

**Strategic Plan for the Creation of an
Integrated Criminal Justice Information System
For Orange County Florida**

***ICJIS Strategic Plan
Executive Summary***

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Prepared for:



Gale Johnson, Senior Purchasing Agent
Orange County Purchasing Department
Orange County Administration Center, 3rd Floor
21 South Rosalind Avenue
Orlando, FL 32802
Phone: (407) 835-5635

Prepared by:



6360 Interstate 55 North, Suite 300
Jackson, MS 39211
888-664-7400
Fax: 601-957-9492

Rene Claiborne
Computer Sciences Corporation
Account Manager

Ken Slay
Computer Sciences Corporation
Project Manager

Dr. Tom Wilson
Wilson and Associates
AFIS Consultant



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I. Introduction

In July, 1999, Nichols InfoTec, now CSC, embarked on a strategic planning project for Orange County, to facilitate progress toward the goal of an Integrated Criminal Justice Information System (ICJIS). As part of this project, current activities and initiatives were documented, sample operational scenarios under the proposed ICJIS architecture were formulated, and a high level system architecture was developed. The deliverables produced during the project coincide with the project phases as follows:

- Planning and Orientation
- Review and Assessment
- Data Dictionary / Information Exchange
- Operational Scenarios
- System Architecture
- Action Plan
- Final Strategic Plan

This document outlines all deliverables produced as part of the ICJIS Strategic Plan.

II. Work Plan

The Work Plan and Content Abstract (task #1) deliverable contained of the following:

- The “Information Share Needs” which served as the scope of data exchange analysis that was performed as part of tasks #2 through #6. These 27 key data elements were defined during working sessions with the participating agencies.
- Tables of Contents and Summaries for Deliverables #2 through #6, which served as the content abstract for each of these deliverables.
- The Project Work Plan that outlined the work, duration, and dependencies to complete each of the seven tasks in creating the Orange County ICJIS Strategic Plan.

III. Review and Assessment

The Review and Assessment document is intended to answer the question, “Where Are We Now?” Determining the present state of the major criminal justice information systems provides a baseline to move forward with the ICJIS planning and implementation. Specifically, the Review and Assessment addresses the following topics:

- Review of the current operations of the major criminal justice information systems in Orange County Florida.
- Assessment of the ability of each system to participate in the ICJIS initiative.
- Evaluation of the current technical infrastructure and interfaces between the Orange County criminal justice agencies and state systems.
- Evaluation of the level of criminal record automation, accuracy, and completeness relative to the needs of the individual agency.

Justice Information Team Success

Orange County has positioned itself as a potential leader in Criminal Justice Information Systems (CJIS) integration and could serve as a model for other county and state governments. The criminal justice agency leaders participating in the JIT are committed to the ICJIS concept and have made great strides at breaching organizational barriers and fostering cooperation between agencies.

General Assessment

Orange County is poised for ICJIS implementation. Real integration has been achieved in some agencies and investments have been made in current technology. However, some agencies need to integrate internally before they can effectively participate in ICJIS. Because some of these systems are not integrated, most information is not relational and is keyed many times over between process activities.

Agencies tend to operate from a business approach (tactical) instead of an enterprise approach (strategic). This approach tends to be driven by budget constraints and allocation rules. In addition, their processes are historically and procedurally constrained, usually due to older technology or organizational structure. These constraints lead to operational inefficiencies that affect overall productivity and quality.

The challenge for Orange County will be to overcome the mix of technologies, platforms, and applications that impede integration. The final challenge will come from the integration of current agency’s information system initiatives with the ICJIS strategic direction, once it is defined. This can be accomplished as agencies evaluate

enterprise requirements in defining their processes and systems, versus only identifying internal dependencies.

Considerations

Orange County needs to consider four primary objectives before implementing any additional information system projects. Processes, technology, system, and strategic plans need to address objectives from an enterprise-wide perspective. If agencies would consider the “big picture” when defining their operations, processes and systems across the criminal justice community could be streamlined and made more efficient.

Process

Many processes within Orange County are undocumented, inefficient, and candidates for re-engineering and automation. Orange County should approach operations using a business model. That is, define processes to reflect operational objectives versus technology constraints. Also, processes should be defined relative to tasks that need to be performed versus a dependency on the people who perform them.

Technology

The objective in creating any information system infrastructure should be to make it open, scalable, process (task) based, and easy to integrate with other systems. Ongoing infrastructure projects should support a strategic direction. Future investments should focus on “off-the-shelf” technologies versus legacy systems evolution and should consider total life cycle operations costs versus immediate costs. Technologies should be selected based on operational need and not for technology’s sake.

Systems

As Orange County evolves towards an ICJIS, it should consider two system-wide data index keys, one for *individuals* and one for *incidents*. Providing these two data index keys in any system will greatly simplify the sharing of data between systems. A single calendar application is needed by all agencies. And finally, a county wide Master Person Index should be created that will provide summarized person information through a web-based search function.

Strategic

As Orange County defines its strategic direction, the planning and implementation of new systems should be based on enterprise objectives, not on agency budget plans. The deployment of new systems needs to be aligned with strategic plans that support enterprise-wide, cross-agency requirements. To ensure Orange County continues to receive the best business solutions, all agencies should reduce their dependence on sole source vendors.

IV. Data Dictionary

The purpose of the ICJIS Data Dictionary is to provide a standard, universal data dictionary for the primary information exchange elements that are shared between the criminal justice information systems in Orange County. Specifically, the ICJIS Data Dictionary addresses the following topics:

- Current Data Environment
- The Orange County ICJIS Data Dictionary
- Overview of the Relational Database Management System (RDBMS) model
- Database Information Exchange Protocols
- Criminal History Record and ICJIS Hub

The ICJIS Data Dictionary intends to identify the data elements that are shared or need to be shared among the various Orange County Criminal Justice agencies at each of the information exchange events. During the course of meeting with the Orange County criminal justice agencies and community to define this ICJIS Data Dictionary, it has been found that the amount of information exchanged at each of the information exchange events varies greatly. Generally, only enough information is transferred from one agency to another to initiate the next stage of the criminal justice process. Often the amount of information given is insufficient to meet the complete information needs of the next stage. Subsequent stages then also suffer from the lack of critical data.

In compiling the ICJIS Data Dictionary, it was clear that the current exchange of information between individual agencies was not designed with the entire criminal justice system or process in mind. Individual information exchanges only contain sufficient information for one event. Critical data elements that link information at every stage of the criminal justice process are missing. The most important of the missing data elements are the *JIT Tracking Number (JTN)* and the *State Identification (SID)* number. These two primary data elements will ensure the integrity of the case information from arrest, to case origination, through disposition and closure.

In order to exchange and link information throughout the process, some of the existing information exchange events will have to add data elements that are not presently on paper forms nor in automated systems. Where and how those data elements are exchanged may be altered in an ICJIS. The concept of an ICJIS Hub includes a model set of data elements that will support total ICJIS exchanges and bring integrity to all information exchanges.

The Data Dictionary deliverable lists the full set of information intended to be shared between Orange County agencies.

V. Operational Scenarios

The ICJIS Operational Scenarios is a critical component of the Orange County ICJIS Strategic Plan, and is designed to provide future operational scenarios between the criminal justice information systems in Orange County.

Specifically, this deliverable addresses the following topics:

- Recommendations for improving the current business processes
- Overview of the process in an ICJIS operational scenario
- Critical success factors for implementing the ICJIS operational scenario

ICJIS Information Exchange

Some of the agencies have begun system integration projects to facilitate the exchange of information at the agency level. In essence these agencies are creating a local ICJIS. At the local level the business practices and information management systems vary greatly from agency to agency. Furthermore, the inter-agency relationships and operating practices add another layer of complexity to the integration of criminal justice process at the agency level. The proposed ICJIS Hub will facilitate information exchange and query capability for key data elements required by multiple agencies.

ICJIS Hub

An alternative to locally integrating systems is to establish an ICJIS Hub to populate local information systems and provide the necessary information query capability. The proposed ICJIS Hub will be an intranet based information store comprised of a Master Person Index and a partial replication of the new Clerk of Court Case Management System (CMS). The Master Person Index (MPI) file will contain basic identification and demographic information for all persons who have entered the criminal justice system. The Clerk of Court CMS will contain information relating to the progress of individuals through the criminal justice system.

In the proposed ICJIS Hub, there will be two ways to process data: by transfer of information between agencies or by data query. In some cases, queries will be performed against data stored within the ICJIS Hub. In other cases, the ICJIS Hub will act as a pointer to the appropriate data store contained within one of the specific agency's systems. Local information systems can populate their systems from the standard ICJIS data set. Using the ICJIS Hub to populate local systems will save resources by eliminating the need to re-key an individual's demographic and charge information at every step in the process. The ICJIS Hub will provide a standard exchange protocol from which the local agencies can extract information.

Operational Scenarios

The Operational Scenarios document contains a proposed processing scenario for each the following processes:

- Charging of Individual
- Identification
- Release on Bail or ROR
- Court Case Creation
- Information Filing
- Hearing/Trial Scheduling
- Criminal History Background / Pre-sentence Investigation
- Final Disposition
- Court Disposition of Offender
- Probation/Parole Intake

VI. System Architecture

This document describes the general system architecture from the perspective of the necessary hardware and software and includes a narrative describing the system's general operation. In addition, several concepts, such as security, are described both in general terms and how they may apply to the ICJIS architecture.

Proposed Architecture

The proposed System Architecture for implementation of the ICJIS Hub consists of two new server systems and their associated data stores: the *Master Person Index* (MPI), and the *Hub Case Management System* (Hub CMS). These, together known as the ICJIS Hub, will interconnect all agency systems and will facilitate three major functions necessary for effective information management in the Orange County Criminal Justice System:

- Provide a common store of key information.
- Provide a user interface for querying key information.
- Provide a mechanism for notifying agencies when key information is updated.

The specific functions of the two new server systems are as follows:

Master Person Index (MPI)

- Stores identification information.
- Accesses criminal history information from various sources.
- Contains web server software to implement user interfaces for both regular users and administrators.
- Contains custom software interfaces to facilitate communication with agency systems.
- Contains security and audit trail features to regulate and track activity.

Hub Case Management System (Hub CMS)

- Stores a subset of the Clerk of Court *Banner* database.
- Contains web server software to implement user interfaces for both regular users and administrators.
- Contains the table of statutes
- Contains the court calendar
- Contains custom software interfaces to facilitate communication with agency systems.
- Contains security and audit trail features to regulate and track activity.

Software Interfaces

A key component in each of the above systems is the set of custom software interfaces. These interfaces will facilitate data exchange between the agency systems and the hub as well as data exchange between the different agency systems. These interfaces perform the following functions:

- Updates the MPI or Hub CMS database based on new or updated information in agency systems.
- Notifies users when there is up-to-date information on the MPI or Hub CMS databases when they perform a query.
- Facilitates the update of agency databases with up-to-date MPI or Hub CMS information after applying business rules.
- Performs any necessary data translations such as reconciliation of field lengths and codes.

For each feature mentioned in this architecture narrative, there will likely be a number of viable options for implementation. Where possible, some implementation options are listed. However, the specific solutions will need to be determined during the detailed design phase. During detailed design, many factors must be considered and evaluated before the optimum solution can be identified. Factors likely to be considered include the logistics of inserting new code into existing agency applications, the structure of the various agency databases, and the magnitude of business rules which must be coded in the custom interfaces.

A diagram of the proposed system architecture can be found in Appendix A of this document.

AFIS

A key component of the proposed system architecture is the automated fingerprint processing. There are a number of options for implementing AFIS technology, and the cost and effort associated with implementation will vary greatly depending upon the specific features desired.

The AFIS architecture for the Orange County ICJIS, as depicted in Figure 3 of Appendix A, consists of hardware, software, and telecommunications necessary to support AFIS identification functions at federal, state, and local levels.

For arrest/booking and forensic latent crime scene identification functions, the AFIS architecture shown utilizes remote terminal access through the host AFIS of the Florida Department of Law Enforcement (FDLE). The architecture depicted for arrest/booking and latent identification functions represents the functionality that Orange County is in the process of implementing.

The AFIS architecture also depicts the functionality for a future phase of AFIS implementation. Specifically, this future phase envisions a local two finger database and 10 finger database that will allow Orange County to provide identification and verification of identity functions for the courts, for inmate movement and release, and for law enforcement investigation of suspects in the field.

The AFIS architecture also shows the logical relationship between the Orange County identification functions and state and federal systems. FDLE serves not only as the AFIS database and search engine for Orange County's arrest/booking and forensic latent crime scene identification processing, but also serves as the conduit to the Federal Bureau of Investigation's (FBI) AFIS processing. NCIC 2000 is the FBI's National Crime Information Center's database of wanted and missing persons, stolen property, firearms, etc.

VII. Action Plan

It is the CSC project team's recommendation that Orange County proceed with planning for and ultimately implementing an Integrated Criminal Justice Information System. The Action Plan document describes in detail the way forward in order to implement the ICJIS system. The ICJIS envisioned will eliminate many of the information related problems currently existing in Orange County, such as:

- Communicating between agencies with multiple technical platforms
- Prevalence of stand-alone systems which do not interact with others
- Prevalence redundant functionality across agency systems
- Manual data sharing
- Multiple entry of data
- Untimely data access
- Ill-defined data ownership

A fully deployed ICJIS will likely deliver the following benefits:

- Integrated functionality and more efficient data sharing
- Access to information via a web browser based user interface
- Integrated AFIS
- Databases that are secure and can be accessed by all agencies
- Maintenance of existing agency investments
- Restricted public access to appropriate information

Orange County has in place an effective committee structure, consisting of the Public Safety Coordinating Council, the JIT Management Committee, and the JIT Technical Committee. These committees should continue to be utilized to provide guidance for the project.

Overview of Recommended Actions

The following actions should be included when planning the implementation of the ICJIS:

Pre-Development Phase

- Seek funding
- Maintain the JIT committee structure.
- Establish a project management office to facilitate the entire project.
- Continue with current and planned initiatives.
- Begin analysis and definition of sub-projects to modify existing systems to handle JIT tracking number.

- Determine hosting agencies for MPI and Web CMS.
- Begin cost benefit analysis for AFIS.

Development Phase

- Create Master Person Index for two agencies only. Provide access to identification information only.
- Append criminal history information access to the Master Person Index. Continue operation with the original two agencies only.
- Provide access to the MPI for all other agencies.
- Develop and implement the Hub CMS, with access by all agencies.

Operational Phase

- Formulate a budget for provision of maintenance for the ICJIS system in years subsequent to implementation.
- Consider possibilities for future enhancements

Overview of Recommended Initiatives

Initiative	Sponsor	Timing	Funding Estimate
Acquisition of Funding	JIT Mgmt. Committee	July 2000	internal
Establish Project Management Office	JIT Mgmt. Committee	Aug. 2000	internal
Complete current initiatives	Sheriff's Office County Corrections Clerk of Court	Sept. 2000 through May 2003	funded
Define subprojects to implement JIT tracking number	JIT Tech. Committee	Aug. 2000	internal
Determine Hosting Agencies for MPI and Hub CMS	JIT Mgmt. Committee	Aug 2000	internal
ICJIS Project Management	JIT Mgmt. Committee	Sept. 2000 – Sept. 2003	\$540,000
Perform cost benefit analysis for AFIS	JIT Tech. Committee	Sept. 2000	internal
Create MPI	ICJIS Project Team	Oct 2000 - March 2001	\$520,000
Plan ICJIS interaction with external agencies	JIT Tech. Committee	Feb. 2001 - Apr. 2001	internal
Implement criminal history info into MPI	ICJIS Project Team	May 2001- Aug. 2001	\$155,000
Connect remaining agencies to MPI	ICJIS Project Team	Sept. 2001 - Sept. 2002	\$465,000
Create Hub CMS	ICJIS Project Team	July 2002 - Apr. 2003	\$1,205,000

Appendix A Architecture Diagrams

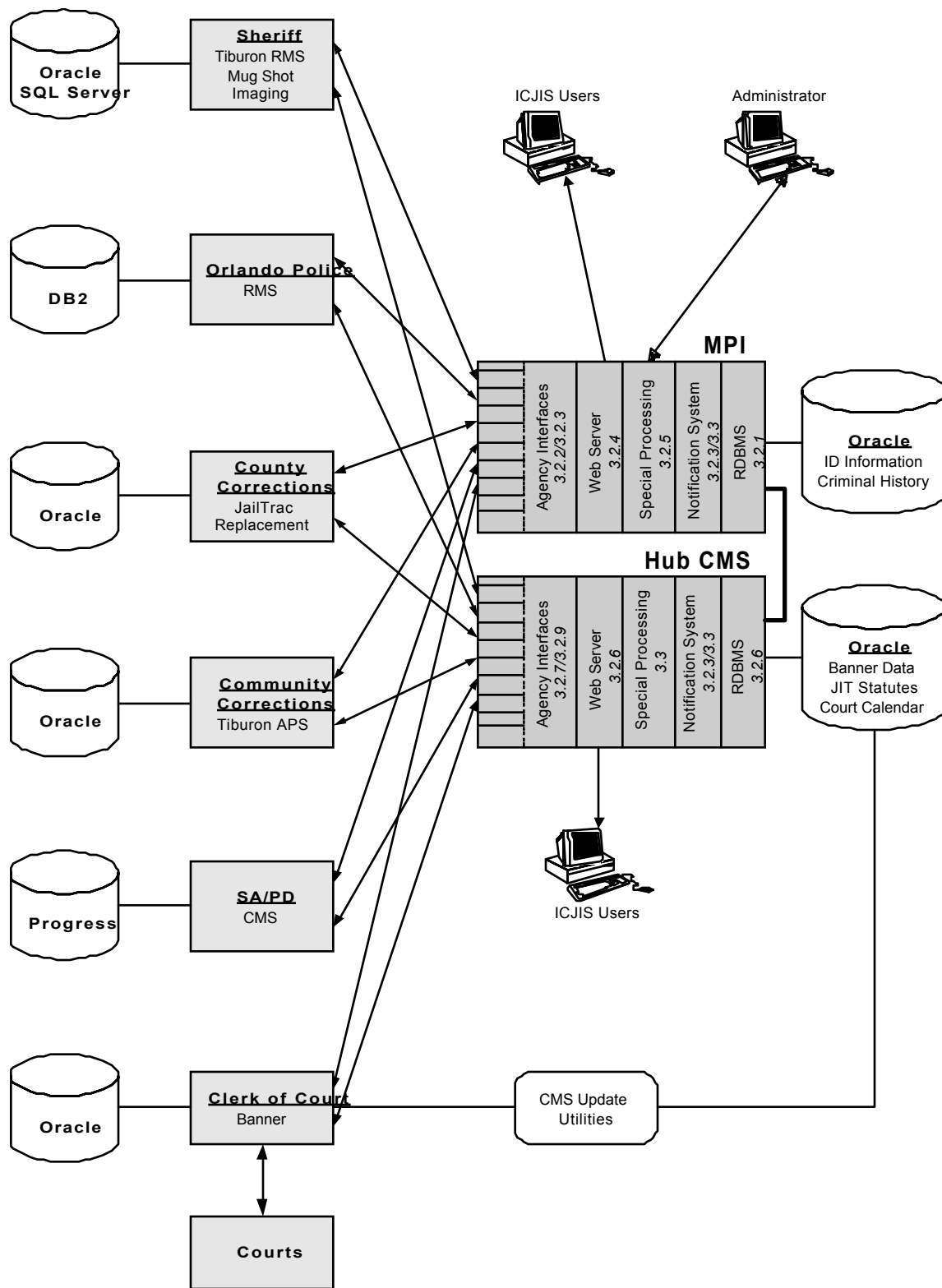


Figure 1 – General System Structure – Internal Agencies

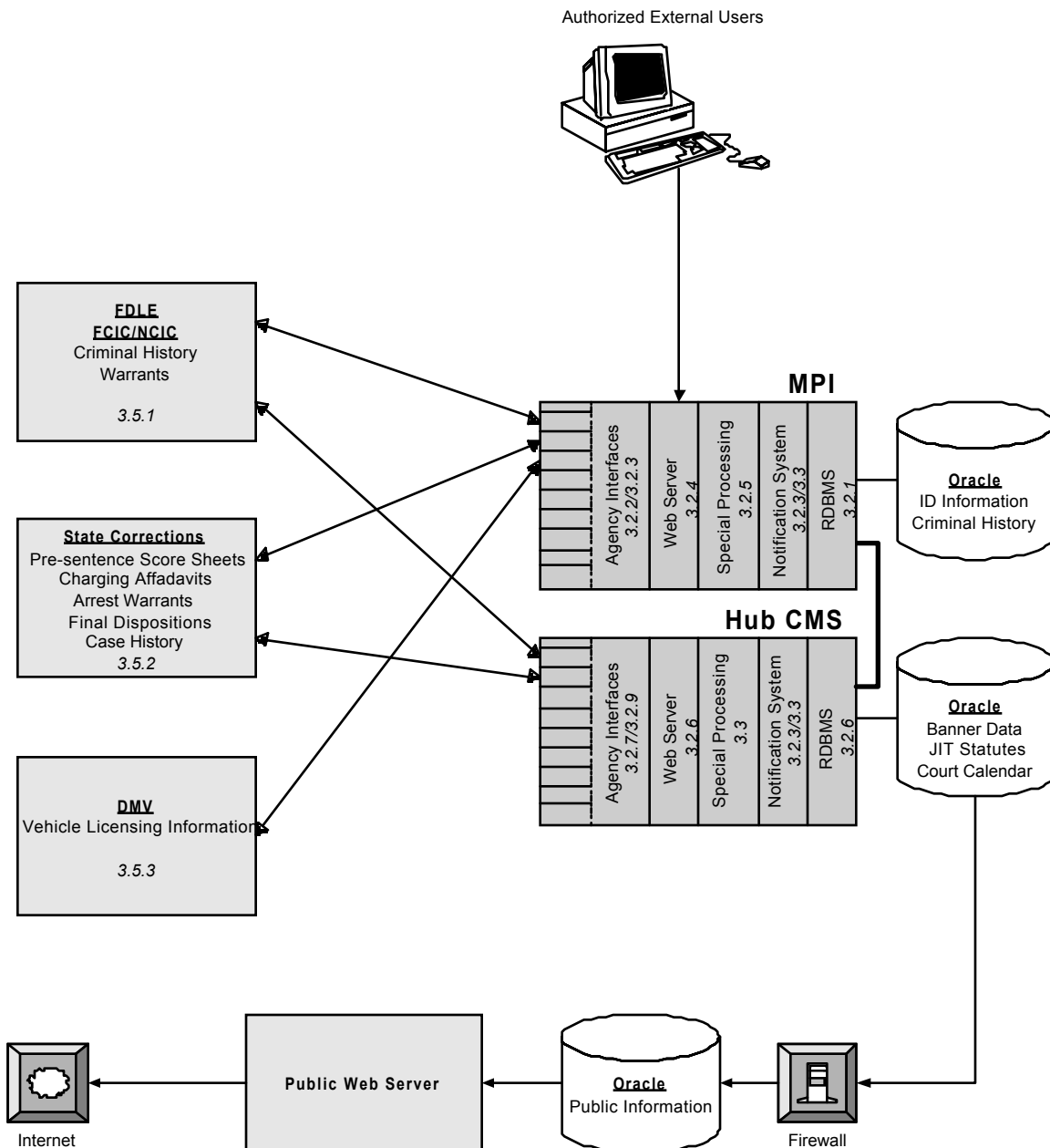


Figure 2 – General System Structure – External Agencies

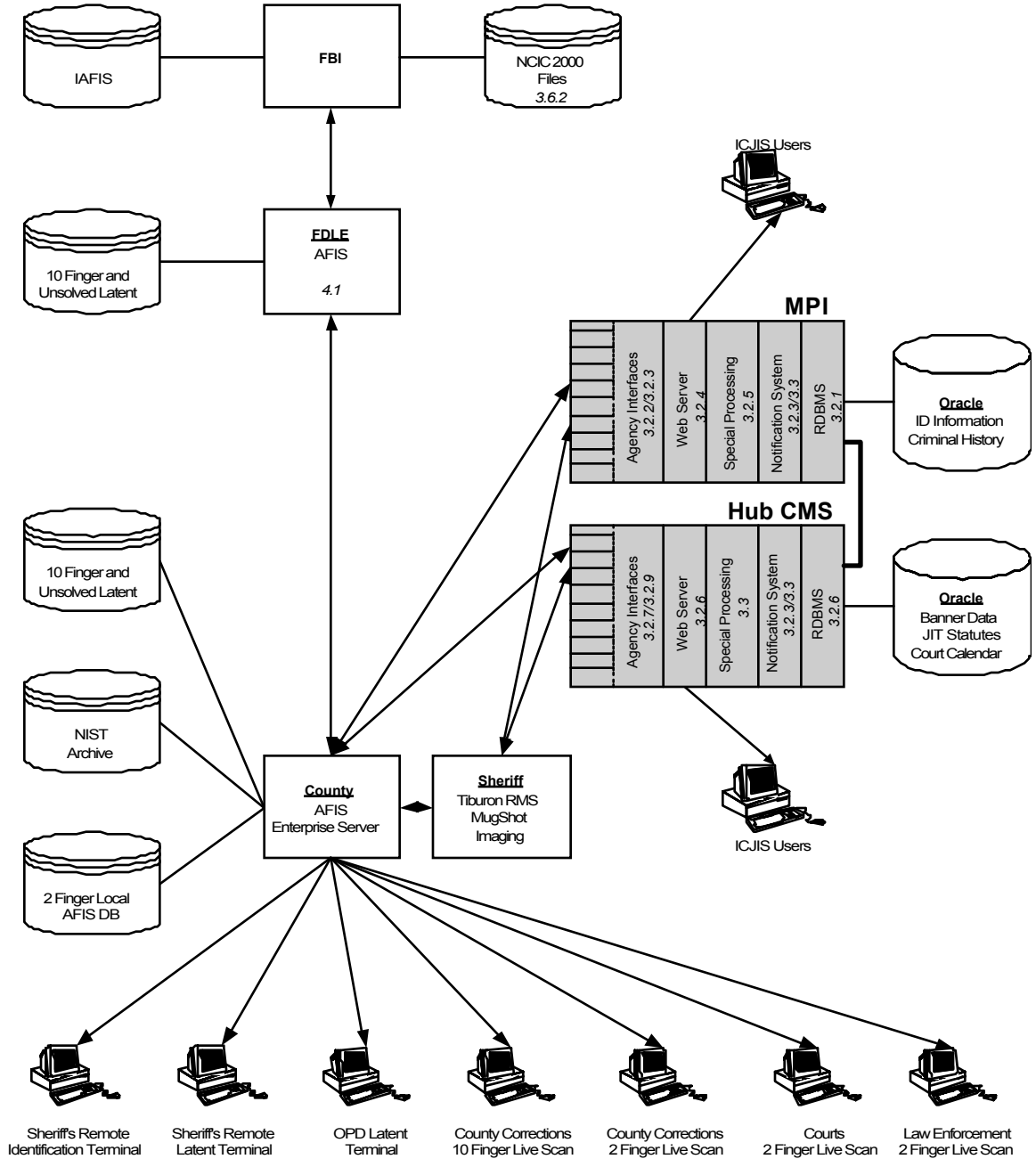


Figure 3 – General System Architecture – AFIS