

# Report on the Status of the Criminal Justice Information System (CJIS) to the

# Connecticut Legislature

Submitted by the CJIS Governing Board

October 16, 2014

■ Report of the Status of the Crim	ninal Justice Inforr	nation System (CJIS	to the Connecticu	ıt Legislature <b>=</b>

■ October 16, 2014 ■ Page 2■

## **Table of Contents**

Criminal Justice Information System (CJIS) Governing Board	5
CJIS Report to the Legislature	7
Executive Summary	8
Project Health Check Services	12
Bond Fund Overview (as of 9/30/2014)	14
Connecticut Information Sharing System (CISS) Status Report	15
CISS — Conclusions	25
CJIS Programs – Recommendations for Consideration	26
Connecticut Racial Profiling Prohibition Status Report	28
Annendix D - Acronyms	30

■ Report of the Status of the Criminal Justi	ice Information	System (CJIS) to	the Connecticut	Legislature <b>•</b>

■ January 1, 2014 ■

## Criminal Justice Information System (CJIS) Governing Board

#### **Agencies and Members**

#### Office of Policy and Management

Mike Lawlor, Under Secretary

Governor's Appointee and Co-Chair Benjamin Barnes, Secretary

#### **Department of Administrative Services**

**Donald DeFronzo, Commissioner** 

Mark Raymond, CIO, DAS-BEST (Designee)

#### Office of the Chief State's Attorney

Kevin Kane, Esq., Chief State's Attorney

John Russotto, Esq., Deputy Chief State's Attorney (Designee)

#### **Department of Correction**

James Dzurenda, Commissioner

Cheryl Cepelak, Deputy Commissioner, (Designee)

#### **Department of Motor Vehicles**

**Melody Currey, Commissioner** 

George White, Division Chief (Designee)

#### **Court Administration and Operations**

Judge Patrick L. Carroll, III Chief Court Administrator,

Co-Chair

#### **Board of Pardons and Paroles**

**Carleton Giles, Chairperson** 

Richard Sparaco, Executive Director (Designee)

#### **Connecticut Police Chiefs Association**

Richard C. Mulhall, Chief (Designee)

James Cetran, Chief (Designee)

## Department of Emergency Services and Public Protection

**Dora Schriro, Commissioner** 

Brenda Bergeron, Chief of Staff (Designee)

#### **Division of Public Defender Services**

Susan O. Storey, Esq., Chief Public Defender

Brian Carlow, Esq., Deputy Chief Public Defender (Designee)

#### Office of Victim Advocate

**Member TBD** 

Hakima Bey-Coon, Esq., Staff Attorney (Designee)

#### Chairpersons and Ranking Members of the Joint Standing Committee of the General Assembly on Judiciary

Eric D. Coleman, Senator, Co-Chair (Designee TBD)

**Gerald M. Fox**, Representative, Co-Chair Joe Verrengia, Representative (Designee)

John A. Kissel, Senator, Ranking Member

Rosa C. Rebimbas

Representative, Ranking Member

#### **CJIS Committee Chairs**

#### **Administrative Committee**

Larry D'Orsi

Deputy Director, Criminal Matters

**Court Operations Division** 

#### **Implementation Committee**

Chief Richard Mulhall

Connecticut Police Chiefs Association

#### **Technology Committee**

Evelyn Godbout

Information Technology Manager
Division of Criminal Justice

■ Report of the Status of the Criminal Justice Information System (CJIS) to the Connecticut Legislature ■

■ July 1, 2014 ■ Page 6■

## **CJIS** Report to the Legislature

Connecticut's Criminal Justice Information System (CJIS) is the umbrella term for the agencies with criminal justice responsibilities to bring greater cohesion and effectiveness by improving the way they communicate and share information across system components, and how they manage data on crime and criminal offenders.

In 2007, influenced by the Cheshire home invasion, the state of Connecticut undertook a review of its current criminal justice process. As a result of that review, state of Connecticut Public Act 08-01 was passed. This act not only provided for change to the penal code, it also provided for change to the current criminal justice information sharing process in an effort to provide for a safer community for the citizens of the state.

As part of the changes put forth by P.A. 08-01 (later codified as CGS 54-142s), the CJIS Governing Board was charged with designing and implementing a comprehensive, statewide system to facilitate the sharing of information between all criminal justice agencies. A plan for a new information sharing system, the Connecticut Information Sharing System (CISS), was established.

The CJIS Governing Board is statutorily authorized to develop, plan, and maintain policies in addition to providing direction for the efficient operation and integration of criminal justice information systems, whether such systems service a single agency or multiple agencies (according to Connecticut General Statutes§ 54-142q(f)).

Information that is shared will be accessed only by authorized personnel in criminal justice agencies, according to the laws of the State of Connecticut and federal laws. CISS users accessing FBI data will be authorized by the CSO in accordance with the Management Control Agreement. Each user will sign an agreement pledging to honor the current security policy, and acknowledging the penalties that can be imposed for improper access, use or dissemination of FBI data. Users are required to complete a training program that includes instruction on the confidentiality of all shared information, the acceptable use of the information and the penalties associated with misuse of the information as imposed by the CSO or his/her designee.

This report is pursuant to Connecticut General Statutes (CGS), 54-142q. The Criminal Justice Information System (CJIS) Governing Board provides this report and directs the projects within this report in order to meet the CJIS goals.

## **Executive Summary**

#### **Update on CJIS Projects**

CJIS has made progress with the Connecticut Information Sharing System (CISS) and Connecticut Racial Profiling Prohibition System. The CJIS team continued to work diligently to prepare for the deployment of Phase I of the Connecticut Information System (CISS).

CJIS, Xerox, and stakeholders worked together on an approved release plan for Search and Wave releases that confirmed deployment, testing, and training plans, tasks and responsibilities. Working with Xerox, CJIS will complete requirements and demonstrate prototypes for the SR1 user interface.

For <u>Search Releases</u>, the CJIS team loaded the replication of more than 2.6 million Department of Correction (DOC) inmate photos and the replication of DOC Visiting History file. CJIS also added data to the Paperless Arrest Warrant Network (PRAWN) and Offender Based Information System (OBIS) replicas.

The CJIS Business team and Public Safety Liaison created a user interface (UI) business requirements mock up for the results pages for Search Release 1 (SR1). They completed the layout of the fields for the Paperless Re-Arrest Warrant Network (PRAWN), and the Offender Based Information System (OBIS), for the user interface. Work will continue with stakeholders to obtain their feedback on the user interface.

CJIS continued requirements gathering on the CISS Information Exchange Workflows for upcoming <u>Waves</u>. The CJIS Business team completed requirements for collecting submission of infractions paperwork from law enforcement records management systems for the Information Exchanges.

To improve criminal justice community education on the CISS security model, CJIS and Xerox held two presentations on Global Federated Identity & Privilege Management (GFIPM) for interested stakeholders.

CJIS documented requirements necessary to capture and process Incident Arrest data and other forms that need to be organized and electronically submitted. The considerations were used to develop base business requirements for the stakeholder community.

Progress was made on the Records Management System (RMS) Network for connecting RMS systems to CISS. Connecticut Police Chiefs Association (CPCA), CJIS and BEST technology teams are installing and configuring routers on the Public Safety Data Network (PSDN) to support CISS Information Exchanges with Law Enforcement Agencies (LEAs). As a benefit to the community, this new network supports a high-speed data transmission using selectable committed information rates, FBI compliant data encryption and quality of service (QoS). This advanced enterprise level network functionality benefits the CJIS community by providing a reliable and secure data communications and network transport. The CJIS Technical team will continue configuring Local Area Network (LAN) access at local LEAs. CJIS now has fifty-four of the ninety-two town routers configured and ready for use by CISS when the application goes live for its first release.

In the development and technology side, the CJIS Technical team has been busy with several projects. They rebuilt the infrastructure for the replication process in order to improve performance and they are in the process of building the programs needed to connect CJIS agencies and their vendors to CISS.

The CJIS Technical and Business teams continue development on the Record Management System (RMS) Certification. There are three participating pilot vendors, Hunt Computer Systems, KT International and Tri-Tech Consulting Group working with the CJIS teams with additional vendors scheduled to participate after the pilot. The result of this pilot is the development of a draft project charter, work plan containing objectives, milestones and target dates for the code development, testing and implementation of connectivity to CISS.

The CJIS Technical team also met with the Judicial Technical team and introduced the iZone Application Programming Interface (API). The <u>iZone API</u> will be the tool that will give CJIS agencies the ability to (connect) consume and also publish data to and from other CJIS agencies through CISS.

CJIS reviewed the agency user interface (UI) with Judicial (JUD) and additional project planning efforts to develop the agency portal and integration zone (I-Zone) components have also begun. Judicial completed a second review of the Agency Interface Build-Out Charter, which will be a template for other agency charters.

The <u>Connecticut Racial Profiling Prohibition System</u> is now in production with CJIS providing technical support and maintenance. A preliminary report was released by the Institute for Municipal and Regional Policy (IMRP) of Central Connecticut University on September 11, 2014, with a more inclusive report due out in January 2015.

The CJIS Operations team working with the Project Management Office (PMO) and the CJIS Technical team implemented <u>Microsoft Project Server</u> to enable all CJIS projects to be maintained in one location, managed as a portfolio that will provide dashboards with key performance indicators to CJIS management and CJIS stakeholders. These dashboards will be available individually to each stakeholder and have that agency's plan, tasks, dates, and risk and issues with tracking.

The Offender Based Tracking System (OBTS) and CT Impaired Driver Records Information (CIDRIS) programs are in maintenance mode.

All of the above projects are discussed more fully in the pages that follow.

#### **CJIS Critical Issues and Risks with Mitigation Strategy**

There are critical issues and risks that will need to be addressed in order for the CISS project to move forward effectively and in a timely manner.

#### Risk 1

The uncertainties of whether CISS will be able to receive, transmit, or store "FBI data" and its relationship to the CJIS Security Policy has caused and potentially will continues to cause significant delays and risk to the project. Commissioner Schriro submitted a signed Management Control Agreement (MCA) to the FBI for their review in order to designate CJIS as a Non-Criminal Justice Agency which would allow CJIS to receive and transmit FBI data on behalf of CJIS agencies.

#### **Impact**

If CJIS is not designated as a Non-Criminal Justice Agency, then the CISS project cannot receive and transmit FBI data. The CISS project will not be able to move forward in a manner that brings the critical information needed by the CJIS agencies including Local Law Enforcement. This will change the cost/value equation significantly.

#### Mitigation

Commissioner Schriro submitted a signed Management Control Agreement (MCA) to the FBI for their review. The CJIS Governing Board approved the FBI Security Policy and the Connecticut State Security Policy. These efforts will move FBI to designate CJIS as a Non-Criminal Justice Agency.

#### Risk 2

The state needs to hire a durational project manager.

#### **Impact**

Lack of program oversight by a durational project manager negatively affects the CISS project in several ways, including:

- CISS project oversight in managing day-to-day project work and decision making
- CISS team's ability to effectively communicate project information and coordination with stakeholders
- Communication reporting and decision making between CISS team and CJIS Governing Board

#### Mitigation

The state and OPM continue to search for a durational project manager. After reviewing resumes submitted in July, it was determined that there was no suitable candidate. The position was reopened and we received seventeen candidates and interviewed five. However, none met the needs of the position. We are now reviewing new strategies for attracting new candidates.

#### Risk 3

The late hiring of state positions, filling important positions with contractors, and not converting these to state positions presents risk to the project plan and the long-term support and stability of CISS.

#### **Impact**

The primary element for success is to have a talented pool of dedicated and skilled CJIS Governing Board personnel. The CJIS team has hired consultants to do the work. If the eighteen people are not hired, much of the domain knowledge during the build of CISS will be lost when the consultants leave.

#### Mitigation

After CJIS met with DAS, DAS-BEST and OPM, there was an agreement to open all eighteen positions. We have ranked the order of hiring needed and we are working to open these positions but have encountered delays.

While the funding today comes from the inmate phone revenue, this revenue source is under discussion for changes by the FCC. Funding for the state staffing for the CISS project might be in jeopardy. Recent rulings have removed the ability to derive revenue from interstate calls. A change to how intrastate calls are handled (removal slated for first quarter 2015) would have a significant impact to the funding of the program. This source of funding reduction will have a substantial impact on the staffing levels.

The legislature needs to consider this risk and provide for an alternate source of funds.

The CJIS Governing Board will have to consider other alternatives such as; 1) hiring consultants, 2) outsourcing the application maintenance to a vendor, or 3) creating a hybrid environment where we have state employees and consultants filling the required positions.

We need to hire people who have the right skill set and experience with large, complex, multi-million dollar, multi-year projects. We also need to offer salaries close to market rates in order to be successful.

#### Risk 4

Stakeholder agencies are concerned about meeting time frames set by CJIS for CISS implementation. These concerns stem from:

- Lack of agency resources to integrate with CISS
- Conflicts with seasonal agency work and the CISS schedule

#### **Impact**

The CISS project will experience significant schedule delays, increased costs, changes in scope, vendor issues and potentially have gaps of critical data that CISS is required to provide to our information consumers.

#### Mitigation

CISS has assembled a team to collaborate with stakeholders composed of a project manager and business and technical leads who will work with each agency to address their concerns individually and find a win-win solution that brings a significant positive net benefit to that agency. This includes bringing in resources to help with the integration, providing financial assistance on a case-by-case basis, and using a governance process to help resolve issues.

#### Risk 5

Because contract change negotiations between the state and Xerox remain incomplete, Xerox has significantly reduced its staff. As a result, Xerox is unable to effectively perform the work needed to build, test, and implement CISS.

#### **Impact**

Xerox's significant reduction in staff has almost halted the progress in the completion of the four technical platforms where CISS will reside and has considerably slowed the development of the Search Releases and Information Exchanges. As a result, the project timeline and scope has changed. The delay increases the project costs and stakeholders' confidence in the project is deteriorating.

#### Mitigation

The Office of Policy and Management (OPM), the Governing Board Co-Chairs and the Executive Director are working with Xerox to finalize the contract as soon as possible. Xerox proposed a Release Plan that was validated by CJIS and the stakeholder community. This plan will be incorporated in the Contract Amendment.

## **Project Health Check Services**

In September, the CJIS Governing Board issued an invitation to bid (ITB) through DAS Procurement to companies who specialize in health check services. After receiving bids, the CJIS Governing Board hired Qualis Health to provide project health check services for the CISS project. Project health checks are snapshots of the status of a project at a point in time and are typically performed at key milestones or when issues are noted. Project health check offers an objective assessment of how well the project is performing in substance against stated objectives and in accordance with relevant processes and standards. The Qualis project health check will be performed quarterly and the findings will be presented at the CJIS Governing Board meetings.

Qualis Health is a nonprofit Health Check Services organization with a twenty-year track record in information technology consultation. Qualis specializes in quality assurance, independent verification and validation, and strategic advisory services. As part of their agreement, Qualis will deliver the following:

- Produce a quarterly Project Health Check Services Report.
- Perform a review of the current CJIS Governing Board organizational chart (staffing).
- Personally present the findings of the quarterly report at the CJIS Governing Board Quarterly meetings.
- Join in bi-weekly CJIS Governance Committee Meeting conference calls to address issues, risks, and action items.

Qualis Health's methodology provides a data driven approach to measuring the project's health. Qualis sends a fifty-five question survey (Appendix B) to Subject Matter Experts (SMEs) from each agency, the CISS Project Management Office, and Xerox for each report. Each quarter, the survey, with the same questions, will be sent to the same SMEs. This allows project progress to be marked by the stakeholders, removing the subjectivity of the interviewer. The survey was comprised of questions derived from the following twelve categories:

- Scope
- Development
- User Involvement
- Organization
- Oversight
- Project Management
- Project Controls
- Implementation
- Contractor Performance
- Technology
- Alignment to Vision
- Measurement

Survey respondents were asked to evaluate each question on a 1 to 4 scale:

- 4 Strongly Agree
- 3 Agree
- 2 Disagree
- 1 − Strongly Disagree
- N/A could be used for both "Not Applicable" or "Not Sure"

In each report, Qualis will identify project issues and risks as well as strengths that should be continued. The recommendations will help guide the Project Management Office (PMO) in addressing weaknesses and risk with the intent of gains in overall project health.

The first baseline report, which came out in November, showed that the project has many strengths. Almost all respondents indicated they saw great value in the project and generally people feel informed and involved. Many stakeholders expressed optimism about what they have seen from the PMO recently. On-site visits from the PMO and clearer communications in recent weeks have started to have a positive impact on the project.

Qualis sited stakeholder data sharing and limited resources as project risks, and PMO trust (defined as a perception of both a lack of transparency and inconsistent information from the PMO), communication and access to documentation as issues that CJIS can mitigate immediately.

The Overall Project Health score for this baseline report is 2.54, which on a scale of one to four is just above average. This score was calculated by averaging agency responses across all category scores. Having an unsigned Contract Amendment kept some

responses lower than they normally would have been. Once the amendment is in place, the responses are expected to improve.

Qualis Health has chosen to employ a tool for this project that displays a snapshot of the project's overall health (see Figure 1). This figure will be presented in the Executive Summary of each report. Qualis Health sent surveys to the ten partner agencies. The results from the survey were grouped into three main project areas: scope, time, and resource. The ideal project should be an equilateral triangle, extended to the outer level (4.0) on the scale. As

## **Project Balance Ranking**

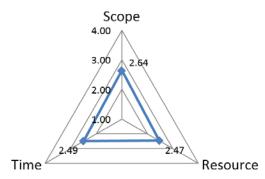


Figure 1. Project Balance Ranking using scope, time and resource.

depicted in the figure, this project is very close to an equilateral, meaning the project is balanced between scope, time, and resource (Scope value = 2.64, Time value = 2.49, Resource value = 2.47). As the project health improves, the triangle will extend toward the outer levels. If any of the three main area values change, the corresponding triangle corner will move toward the center levels, making the triangle obtuse and thus unbalanced (unhealthy). This depiction keeps the project focused on the importance of project balance between project scope, time and resources, all of which are necessary to ensure a healthy project implementation. The next Project Health Check Report will be delivered in January, 2015.

## Bond Fund Overview (as of 9/30/2014)

The budget for the CISS project is currently on target. The approved funding for the CISS project is \$24,090,000 (this includes \$700K from the General Fund). Funding does not include operational funding from 2012 to 2015.

CISS Bond Fund Budget Summary			
CISS Original Forecasted Budget		<u>Totals</u>	
CISS Original Forecasted Budget Commitment*		\$ 24,090,000	
CISS Expenditures To Date 09/30/14			
Budgeted Fiscal Year	<u>Total Expenses</u>		
2011/2012	\$ 3,909,326		
2012/2013	\$ 6,382,674		
2013/2014	\$5,519,499		
2014 - 2015 (Year to date 9/30/14)	\$ 871,594		
Total CISS Expenses from Bond Fund		\$ 16,683,093	
Remaining Budget			
CISS Bond Fund Dollars Remaining to Complete Project as of 09/30/14		\$ 7,404,907	
Budgeted Ongoing Operational Costs			
Internal CISS Support Staff as of 9/30/14	\$ 5,415,976		
Hardware/Software/Licenses Maintenance and Support as of 9/30/14	\$ 9,216,658		
Total Expected Costs**		\$ 14,632,634	

#### **Note:**

<sup>\*</sup> Bond Fund is \$23,390,000 + \$700,000 from Connecticut General Fund = \$24,090,000 to match forecasted budget.

<sup>\*\*</sup>FY 2012 Operational Dollars of \$2.150 million not received based on original budget

<sup>\*\*</sup>FY 2013 Operational Dollars of \$3.150 million not received based on original budget

<sup>\*\*</sup>FY 2014 Operational Dollars of \$3.750 million not received based on original budget

<sup>\*\*</sup>FY 2015 Operational Dollars of \$3.850 million not received based on original budget

## **Connecticut Information Sharing System (CISS) Status Report**

#### **CISS** — Background

The Connecticut Information Sharing System (CISS) provides an integrated solution for the sharing of criminal justice information (CJI) within the Connecticut CJIS agencies, in full compliance with the current version of the FBI CJIS Security Policy<sup>1</sup>. The State of Connecticut has commissioned the development of the CISS solution to enhance the information sharing capabilities of public safety and justice agencies throughout the state.

The State of Connecticut's vision is to create a scalable, service oriented architecture for the exchange of criminal justice information between justice and public safety agencies throughout Connecticut. This vision includes system-to-system information exchanges using standards-conformant message formats. This search will employ GFIPM claims-based user authorization applied to control access to sensitive information as defined in federal and state policies.

This consolidated environment will enable the state's criminal justice agency systems to interact seamlessly using a common framework to send and receive data and documents. The Search solution will allow users to search for people, locations, events and property across all of the connected information sources from within a common portal.

#### CISS Key Accomplishments – Period Ending October 16, 2014

#### CISS Wave 0, Version 1.6

- Completed the improvements in the CISS technical infrastructure to be utilized within common Software Development Life Cycle (SDLC) platforms (Development, System Testing, User Acceptance Testing and Production). This has enabled key technical features needed such as Active Directory Domain Trust (allow ability for single sign-on across different systems from CISS), enabled rapid virtual machine provisioning and enabled the CISS Operations system administrators to use one management application suite to monitor/configure/administer all CISS systems for health.
- Created an off-site disaster recovery plan, purchased hardware, software and expect to have full deployment by January 2015. This will allow a disk-to-disk backup system for production that will be housed offsite as a means of disaster recovery.
- Completed the design and construction of clustered servers to support high availability requirements.
- Deployed redundant firewall appliances to support secure access to CISS environment.
- Installed Electronic Content Manager (ECM) for storage of documents, pictures and other media for CISS.
- Designed and tested patch, backup, and restoration management strategies for CISS systems.
- Installed Microsoft System Center's Data Protection Manager (DPM) for system backups and System Center Operations Manager (SCOM) software for the CISS Help Desk.

<sup>1</sup> As of this writing the current FBI CJIS Security Policy is numbered 5.3: http://www.fbi.gov/about-us/cjis/cjis-security-policy-resource-center/view

- Executed the initial performance benchmark for infrastructure and external
  information sources. This system will monitor network and data connections to CISS
  for health and setup benchmarks to measure the performance against industry
  standards.
- Drafted Standard Operating Procedures (SOP) for CJIS Operations Management in preparation for CISS Release 1.
- Installed and configured server software to support virtual server clusters and high availability. These servers will support a high volume of information and communication traffic on CISS with redundancies to reduce risk of failures.
- Installed additional disk drives, increasing available storage for the User Acceptance Testing (UAT) and Production environments.
- Replicated OBTS into the System Test environment as a data source. CJIS can now test OBTS as a data source in CISS.

#### **CISS Waves 1 through 3**

- Expanded the scope of Wave 1 to include functionality to enable users to submit scanned arrest paperwork to CISS, provide a direct interface with RMS systems to facilitate bulk upload of authorized historical data, and to transmit new or updated Uniform Arrest Reports (UARs) to CISS on an ongoing basis.
- Completed the initial Global Federated Identity and Privilege Management (GFIPM) security access mapping for fifty-four arrest incident related documents.
- The CJIS Business team organized requirements for the CISS Wave 1 information architecture (i.e., Workflows: Uniform Arrest Report (UAR), CISS Common, and Post Judgment into three groups: input RMS (data input, business rules for LEAs), CISS (integration, indexing and storage), and output to agencies (delivery).
- Completed business requirements for Uniform Arrest Report, and Misdemeanor Summons workflows. Participating agencies include Judicial Branch, Division of Criminal Justice (DCJ), DPDS, DOC, Board of Pardons and Paroles (BOPP) and Department of Motor Vehicles (DMV). The scope of these requirements includes electronic submission of incident arrest information by law enforcement systems, information storage and user access using document management functionality and transmission of this information to state agencies to allow stakeholder agency consumption. The requirements covered several project objectives including the confirmation of arresting data elements and associated documentation packets, notification and messaging, and agency data transformation using national information exchange standards.
- Conducted CJIS Community discussions to review Global Federated Identity & Privilege Management (GFIPM) claims process (GFIPM 101) and an Introduction to CISS Architecture (CISS 101). Informational discussions help to educate the stakeholders on how CISS works and improve stakeholder communication.
- Completed base documentation for Infractions workflow business requirements.
- Updated business requirements for Centralized Infraction Bureau (CIB) to send notices of Infraction.
- Completed selection criteria to query and transmit Department of Motor Vehicles (DMV) driver history to Division of Criminal Justice (DCJ).

#### CISS Search Release 1 and 2 (SR1)

 Replicated CISS data from the Paperless Re-Arrest Warrant Network (PRAWN), Protection Order Registry (POR), Centralized Infraction Bureau (CIB) and Offender Based Information System (OBIS) data systems, in conjunction with the Judicial Branch and the Department of Correction, for CISS Search sources.

- Worked with Xerox to re-align key development, testing and implementation milestone dates.
- Established training requirements with Xerox and assigned training tasks.
- Completed design of SR1 features, such as System Administration.
- Finished PRAWN and OBIS design for active warrants.
- Completed data mapping (fields for searches) for POR and CIB.
- Reached agreement with Xerox on the distribution of over a hundred functional contract requirements across three search releases. Of the state contract's more than 300 precise requirements, a third is Search related.
- The Paperless Re-Arrest Warrant Network (PRAWN) design is completed (CISS will display only active warrants). Working with the Department of Correction (DOC) and DAS-BEST, CJIS downloaded nearly two million inmate photographs into CISS (SR1). The photographs will provide another level of identity when searching for incarcerated persons.
- CJIS, Xerox, and stakeholders crafted a release plan for completion of Phase 1 of CISS.
- Loaded the replication of DOC Visiting History file. More than 6.2 million records were stored. This provides details on those who have visited prison inmates.
- Worked with Paperless Re-Arrest Warrant Network (PRAWN) business and technical owners to identify GFIPM claim components.
- Completed requirements for Alerts and Notifications and System Administration.
- Defined the Search Sources for SR2 (Criminal and Motor Vehicle System (CRMVS), Protection Order Registry (POR) and Centralized Infraction Bureau (CIB).

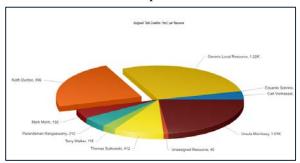


Figure 2. Interactive pie chart in Microsoft Project Server showing resource distribution.

- Completed the draft requirements for the thirty-four contract requirements to be satisfied in SR2.
- The CJIS Operations team, working with the PMO and the CJIS Technical team, implemented Microsoft Project Server to enable all CJIS projects to be managed as a portfolio in one central location. Using Project Server, CJIS management and CJIS stakeholders will have access to agency-customized dashboards with key performance indicators and will include that agency's plan, tasks, resources, dates, and risk and issues. CJIS will offer the Project Server dashboards to each stakeholder (see Figure 2).

### **CISS Anticipated Activities – Next 180 Days**

#### CISS Search Releases 1 and 2 (SR1, SR2)

- Design computer-based training (CBT) program for Search Release 1 and 2 and collaborate with Xerox on curriculum design.
- Create user interface designs for CISS Search results for OBIS and PRAWN.
- Add DOC inmate photos to OBIS replication.
- Upon re-engagement with Xerox, confirm requirements gathering, design developments, code developments, testing, training plans, and deployment to

- production schedules.
- Begin work on detailed requirements for Wave 2-Misdemeanor Summons.
- Initiate the building of a new replication system for the Criminal Motor Vehicle System (CRMVS) application (SR2). This will allow CJIS to use the new replication system as a source for searches instead of putting a load on the real time system.
- Working with Xerox, complete requirements (for layout and for incorporating stakeholder requirements into features) for the SR1 user interface. This will provide a user friendly interface for Search Release 1.
- Implement the installation, configuration, purchase support, and maintenance for the automated Learning Management System to be used for CISS' computer-based training (CBT). This will provide an online training system for CISS users beginning with SR1.
- Write requirements for searching RMS data provided by police departments.
- Upon resolution of the CJIS Security Policy, begin the design of an automated user approval and training authorization system with stakeholders. Users will have the ability to test CISS and provide feedback on the application and help to design an effective training system.

#### **CISS Waves 1 through 3**

- Complete CISS system requirements to receive, validate, store and send arrest related
  information to the Department of Criminal Justice Superior Court Operations (SCO)
  and Court Support Services Division (CSSD), Board of Pardons and Paroles (BOPP),
  Department of Correction (DOC) and Department of Motor Vehicles (DMV).
- Schedule requirement walkthrough reviews with stakeholders to further develop and define document access detail (i.e., GFIPM access security rules).
- Conduct Focus Groups for the development of the CISS Community Portal requirements.
- Work with stakeholders on CJIS Information Exchange requirements needed for receiving the arrest documentation including data transformation and consumption.
- Work to define requirements for CISS alerts and notifications.
- Complete a review of UAR and Misdemeanor Summons business requirements.
- Start the design stage for Uniform Arrest Report (UAR) and Misdemeanor workflow requirements upon completion of contract amendment. This includes technical discussions to collect and review (I-Zone) data transformation requirements for CISS Information Exchanges using agency code values.
- Begin the development of agency interface build-outs. This includes project planning
  activities with participating agencies, business requirements review, design and
  construction of hardware and software components necessary to support the agency
  integration environment.

#### **RMS Certification**

#### **RMS Certification — Background**

Records Management System (RMS) Certification is a collection of specifications, processes, and software code development intended to ensure LEAs can efficiently, securely, and effectively exchange criminal justice information between their RMS systems and other stakeholders using CISS.

#### **Key Accomplishments – Period Ending October 2014**

• Completed the internal review of the RMS Certification process and began the

- outreach, review with community stakeholders and started pilot development with RMS vendors.
- Reviewed documentation, including the Uniform Arrest Report data elements and associated data validation business rules, with agency stakeholders in October.
- Distributed three draft RMS Certification documents, two for business, and one for technology, to agency stakeholders. The documentation is extensive and covers a variety of business and technology topics.
- CJIS submitted a deployment plan to the PSDN Applications Review Board and garnered approval. The plan provides details for network connectivity between the CISS application and the LEAs' RMSs.
- The CJIS Business team documented a variety of considerations necessary to capture and process Incident Arrest data and paperwork. The considerations were used to develop base business requirements for the stakeholder community.
- The CJIS Technology team documented requirements for types of booking information, charging documents and other agency forms that need to be organized and electronically submitted.
- The CJIS Business team and the RMS Work Group completed the internal review
  and updates to the proposed RMS business requirements documents. This includes
  project planning activities with participating vendors, business requirements review,
  data mapping, design and construction of hardware and software components
  necessary to support an integration environment to the law enforcement agency's
  records management system (RMS).

#### **Anticipated Activities – Next 180 Days**

 The CJIS teams will work with RMS vendors to review business requirements and adhere to national Information Exchange Package Documentation (IEPDs) standards.
 The IEPD message structure will enable stakeholders to publish and consume criminal justice information.

#### **RMS Network**

#### **Key Accomplishments – Period Ending October 2014**

- CPCA, CJIS and BEST technology teams are installing and configuring routers on the PSDN to support CISS Information Exchanges with LEAs. As a benefit to the community, this new network supports a high-speed data transmission using selectable committed information rates, FBI compliant data encryption and quality of services. This advanced enterprise level network functionality benefits the CJIS community by providing a reliable and secure data communications and network transport. To date, fifty-four towns have been deployed on the new network (see Figure 3).
- The CJIS Technical team completed over 70 percent of the development of IZone application programming interfaces (APIs) that will help vendors and developers to quickly prepare Information Exchange messages. This API is expected to be ready for testing in in the next couple of months.

#### **Anticipated Activities – Next 180 Days**

- Review certification guidelines with pilot vendors.
- Continue the installation schedule and deployment for the remaining towns participating in the CJIS RMS Network.
- Develop a project charter and memorandum of understanding to affirm participant

data sharing and operational obligations.

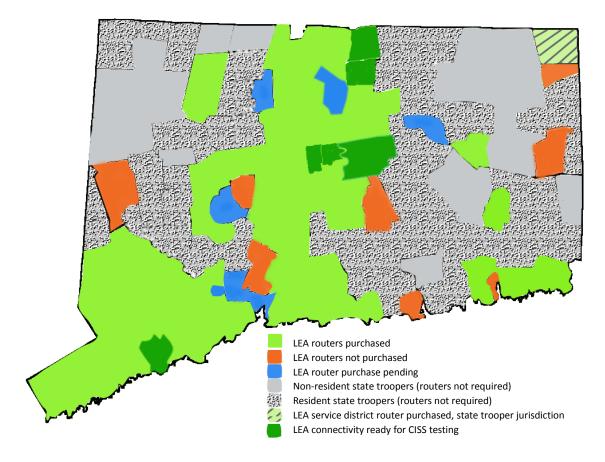


Figure 3. CT Map that shows the status of router procurement and configuration.

# Recommendations from the Office of the Attorney General and the Auditors of Public Accountants

In response to a complaint filed pursuant to Connecticut General Statutes § 4-61dd, the Office of the Attorney General and the Auditors of Public Accounts have conducted an investigation of certain issues raised regarding the planning, construction, costs, and oversight of the Criminal Justice Information System (CJIS).

The following is a list of nine recommendations outlined in the Office of the Attorney General and the Auditors of Public Accounts Report (pages 4-6) dated November 20, 2013 and the plan of action agreed upon by the Governance Committee. A letter and copy of the following table was sent to the Attorney General's Office in early August, 2014 in answer to their letter. It outlined the completed and ongoing mitigation strategies for each of their recommendations.

Open Date	Action Item Description	Mitigation	Target Completion
11/26/2013	AG Recommendation #1:  Assess whether, due to complexity and time demands of the project, Board members should appoint designees with the available time and experience necessary to ensure the Board is fulfilling its statutory responsibilities. (See Connecticut General Statutes 54-142q(f)(2), requiring establishment of an Executive Committee staff with criminal justice agency and/or non-criminal justice agency personnel with the requisite technical and operational experience).	The CJIS Governing Board organized a Governance Committee composed of a small group of key Governing Board members and designees. The Governance Committee meets bi-weekly to address important issues.	Ongoing
11/26/2013	AG Recommendation #2:  Direct the CJIS Executive Director to communicate all significant issues, both positive and negative, to the Board in a comprehensive, easily understood and timely manner, including by providing the Board with complete copies of all past and future Quarterly Risk Assessment Detail reports issued by MTG.	<ol> <li>To enhance awareness and understanding of project progress and project risks, all Quarterly Independent Verification and Validation reports are now sent to all Governing Board members.</li> <li>CISS reports and presentations are now delivered in "plain language" format.</li> <li>Executive Director is directed to disclose all significant issues, positive and negative, in plain</li> </ol>	Ongoing

Open Date	Action Item Description	Mitigation	Target Completion
		language, to the Governance Committee at the bi-weekly meetings.	
11/26/2013	AG Recommendation #3:  Direct the Executive Director to report the status and timeline for completion of the contract discussions with Xerox, including the status of any revised work plan, the timeline of deliverables and the status of payment issues.  Representatives from Xerox should participate in such a presentation.	A Release Plan proposed by Xerox has been validated by the CJIS team and the CJIS stakeholder community. It will become part of the amended Xerox contract. Karen Buffkin, OPM Deputy Secretary, has kept the Board apprised of contract negotiations.	In Progress
11/26/2013	AG Recommendation #4:  Direct the Executive Director to provide a detailed briefing on the current budget and timeline of the project, to include an explanation for any differences between the current work plan, budget and projected timeline with the original work plan, budget and project timeline.	Executive Director has been providing regular budget updates and project timeline updates at both the Governance Committee and Governing Board meetings. CJIS, Xerox and stakeholders have all agreed upon a tentative Release Plan. When a contract amendment agreement with Xerox is finalized, the Release Plan will include an agreed upon project timeline.	Ongoing
11/26/2013	AG Recommendation #5:  Review information developed through the contract status report and/or budget and timeline briefing in order to determine whether corrections or clarifications should be made to the July 2013 Report to the legislature and, if so, provide any necessary corrections.	In accordance with the recommendation and at the direction of the CJIS Governing Board, the Executive Director and the CJIS team were directed to review the Report to the Legislature for factual accuracy. After such review, it was determined that no revisions to the Report were required.	Completed
11/26/2013	AG Recommendation #6: Address and resolve all payment issues with Xerox.	A document outlining changes to the Xerox contract was presented to Governing Board at its July 17, 2014 meeting. It fully explains the financial and non-financial changes to the	In progress

■ July 1, 2014 ■ Page 22■

Open Date	Action Item Description	Mitigation	Target Completion
		contract as recommended by Karen Buffkin. At that meeting, the Governing Board voted to accept the changes as recommended. Ms. Buffkin continues to work with Xerox to finalize a contract amendment.	
11/26/2013	AG Recommendation #7: Consider implementing frequent quality assurance reviews.	The Executive Director, CISS project manager(s) and our Independent Verification and Validation consultant (MTG) meet monthly* to address quality assurance issues. (*NB: The MTG contract recently expired and a new RFP is pending to secure a new Independent Verification and Validation consultant.) This process will continue when the new Independent Verification and Validation consultant is retained.)	Ongoing
11/26/2013	AG Recommendation #8:  Assess the current status of the durational program manager and, if necessary, engage in a search for a permanent CISS program manager with a strong IT background and the ability to effectively communicate and collaborate with the stakeholders, consultants, and contractors. Such an individual should possess a practical understanding of the criminal justice process, including how a matter develops in the criminal justice system and how documents are developed and used by the various criminal justice agencies.	This position has been reopened as of July 2, 2014 and closed as of July 17, 2014. Potential candidates are being reviewed. The Governance Committee has adopted a three step process for hiring the next durational project manager:  1. Sean Thakkar, Executive Director, CJIS and Mark Raymond, Chief Information Officer (DASBEST), will screen and interview candidates. Thakkar/ Raymond will recommend certain candidate(s) to be interviewed by Mike Lawlor, Under Secretary, Judge Carroll, Chief Court Administrator and Karen Buffkin, OPM Deputy Secretary.	In progress

Open Date	Action Item Description	Mitigation	Target Completion
		2. Lawlor/Carroll/Buffkin will interview the candidate(s) recommended by Thakkar/Raymond and identify a recommended candidate.  Key Board members - Kevin Kane, Chief State Attorney, (DCJ), Chief Mulhall (CPCA) and Dr. Dora Schriro, Commissioner (DESPP) will interview the candidate recommended by Lawlor/Carroll/Buffkin.	
11/26/2013	AG Recommendation #9:  Evaluate whether changes, including the addition of personnel, are necessary in the CJIS Leadership and CSG.	This issue has been addressed by the CJIS Governance Committee asking OPM to convert 19 consultant positions to state employee positions.  The organization chart has been modified to reflect the change. * (*NB The fact under the terms of the proposed Xerox contract modifications which will include Xerox assuming some of the business requirements work, there is a possibility that not all of the proposed 19 consultant positions will be required to be converted to full time state employees.)	Ongoing

■ July 1, 2014 ■ Page 24■

#### **CISS** — Conclusions

CJIS continued to prepare for the next release of CISS. The CJIS Operations team created a plan to purchase and deploy a disk-to-disk backup system for production that will be housed offsite as a means of disaster recovery.

CJIS, Xerox, and stakeholders worked together on a release plan for the Search and Wave releases that confirmed deployment, testing, and training plans, tasks and responsibilities.

- For Search Releases, the CJIS Technical team performed replications and added data to existing replicas. Additional requirements were completed for several Connecticut Judicial agencies for upcoming Waves and with DMV for Search Releases. Replications and requirements gathering will continue into the fourth quarter of 2014.
- The CJIS Business team collaborated with Department of Motor Vehicles (DMV) on transmitting driver history to Division of Criminal Justice (DCJ) as part of an Information Exchange.

For criminal justice community education, CJIS and Xerox held two presentations on Global Federated Identity & Privilege Management (GFIPM) for interested stakeholders.

Progress was made on the Records Management System (RMS). CJIS documented considerations necessary to capture and process Incident Arrest data and other forms that need to be organized and electronically submitted. The CJIS Business team and the RMS Work Group completed the internal review and updates to proposed RMS business requirements documents, which were then forwarded to pilot vendors for review. Both groups will continue to work on requirements documents.

The CJIS team is on track and meeting all obligations in preparation for Search Release 1 and 2.

## **CJIS Programs – Recommendations for Consideration**

1. Compared to 2013, the workload for CISS has increased in 2014. During this build-out of technical, business, and process systems with the CJIS community, a great deal of institutional knowledge is created. Given that most of the CJIS staff currently consists of consultants, we recommend that the state open eighteen state employee positions that are critical and required for the current needs of the CJIS Operations team working on CISS, OBTS, CIDRIS, racial Profiling Prohibition and other CJIS projects. The key issue to note is that these positions require the right skills, experience and starting salary that is very close to market salaries in order to attract the talent needed and successfully deliver a large, complex, high-visibility project like CISS.

Impact: To ensure success, it is essential to have a talented pool of dedicated and skilled CJIS employees that can lead and support the CISS project. The majority of the CJIS team is made up of consultants with short term contracts. Over the course of the project, several of those talented consultants have left CJIS when their contracts came up for renewal, taking valuable knowledge with them. Currently only the Help Desk Manager state position has been filled. The remaining eighteen positions have not moved forward in the process according to DAS-BEST Human Resources. This significant risk pointed out over the last two years by CJIS has materialized. Key consultants have moved on to other jobs after about two years with CJIS. Some of the domain knowledge of the work done and technical development continuity have been negatively impacted.

These eighteen CJIS project positions are considered critical to the project. MTG, the previous consulting company hired to do the Independent Verification & Validation (IV&V), has repeatedly highlighted this as a critical CISS risk.

**Recommendation**: Earlier in the year, CJIS met with DAS, DAS-BEST and OPM, there was an agreement to open all eighteen positions. Because the process is taking much longer than originally thought, the CJIS Governing Board will have to consider other alternatives such as; 1) keeping current consultants (at a higher cost) for a longer period of time until we are able to hire state employees, since institutional knowledge will be lost once the consultant leaves 2) outsourcing the application maintenance to a vendor or 3) creating a hybrid environment where we have state employees and consultants filling the required positions.

The important issue to note is that we need to hire people who have the right/current skill set and experience with large, complex, multi-million dollar, multi-year projects. We also need to offer salaries close to market rates in order to be successful.

The CJIS Governing Board approved all ranked nineteen positions as full-time state employees, one of which was filled. For the remaining eighteen positions, DAS is unable to align the CJIS job requirements with their job classification system and compensation package. These positions need to be filled as soon as possible.

Order of Hiring Needed	Position Name	Needed Start Date	Status
1	Help Desk Manager	1/12/14	Hired
2	Lead Senior .NET & Java Developer (1 of 2 positions)	2/17/14	See <u>Update</u>
3	Senior Microsoft Certified System Engineer (MCSE) Administrator	2/17/14	On Hold
4	Senior SQL Database Administrator (DBA) (1 of 2 positions)	2/17/14	On Hold
5	CISS Application Trainer/Help Desk Support	2/17/14	On Hold
6	Enterprise Architect	2/17/14	On Hold

#### ■ Report of the Status of the Criminal Justice Information System (CJIS) to the Connecticut Legislature ■

7	Senior SharePoint Developer (1 of 2 positions)	2/17/14	On Hold
8	Senior Project Manager	2/17/14	On Hold
9	Senior Test Lead	2/17/14	On Hold
10	Help Desk Analyst (1 of 3 positions)	2/17/14	On Hold
11	Senior .NET & Java Developer (2 of 2 positions)	2/17/14	On Hold
12	Communications Specialist	2/17/14	On Hold
13	Senior SQL Database Administrator (DBA) (2 of 2 positions)	6/16/14	On Hold
14	Technical Business Analyst	6/16/14	On Hold
15	Help Desk Analyst (2 of 3 positions)	10/20/14	On Hold
16	Help Desk Analyst (3 of 3 positions)	10/20/14	On Hold
17	Senior SharePoint Developer (2 of 2 positions)	11/03/14	On Hold
18	Business Analyst (1 of 2 positions)	11/03/14	On Hold
19	Business Analyst (2 of 2 positions)	11/03/14	On Hold

**Update:** Two postings failed to produce a qualified candidate for the Java Developer position. Possibly because the market rates for the Java Developer are almost twice the starting salary that the state is offering, CJIS did not receive any applications from qualified candidates. This position is under review by management.

The funding for hiring CJIS state staff is at risk. Recent rulings have removed the ability to derive revenue from interstate calls, which currently funds CJIS state staff. This revenue source is under discussion for changes by the FCC.

**Impact:** A change to how interstate calls are handled will have significant impact to the program and will have a substantial negative impact on the staffing levels.

**Recommendation:** The legislature needs to consider the above risk and provide for an alternate source of monies.

## **Connecticut Racial Profiling Prohibition Status Report**

Connecticut Racial Profiling Prohibition Project (CTRP3), the Institute for Municipal and Regional Policy at Central CT State University (IMRP), in consultation with the Office of Policy and Management (OPM), has established a Racial Profiling Prohibition Advisory Board to help oversee the design, evaluation, and management of the racial profiling study mandated by P.A. 12-74 "An Act Concerning Traffic Stop Information." The IMRP will work with the Advisory Board and all appropriate parties to enhance the collection and analysis of traffic stop data in Connecticut.

CJIS worked with Ken Barone, Policy & Research Specialist at the Institute for Municipal and Regional Policy (IMRP), and Jim Fazzalaro, Project Manager, at Central Connecticut State University (CCSU) to design, build, test and implement the technical infrastructure, Web application and help desk support required for this project.

"Developing a transparent system to view the data by members of the public, policy makers, and law enforcement administrators is an important component of this project. For the first time, the electronic collection system developed by CJIS makes it possible to create a system for public consumption of data. In the fall of 2014, raw data files and summary tables will be available online through the Connecticut Data Collaborative

portal. The information will be updated regularly and allow for more immediate access to data for decision making." <sup>2</sup> The IMRP made a public announcement on September 11, 2014 on its progress. The announcement included a 492 page Traffic Stop Data report reviewing the prevalence and disposition of traffic stops and complaints. This data was collected from October 1, 2013 to May 31, 2014 from more than 100 law enforcement agencies (see Figure 4). This preliminary report will be followed by a twelvemonth report using data from October 1, 2013 to October 1, 2014 (available in January, 2015).

The value that the Racial Profiling Prohibition Project brings to the community is tremendous. Since data will be available at near real-time online to the public, a police chief can make decisions and curtail improper behavior on current investigations. And, policy

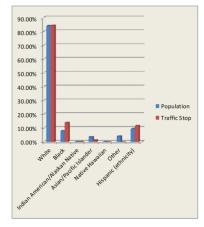


Figure 4. CT population figures and traffic stops, Oct. 1, 2013 to May 31, 2014.

decisions can be made based on data rather than perceptions. To improve trust and communication between local law enforcement and the community, analysis of racial profiling data will be part of a program to educate the public, improve officer training, and provide a channel for public feedback on racial profiling issues. The benefits could extend beyond our state's borders. The US federal government is considering replicating the Racial Profiling Prohibition Project on a national level.

## **Key Accomplishments – Period Ending October 2014**

- Gathered requirements, designed, built and tested technical infrastructure and Web application for law enforcement agencies' data submissions.
- Completed User Acceptance Testing.
- Gated the Racial Profiling Prohibition Web application into production.

<sup>&</sup>lt;sup>2</sup> State of CT Traffic Stop Data Report, Oct. 1-May 31, 2014.

- Finalized the help desk Standard Operating Procedures (SOP) within CJIS and DAS-BEST to support any reported technical issues with submission of data.
- Completed data submission testing with all of the state LEAs and their vendors who have not finished their programming.
- Established all connectivity needed by CCSU for data access and analysis.
- Created a reporting application to allow CCSU to conduct racial statistical analysis, and reporting.

#### **Connecticut Racial Profiling — Conclusions**

The Connecticut Racial Profiling Prohibition Project is in production and maintenance mode. The CJIS technical development and support teams will continue to work with Ken Barrone, Jim Fazzalaro, and CCSU to meet the needs and goals of the Racial Profiling project.

■ July 1, 2014 ■ ■ Page 29■

## **Appendix D - Acronyms**

AFIS = Automated Fingerprint Identification System

AST = Application Support System

BEST = Bureau of Enterprise Systems and Technology

BICE = Bureau of Immigration & Customs Enforcement

**BOPP= Board of Pardons and Paroles** 

CAD = Computer Aided Dispatch

CCH= Computerized Criminal History (DESPP)

CIB = Centralized Infraction Bureau (Judicial)

CIDRIS = CT Impaired Driver Records Information
System

CISS = CT Information Sharing System

CIVLS = CT Integrated Vehicle & Licensing System

CJIS = Criminal Justice Information System

CJPPD = Criminal Justice Policy Development and Planning Division

CMIS = Case Management Information System (CSSD)

COLLECT = CT On-Line Law Enforcement

Communications Teleprocessing network CPCA = Conn. Police Chiefs Association

CRMVS = Criminal Motor Vehicle System
(Judicial)

CSSD = Court Support Services Division (Judicial)

DCJ = Division of Criminal Justice

DAS = Dept. of Administrative Services

DESPP = Dept. of Emergency Services & Public Protection

DEMHS = Dept. of Emergency Management & Homeland Security

DMV = Dept. of Motor Vehicles

DOC = Department of Correction

DOIT = Dept. of Information Technology

DPDS = Div. of Public Defender Services

FOIA = Freedom of Information Act

IST = Infrastructure Support Team

JMI = Jail Management System

JUD = Judicial Branch

LEA = Law Enforcement Agency

LIMS = State Crime Laboratory Database

MNI = Master Name Index (DESPP)

OBIS = Offender Based Information System (DOC)

OBTS = Offender Based Tracking System

OCPD = Office of Chief Public Defender

OVA= Office of the Victim Advocate

OVS = Office of Victim Services

OSET = Office of Statewide Emergency

Telecommunications

POR = Protection Order Registry (Judicial)

PRAWN = Paperless Re-Arrest Warrant Network (Judicial)

PSDN = Public Safety Data Network

RMS = Records Management System

SCO = Superior Court Operations Div. (Judicial)

SLEO = Sworn Law Enforcement Officer

SOR = Sex Offender Registry (DESPP)

SPBI = State Police Bureau of Identification (DESPP)

SLFU= Special Licensing of Firearms Unit (DESPP)

UAR = Uniform Arrest Report

#### **Technology Related**

ADFS = Active Directory Federated Services

COTS = Computer Off The Shelf (e.g., software)

ETL = Extraction, Transformation, and Load

FIM = Forefront Identity Manager (Microsoft)

GFIPM = Global Federated Identity & Privilege

Management (security standard used by FBI)

HAC = High Availability Clusters

IEPD = Information Exchange Package Document

LAN = Local Area Network

PCDN = Private Content Delivery Network

POC = Proof of Concept

RDB = Relational Database

SAN = Storage Area Network

SCOM = Systems Center Operations Manager

SDLC = Software Development Life Cycle

SDM = Software Development Model

SOA = Service Oriented Architecture

SQL = Structured Query Language