:

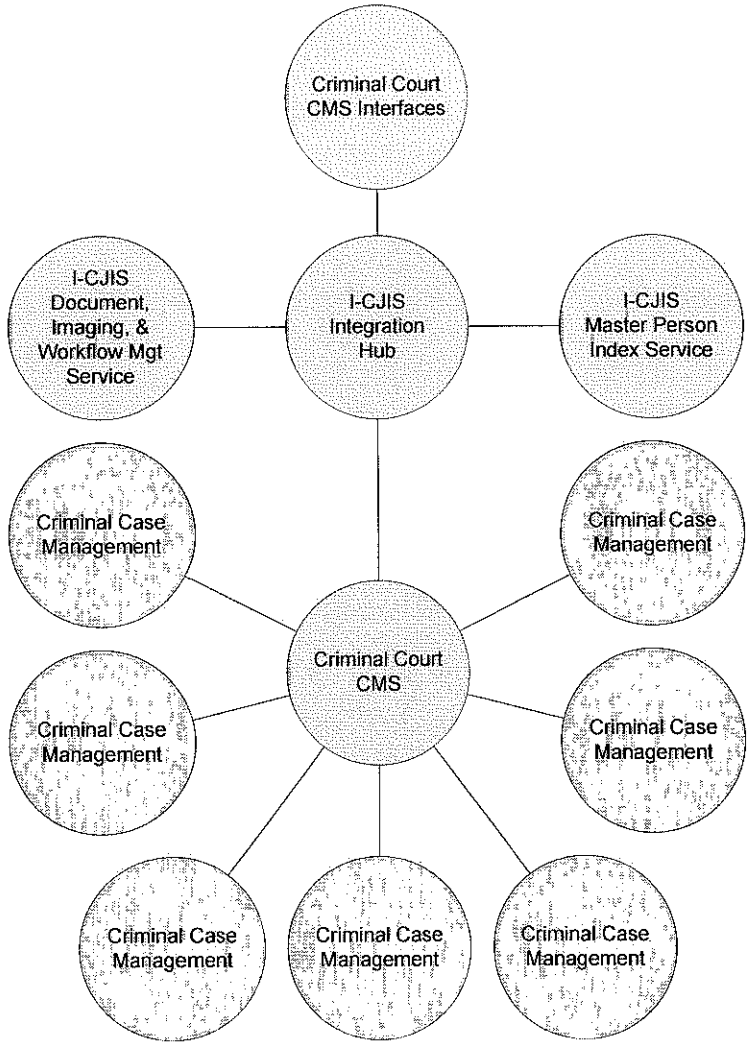


Figure 5: Criminal Courts CMS – Primary Functions & Features

Table 3: Criminal Courts CMS – Primary Functions & Features

Function-Feature	Description
I-CJIS SERVICES INTERFACE	
Master Person Index Service	The Criminal Court CMS should have the ability to update and access the enterprise-level I-CJIS Master Person Index Service supported by the I-CJIS Integration Hub separate from the individual person and name indexes supported by the Court CMS. The purpose of the I-CJIS Master Person Index is to share name, contact, address, identification and other information on persons in their historic roles and involvements with the Criminal Justice System and processes.
Document, Imaging, and Workflow Management Service	The Criminal Court CMS should have the ability to access and use the full capabilities, functions and features of the OnBase™ licensed, enterprise-level I-CJIS Document, Imaging and Workflow Management Service supported by the I-CJIS Integration Hub, as discussed earlier in this section. In the event that an I-CJIS Services is not implemented, the court should include a similar service as part of their CMS to address the electronic document, imaging and workflow needs of the courts.
CRIMINAL CASE MANAGEMENT	
Automated Recordkeeping	The CMS should electronically store all case information required for the processing of Court actions, in such a format as to be readily accessible for review, addition, modification, or deletion. It should be capable of automatically generating case numbers that can be manually overridden if the user has appropriate security access.

Function-Feature	Description
Person and Case Centric Processing	*Case-Centric Processing:* The CMS must support processes used to establish, maintain and query the components of a case. Case information includes defendant and case identification, violations, alias names, associated parties, cash bail and bail bond information. It must track cases with multiple charging documents, such as complaints, information, indictments and amendments. The CMS must track the associated charges included on those documents. In addition, it must support the entry of defendant information, including bail and bond information, where a case has not been filed in the court. *Person-Centric Processing:* The CMS must support the maintenance of a person's data as a separate database from the case database. The CMS must be designed so that a person is only established once in the system. Once the person is established in the system, a unique identifier is assigned and they may be added to cases in various roles, including defendant, victim or a witness. This processing provides the ability to easily research a case defendant's criminal history and to review his other activities on cases within the system. The person's information includes names, addresses, demographic information and identifiers such as driver's license numbers, SID, FBI and NCIC numbers.
Person and Case Index	The CMS should have the ability to index, access and cross reference any or all case information, including, but not limited to case number, defendant name, defendant identification number, attorney name, applicable addresses, history of addresses, active dates for addresses, personal identification information for defendants, charges, scheduled court activity, scheduled hearing or trial date and case status. Individual case information presented as a result of an inquiry should be immediately accessible for modification. The user should be able to scroll backward and forward through the screens of report results. The name indexing process should be integrated with the Master Name Index and include a phonetic, or similar function search capability to retrieve words that sound like the search target name, so that spelling mismatches are not excluded from the search. Further, the indexing process should include a pattern matching (character for character) capability that, at the user's discretion, will retrieve only exact matches or will conduct searches of partial word strings using a 'wildcard' function.
Electronic Docket Entry and Management	The CMS automatically updates courtroom docket entries to record case hearing, sentencing, disposition, and appeal information. Docket entries usually result from activity that must be recorded due to a court appearance. Docket information is entered in the various courtrooms as courtroom activities occur. Docket codes are added to update the case attributes, including the financial components, dispositions and sentencing details. Docket entries should also be generated by other on-line transactions as a result of case information changes or case events, or they can be generated when cases are calendared, or as a result of a previous courtroom docket entry. The case docket should be viewable on-line or printed, and should provide the ability to sort and filter entries based on user defined criteria.
Exhibits Processing	The CMS should support processes to identify, track and dispose of case exhibits. Exhibits should be tracked along with a history of their markings, case associations, and location. The process should automatically qualify exhibits for disposition and provide for the notification to the appropriate parties prior to the exhibits being "dispositional".
Criminal and Bench Warrant Issuance and Recall	A CMS should support a process to track warrants issued within the system. It should also automatically generate bench warrants [for signature) if a defendant fails to appear or comply with a court order. The tracking of the warrants in the CMS includes the ability to issue and recall a warrant from the courtroom, to view a history of the warrants issued on the case and their current status and the ability to print a copy of the warrant declaration. The warrant qualification process reviews cases to ensure a defendant makes a payment

Function-Feature	Description
	when ordered to do so from the courtroom and ensures the defendant appears by the date set at the time of the issuance of the citation. If a defendant fails to make the payment or fails to appear for a citation, the system automatically generates a warrant, a license hold or initiates a civil assessment, based on the underlying case conditions.
Postal Service Zip Code Support	The CMS should incorporate the U.S. Postal Service zip code file and should use this file to verify that addresses are consistent with the zip code. The software should allow data entry of a zip code and should automatically provide the city and State.
Scheduling	The CMS must maintain information on future actions scheduled on a case, and should record the date, time and place those activities are to occur. The CMS should: Distinguishing between scheduled, overdue, pending and completed actions, and automatically generates notices accordingly. The CMS should automatically schedule the next logical activity (as designated by the court) upon entry of an event (e.g., the filing of a notice could trigger the scheduling of a hearing; • Provide necessary information on acceptable elapsed time between events and indicate availability of judges, courtroom and attorneys • Allow for manual override by the user; and • Record the actual time consumed by the event.
Calendaring	The CMS must generate and maintain calendars of court appearances, depending upon the type of case, nature of hearing, judge availability, attorney assignment, conflict, location and courtroom availability. The calendar process must allow for on-line access to court calendars. The calendar format must be user-modifiable and the number of formats should not be limited. Printouts of calendared information must be available by judge, location, scheduled time, attorney, or any other grouping (sort) required by the court.
Citation Processing	The CMS should process uniform and non-uniform traffic citations issued by State, county and municipal law enforcement agencies. These include citations for traffic, county and city ordinance violations.
Post-conviction Process Tracking	The CMS should track and report on post-conviction processes, to include appeals, collection court, traffic school and drug court outcomes.
Secret Indictments	The CMS should process secret/sealed indictments brought against defendants/offenders that are not currently in custody.
Case Information Filing Through Disposition	The CMS should process case information from the initial filing of a case to the final disposition. This includes the processing of all party information, docketing, service processing, warrants, imaging, reporting, forms issuance and receipting. The CMS should support triggering and monitoring mechanisms for event results, next scheduled event, motion tracking, queues and ticklers.
Archiving	The CMS must include a process for moving user-specified historical data from the database to some secondary (possibly off-line) electronic storage medium. Selected information on archived cases (e.g., case number, complaint filing date, defendant, judgment and disposition date) should be retained for indexing purposes. Although archived data may not be available "on-line", it should still be available to be reloaded to a reference-able database for inquiry and reports, as necessary.
Ad-hoc and Routine Report Utility	The CMS should have the capability to extract and print selected information, with user control over the content and format of the extract file and/or report. It should accommodate both on-line and batch report processing, so that time-consuming reports can be generated after hours to avoid impact on computer performance during business hours. The report generator should allow the user to create new report logic and to save, modify and delete pre-existing logic for data extraction and printing. Mechanics of the report utility should be straightforward and easily learned.
Document Generation	The CMS should have the capacity to generate routine correspondence and documentation automatically, and must be able to interface with Microsoft Office Suite™ products. "Templates" for notices, warrants, receipts, form letters and any other routine documents should be available and customized through automatic insertion of appropriate case information (e.g., party name, event scheduled date) from data available on the CMS databases, and individually generated upon demand. Reports

Function-Feature	Description
	should include, but not be limited to the following: Hearing notices and similar court documents; calendars; labels; summons; receipts; case aging reports, court orders, ticklers (reminder); jury lists and juror summons.
Notice and Summons Issuance	The CMS should support the electronic generation of summons and notices to parties.
Internal Reference Tables	The CMS should, for efficiency, flexibility, and expanded processing reason, provide user-modifiable tables to include the: case processing time standards; case retention time standards; judge availability; location availability; courtroom availability; holidays; offense/statute history/penalty listing; severity of charges; case disposition categories; disbursement and distribution schedules.
External CMS Interfaces	The CMS should replace the closely coupled interfaces supported by the legacy CMS and systems with loosely coupled interfaces supported through some form of Integration Hub. The hub should support interfaces, enterprise services and both "information sharing" and "information exchange" between I-CJIS components and between the components and other external State, regional and municipal systems and databases. For example, an "information exchange" event should occur so that after an offender completes the booking process at a jail, the system at the jail will in-turn send a message to the CMS. The CMS processes the message and then creates a criminal case with the charges from the booking information and returns the new case number to the jail system. The CMS should support other interfaces to external systems that are triggered by rules, by user action and by electronic reporting. Examples of interfaces triggered by rules are records sent to law enforcement when criminal charges are amended or cases are adjudicated. Notifications of license suspension can be sent to State motor vehicle departments if fines are not paid or other conditions are not met. Users can trigger interfaces by querying for driving records or criminal history records. The following existing and closely coupled interfaces must be implemented as part of the deployment of the new COTS-based Criminal Court CMS and Integration Hub deployments. The interface between the court CMS and the new Jail/Prison Inmate Management System includes interface supporting receipt of certified cost payments received from the State by the criminal court, city court [de novo] cases bound over to the criminal court for adjudication, file transfer protocol (FTP), file and report exchanges, and internal collections for criminal court and general services.
Security, Audit Trail And Transaction Tracing	The CMS should support comprehensive security, audit trail and "transaction tracking" across all levels of processing
Electronic Filing	Electronic filing is a fact of life in today's courts. Members of State Bar's throughout the country are supporting the concept of filing and retrieving documents and data without the burden and costs associated with physically going to the courthouse or paying a messenger. The CMS should allow attorneys to interface directly with the process and/or product installed at the court to file documents on existing cases or to initiate new cases and make payments for the filing costs. The electronically filed documents should be available for review by the clerk, who can accept or reject the filing. The CMS e-filing process provides the ability to accept filing information and an attached filing document through a web browser (Internet Explorer, Foxfire, etc.). If the court requires electronic signatures for electronic filing, smart cards may be used to identify the registered attorney or e-filing user submitting the filing. The attorney using the smart card fills in the appropriate filing information and attaches a Portable Document Format (PDF) file. Upon entry into the jacket page, the e-filing user is identified by accessing the certificate information contained on the smart card. A simple Personal Identification Number (PIN) code or biometrics may be used to validate the e-filing user to the card. Upon submittal of the filing page, the attached file is digitally signed using the client certificate issued to the e-filing user.

Function-Feature	Description
Legal Research	The CMS should provide access to *Legal Research* information and services as contracted by the county. It is defined as the "the process of identifying and retrieving information necessary to support legal decision-making. In its broadest sense, legal research includes each step of a course of action that begins with an analysis of the facts of a problem and concludes with the application and communication of the results of the investigation."
Public Access	The CMS should support web-access to selected calendaring and case management information via the Internet.
FINANCIALS AND ACCOUNTING	
Integrated General Ledger G/L	The CMS should support an integrated general ledger (GL) to support integrated payments and journal adjustments processing, accounting period balancing, closing and reporting. The GL process should automatically update case and accounting records in one process.
GAAP Compliance	The CMS should support dual entry accounting procedures and controls that comply with Generally Accepted Accounting Practices (GAAP) for funds accounting.
Credit/Debit Card Payment	The CMS should support phone Internet, and self-service (Kiosk) credit/debit card payment processes.
Cashier Processing	The CMS should support cashiering processes to include: payment receipting, cash drawer balancing, bank deposit, check writing, bank reconciliation and funds disbursement.
Record Fines and Fees Processing	The CMS should record fines and fees levied using the full accrual basis of accounting. Conversion from modified accrual to full accrual should also be supported as provided for in Statement No. 11 of the Governmental Accounting Standards Board (GASB).
Cash Receipts Processing	The CMS should: • Record fines/fees collected: The system should be capable of processing the collection of any and all funds received, including fines and fees, garnishments, installment payments, partial payments, etc. The system should also be capable of tracking the status of accounts referred from other agencies for collection. • Issue transaction receipts: The system should be capable of generating appropriate receipts for any and all collected funds. These should be designed to provide sufficient information to verify that payments are made in the time and manner required by law. The receipt should include an identification number, court case number, amount assessed, reason for assessment, amount collected (noting partial payment, installment, etc.), balance remaining and any other information required by the court. • Produce checks:. The system should be capable of generating checks by authorized users. • Process cash disbursements: The system should have the capability of reporting funds collected by the court and computing distributions of those collections. The court should be able to designate time period and type of distribution of the requested report. • Provide subsidiary ledger detail: The system should have the capability of providing subsidiary ledger detail. The accounting system should have the capacity to generate this via automated interface with the case management system. The system should also be capable of generating aging reports (i.e., 30 days; 60 days; 90 days or over 90 days from original assessment or latest reduction) for use in monitoring and managing the collection process. • Maintain chart of accounts: The system should have the capability of maintaining a chart of accounts in conformity with GAAP. • Provide encumbrance control over disbursements: The system should be capable of updating and tracking appropriations, encumbrances and expenditures to monitor the available balance of funds. • Provide capability to export information for accounting transactions in comma, quote, or Extensible Markup Language (XML) tag delimited format, as well as Microsoft Excel formats.

Function-Feature	Description
	• Compute record and report distributions in accordance with the requirements of the court. • Process transactions electronically by drafting from checking accounts.
Legal Research	The CMS should provide access to 3rd party legal research services.
Jury Management	The CMS should provide a documented and defensible method for random, impartial juror selection of a variable number of jurors from a master list, as supplied on or converted from an electronic medium. Security and statutory issues typically require that three unique codes be used simultaneously to enable juror selection. Other security code access for user purposes other than juror selection may be required.

5.4.4 Criminal Courts CMS – Recommendations

Recommendation: With respect to the acquisition and deployment of a new Criminal CMS and the release of an RFP, it is important that the judges, clerks of court and court administrators of the respective courts discuss and agree with, or otherwise modify or reject the statements of "differences" presented in this subsection. The outcome of these discussions will establish the "rules of engagement" regarding how the new Court CMS is to be acquired and deployed to serve needs of the respective jurisdictions of court.

Recommendation: Prior to preparation and release of an RFP, the respective courts should sponsor and participate in "Provider Days" to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each court's needs. While all providers offer the same thing when viewed at 10,000 feet, it is often surprising the creative ways that each implements specific functions and features in their products when viewed at ground level.

Recommendation: The criminal courts should embrace the deployment of the *I-CJIS Master Person Index Service* on some form of I-CJIS Integration Hub. It will provide substantial benefit to the court serving as the most current source of information about persons involved in criminal cases, with respect to obtaining the most currently known contact and address information, which is a continual problem for the court in issuing summons and notices to parties.

Recommendation: The criminal courts should embrace the deployment of the *I-CJIS Document, Imaging, and Workflow Management Service* on some form of Integration Hub, using the existing OnBase™ product license. It will provide substantial benefit to the court in its role and capacity of "keeper of legal and certifiable records." The service will facilitate the electronic sharing and exchange of electronic documents across the criminal justice system and process. The service presents the opportunity for significant increases in efficiency and productivity and reductions in hardcopy reproduction and distribution costs.

5.5 I-CJIS Vision – Pretrial Release / Adult Probation Supervision Case Management System

In most CJ jurisdictions, there are two typical separate processes that address the investigation and supervision of individuals in either or both of their pre-trial criminal defendant or their post-trial convicted stages of criminal due process. These are the pre-trial release supervision and the probation supervision business functions. What they do is very similar in terms of business functions and processes, however, the defendant vs. offender status of a person the power of arrest and other authorities of the staff of each agency are materially different.

In some jurisdictions, the probation agency handles **both** the responsibilities of Pre-trial and the Probation Supervision.

The important thing from an I-CJIS viewpoint is that it is possible, subject to the constraints of local legal culture, historical and traditional practices, to procure and deploy a single COTS solution to address the common business needs of both, and to do so without violating the operational independence or sovereignty of either agency.

There are providers offering top-shelf court CMS solutions in today's market, who provide an integrated module(s) and solution to address these common agency business needs. There are also providers that offer stand-alone solutions to these needs that may be interfaced or even better integrated with a court CMS solution.

The following subsections present a brief overview of the mission and authority of each of the agencies, a description of their primary (and closely related) supervisory and investigative business functions and a listing and description of the core business processes of each.

5.5.1 Pretrial Release – Operational Overview

Pretrial services typically assist the court by assessing the release eligibility and suitability of pretrial defendants. At intake, each defendant is interviewed and information is verified through references and the completion of criminal history background investigations. Following the initial assessment, and if justified, the agency typically authorizes (subject to court approval) an alternative to detention by monitoring a defendant's performance through the pretrial period. This is accomplished through telephonic and face-to-face contact with the individual supervised, and through the use of "house arrest" monitoring devices. Also, case managers typically help monitor a defendant's adherence to court-ordered release conditions, which may include drug and alcohol testing, and refer individuals to outside agencies for any necessary counseling.

5.5.2 Pretrial Release – Primary Business Functions

A typical Pre-trial Release agency performs at least two primary business functions as listed and described in the table below.

Table 4: Pre-trial Release – Primary Business Functions

Primary Business Function	Description
Supervision	Typically, the Pretrial agency is assigned third-party custody of defendants who are otherwise eligible for release, but have been determined by the court to require monitoring and/or social-service referrals. The supervision provided is based on a casework model and defendants are assigned to a specific case manager who works with them during the pretrial period. Typically, a needs assessment is conducted and each defendant is assigned to an appropriate level of supervision. Toxicological tests (urinalysis and breath analysis) are conducted and referrals for supportive services (substance abuse or behavioral health counseling, employment assistance, etc.) are made to agencies throughout the community. If a defendant violates any of the court-ordered release conditions, the organization provides notice to the judge and, when appropriate, the defendant can be returned to custody.

Primary Business Function	Description
Investigation	Typically, those defendants who are held on bond at their initial appearance are afforded a second, more thorough evaluation of their release eligibility. If new information or changed circumstances warrant a reconsideration of a defendant's release conditions, the organization typically prepares a written report for the court with a new recommendation regarding release conditions. Attempts are also typically made to contact defendants who fail to appear for a scheduled court date in order to arrange for their surrender on the warrant. Reports are also prepared for all defendants at their initial appearance on bench warrants.

5.5.3 Pre-trial Release – Primary Business Processes

Typically, the Pre-trail Services agency supports at least two primary business processes, as listed and described below.

Table 5: Pre-trial Release – Primary Business Processes

Primary Business Process	Description
Misdemeanor Charge	Typically, reports on each defendant are supplied to the judge at arraignments. The assessment includes a recommendation regarding conditions of release during the pretrial period based on an extensive investigation of the defendant's background. These reports are of special importance in domestic violence cases, as input from the victim is secured along with information regarding the availability of alternative housing for the defendant if necessary. Staff members typically have authority to release defendants charged with certain misdemeanor offenses prior to their initial appearance. These defendants are typically given a date to appear in court for resolution of the charge. Courtesy letters and telephone calls are typically provided to every defendant released by Pretrial Services to remind them of their upcoming arraignment. For those defendants who fail to appear, outreach efforts are typically conducted in order to arrange the defendant's later appearance in court or bench warrants may be issued.
Felony Charge	Typically, a report is submitted on each defendant appearing for their initial court hearing. This report provides the judge setting release conditions with an assessment of any potential risks of flight or misconduct posed by the defendant. Each defendant is interviewed and the information he/she provides regarding residence and employment is verified with references. Criminal history repositories are researched to determine the existence of any arrests in the defendant's past and to ascertain the disposition of those cases. Input regarding the charges is typically secured from the arresting agency and when appropriate agencies such as Child Protective Services are typically contacted. Any special issues such as probation, parole or immigration status are also typically researched and addressed in the report.

5.5.4 Adult Probation – Operational Overview

A typical adult probation agency's mission is to serve the court, to actively promote community safety, to facilitate positive behavioral change in probationers and to respect victims' rights. The agency will typically conduct a Pre-sentence Investigation (PSI) subsequent to a defendant's conviction to assist the judge in the sentencing process. This complex document is also typically used by supervising probation officers, correctional institutions and community treatment agencies in the down-stream classification, supervision and rehabilitation of the offender.

5.5.5 Adult Probation – Primary Business Functions

Typically, the adult probation agency supports at least two primary business functions as listed and described below.

Table 6: Adult Probation – Primary Business Functions

Primary Business Function	Description
Adult Supervision	When a court imposes a term of probation, a supervising officer is typically assigned to monitor and assist the offender. The offender must cooperate with the officer in complying with the specified terms and conditions of probation. The probationer may be ordered to pay restitution, fines and fees, support his family, perform community service, participate in counseling, education, or drug treatment programs, submit to urinalysis and abstain from alcohol. Special supervision is typically required to supervise drug and alcohol offenders, the seriously mentally ill (SMI), sex offenders and offenders with special language and learning needs.
Adult Intense Supervision	The agency typically supervises higher risk offenders who are primarily diverted from prison. It is a highly structured program designed to provide maximum control while assisting the offender to alter negative behavior patterns. Behavior is typically monitored through frequent home and work site visits, referrals to counseling agencies, contacts with family members and counselors and in some cases, through search, seizure and arrest.

5.5.6 Adult Probation – Primary Business Processes

The table below presents a listing and brief description of the primary business processes of a typical probation agency.

Table 7: Adult Probation – Primary Business Processes

Primary Business Process	Description
Treatment Process	The agency typically tries to match the probationer with the most appropriate treatment opportunity, and for probationers with financial hardship, co-payments are typically made available. The organizations also arrange for cognitive skills training and other life skills programs, as needed by probationers. The agency may sponsor and oversee volunteer self-paced learning, one-to-one assistance and computer-aided programming to teach literacy skills, basic education, GED and ESOL.
Education Process	The agency may sponsor and oversee volunteer self-paced learning, one-to-one assistance, and computer-aided programming to teach literacy skills, basic education, General Education Development (GED) and English for Speakers of Other Languages (ESOL).
Inter-County/Inter-State Compact Process	The interstate compact's purpose is to increase community safety in supervising probationers and parolees who want to reside in a State or jurisdiction other than where the felony sentence occurred. The probation organization typically supervises two types of defendants, including defendants who have been: • Approved by a judge to live in a specific State other than the State of the original offense; and • Sentenced in other States or jurisdictions and have been approved to reside in the organization's State.

Primary Business Process	Description
Victim Services Process	An agency typically provides mandated services to victims of crime. The provision of these services must typically be recorded, audited and reported on a regular basis. The agency typically: • Obtains victims' input during the investigation process, including the impact of the offense, restitution amounts and sentencing recommendations • Informs victims of their right to be heard at court proceedings • Informs victims of notification options • Maintains a high focus on the collection of restitution • Notifies victims of a probationer's release, or when supervision levels change on intensive probation cases • Research and respond to victim concerns • Provide informational sessions for victims and local advocacy groups

5.5.7 Pretrial Release/Adult Probation Supervision CMS – Primary Functions and Features

The IJIS Team's vision of the primary functions and features of a Pretrial/Adult Probation CMS is depicted in the figure below, and is further described in the table that follows:

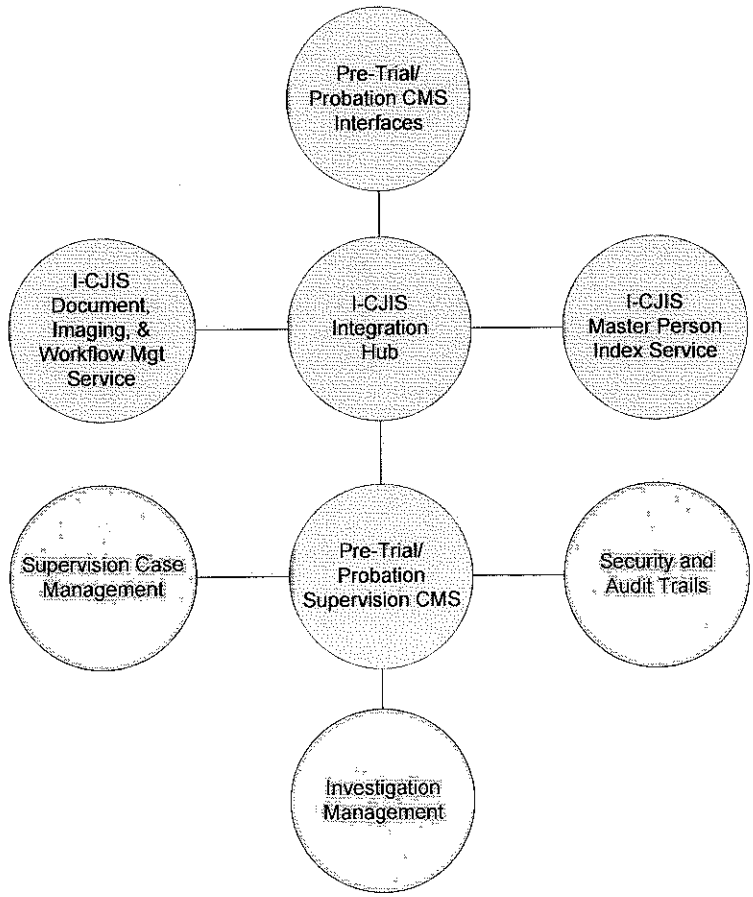


Figure 6: Pretrial Release/Adult Probation Supervision CMS - Primary Functions & Features

Table 8: Pretrial Release/Adult Probation Supervision CMS - Primary Functions and Features

Function-Feature	Description
I-CJIS SERVICES INTERFACE	
Master Person Index Service	The Pre-trial/Adult Probation Supervision CMS should support the update and access the enterprise-level I-CJIS Master Person Index provided as a service by the I-CJIS Integration Hub, separate from the individual person and name indexes supported by the COTS-based CMS. The purpose of the I-CJIS Master Person Index is to share name, contact, address, identification and other information on persons in their historic roles and involvements with the Criminal Justice System and processes.
Document, Imaging, and Workflow Management Service	The Pre-trial/Adult Probation Supervision CMS should have the ability to access and use the full capabilities, functions and features of the OnBase™ licensed enterprise-level I-CJIS Document, Imaging and Workflow Management Service supported by the I-CJIS Integration Hub, as was discussed earlier in this section. In the event that I-CJIS services are not implemented, the county should include a similar service as part of the COTS-based CMS to address the electronic document, imaging and workflow needs of the pre-trial and probation agencies.
SUPERVISION CASE MANAGEMENT	
Automated Recordkeeping	The CMS should electronically store all supervision case information required for the processing of supervision actions, in such a format as can be readily accessible for review, addition, modification or deletion. It should be capable of automatically generating supervision case numbers and cross-referencing the numbers to other person ID's (i.e. SID, NCI, FBI, Corrections ID, etc.) and court and other case numbers.
Person-Centric Processing	The CMS must support the maintenance of a defendant's or offender's data as a separate database from the supervision case database. The CMS must be designed so that a defendant/offender is only established once in the system. Once the defendant/offender is established in the system, a unique identifier is assigned and they may be added to cases in various roles, including as a defendant, offender, victim or a witness. This processing provides the ability to easily research a defendant/probationers local violations history, as well as the national criminal history, and based on that information; conduct a review of the defendant/probationers activities on cases within the system. The person's information includes names, addresses, demographic information and identifiers, such as driver's license numbers, SID, FBI, and NCIC numbers.
Defendant/Offender and Supervision Case Indexes	The CMS should have the ability to index, access and cross reference any or all supervised case information, including but not limited to case number, offender name, offender identification numbers, attorney names, applicable addresses, history of addresses, active dates for addresses, personal identification information for any active offender charges, scheduled court activity, scheduled hearing or trial dates and case status. Individual probation case information presented as a result of an inquiry should be immediately accessible for modification. The defendant/offender name indexing process should be tied to and integrated with the Master Name Index, and should include a phonetic, or similar function search capability to retrieve words that sound like the search target name, so that spelling mismatches are not excluded from the search. Further, the indexing process should include a pattern matching (character for character) capability that, at the user's discretion, will retrieve only exact matches or will conduct searches of partial word strings using a 'wildcard' function.
Postal Service Zip Code Support	The CMS should incorporate the U.S. Postal Service zip code file and should use this file to verify that street; city and state addresses are consistent with the zip code. The software should allow data entry of a zip code and should automatically provide the city and State.

Function-Feature	Description
Scheduling	The CMS must maintain information on future actions scheduled for each supervised defendant/probationer, along with a record of the date, time and place the actions are to occur. The CMS should: • Distinguishing between scheduled, overdue, pending and completed actions, and should automatically generate notices, accordingly; • Automatically schedule the next logical supervision event/activity, upon entry of an event; • Provide necessary information on acceptable elapsed time between events; • Allow for manual override by the user; and • Record the actual time consumed by the event.
Tickler/Reminder System	The CMS must have the ability to automatically set and generate reminders (ticklers) and overdue events and generate appropriate notices and reports. The CMS should be able to trigger e-mail notifications and confirmations to the appropriate parties, based on major events.
Archiving	The CMS must include a process for moving user-specified historical data from the supervision database to some secondary (possibly off-line) electronic storage medium. Selected information on archived cases (e.g., case number) and thereafter be retained for indexing purposes. Although archived data may not be available "on-line," it should still be available to be reloaded to a reference able database for inquiry and reports, as necessary.
Ad-hoc and Routine Report Utility	The CMS should have the capability to extract and print selected information, with user control over the content and format of the extracted file and/or report. It should accommodate both on-line and batch report processing, so that time-consuming reports can be generated after hours to avoid impact on computer performance during business hours. The report generator should allow the user to create new report logic and to save, modify and delete pre-existing logic for data extraction and printing. Mechanics of the report utility should be straightforward and easily learned.
Document Generation	The CMS should have the capacity to generate routine correspondence and documentation automatically, and must interface with Microsoft Office Suite™ products. "Templates" for notices, receipts, form letters and any other routine documents should be available and customized through automatic insertion of appropriate case information (e.g., defendant/offender name and event scheduled date) from data available on the CMS databases, and should be individually generated, upon demand.
Fines, Fees and Victim Restitution Payment Status Information	The CMS should receive information confirming an offender payment of court ordered fines, fees and victim restitution. The CMS should also receive scheduled reports of probationer balances due and payment compliance to date.
Internal Reference Tables	The CMS should, for efficiency, flexibility and expanded processing reason, provide user-modifiable tables.

Function-Feature	Description
External CMS Interfaces	The COTS-based CMS should replace existing closely coupled interfaces supported by the legacy systems with loosely coupled interfaces supported by some type of Integration Hub. The hub, in order to support the interfaces, should include services for "information sharing and exchange" between the I-CJIS components, and those components and external State, regional and county systems and databases. The CMS should have the capability to interface with external systems through a variety of mechanisms. For example, when a defendant/offender completes a new booking process at a jail, the system at the jail will send a message to the Pre-trial/Probation CMS. The COTS-based CMS should support other interfaces to external systems that are triggered by rules, by user action and by electronic reporting.
Security, Audit Trail, and Transaction Tracing	The CMS should support comprehensive security, audit trail and "transaction tracking" across all levels of processing

5.5.8 Pretrial Release/Adult Probation Supervision CMS – Recommendations

Recommendation: With respect to the acquisition and deployment of a Pretrial and Probation Services CMS and the release of an RFP, it is important that the directors and staff of both agencies discuss and agree with the concept and approach of acquiring a single CMS to address the operational and business needs of the respective agencies.

Recommendation: Prior to preparation and release of an RFP, the respective agencies should sponsor and participate in "Provider Days" to obtain as much information as possible about the strengths and weaknesses of each provider's solutions, and in particular, the fit with regard to each agency's needs.

Recommendation: The pre-trial and probation agencies should embrace the deployment of the *I-CJIS Person Index Service* on the I-CJIS Integration Hub. It will provide substantial benefit to the agencies serving as the most current source of information about persons currently and historically involved in the county criminal justice process. For example, this will provide these agencies with the ability to obtain the most current defendant/offender contact and address information; a continual problem for most supervision agencies.

Recommendation: The pre-trial and probation agencies should embrace the deployment of the *I-CJIS Document, Imaging, and Workflow Management Service*, using the existing OnBase™ product license and supported on some form of Integration Hub. This service supports the sharing and exchange of electronic documents across the Criminal Justice System and process. The service presents the opportunity for significant increases in efficiency and productivity, and reductions in hardcopy reproduction and distribution costs.

5.6 I-CJIS Vision – Public Defender Litigation Case Management System

As discussed earlier in this report, the step-off -point for the initial vision of the Public Defenders Case Management System (CMS) is "Option 2," as is presented in the NCSC Report[4].

5.6.1 Public Defender Litigation CMS – Operational Overview

The mission of the public defender is to effectively and zealously represent court-appointed clients who are at risk of losing their life or liberty. The public defender typically investigates the alleged crime or offense by meeting with witnesses, police officers and reviewing the facts.

[4] IBID, National Center for State Courts (NCSC), June 2010.

The public defender meets with the client to discuss the appropriate action to be taken and whether pre-trial motions should be filed. The public defender researches case law and communicates with the defendant to determine trial strategy, such as cross-examination procedures, witness selection, jury selection, testimony decisions and opening and closing arguments.

The public defender typically provides trial counsel by representing defendants during all courtroom proceedings, and acts as negotiator between the defendant and the prosecuting attorney to secure acquittals or reach agreement concerning sentence time that is acceptable to both officials.

5.6.2 Public Defender Litigation CMS – Primary Business Functions

A typical public defender's office performs at least three primary business functions as listed and described in the table below.

Table 9: Public Defender's Primary Business Functions

Primary Business Function	Description
Adult Criminal Defense	The public defender defends indigent persons charged with: 1) crimes in the county; 2) felonies, misdemeanors and traffic cases for which a sentence of incarceration may be imposed. The public defender provides effective representation to defendants who are frequently illiterate, uneducated and uncooperative.
Juvenile Delinquent Defense	The public defender defends indigent juveniles charged in juvenile delinquency petitions, as well as parents and children in child abuse and neglect cases.
Paternity, Involuntary Commitment, and Mental Health Institution Business Function	The public defender typically defends indigent persons in paternity actions and involuntary commitments to mental health institutions.
Capital Appeals	The public defender represents defendants convicted of a capital offense in all stages of appeal.

5.6.3 Public Defender Litigation CMS – Primary Business Processes

Typically, the public defender's office supports at least nine primary business processes, as listed and described in the table below.

Table 10: Public Defender Primary Business Processes

Primary Business Process	Description
Assignment & Intake Process	At the arraignment, charges are read to the defendant. If the defendant does not have a lawyer, the court determines if the public defender's office will represent the defendant. At the time of appointment, the public defender obtains a copy of the charges filed against the defendant. After that, a representative of the public defender's office, (i.e. assistant public defender, a witness interviewer, an investigator or a legal intern) conducts an intake interview with the defendant.

Primary Business Process	Description
Court Appearance Process	The public defender represents the defendant at all appearances before the court and with other involved neutral or adversarial 3rd parties involved in the case.
Discovery Process	The public defender files motions for discovery to obtain witness lists, police reports, witnesses' statements, reports of experts and all other important facts in a case. Discovery depositions and other statements given under oath may be taken from witnesses. The public defender also may talk with the prosecutor to get some idea of the prosecutors' intentions in the case. The prosecutor may decide to dismiss all charges or to "plea bargain," which is to agree to a lighter sentence or to dropping some of several charges against the defendant in exchange for a plea of guilty or no contest. If the prosecutor offers a plea bargain, the public defender has an ethical duty to tell the defendant about it, even if he/she wants a trial.
Investigations Process	The public defender or an investigator typically investigates the alleged crime or offense by meeting with witnesses, police officers and verifying the facts. The public defender meets with the defendant to discuss the appropriate action to be taken, and whether pre-trial motions should be filed.
Motions Process	After investigating a case, the public defender may file pre-trial motions and ask for a court hearing.
Plea Process	A defendant can only plead one of three ways: guilty, not guilty or no contest,
Defense Preparation Process	The public defender develops a defense strategy and the execution of the strategy in the courtroom before the jury or judge (non-jury trial). The public defender and the defendant decide whether they want a jury trial or a non-jury trial. The prosecutor must also agree to a non-jury trial.
Trial Process	The public defender represents the defendant in the courtroom. The trial begins with the selection of the jury and proceeds through opening arguments, cross-examination of the prosecution witnesses and challenges of prosecution evidence, presentation of defense evidence and witness testimony, and finally with closing arguments.
Sentencing Process	At sentencing, the defendant typically has an opportunity to address the judge. The public defender advises the defendant whether to speak, and if so, what to say. The public defender also obtains the names and addresses of people the defendant wants to speak in his/her behalf at the sentencing, and advises regarding the content of their presentations.
Appeal Process	The public defender and the defendant must typically submit and appeal within 30 days of disposition of the case. In a case where the conviction is being challenged, the public defender must advise the appellate court exactly how, in his/her opinion the judge did not follow the law, before a conviction can be reversed.

5.6.4 Public Defender Litigation CMS - Primary Functions and Features

The IJIS Team's vision of the primary functions and features of a Public Defender Litigation CMS is depicted in the figure below, and further described in the table that follows:

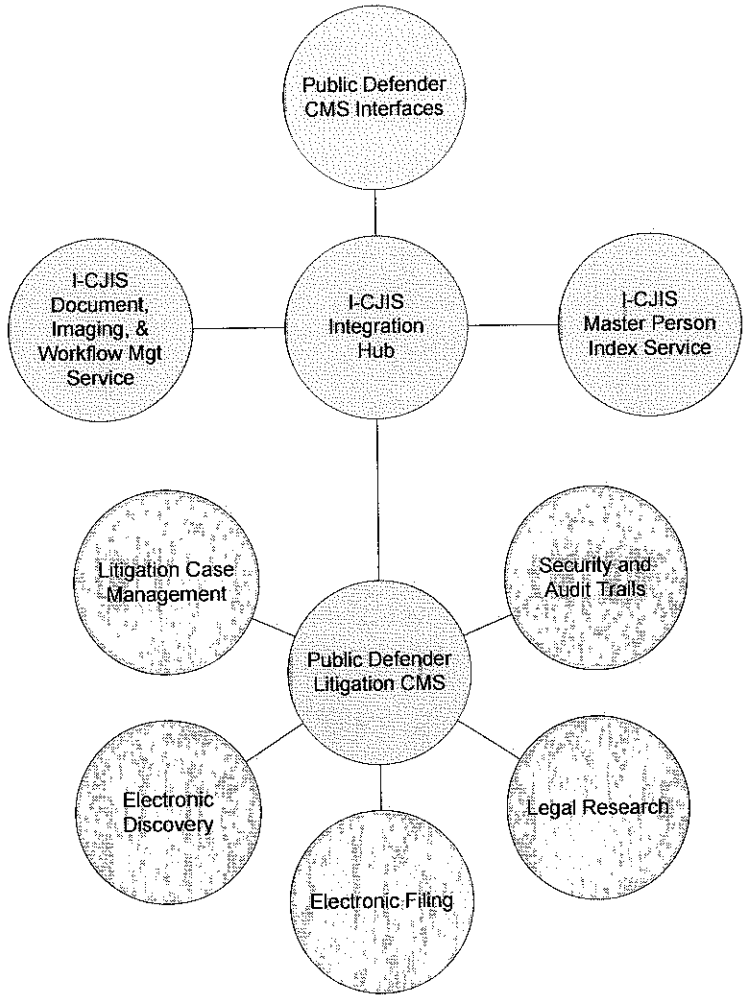


Figure 7: Public Defender Litigation CMS - Primary Functions & Features

Table 11: Public Defender Litigation CMS - Primary Functions & Features

Function-Feature	Description
I-CJIS SERVICES INTERFACE	
Master Person Index Service	The Public Defender CMS should have the ability to update and access the enterprise-level I-CJIS Master Person Index supported as a service on some type of I-CJIS Integration Hub, separate from the individual person and name indexes supported by the COTS-based CMS product. The purpose of the I-CJIS Master Person Index is to share name, contact, address, identification and other information on persons in their historic roles and involvements with the Criminal Justice System and processes.
Document, Imaging, and Workflow Management Service	The Public Defender CMS should have the ability to access and use the full capabilities, functions and features of the OnBase™ licensed enterprise-level I-CJIS Document, Imaging and Workflow Management Service supported by some form of the Integration Hub, as discussed earlier in this section. In the event that an I-CJIS Services is not implemented, the Public Defender should include a similar service as part of its CMS to address the electronic document, imaging and workflow needs of the agency.
LITIGATION CASE MANAGEMENT	

Function-Feature	Description
Automated Recordkeeping	The CMS should electronically store all defense case information required for the processing of defense actions, in such a format that can be readily accessible for review, addition, modification or deletion. It should be capable of automatically generating defense case numbers and cross-referencing the numbers to other person ID's (i.e. SID, NCI, FBI, Corrections ID, etc.) and court, pre-trial services and other case numbers.
Person and Case Centric Processing	*Case Centric Processing:* The CMS must support processes used to establish, maintain and query the components of a public defense case. Case information includes defendant and case identification, violations, alias names, associated parties, cash bail and bail bond information. It must track cases with multiple charging documents, such as complaints, information's, indictments and amendments. The CMS must track the associated charges included on those documents. In addition, it must support the entry of defendant information, including bail and bond information. *Person Centric Processing:* The CMS must support the maintenance of a person's data as a separate database from the case database. The CMS must be designed so that a person is only established once in the system. Once the person is established in the system, a unique identifier is assigned and they may be added to cases in various roles, including as a defendant, victim or a witness. This processing provides the ability to easily research a case defendant's criminal history and to review his/her other activities on cases within the system. The person information includes names, addresses, demographic information and identifiers such as driver's license numbers, SID, FBI and NCIC numbers.
Defendant/Offender Case Indexes	The CMS should have the ability to index, access and cross reference any or all defense case information including but not limited to case number, defendant/offender name, defendant/offender identification numbers, attorney names, applicable addresses, history of addresses, active dates for addresses, personal identification information for any active defendant/offender charges, scheduled court activity, scheduled hearing or trial dates and case status. Individual probation case information presented as a result of an inquiry should be immediately accessible for modification. The defendant/offender name indexing process should be tied to and integrated with the Master Name Index and include a phonetic, or similar function search capability to retrieve words that sound like the search target name, so that spelling mismatches are not excluded from the search. Further, the indexing process should include a pattern matching (character for character) capability that, at the user's discretion, will retrieve only exact matches or will conduct searches of partial word strings using a 'wildcard' function.
Evidence/Exhibits Processing	The CMS should support processes to identify and track defense and prosecution case evidence/exhibits. This should include the evidence/exhibits tracked, along with a history of their markings, case associations and location.
Criminal and Bench Warrant Issuance and Recall	A CMS should support a process to notify the public defender of criminal and bench warrants issued or recalled by the court for current or prior defendants represented by the office. This information should be automatically incorporated into defense CMS records along with a "notice" broadcasted to all assistant public defenders.
Postal Service Zip Code Support	The CMS should incorporate the U.S. Postal Service zip code file and should use this file to verify that addresses are consistent with the zip code. The software should allow data entry of a zip code and should automatically provide the city and State.

Function-Feature	Description
Scheduling	The CMS must provide access to court schedules and also maintain internal schedule information on future defense actions scheduled on for each defendant and a record of the date, time and place the actions are to occur. The CMS should: • Distinguishing between scheduled, overdue, pending and completed actions, and automatically generate notices accordingly; • Automatically schedule the next logical supervision event/activity upon entry into an event; • Provide necessary information on acceptable elapsed time between events; • Allow for manual override by the user; and • Record the actual time consumed by the event.
Court Calendar Access	The CMS must allow for on-line access to court calendars.
Workflow – Filing Through Disposition	The CMS should process case information from the initial filing of a case to the final disposition. This includes the processing of all party information, docketing, service processing, warrants, imaging, reporting and forms issuance.
Tickler/Reminder system	The CMS must have the ability to automatically set and generate reminders (ticklers) and overdue events and generate appropriate notices and reports. The CMS should be able to trigger e-mail notifications and confirmations to the appropriate parties based on major events.
External CMS Interfaces	The CMS should replace any existing closely coupled interfaces supported by any current legacy applications with loosely coupled interfaces supported by the Integration Hub. The hub should support services and both "information sharing" and exchange" with external I-CJIS components. The CMS should have the capability to interface with external systems through a variety of mechanisms. For example, when a defendant/offender completes a new booking process at a jail, the system at the jail sends a message to the Public Defender CMS. The CMS should support other interfaces to external systems that are triggered by rules, by user action, and by electronic reporting.

5.6.5 Public Defender Litigation Case Management System – Recommendations

Recommendation: With respect to the acquisition and deployment of a Public Defender Litigation CMS and the release of an RFP, it is important that the public defender and staff discuss and agree with the concept of acquiring a CMS to address the operational and business needs of the office.

Recommendation: Prior to preparation and release of an RFP, the public defender's office should sponsor and participate in "Provider Days" to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to needs.

Recommendation: The Public Defender CMS should embrace the deployment of the *I-CJIS Person Index supported as a service* on some form of I-CJIS Integration Hub. It will provide substantial benefit to the public defender serving as the most current source of information about persons involved in criminal cases.

Recommendation: The public defender should embrace the deployment of the *I-CJIS Document, Imaging and Workflow Management Service as a Service* on some form of I-CJIS

Integration Hub, using the existing OnBase™ product license. This service facilitates the sharing and exchange of electronic documents across the Criminal Justice System and process. The service presents the opportunity for significant increases in efficiency and productivity, **and** reductions in hardcopy reproduction and distribution costs.

5.7 I-CJIS Vision – Jail / Prison Inmate Management System

As discussed earlier in this report, the step-off-point for the initial vision of the Jail/Prison Inmate Management System is "Option 2", as presented in the NCSC Report[5]. As in the case of the pre-trial release/adult probation component, the vision is to acquire, engineer, integrate, deploy and implement one integrated solution to serve the common business needs of both the county jail and the county prison.

The vast majority of operations — business functions and processes — of both institutions are common. In the case of the prison, there are offender rehabilitation programs that typically are not a part of jail operations. These programs are feasible for prisons operations due to their larger "offender" population (as opposed to pre-trial) and primarily because of the greater length of tenure of a prison vs. a jail inmate. Educational programs supporting GED certification and correspondence courses for college credits are examples of offender rehabilitation programs. Another example is the prison industry trade program, like prison laundry, farms and ranches, furniture manufacturing, textile production (i.e., police uniforms), etc.

The purveyors of 3rd party COTS solutions to the needs of both correctional institutions have historically focused on Jail Management Systems (JMS) simply because jails present a much larger market. Prior to the advent of privately operated prisons, there were really only 50 potential prison clients, the various States. The advent of privately operated, regional prisons across the country has changed the market dynamics. As a result, there are several top-tier Inmate Management System solutions available in the market that target the larger jail and the regional prison markets of today. The providers offer solutions that address 90 percent of the common needs of both jails and prisons. The providers also address the additional differences, as discussed previously.

5.7.1 Jail – Operational Overview

The mission of a jail as one form of correctional institution is typically to provide safe and appropriate confinement and supervision of pre-trial defendants and post-conviction offenders (felony and misdemeanor), and to effectively manage or administer correctional facilities based on constitutional and statutory standards.

A jail is an integral part of local government's public safety function, and is an essential element of a local Criminal Justice System like Shelby County. It typically serves the following purposes, to:

- Receive and process people arrested and taken into custody by law enforcement;
- Hold accused law violators to ensure their appearance at trial;
- Hold offenders convicted of lesser offenses—usually misdemeanors, but also low-level felonies in some jurisdictions as a court-ordered sanction;
- Hold individuals remanded by the court for civil contempt; and

[5] IBID, National Center for State Courts (NCSC), June 2010.

- Hold offenders for other jurisdictions or those awaiting transfer to prison or other facilities.

A jail addresses the need for custody/detention at various points in the local criminal justice process. Jails typically serve multiple law enforcement agencies in the community, including local law enforcement, the State police, conservation officers and Federal authorities. Jails also serve prosecutors, the courts and probation and parole agencies. A jail serves these entities by holding the following groups in custody:

- New arrestees pending arraignment, trial, conviction and sentencing;
- Offenders sentenced to jail time;
- Persons accused of probation, parole or bail-bond violations, pending revocation proceedings;
- Offenders sentenced as a sanction for probation or parole violations;
- Convicted offenders awaiting transfer to State or Federal institutions;
- Illegal immigrants pending transfer to Federal authorities;
- Offenders in the armed services awaiting transfer to military authorities;
- Offenders held for violations of court-ordered conditions, such as failure to pay fines, contempt, failure to appear in court, violations of restraining orders and failure to attend counseling;
- Juveniles charged as adults or pending transfer to juvenile authorities;
- Detainees held under contract for other local, State, or Federal jurisdictions;
- Hostile witnesses for court; and
- Offenders held for State or Federal authorities under a contractual arrangement with the local jurisdiction, or because the State or Federal facilities cannot accept new inmates because of overcrowding.

A jail is typically responsible for the confinement of pre-adjudication defendants and post-sentence offenders who are sentenced to incarceration in a secure facility. The jail typically oversees the jail, geriatric, pre-release, movement/transportation and medical and psychiatric mentally retarded care programs.

A jail is also responsible for support operations, such as classification and records, community liaison, correctional training and staff development, laundry, food, canteen, supply, mail offender transportation, inmate security and threat investigations and management.

5.7.2 Prison – Operational Overview

The mission of a prison as a second form of correctional institution is typically to provide safe and appropriate confinement, supervision, rehabilitation and reintegration of adult felons, and to effectively manage or administer correctional facilities based on constitutional and statutory standards.

A prison is typically responsible for the confinement of adult felony offenders who are sentenced to incarceration in a secure facility. The prison typically oversees the prisons, felony punishment, Substance Abuse Felony Punishment Facility (SAFPF), geriatric, pre-release, transfer, medical and psychiatric facilities, and mentally ill, mentally retarded, anger management, boot camp and work camp offender programs.

A prison is also responsible for support operations, such as classification and records, community liaison, correctional training and staff development, laundry, food, canteen, supply,

mail offender transportation, offender discipline, safety, security and threat investigations and management.

5.7.3 Jail/Prison – Common Primary Business Functions

A typical jail/prison performs several common, primary business functions, as listed and described in the table below.

Table 12: Jail/Prison – Common Primary Business Functions

Common, Primary Business Function	Description
Intake/Admissions	The intake/admissions business function of a correctional institution serves a vital public safety function by providing a process where individuals taken into custody (as either defendants or offenders) can be safely processed and assessed to determine the risks they present. In the case of the jail, individuals who are not released shortly after intake or following their initial court hearing generally are those charged with serious offenses, who represent a public safety risk; those likely to flee the jurisdiction before their cases can be adjudicated; and those unable to make bond or otherwise secure pretrial release. Pretrial inmates constitute more than half of a typical jail's population. The purpose of pretrial incarceration is not to punish, but to protect the public and/or ensure court appearance. In the case of a prison, inmates are psychologically evaluated and classified in order to determine the risk they present to other inmates, correctional officers and themselves in a long-term, close relationship population. In the case of both, the booking function ensures that all inmate information, criminal history and legal records are properly recorded, verified and filed in the appropriate hardcopy and electronic record file and repository.
Custody	The Custody business function of a correctional institution manages housing the inmate population. In the case of the jail, the population includes both pretrial population and inmates sentenced to the jail. Sentenced jail offenders generally spend up to one year in jail. Offenders with longer sentences are sent to regional or State prisons designed to better accommodate multi-year sentences. Rehabilitation and reintegration are sometimes considered secondary goals of jail incarceration, and within the constraints of available resources, many local jails do make an effort to provide inmates with opportunities for self-help and change to deter future criminal behavior.

5.7.4 Jail/Prison – Common Primary Business Processes

Typically, a jail/prison supports at least 34 common primary business processes, as listed and described in the table below.

Table 13: Jail/Prison Common Primary Business Processes

Common Primary Business Processes	Description
INMATE INTAKE/ADMISSIONS	
Inmate Badging/ID	Wristband with photo and barcode, ID card with photo, barcode, and magnetic stripe

Common Primary Business Processes	Description
Inmate Booking	Arrest/conviction charge summary, inmate demographics, history, sentence information, phone log, contact information, inmate screening and screening history information
Inmate Charge/Sentence Information	Personal identifier information, detainers, charge history, person information, outstanding warrants, expungement, un-expungement
Inmate Classification	Initial custody classification, custody re-classification, classification history, classification form type, classification score, classification score history, housing unit/cell assignment, infractions by class and misclassified history
Inmate Fingerprinting	Image and pattern classification capture, storage and retrieval, 1/1 matching and1/n matching
INMATE MANAGEMENT	
Inmate Accounting	Inmate account set-up, balances, transactions, reconciliation, and deposits, cash box definitions, transactions and balance, inmate surcharge list and maintenance
Inmate Commissary	Inmate orders, order cancellation, return order/item, orders to fill by pod, order filled list, order delivery and commissary account balance
INMATE STATUS/ACTIVITY LOG	
Inmate Disciplinary Reports	Minor disciplinary offenses, major disciplinary offenses, disciplinary history, hearing schedule and hearing result
Inmate Incident Reports	Incident report, incident report summary and incident report disposition
Inmate Information	Inmate cell transfer, movement history, roll call, meal count, breathalyzer and blood test results, custody jurisdiction (i.e., county, State, U.S Marshal, Federal prisons, etc.)
Inmate Medical	Medical, dental and psychiatric information, medical history, medical exam, inmate sick call request list, return check, bed-rest, medication log, prescription, outside medical treatment and doctor appointment schedule
Inmate Mug Shot	Image capture, storage and retrieval, facial recognition and photo matching
Inmate Privileges	Inmate current privileges, inmate privilege list and pod/cell block privileges
Inmate Property	Receive/return inmate property, record location of property, inmate property received/returned history and date institutional property issued/returned
Inmate Release	Release/return information, bond payment, bond payment history and bond company
INMATE REQUESTS	
Inmate Scheduling	Work schedule, work eligibility, work log, work behavior credits, achievement programs and transportation schedule

Common Primary Business Processes	Description
Inmate Sentence Mgt.	Inmate release date calculation and pre-release warrant check
Inmate Tracking	Inmate location and known enemies
Inmate Victim Information	Victim information and victim notification history
Inmate Visitation	Badged visitors, visitor log, visitor background check and visitor photo
Inmate Work Release	Terms and conditions, employer information, halfway house supervision contract and daily attendance/performance log
Inmate Grievances	Steps in the investigation and resolution of written grievances filed by inmates should be recorded and tracked, status, progress ticklers and reports should be provided and official electronic archival files of findings and outcomes should be maintained.
Security Threat Group Management	Intelligence information (voice, data, text/document, image and video) regarding all potential, current and historical threats to the institution and its sworn civilian and inmate population should be created, indexed, updated and maintained.. This should include individuals, internal and external religious, ideological, political or terrorist organizations and movements, criminal, racial and ethnic gangs, syndicates and cartels. The institution should be provided with the ability to identify, record, assess, evaluate, verify and track relationships and links between individuals, organizations, geographic locations, events, times and dates. They should also be provided with the ability to generate and publish verified and actionable intelligence for use by institution management.
JAIL/PRISON OPERATIONS MANAGEMENT	
Accounting/G/L	Fully integrated GL system
Educational Programs Management	Education program and curricula management
Equipment Management	Equipment inventory and maintenance records
Facilities Maintenance	Facility inventory and maintenance records
Human Resources Management	Human resources management system
Motor Pool Management	Fleet management system
Prison Industries Management	Prisons only – industrial and farm management systems
Security Management	Perimeter and facility security management system
Staff Training & Certification	Systems to record and manage currency of employee training and certification records

Common Primary Business Processes	Description
Transportation Management	Systems to support scheduling and execution of all inmate and other transportation requests.

5.7.5 Jail / Prison Inmate Management System – Common Primary Functions and Features

The IJIS Team's vision of the common and primary functions and features of an Inmate Management System is depicted in the figure below, and is further described in the table that follows.

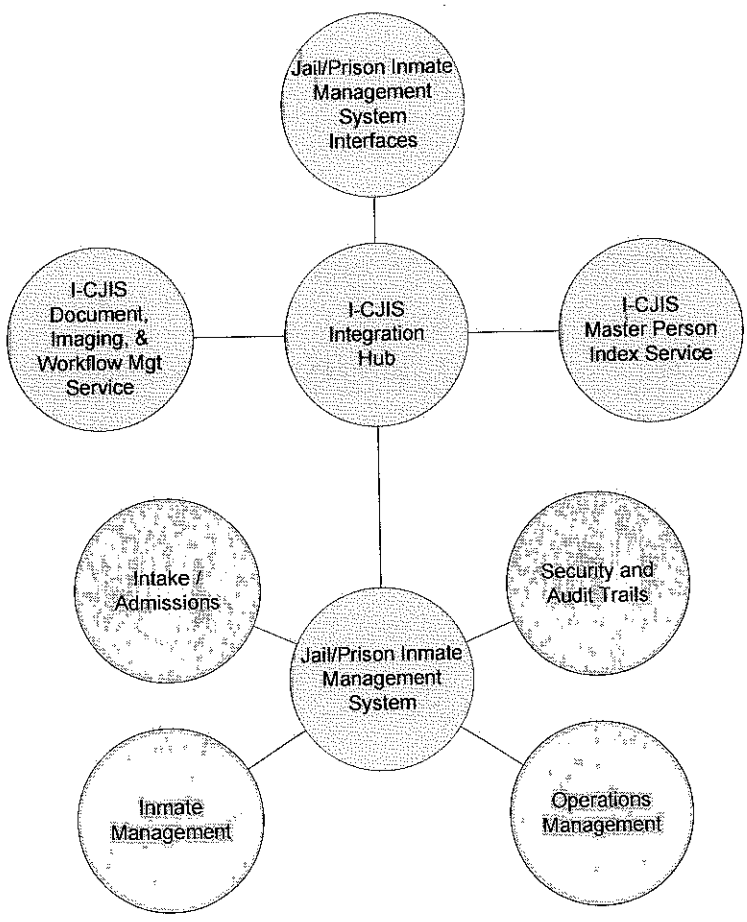


Figure 8: Jail / Prison Inmate Management System - Primary Functions & Features

Function-Feature	Description
I-CJIS SERVICES INTERFACE	

Function-Feature	Description
Master Person Index Service	Support, update and access functions with the enterprise-level *I-CJIS Master Person Index Service* supported by some form of I-CJIS Integration Hub (This is separate from the individual person and name indexes supported by the COTS CMS product). The purpose of the I-CJIS Master Person Index is to share name, contact, address, identification, and other information on persons in their historic roles and involvements with the criminal justice system and processes.
Document, Imaging, and Workflow Management Service	Support access to, and use of the full capabilities, functions and features of the OnBase™ licensed enterprise-level I-CJIS Document, Imaging and Workflow Management Service supported on some form of I-CJIS Integration Hub as discussed earlier in this section. In the event that an I-CJIS Services is not implemented, the jail and prison agencies should include a similar service as part of their CMS to address the electronic document, imaging and workflow needs.
INTAKE/ADMISSIONS	
Inmate Badging/ID	Support production of wristband with photo and barcode, ID card with photo and barcode and magnetic stripe
Inmate Booking	Capture/maintain arrest/conviction charge summary, inmate demographics, history, sentence information, phone log, contact information, inmate screening and screening history information
Inmate Charge/Sentence Information	Capture/maintain personal identifier information, detainers, charge history, person information, outstanding warrants and expungement and un-expungement of information
Inmate Classification	Capture/maintain initial custody classification, custody re-classification, classification history, classification form type, classification score, classification score history, housing unit/cell assignment, infractions by class and misclassified history information
Inmate Fingerprinting	Capture/maintain image and pattern classification, storage and retrieval, 1/1 matching and 1/n matching Information obtained through interface with local or State Automated Fingerprint Identification System (AFIS)
INMATE MANAGEMENT	
Inmate Accounting	Capture/maintain Inmate account set-up, balances, transactions, reconciliation, deposits, cash box definitions, transactions and balance and inmate surcharge list and maintenance
Inmate Commissary	Capture/maintain Inmate order, order cancellation, return order/item, orders to fill by pod, order filled list, order delivery and commissary account balance
Inmate Daily Activity log	Capture/maintain the Inmate Daily Activity Log
Inmate Disciplinary Reports	Capture/maintain minor disciplinary offenses, major disciplinary offenses, disciplinary history, hearing schedule and hearing result
Inmate Incident Reports	Generate incident report, incident report summary and incident report disposition

Function-Feature	Description
Inmate Information	Capture/maintain inmate cell transfer, movement history, roll call, meal count, breathalyzer and blood test results and custody jurisdiction (i.e., county, State, U.S Marshal, Federal prisons, etc.) information
Inmate Medical	Capture/maintain medical, dental and psychiatric information, medical history, medical exam, inmate sick call request list, return check, bed-rest, medication log, prescription, outside medical treatment and doctor appointment schedule information
Inmate Mug Shot	Capture/maintain inmate images and facial recognition and photo matching information
Inmate Privileges	Capture/maintain inmate current privileges, inmate privilege list and pod/cell block privileges information
Inmate Property	Capture/maintain inmate property, record location of property, inmate property received/returned history and date institutional property issued/returned information
Inmate Release	Capture/maintain inmate release/return information, bond payment, bond payment history bond company information
Inmate Requests	Capture/maintain information regarding all inmate requests
Inmate Scheduling	Capture/maintain work schedule, work eligibility, work log, work behavior credits, achievement programs and transportation schedule information
Inmate Sentence Management	Capture/maintain inmate release date calculation and pre-release warrant check information
Inmate Tracking	Capture/maintain inmate location and known enemies information
Inmate Victim Information	Capture/maintain victim information and victim notification history information
Inmate Mail Services	Sort, open, review, clear and distribute incoming/outgoing inmate mail
Inmate Visitation	Capture/maintain badged visitors, visitor log, visitor background check and visitor photo information
Inmate Work Release	Capture/maintain terms and conditions, employer, halfway house supervision contract daily attendance/performance log information
Inmate Centric Processing	The maintenance of a person's data as a separate database from the case database should be supported. The IMS must be designed so that a person is only established once in the system. Once the person is established in the system, a unique identifier is assigned and he/she may be added to cases in various roles, including as a defendant, victim or a witness. This processing provides the ability to easily research a case defendant's criminal history and to review his/her other activities on cases within the system. The person information includes names, addresses, demographic information, and identifiers such as driver's license numbers, SID, FBI and NCIC numbers.

Function-Feature	Description
Inmate Indexes	A defendant/offender name indexing process, tied to and integrated with the Master Name Index, and including a phonetic or similar function search capability to retrieve words that sound like the search target name, so that spelling mismatches are not excluded from the search, should be supported. Further, the indexing process should include a pattern matching (character for character) capability that, at the user's discretion, will retrieve only exact matches or will conduct searches of partial word strings using a 'wildcard' function.
Inmate Postal Service Zip Code Support	The U.S. Postal Service zip code file should be incorporated, and should use this file to verify that street; city and State addresses are consistent with the zip code. The software should allow data entry of a zip code and should automatically provide the city and state.
Inmate Court Calendar Access	On-line access to inmate court calendars should be supported
External CMS Interfaces	The Jail/Prison Inmate Management System should replace any existing closely coupled interfaces supported by the legacy systems with loosely coupled interfaces supported by some form of Integration Hub. The hub should support services and both "information sharing" and exchange" between the I-CJIS components, and between those components and other State, regional and county systems and databases. The system should have the capability to interface with external systems through a variety of mechanisms. For example, when a defendant/offender completes a new booking process at a jail, the system at the jail sends a message to the Public Defender CMS. The CMS should support other interfaces to external systems that are triggered by rules, by user action and by electronic reporting.
Tickler/Reminder system	The CMS should have the ability to automatically set and generate reminders (ticklers) and overdue events and generate appropriate notices and reports. The CMS should be able to trigger e-mail notifications and confirmations to the appropriate parties based on major events.
JAIL/PRISON OPERATIONS MANAGEMENT	
Accounting/G/L	Fully integrated GL system
Educational Programs Management	Education program and curricula management
Equipment Management	Equipment inventory and maintenance records
Facilities Maintenance	Facility inventory and maintenance records
Human Resources Management	Human resources management system
Motor Pool Management	Fleet management system
Prison Industries Management	Prisons only – industrial and farm management systems
Security Management	Perimeter and facility security management system

Function-Feature	Description
Staff Training & Certification	Systems to record and manage currency of employee training and certification records
Transportation Management	Systems to support scheduling and execution of all inmate and other transportation requests.

5.7.6 Jail / Prison Inmate Management System – Recommendations

Recommendation: With respect to the acquisition and deployment of an Inmate Management System to serve the needs of the county jail and county prison, and the release of an RFP, it is important that the directors and staff of both agencies discuss and agree with the concept and approach of acquiring a single IMS to address the operational and business needs of the respective agencies.

Recommendation: Prior to preparation and release of an RFP, the respective agencies should sponsor and participate in "Provider Days," to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each agency's needs.

Recommendation: The jail and prison agencies should embrace the deployment of the *I-CJIS Person Index Service* on some form of I-CJIS Integration Hub. It will provide substantial benefit to the agencies serving as the most current source of information about persons involved in criminal cases.

Recommendation: The jail and prison agencies should embrace the deployment of the *I-CJIS Document, Imaging, and Workflow Management Service* on some form of Integration Hub, using the existing OnBase™ product license. This service facilitates the electronic sharing and exchange of electronic documents across the Criminal Justice System and process. The service presents the opportunity for significant increases in efficiency and productivity, and reductions in hardcopy reproduction and distribution costs.

5.8 I-CJIS Vision – Integration Hub

During the phone interview process, the TA Team and Shelby County discussed the need for some form of Integration Hub. A hub architecture and approach intended to eliminate the need to engineer, implement and maintain individual, closely coupled interfaces (as is the case with the current legacy systems) between the initial seven components, and between those and additional components to be added to the I-CJIS in the future is necessary. The deployment of COTS-based, licensed software solutions from a potential range of component providers naturally drives the county in this direction, given the complexity of developing, tuning and maintaining closely coupled interfaces between proprietary, licensed provider products involving separate on-going software maintenance agreements. Loosely coupled, "open" interfaces would seem a prudent approach, but one not without its own set of issues and complexities.

The eventual deployment of some form of hub architecture (there are many technical approaches and "stages") would provide for flexible and adaptable "sharing" and "exchange" of information between all of the I-CJIS components. Further, the hub could provide additional sharing and exchange with:

- Federal, State and regional criminal justice, emergency management and homeland security systems;

- Other emergency management and public safety systems in Shelby County;
- Handheld, secure wireless end user devices as well as public domain intelligent cell phones;
- Other municipal criminal justice and public safety systems within Shelby County; and
- Other criminal justice, emergency management, and public safety systems in the State.

The staged migration to some form of initial Integration Hub architecture could position the County for the gradual and controlled migration (over time) to a Services Oriented Architecture (SOA) supporting a growing portfolio of enterprise-wide "services" made uniformly, persistently and consistently available to all I-CJIS components. One need only look at the growth in intelligent wireless (for example, the Apple iPhone) devices and the commercial growth in applications (Apps) made available to end users to see the value of one form of SOA being played out in the private sector and the commercial markets of today.

At the time of the initial phone interviews, the TA Team was told that the County IT Department had recently recruited a technical specialist to assess the county's needs and develop and present a proposed Integration Hub technical architecture and approach. Work on the Integration Hub architecture was just beginning at the time of the review.

Given the situation, the TA Team decided it was appropriate to present some "informational concepts" of what is a complex technical topic. There are many complex elements, features, capabilities, philosophies, "technical biases" and schools-of-thought associated with the engineering and deployment of an "Integration Hub." There are also proven COTS-based licensed and provider supported and maintained solutions available in today's commercial market. Finally, there are significant risks, and startup and recurring costs associated with hub deployment.

There are also many "lessons learned," and proven "building block" approaches to deploying an Integration Hub.

***Note**: Three of the "lessons learned" with regard to COTS-based procurements and Integration Hub deployments are:*

1. *Make sure the technical concept, architecture and specifications for the initial Integration Hub are defined, documented and published as the first step in the I-CJIS project;*
2. *Make sure the build/buy decision regarding a COTS-based approach to deployment of the Integration Hub has been made, and the physical solution is fully understood and at least demonstrable to potential COTS providers in a laboratory setting; and*
3. *Complete steps one and two above before releasing the first RFP to procure the first component of the I-CJIS. The details of steps one and two should be incorporated into the RFP as a set of requirements.*

To this end, the TA Team suggests the county investigate and learn from the experiences of other I-CJIS programs, the following, to name a few in the eastern USA, the:

- JUSTIS Program implemented by the District of Columbia;
- JNET Program implemented by the Commonwealth of Pennsylvania; and
- J-ONE Program implemented by the State of Connecticut.

Note: *The TA Team recommends the county not bite-off too much too quickly in its deployment of hub technology. It is important to define the essential services and information sharing and exchange needs, requirements and benefits. Next, it is important to look at the county's current IT Strategy in this area, and define a hub architecture that best fits the long-term strategy. Finally, the Team suggests the county step back and selects an initial step or stage of migration that presents the best tradeoff between level and quality of services, technical complexity, risk management and cost containment. The ideal outcome should be the migration to the first of several stages of "hub deployment" that positions the I-CJIS for movement to the next stage, as growing needs dictate and funding permits.*

The remainder of this subsection presents a brief, high-level discussion of a few of the concepts and elements of an Integration hub. The elements are selected from many options, only to communicate the complexity of the task and illustrate some of the "building blocks" of a conceptual Integration Hub. The presentations should not be interpreted as a specific recommendation regarding the technical construct or architecture of the final I-CJIS Integration Hub. Much technical research and analysis must first be conducted in order to then develop a technical hub architecture that meets the needs of the I-CJIS, and which is compatible with the overall County IT Technical Architecture and IT Strategic Plan, and which falls within the budgetary constraints of county.

Finally, towards the end of the TA project, the county provided the TA Team with a PowerPoint presentation regarding the results to-date of the on-going planning and analysis efforts, with respect to the I-CJIS Integration Hub. The presentation is included in Appendix A (Section 8) of this report.

5.8.1 Integration Hub – Conceptual Architecture

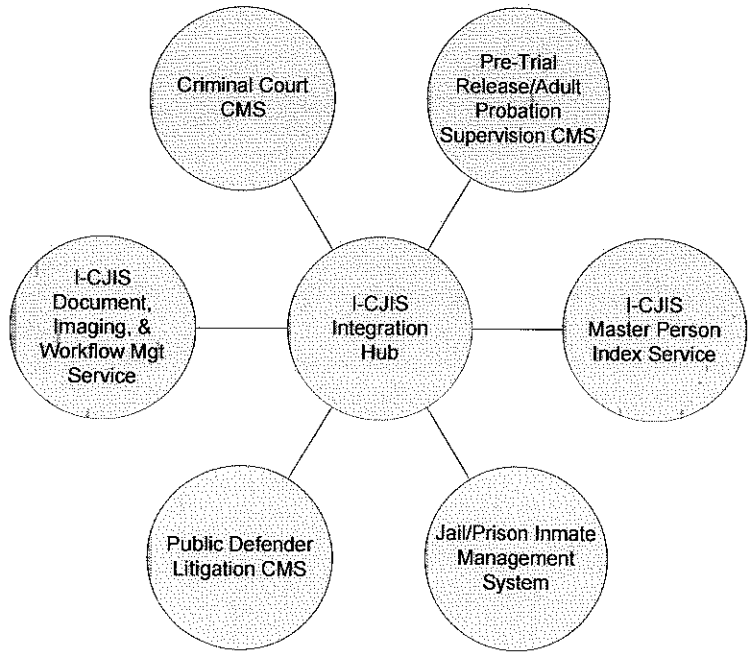


Figure 9: I-CJIS Integration Services Hub - Functional Concept"

The high-level, "functional concept" of an *I-CJIS Integration Services Hub*, (see Figure 9) was introduced and discussed in the early parts of this section. A high-level diagram of a conceptual architecture for an Integration Hub is presented in Figure 10. The major components and services are identified.

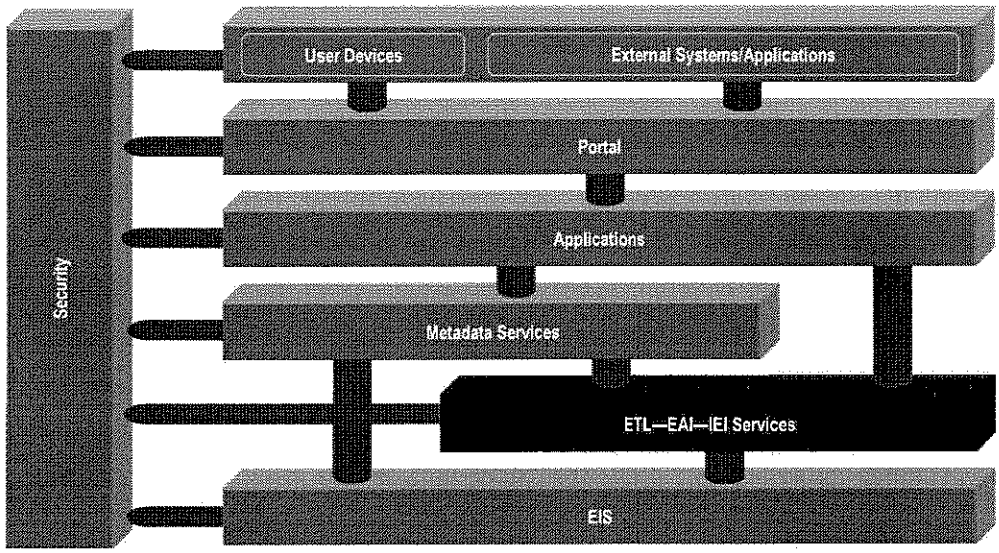


Figure 10: Integration Hub – Conceptual Architecture

An Integration Hub may provide a wide range of integration services, but all must, at a minimum, address "data services" and/or "applications services." For purposes of illustration, one view of a conceptual data services and one view of a conceptual applications service are briefly discussed in this subsection. They are (see **blue** in diagram above) the data integration architecture known as *ETL (Extraction, Transformation & Loading)* and the application integration architecture known as *EAI (Enterprise Application Integration)*.

> **Note:** *the discussion of this architecture is very high-level in content. The risk of these discussions is that the reader will underestimate both the complexity and the cost of this type of solution.*
>
> **Note:** *these elements are selected from many only to communicate the complexity of the task, and illustrate some of the "building blocks" of an Integration Hub. The presentations should not be interpreted as a specific recommendation regarding the technical construct or architecture of the final I-CJIS Integration Hub. Much technical research and analysis must first be conducted in order to then develop a technical hub architecture that meets the needs of the I-CJIS, is compatible with the overall County IT Technical Architecture and IT Strategic Plan, and which falls within the budgetary constraints of county.*

Data Integration – Conceptual ETL Architecture

ETL architecture includes technologies and processes, which enable the extraction of large volumes of data from heterogeneous source systems, the transformation of that data and the loading of that data, typically through batch loads, although some technologies offer near-real time data integration. ETL is focused primarily on the movement of data across databases.

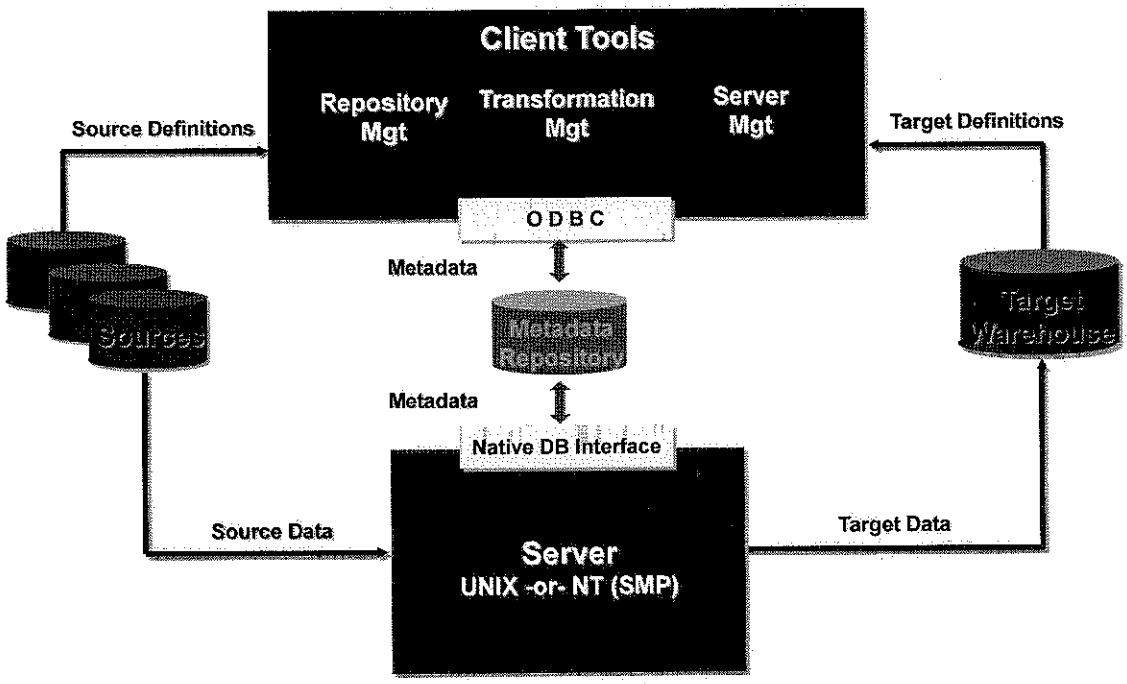


Figure 11: Conceptual ETL Architecture

Figure 11 above presents a conceptual ETL architecture. ETL typically:

- Is focused on moving data across databases;
- Is set-oriented;
- Involves extraction from heterogeneous source systems;
- Supports "transformations" performed in a separate environment from source systems;
- Involves batch sessions; and
- May support "near-real time" capabilities depending upon provider solution selected.

Application Integration – Conceptual EAI Architecture

EAI architecture includes technologies and processes that enable the movement of data across application systems. EAI technologies link disparate applications by making systems inside and outside the enterprise share information and logic in ways that were previously impossible.

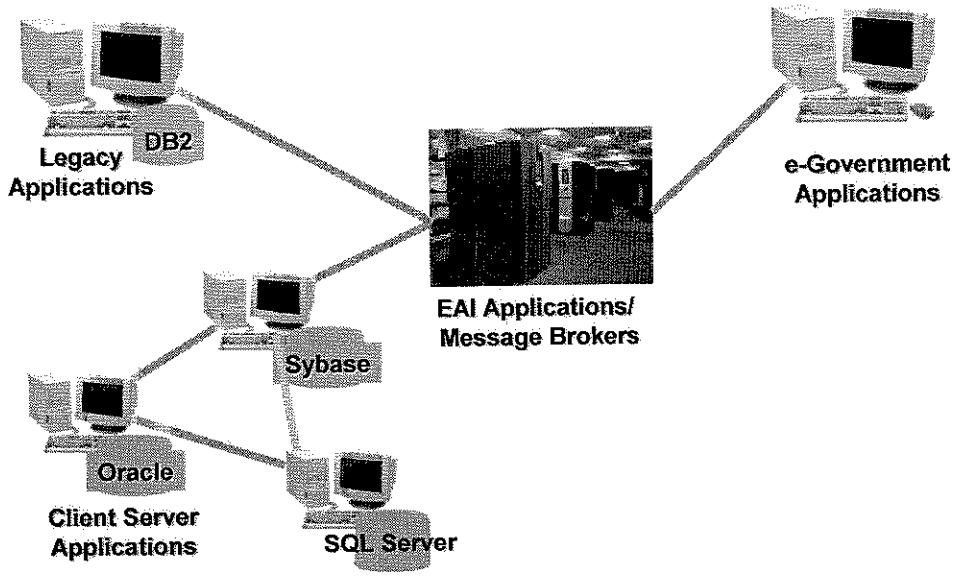


Figure 12: Conceptual EAI Architecture

Figure 12 above presents a conceptual EAI architecture. EAI typically:

- Coordinates the applications in an enterprise;
- Involves middleware/ message brokering services;
- Involves integration at both the application and business process level; and
- May support Inter-Enterprise Integration (IEI) services, as offered by some providers.

EAI includes middleware and is depicted in Figure 12, Message Brokering Services. These services typically:

- Move messages from one system to another by changing the format of the messages, transforming the content and schema of the information;
- Join many applications using common rules and routing engines;
- Is based on asynchronous, store-and-forward messaging;
- Use a hub and spoke architecture;
- Build on top of existing middleware technology;
- Route messages between networks, middleware, applications and/or systems;
- Provides a mechanism to integrate multiple business processes; and
- May include rules-processing and intelligent routing capabilities.

Integration Hub – Barriers and Challenges

The engineering and deployment of Integration Hub technologies has been enormously successful in the private/business sectors, and at the Federal and State-levels of government. The track record of success has been less so at the local (county and municipal) levels of government. This is because:

- It typically involves a significant financial and technology migration investment, which is difficult to obtain in the limited tax base and public service demands/priorities of local governments;
- It is very difficult, labor intensive and time consuming to get member agencies to agree on a set of standards (network protocol, database architecture, process automation, etc.); and
- The solution is extremely complex to engineer and maintain involving layers and layers of middleware, gateways and adapter technologies.

5.8.2 I-CJIS Integration Hub – Recommendations

Recommendation: As the first step, the respective agencies should sponsor and participate in "Provider Days," to obtain as much information as possible about the state of Integration Hub technology and the availability of COTS-based solutions. Thereafter, the PM should prepare a report presenting initial findings, conclusions, and recommendations. The recommendations to suggest the best initial concept and step-by-step approach based on the tradeoffs between the level and quality of services, technical complexity, risk, and cost should be presented.

Recommendation: With respect to the acquisition and deployment of an I-CJIS Integration Hub and the release of the first CMS RFP, it is important that the PM present the above referenced report to the CCJCC and the directors and staff of all I-CJIS agencies to discuss and agree in principle (subject to further definition of a final architecture and estimated costs for engineering, deployment and on-going maintenance and support) on the best concept and approach to deployment of an I-CJIS Integration Hub as the primary vehicle for delivery of I-CJIS Services and information sharing and exchange.

Recommendation: After the CCJCC adopts (in principle) the concept of the deployment of an I-CJIS Integration Hub, the Independent Project Manager should:

1. Confirm that the technical concept, architecture and specifications for the initial Integration Hub are defined, documented and published;
2. Confirm that the build/buy decision regarding a COTS-based approach to deployment of the Integration Hub has been made, and the physical solution is fully understood and at least demonstrable to potential COTS providers in a laboratory setting;
3. Develop an estimate of the cost to acquire, engineer, deploy and maintain/support the I-CJIS Integration Hub;
4. Present the information developed out of steps one through three to the CJCC for approval and authorization to proceed with the next step in compliance, with the to-be-developed I-CJIS Implementation Plan.
5. Ensure that steps one through three are completed before releasing the first RFP to procure the first component of the I-CJIS. The details of steps one and two to be incorporated into the RFP as a set of requirements.

Recommendation: All CMS RFP's should include the information concerning the County's I-CJIS Integration Hub Architecture, as envisioned to be deployed. It should stipulate the technical requirements and capabilities necessary to integrate each COTS-based provider solution with the I-CJIS Integration Hub either initially or at some future date.

6 I-CJIS High-Level Plan and Recommendations

This section provides a high-level Gantt chart and project plan, assumptions and constraints for the project plan, and recommendations for the CCJCC upgrade procurement process.

6.1 I-CJIS Order of Construction (Gantt Chart)

Assumptions and Constraints:

- The plan, as presented, does not take into account current workload and availability of Shelby County staff.
- The plan does not exclude any county or Federal holidays and other non-working days (outside of Saturdays and Sundays).
- The plan uses six hour work days.
- The plan presented should be used to gauge the overall scope of the project and is not the actual project plan. The project manager, once procured, will create an actual project plan for Shelby County.

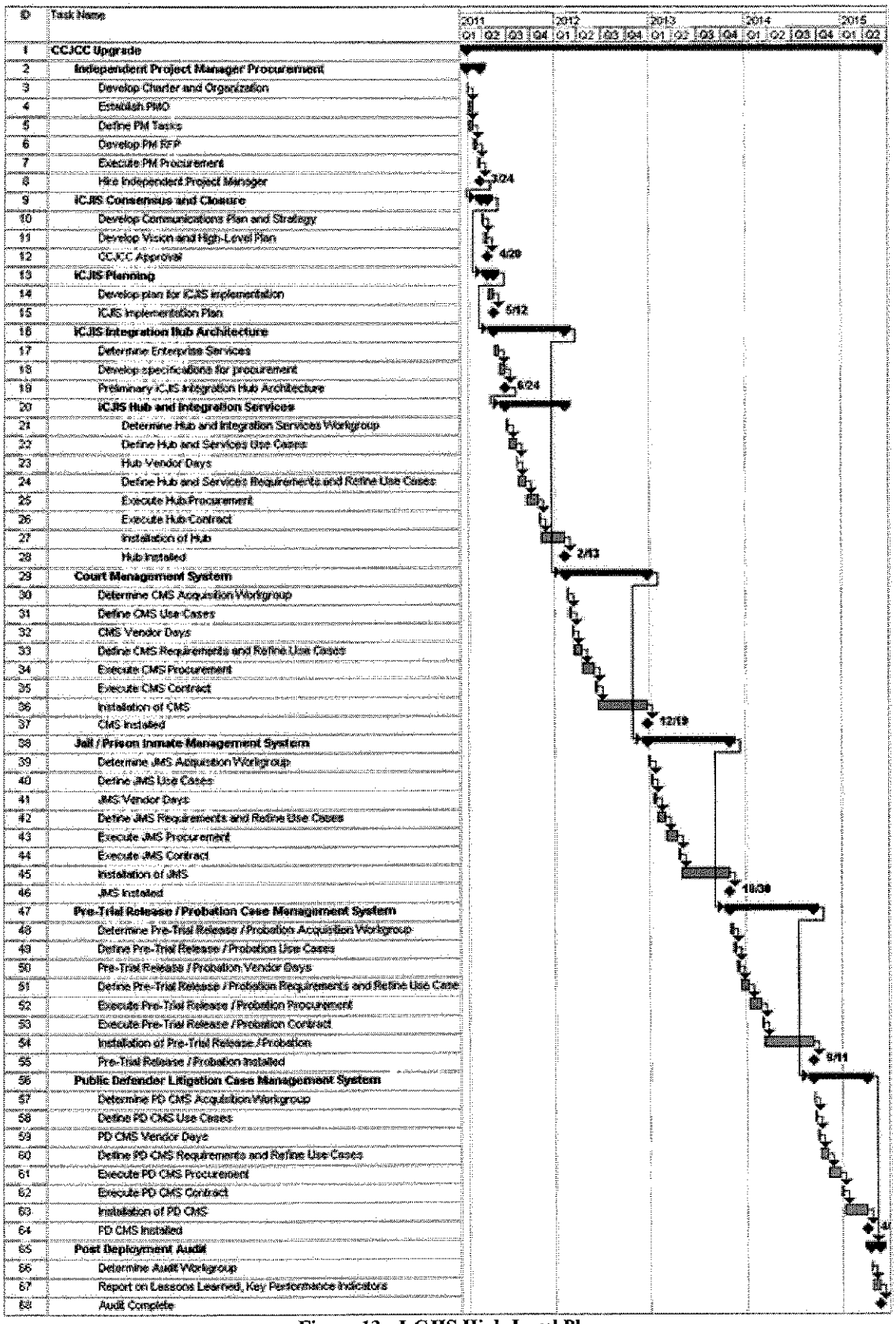


Figure 13: I-CJIS High-Level Plan

6.2 Phased Approach Commentary

As indicated in the Gantt chart above, a structured approach for management of the I-CJIS system is recommended to: 1) Set a logical sequence for design and development of an "integrated" set of new application and technology solutions; 2) Establish manageable groups of work in discrete projects; 3) Provide flexibility in the allocation of resources to the projects (leveling the spike in overall I-CJIS project activity); and, 4) Where possible, to expand the periods of benefit to the user communities through earlier implementation. The TA Team recommends this phased approach to development, given the size and complexity of the I-CJIS program and its major components. ***The specific plan and schedule for the rollout, or "go-live," of each component and system will need to be determined by the independent PM and the consultant group/SI.***

Additionally, the TA Team recommends that the CCJCC carefully consider this approach in the development of their implementation strategy for I-CJIS. The TA Team recognizes that the CCJCC has expressed an implementation goal to bring the major systems on-line in parallel. This approach will present a different set of challenges to the CCJCC, most substantially in the balancing of timing and resources to support the volume of simultaneous activity. To this purpose, the TA Team recommends the CCJCC consider the following factors in the formation of their implementation strategy:

- **Prerequisites**: Some system components build upon others requiring a staggered development and implementation sequencing. For example, the I-CJIS Integration Hub and enterprise-level services are key components for downstream activities. It provides the "glue" that links the disparate pieces together, offers mechanisms for automating workflows between components and provides the interoperable messaging needed for successful interdepartmental communications. The Integration Hub must be put in place to support both the "sharing" and the "exchange" of information between the participating systems and agencies. Further, the Criminal Courts CMS will serve as the core of the new I-CJIS and must be operational before the other systems can go-live.

- **Coordination, Management and Control**: The sheer magnitude of the total project requires a phased approach from a project control and management perspective. While much of the work being contemplated, as part of this technical assessment, will be done by external contractors, there are limited Shelby County financial and human resources. The amount of internal work and communications that must be undertaken by county resources is considerable – specifically when you factor in the normal work that will be required.

- **Data Conversion**: This is one of the most critical, labor intensive, time and resource consuming and costly aspect of any project involving the cut-over from legacy applications and the content of legacy files and databases. Data conversion is particularly critical with respect to Criminal Justice Systems and applications, due to the critical need to accurately transfer person and case data, both active and historical, regarding all persons and charges that pass through the criminal justice process. Conversion always involves the need to "cleanse" the data to ensure it complies with what are more demanding edit criteria inherent to current applications and technologies. This fact alone will drive the need to phase the deployment of the new COTS-based replacement systems, if only to address the time-and-dosage drain on county IT and end user resources and the conversion task it would present if attempted for four systems in the

same time window. This would not be realistic and could significantly increase the risk associated with the project.

- **Training Issues**: For user training to be effective, it must be provided in a timely manner prior to using the system. The first concern is to identify sufficient end-users to serve as subject matter experts and develop as train-the-trainer resources. One system deployment is challenging, four simultaneous training sessions of four different systems in the same time window is even more challenging. Further, if there is too much delay between training and use, the knowledge learned during training will be lost, and users will have a measure of frustration and may need to be retrained, adding to project cost. Also, factor in the number of users to be trained and the number of classes required. A secondary training concern is with the space required to train all initial users. Are there enough computer training rooms of sufficient size to train all critical users in the required time frame? Finally, training is impacted in many of the same ways as discussed with the entire I-CJIS implementation in the previous paragraph.

- **Funding:** Frequently, one of the things that has driven local jurisdictions to attempt an all-at-once implementation approach is the concern that elected officials, who appropriate the funds, may choose to allocate funds in phases, as opposed to funding of the entire project at its inception. If for no other reason, most of these large complex projects tend to run across budget years. Based on lessons learned in many similar projects, the TA Team strongly recommends the county to **not proceed** with the project unless, and until all required funds are appropriated and made available for use. The funding of large IT infrastructure replacement projects should be handled and funded in the same manner as a "capital funded" building and infrastructure construction projects. There are many similar risks as both involve:

  - Complex contracts with multiple providers, prime and sub-contractors;
  - Both involve many complex dependencies between the components (for example, in the case of a building project: following the architectural work and engineering specifications comes the foundation, external structure, roof, internal floor layout, walls and flooring, wiring, plumbing, heating and air conditioning, security, etc.) that must be acquired, engineered, integrated and deployed;
  - Some levels of risk that cannot be successfully transferred to providers and contractors. The county has and must assume certain risks that require its actions, decisions **and release of progress funds** at various steps of the project, typically over a multi-year time frame.
  - Unforeseen problems inevitably encountered during the course of a project require changes in time periods, order of construction and interactions between project components. Some of these may impact planned interim cash flow rates, even though they do not affect the overall cost of the project.

  For this reason, it is critical that the county and its PM have all required resources in hand, to include funding-to-completion, so that they can effectively manage the project to completion without having to suspend work or otherwise delay elements and components in the schedule. Delays **always** result in increased costs due to added, unnecessary project and contractual issues, problems, delays and finger pointing.

Recommendation: For the reasons outlined above, the TA Team strongly recommends the adaptation of a multi-phase approach for to the implementation of the I-CJIS.

6.3 I-CJIS Recommendations for a Phased Approach

This section details recommendations made by the TA Team, specific to the project phases, as recommended for acquisition and deployment of the I-CJIS components. Many of these recommendations were indicated in previous sections of this document and are reiterated here to provide context by project phase.

General Recommendations for Procurement

Recommendation: When conducting any procurement, it is a best practice to plan for and allow for two to five changes (Addenda) to the RFP. Addenda to an RFP allows the procuring entity to accommodate unexpected or unrealized changes or additions to the original requirements encountered during the process.

Recommendation: Consider using a multi-step approach to the procurement – having the RFP respondents submit a draft version of their vision for review by the county to "flesh out" any misconceptions or differences in the provider's vision of what the RFP intends to procure, followed by a final response to incorporate deficiencies or comments from the county to the draft responses.

Recommendation: Allow for confidential provider discussions with the county. By giving the RFP respondents a chance to speak with the county about areas of misunderstanding or additional questions regarding the RFP, the county can receive more responsive or compliant RFP proposals from their providers.

Recommendation: Don't put too much weight on the cost portion of the proposals. Concentrate on getting the features and functionalities you need and want first, then proceed to negotiate the business arrangements.

Recommendation: Define and determine the evaluation criteria **before** you write the RFP.

- Define the scoring system after you finish the evaluation criteria.
- Determine the weightings for the scoring.
- Create the RFP sections to coincide with the evaluation criteria.
- Establish clear roles and responsibilities among the software procurement team. During negotiations, providers will try to exploit any confusion among the participants regarding their roles.
- You must know and be able to describe what you want (such as cost, functionality or a cutting-edge solution) before going to the market, because this will affect the choice of an appropriate solution.
- Use in-depth planning and detailed scoping prior to provider involvement to avoid "requirements creep" and "scope creep."
- When comparing provider costs, the software procurement team should consider all the direct (licensing fees, maintenance and support fees and integration and customization fees) and indirect expenses (internal incremental technical resource costs, the cost to hire extra technical staff to manage a software system and extra hardware and storage costs).
- Consider encouraging (or a statement of being open to) RFP respondents to propose a partnership approach in their submissions to include a proposed strategy for implementation (timing, resourcing, etc.) and integrated cost/price alternatives in addition to the particular proposed solution(s).

PHASE: Independent Project Manager Procurement

One of the critical responsibilities of a CJCC is the formal approval and championing of criminal justice programs and projects. This includes the charter of an Independent PM, and the documentation of the body's expectations regarding the size, organization, staffing and budget of some form of Independent PM Office. The documentation should, at a minimum, define how sponsored projects are independently managed, how results and outcomes are objectively measured and how PM's are held accountable through mechanisms like employment contracts, independent reviews and reporting.

[See section 5.3 for additional information]

Recommendation: Define and approve an Independent PMO structure (i.e. size, organization, chain-of-command and reporting, staffing and budget) and charter under the auspices of the CCJCC — as soon as possible.

Recommendation: Engage the services of an Independent Project Manager, to provide overall management and coordination prior to the onset of planning and procurement activities. Delegate all planning and procurement responsibilities to the Independent Project Manager. A qualified project manager should possess a combination of knowledge and experience, in the following priority order: 1) prior successful experience with the management of a large, complex, multi-jurisdictional program or project at the local, State or Federal levels of government; 2) commensurate education or training in criminal justice information technology or related fields; and 3) certification in project management, such as that of a certified PMP, or equivalent experience.

An independent Project Manager would be responsible for providing the CCJCC a dedicated resource to manage the planning and coordination of all project activities (tasks, timing and resources) required to implement the future I-CJIS environment, including: requirement definitions, integration architecture and solution designs, technology acquisition RFPs, technical integration (exchanges, data conversions, etc.), technology deployments (bill of materials) and testing, training and implementation.

In this approach, the project manager would be directly responsible for preparing and maintaining project plans, project communications, oversight of selected solution providers and project status reporting. As an extension of this as a recommended approach, the services of the independent project manager could be augmented with specific technical expertise through the engagement of qualified consultants, or consultant group, on an as-needed basis. It is important to note that the independent project manager would not be the contracting agent with selected solution providers and technical consultants. As such, the independent project manager would not be accountable for the contractual performance of these selected providers. These relationships would remain with the county.

Alternate Recommendation (to the Independent Project Manager recommendation above): If the CCJCC decides there is a need to hold an independent project manager) accountable for the contractual performance of all providers and consultants, then the SI approach should be considered. In this approach, the SI would provide the same services as the independent project manager, but would also directly engage solution providers and consultants by subcontracting their services under the provisions of a "prime" contract with the county. This would make the SI accountable for the contractual performance of the selected providers, with the county holding the SI accountable for overall performance. To help put the SI approach in context, it should be considered in the same manner as a decision to engage a general contractor in the construction of

a building, versus independently managing the performance of the various disciplines (plumbing, electrical, etc.) with multiple subcontracts.

While both the SI and independent project manager approaches have their respective merits, the simple differentiation can be viewed as the shift of performance risk and its economic impacts. The SI approach will reduce the instance of finger pointing by giving the county a single and contractually obligated point of accountability. However, this will have an impact of higher cost to the county to offset the increased risk taken in the SI approach.

Recommendation: Recruit a qualified project manager prior to the onset of planning and procurement activities. Delegate all planning and procurement responsibilities to the independent project manager.

Recommendation: A qualified project manager should possess a combination of knowledge and experience, in the following priority order: 1) prior successful experience with the management of a large, complex, multi-jurisdictional program or project at the local, State or Federal levels of government; 2) formal education or training in public administration, law, governance, criminal justice or related fields; and 3) certification in project management such as that of a certified PMP.

Recommendation: Identify and formally appoint a coordinator for each participating agency to work in partnership with the project manager in accomplishing the I-CJIS goal.

Recommendation: The independent project manager should develop and submit the following to the CCJCC for review and approval:

- Detailed Project Plan – inclusive of a WBS, a multi-year forecasted Gantt Schedule, a definition of milestones, deliverables and measurable outcomes, required resources, and a multi-year forecasted budget.
- Communications Plan;
- Change Management Plan;
- Quality Management Plan;
- SDF.

Recommendation: The IJIS Institute has published a *Pre-RFP Toolkit* that is available on CD media. The county may find the information presented therein valuable in the preparation of the RFPs. See http://www.ijis.org/_resources/pre_rfpCD.html for more information.

PHASE: I-CJIS Consensus and Closure

One of the critical responsibilities of a CJCC is the formal approval and championing of criminal justice programs and projects. This includes the charter of an independent project manager, and the documentation of the body's expectations regarding the size, organization, staffing and budget of some form of independent project manager office.

Recommendation: The documentation should, at a minimum, define how sponsored projects are independently managed, how results and outcomes are objectively measured and how project managers are held accountable through mechanisms, like employment contracts, independent reviews and reporting. The documentation should also:

- Communicate contents of report to broader stakeholders
- Modify and arrive at stakeholder consensus and closure

- Publish final vision and high-level plan
- Get CCJCC approval and adoption

PHASE: I-CJIS Planning

Recommendation: For the reasons outlined previously, the TA Team strongly recommends the adaptation of a multi-phase approach for to the implementation of the I-CJIS.

Recommendation: Based on lessons learned in many similar projects, the TA Team strongly recommends that the County **not proceed** with the I-CJIS project unless and until all required funds required to acquire and implement the Integration Hub and the four initial components of the I-CJIS are appropriated and made available to the CCJCC and the participating agencies.

Recommendation: Using this report (as modified and adopted) develop the more detailed multi-year plan for I-CJIS implementation – including the allocation of available funds to each of the system components. It is important that the initial components are closely managed so they do not overrun their budgets and leave nothing for the later participants – may require they establish a "lock-box" budget for this purpose. The plan should:

- Detail all resources, assets, WBS, deliverables, schedules and PERT, typical to a detailed plan
- Be approved and adopted by CCJCC

PHASE: I-CJIS Integration Hub Architecture

Recommendation: Develop specifications to a level necessary for providers to bid the system solutions/components that integrate with the hub. It is important to determine if a SOA-type Hub will be used, supporting at least the two "enterprise services," as detailed earlier in this report.

[See section 5.2 for additional information]

PHASE: Court Management System

Recommendation: With respect to the acquisition and deployment of a new Criminal CMS and the release of an RFP, it is important that the judges, clerks of court and court administrators of the respective courts discuss and agree with or otherwise modify or reject the statements of "differences" presented in this subsection. The outcome of these discussions will establish the "rules of engagement" regarding how the new Court CMS is to be acquired and deployed to serve needs of the respective jurisdictions of court.

Recommendation: Prior to preparation and release of an RFP, the respective courts should sponsor, participate in and conduct "Provider Days," to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each court's needs. While all providers offer the same thing when viewed at 10,000 feet, it is often surprising the creative ways that each implements specific functions and features in their products when viewed at ground level.

Recommendation: The criminal courts should embrace the deployment of the *I-CJIS Person Index Service*. It will provide substantial benefit to the courts serving as the most current source of information about persons involved in criminal cases with respect to obtaining the most currently known contact and address information, which is a continual problem for the court in issuing summons and notices to parties.

Recommendation: The criminal courts should embrace the deployment of the I-CJIS Document, Imaging, and Workflow Management Service. It will provide substantial benefit to

the court in its role and capacity of "keeper of legal and certifiable records." The service will facilitate the electronic sharing and exchange of electronic documents across the Criminal Justice System and process. The service presents the opportunity for significant increases in efficiency and productivity, **and** reductions in hardcopy reproduction and distribution costs.

PHASE: I-CJIS Hub and Services

The I-CJIS Hub provides information exchange between two courts, and thereafter, the follow-on components.

[See section 5.8 for additional information]

Recommendation: With respect to the acquisition and deployment of an I-CJIS Integration Services Hub the release of the first CMS RFP, it is important that the County IT Department meet with the CCJCC and the directors and staff of all I-CJIS agencies to discuss and agree in principle (subject to further definition of a final architecture and estimated costs for engineering, deployment and on-going maintenance and support) on the concept and vision of a I-CJIS Integration Hub as the primary vehicle for delivery of I-CJIS Services to include information sharing and exchange.

Recommendation: If the CCJCC adopts (in principle) the concept of the eventual acquisition, engineering, and deployment of an I-CJIS Integration Services Hub, and prior to publication and release of the first CMS RFP, the County IT Department should develop the initial technical specification of the County I-CJIS Integration Services Hub Architecture, and an estimate of the cost to acquire, engineer, deploy and maintain and support the hub. The information presented to the CCJCC will be for approval and authorization to proceed with the next step in compliance with the to-be-developed I-CJIS Implementation Plan.

Recommendation: All CMS RFP's should include the information concerning the County's I-CJIS Integration Services Architecture, as envisioned to be deployed. It should stipulate the technical requirements and capabilities provided by each CMS, as necessary, to integrate the provider solution with the I-CJIS hub at some future date.

PHASE: Jail / Prison Inmate Management System

Be sure to include linking to Hub for information exchange and other services.

[See section 5.7 for additional information]

Recommendation: With respect to the acquisition and deployment of an IMS to serve the needs of the county jail and county prison and the release of an RFP, it is important that the directors and staff of both agencies discuss and agree with the concept and approach of acquiring a single IMS to address the operational and business needs of the respective agencies.

Recommendation: Prior to preparation and release of an RFP, the respective agencies should sponsor and participate in the conduct of "Provider Days," to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each agency's needs.

PHASE: Pre-Trial Release / Probation CMS

Be sure to include linking to hub for information exchange and other services.

[See section 5.5 for additional information]

Recommendation: With respect to the acquisition and deployment of a Pretrial and Probation Services CMS and the release of an RFP, it is important that the directors and staff of both

agencies discuss and agree with the concept and approach of acquiring a single CMS to address the operational and business needs of the respective agencies.

Recommendation: Prior to preparation and release of an RFP, the respective agencies should sponsor and participate in the conduct of "Provider Days," to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to each agency's needs.

PHASE: Public Defender Litigation Case Management System

Be sure to include linking to hub for information exchange and other services.

[See section 5.6 for additional information]

Recommendation: With respect to the acquisition and deployment of a Public Defender Litigation CMS and the release of an RFP, it is important that the public defender and staff discuss and agree with the concept of acquiring a CMS to address the operational and business needs of the office.

Recommendation: Prior to preparation and release of an RFP, the public defender's office should sponsor and participate in "Provider Days," to obtain as much information as possible about the strengths and weaknesses of each provider's solution, and in particular, the fit with regard to needs.

PHASE: Post Deployment/Implementation Audit

Recommendation: Conduct a complete programmatic and financial audit of outcomes/results, make necessary adjustments/corrections and develop a high-level plan for what (if anything) to expand I-CJIS beyond its initial stage.

- Analyze "lessons learned" throughout the process.
- Develop key performance indicators to define, document, and analyze outcomes for improvement opportunities

7 Standards, Models and Resources

This section provides references to information sharing standards and best practices that should be helpful to the CCJCC in both the acquisition and implementation phases of the project.

7.1 Standards & Models

7.1.1 NIEM

In 2002, the Department of Justice launched a program that would create the Global Justice XML Data Model (GJXDM). The purpose of the program was to provide a common language for criminal justice agencies to share information via a single data model. The benefits of GJXDM/common data model included:

- A common understanding of the domain saves time during design
- Reusability of existing components saves both time and money

In February 2005, the Global Justice model was incorporated into the NIEM. The NIEM model incorporated not only the elements from the GJXDM justice domain, but included designs to plug-in future functional domains such as intelligence, emergency management, transportation, immigration, family services and others. The core set of elements within NIEM supports all of these domains and provides a common vocabulary for many government agencies. Using this model, participants in data exchanges that use NIEM all have a common understanding of the data being exchanged and that the data is formatted and structured in a consistent manner. As shown in Figure 1(b), NIEM provides a common vocabulary for exchanging data resulting in more effective information sharing, program instruction code reuse and reduced cost for public safety organizations.

7.1.2 Information Exchange Package Documentation (IEPD)

Reusable components to exchange information are constructed as an Information Exchange Package (IEP). These packages are built upon the NIEM data model for a specific business purpose. An IEP may be sent from one agency to other agencies, between systems within an agency, or between a user client and a server. An IEP uses XML, which is a machine readable format for exchanging information. An IEPD, or Information Exchange Package Documentation, is a set of artifacts that define the content and structure of an IEP. The IEPD Clearinghouse (http://it.ojp.gov/framesets/iepd-clearinghouse-noClose.htm) provides information on a variety of IEPDs that have been submitted by individuals and organizations who have implemented GJXDM and NIEM.

7.1.3 JRA Service Specifications

The Justice Reference Architecture (JRA) is a service-oriented reference architecture for justice and public safety information sharing. The mission of the JRA is to enhance justice and public safety through a service-oriented approach to information sharing, but it applies to domains beyond justice and public safety. In order to achieve this goal, there is a need to define a consistent approach to identifying and describing services and their interactions that can be implemented in many different technical environments, across multiple government lines of business, at all levels of government and with other partner organizations. JRA was originally developed to address a domain-specific problem in the public safety environment, but the

architecture is applicable to any environment, and uses common tools and methodologies that are widely available.

There are approximately 100,000 justice agencies that have the critical need to share information across their various information systems, and this variety creates multiple layers of interoperability problems because hardware, software, networks and business rules for data exchange are different. The need for information sharing has led to this interoperability strategy and the Global Justice Information Sharing Initiative (Global) JRA. A reference architecture is a tool information sharing implementers can use to make it easier to develop a well-conceived, formal approach to designing information sharing solutions/systems. A key benefit of reference architecture is that it helps promote consistent thinking and approaches among the people who use it, even if they have not shared information with each other. A service is the means by which one partner gains access to one or more capabilities offered by another partner. A service specification is the formal document describing the capabilities made available through the service. Information about the JRA, including published service specifications can be found at http://www.it.ojp.gov/default.aspx?area=nationalInitiatives&page=1015.

Note: *The effective date is unknown at this time, but the JRA is currently undergoing a name change to "Global Reference Architecture", or GRA.*

7.1.4 Global Federated Identity and Privilege Management (GFIPM)

The GFIPM framework provides the justice community and partner organizations with a standards-based approach for implementing federated identity. The concept of globally understood metadata across federation systems is essential to GFIPM interoperability. Just as a common XML data model was the key to data interoperability, a standard set of XML elements and attributes about a federation user's identities, privileges and authentication can be universally communicated. The GFIPM metadata and framework support the following three major interoperability areas of security in the federation:

- Identification/Authentication - Who is the end user and how were they authenticated?
- Privilege Management - What certifications, clearances, job functions, local privileges, and organizational affiliations are associated with the end user that can serve as the basis for authorization decisions?
- Audit - What information is needed or required for the purposes of auditing systems, systems access and use and legal compliance of data practices?

Information about GFIPM, including published Specifications can be found at http://www.it.ojp.gov/gfipm.

7.2 Resources

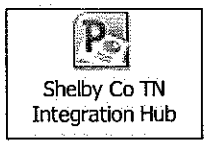
Standardized Interfaces and Exchanges for Justice and Public Safety (May 2010) - IJIS Institute Public Safety Technical Standards Committee (IPSTSC) White Paper

NIEM Conformance for RFPs (October 2009) - IJIS Institute Public Safety Technical Standards Committee (IPSTSC) White Paper

IJIS Institute's Pre-RFP Toolkit (Second Edition) - provides guidance in several areas critical to pre-procurement planning and readiness assessment, ranging from defining integrated justice for your community, to assessing support and governance, to developing strategic plans and project requirements. The Pre-RFP Toolkit contains links to key resources, tools, templates and examples from seasoned practitioners and service providers experienced in the procurement process and who have implemented successful justice information sharing systems.

8 APPENDIX A

Shelby County Integration Hub Presentation (embedded)



9 APPENDIX B

ACRONYM LIST

ACS	Affiliate Corporate Service
AFIS	Automated Fingerprint Identification System
BAFO	Best and Final Offer
CCJCC	County Criminal Justice Coordinating Committee
CJ	Criminal Justice
CJCC	Criminal Justice Coordinating Council
CMM	Capability Maturity Model
CMS	Case Management System
EAI	Enterprise Application Integration
ESOL	English for Speakers of Other Languages
ETC	Estimate of Completion
ETL	Extraction Transformation and Loading
FTP	File Transfer Protocol
GAAP	General Accepted Accounting Practices
GASB	Governmental Accounting Standards Board
GED	General Education Development
GFIPM	Global Federated Identity and Privilege Management
GJXDM	Global Justice XML Data Model
GL	General Ledger
GRA	Global Reference Architecture
HR	Human Resources
IEI	Inter-Enterprise Integration
IEP	Information Exchange Package
IEPD	Information Exchange Package Documentation
I-CJIS	Integrated Criminal Justice Information System
IJIS	Integrated Justice Information System
IMS	Inmate Management System
JMS	Jail Management System
JSS	Justice Support System
JSSI	Justice Support System Interface
J2EE	Java-2 Platform Enterprise Edition
NCIC	National Crime Information Center
NCOMS	National Consortium for Offender Management Systems
NCSC	National Center for State Courts
NIEM	National Information Exchange Model
PDF	Portable Document Format
PIN	Personal Identification Number
PM	Program Manager
PMO	Project Management Office
PMP	Project Management Professional
PSI	Pre-Sentence Investigation
RFI	Request for Information

RFP	Request for Proposal
SAFPF	Substance Abuse Felony Punishment Facility
SDF	Solution Development Framework
SI	System Integrator
SID	State Information Number
SMI	Seriously Mentally Ill
SOA	Services Oriented Architecture
SOW	Statement of Work
SWOT	Strengths, Weaknesses, Opportunities and Threats
TA	Technology Assistance
WBS	Work Breakdown Structure
XML	Extensible Markup Language
Y2K	Year 2000
4GL	Fourth Generation Language

Colleen Funk

- Experienced programmer with over 24 years' experience working in various languages such as Visual Age Pacbase, COBOL, PL/I, JSP, and Java. The last 12 years have been coding in Java.
- NIEM – trained
- XML / HTML – trained with a little experience
- C programming –trained with a little experience
- Webservices – trained
- Webmethods – trained
- Graduate of Electronic Data System's System Engineering Development Program (SED)
- ITIL Certified Intermediate
- Scrum Certified

Terri Stanton

- Scrum Certified
- ITIL Certified Intermediate
- Java – trained with a little experience
- 19 years developing COBOL programs in legacy court management system
- NIEM - trained
- Webservices – trained
- Webmethods – trained
- SQL –trained -19 yrs exp.
- Microsoft Access –Trained with a little experience
- XML / HTML – trained with a little experience
- C programming –trained with a little experience

Kelly Tulley

- ITIL Certified Expert
- Java – beginner level
- Expertise in legacy systems - HP (Tandem) – 21 yrs
    - Job Control System
    - GS and Criminal Court
    - Offender Management
- CGI PACBASE Case Tool – Cobol generator – 21 yrs
- Expertise in interfaces between the court and offender management system
- SQL – 21 yrs
- NIEM – trained
- XML / HTML – trained
- Webservices – trained

- Webmethods – trained
- Scrum Certified

Jason Hamm

- Java – 3 years' experience writing classes that add functionality
- .Net – 10 years' experience creating various .NET utility applications, web services, web applications, and libraries.
- OnBase – Shelby County's enterprise document management system. 9 years' experience supporting, enhancing, and expanding its usage. Team is responsible for setting up and supporting all the various components of scanning, storing, indexing, and retrieving documents.
- Kofax Capture – Shelby County's image capturing application – 9 years' experience supporting, managing, and expanding 6 different Kofax Capture client/server environments.
- Liquid Office – Forms management application. 9 years' experience creating and supporting various electronic forms that integrate with many different lines of business applications and support the routing, approval, and archiving of different forms that support business and HR processes.
- Webmethods – trained
- Scrum Certified
- ITIL Certified Intermediate

Vishal Shyam

- Three years of experience in Software Development
- Three years of experience in ASP.Net.
- Three years of experience in SQL 2005/2008.
- Trained in JAVA.
- Experience in working with HTML, XML, Java Script, Web Services.
- Experience in all phases of SDLC.
- Proficient in C#, VB.Net.
- Proficient in Visual Studio 2008/2010.
- Good knowledge of Eclipse, Net Beans
- Good knowledge of Crystal Report.
- Webmethods – trained

Audrey Joy – database technician

- Scrum Certified
- 12 years developing COBOL programs in legacy court management system
- SQL – 13 yrs exp.

- Microsoft Access –trained with a minimal experience
- Microsoft SQL Server – trained with minimal experience
- HP NonStop – trained with intermediate experience
- MySQL – minimal experience

Ray Tant– Lead Web Administrator

- Linux - All flavors –
- Windows – Up to Windows 7, 2008 R2
- Netbeans/Eclipse aware
- Soap/Webservices aware
- Can read Wireshark captures with ease
- ITIL Foundations
- Security+
- OO programming aware
- C# - little
- Java - pretty good
- PHP – pretty good
- XML /HTML aware
- TCP/IP expert
- C/C++ fair
- SQL/MySQL – pretty good
- Webservices – good
- Security Integration – fair
- Application Integration – very good
- MCSA
- IIS
- Apache
- Java EE stuff
- Tomcat
- JBoss
- Glassfish – 5 years

Troy White– System Administrator

- webMethods Administration (trained)
- Certified Microsoft Office Specialist: Access 2010
- Certified Microsoft Office Specialist: PowerPoint 2010
- Certified Microsoft Office Specialist: Excel 2010
- Certified Microsoft Office Specialist: Word 2010
- 14 years AS/400 / iSeries System Administration
- Experience with Microsoft Visio 2010
- Experience with Microsoft Project 2010

- Experience with Project Management
- Implementation and use of electronic medical record systems
- Website load balancing
- Windows

Ed Raper – Project Manager

- PMP
- ITIL Intermediate
- Microsoft Certified Professional
- Agile ScrumMaster
- CompTIA A+
- CompTIA Net+
- 13 years IT project management experience
- 21 years criminal justice experience