FY-15 Program Investment Brief

**I. Program Identification**

AFIS Upgrade and Modernization

**Project Title:**

**Agency Name:**

Dept. of Emergency Service and Public Protection DESPP

State Police Bureau of Identification

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**II. Program Description**

1. **Project Dates**

**Proposed Start Date** (Month/Year) **Expected Completion Date** (Month/Year) **Project Duration** (in months)

12

04/1/2015

3/31/2016

1. **Project Description** This information will be used for listings and report to the Governor and General Assembly on capital funded projects.

The current project seeks to modernize Connecticut’s Automated Fingerprint Identification System (AFIS), replacing the current, aging system with a new, state of the art Automated Biometric Identification System (ABIS), so that it can meet the current and future needs of the criminal justice community and private citizens in our state. The modernization effort will build a scalable system utilizing the most up-to-date biometric identification technology to meet criminal identification needs and the increased demand for civil fingerprint supported criminal history checks and the anticipated use of the Federal RAP back program recently deployed by the FBI as a part of their Next Generation Identification upgrade. In addition, the modernization will allow for participation in next generation biometric programs including facial, iris, tattoo and other body part images in conjunction with the federal efforts in this regard to create a national ABIS Automated Biometric Identification System.

1. **Summary.**

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| **Summary - Describe the high level summary of this project in plain English without technical jargon** |
| The Department of Emergency Service and Public Protection DESPP proposes to replace the current, aging Automated Fingerprint Identification System (AFIS) with a new, state of the art Automated Biometric Identification System (ABIS). DESPP and the State Police Bureau of Identification serves, by statute, as Connecticut’s central repository for Criminal History Record Information (CHRI). The core function of the SPBI and states Forensic Lab is the receiving, processing, and identifying criminal, civil and crime scene fingerprint and latent print submissions against resident base files of 2.5 million SIDs, 3.7 million tenprints, 878 thousand palm prints and 8 thousand latent images. The important outcome of this critical public safety operation is the identification and timely dissemination of complete CHRI to authorized law enforcement and public agencies. The upgraded ABIS will be used to support this mission-critical public safety purpose of providing authorized agencies with the positive identification of individuals through the rapid and accurate processing of criminal and civil tenprint transactions and Latent fingerprints.  DESPP’s current AFIS system was implemented in 2004 and is critically out of date with current software and hardware technology. The new ABIS system will be equipped with the latest proven algorithms, hardware and software using COTS products and services that meet the identification needs of SPBI, the Lab, courts, statewide law enforcement agencies and civil identification requirements stipulated by statute. As mandated by the States participation in the National Crime Prevention and Privacy Compact and the stipulated National Fingerprint File participation it is critical that the system is interoperable with federal, state and local automated biometric systems in alignment with recently implemented Next Generation Identification technology by the FBI. |
| **Purpose – Describe the purpose of the project** |
| The objective of this procurement is the replacement of the current AFIS used by DESPP with a state-of-the-art Automated Biometric Identification System (ABIS). The ABIS will be used to support the mission-critical public safety imperative, the objective of providing authorized agencies with the positive identification of individuals through the rapid and accurate processing of input criminal and civil Tenprint transactions and Latent fingerprints. DESPP also requires a fast and accurate palm print storage and Latent to palm identification processing system. Interoperability with international, federal, state and local automated biometric identification systems, and a high availability solution for business continuity, are important requirements for the new ABIS. The new ABIS shall capture, store, index, search and match the fingerprints and palm prints of individuals in connection with criminal justice and civil purposes and must integrate with the Information Technology operations and related infrastructure within DESPP, CJIS and BEST.  DESPP envisions that the new SABIS will include, but not be limited to, such features as superior encoding and matching accuracy; faster, more real time identification processing; automated quality assurance checks that can operate efficiently with or without human intervention; tailored and flexible workflows to meet mission critical and changing business needs of DESPP, and to reduce dependency on the vendor for workflow changes; palm Latent to palm print and palm print to palm Latent processing; no single point of failure; a statistical reporting system; and a scalable design to allow for future growth and the addition of modern biometric identification systems. In addition, the upgrade will require the conversion of approximately 250 thousand fingerprint cards not currently included in the database, the migration of the existing image databases and the installation and implementation of the new ABIS without interruption in DESPP operations.  Finally, the upgraded ABIS in combination with an updated CCH will enhance the ability by DESPP and the State to attain National Fingerprint File (NFF) compliance. National Fingerprint File compliance eliminates the redundancy of the States maintenance and update of record information with the FBI. The FBI holds only a single pointer record within the Triple III with any subsequent information held by the State eliminating the requirement of synchronizing records and allowing further dissemination of records the FBI refused (e.g. infractions and minor misdemeanors). Participation enables a national fingerprint check to respond with the records held at the state level by all 50 states. |
| **Importance** |
| Connecticut’s Automated Fingerprint Identification System (AFIS) in conjunction with the Computerized Criminal History System (CCH) provides official arrest and conviction records to several information consumers in the state, including all law enforcement agencies, many state and local government agencies, and private citizens. These systems of identification form the primary infrastructure of the state’s Criminal History Record Information (CHRI) systems and provides law enforcement with relevant background information on persons of interest; it provides government agencies with information used to disqualify certain job applicants or to deny certain persons seeking pistol permits, commercial driver license and health care related licenses; and it provides private citizens with the ability to obtain official criminal records for themselves or other persons. The AFIS is a critical component of Connecticut’s criminal justice information system (CJIS), having direct or indirect interfaces with mission critical systems in various law enforcement and state agencies – systems that continue to evolve in complexity, scope, and integration requirements.  The AFIS was installed in 2004 and after 10 years has nearly reached the end of its life. Major component hardware and supporting ORACLE software are no longer supported by the manufacturer and the storage capacity of the main repository is not foreseen to last longer than a year. In addition, the technology of these automated identification systems have progressed significantly in the last 10 years surpassing current capabilities. Integrations between the CCH, and other state systems often involve workarounds that significantly compromise our efforts to automate and streamline the flow of information across the criminal justice information pipeline. Requirements concerning rap-back (arrest and conviction notification system), ecommerce (online requests and payments for services), and NFF compliance cannot be met adequately with the current AFIS. Additionally, the systems installation in 2004 did not include 250 thousand fingerprint records (the oldest) and the ability to store and search against the upper palm print and writers palm prints. The forensic labs ability to identify unsolved latents is severely hampered by the inability to store and search on these important parts of the palm print. Finally, the advancement of alternative biometric identification modes including facial, iris, tattoo and other body image recognition capabilities is being widely adopted nationally and internationally leaving Connecticut at a distinct disadvantage in its identification and interoperability capabilities.  The current project seeks to modernize Connecticut’s AFIS, re-architecting the application and underlying database so that it can meet the current and future needs of the criminal justice community and private citizens in our state. In updating the AFIS to an ABIS configured modern technology, we will be able to meet the current and future identification needs of the state. Updated technology will enable better integration with evolving, state-of-the-art information sharing systems, including the Connecticut On-Line Law Enforcement Communications Teleprocessing (COLLECT, the state’s gateway to NCIC/NLETS) and the Connecticut Information Sharing System (CISS); technology that is capable of meeting NFF compliance in conjunction with the computerized criminal history system. |
| **Outcomes** |
| The main business outcomes of the AFIS modernization project will be the following: (a) a complete refresh of all system hardware and software (b) scalable infrastructure providing expansion capability for 15 years, (c) conversion of fingerprint cards not previously included, (d) expansion of palm storage to enhance unsolved latent identification, (e) biometric identification scalability beyond fingerprints, (f) improved interoperability with other states also embracing ABIS technology, and (g) enhanced ability to reach compliance with state law requiring full participation in the FBI’s National Fingerprint File (NFF) program. |
| **Approach and Success Evaluation** |
| DESPP seeks to modernize its AFIS technology through procurement of a mature Automated Biometric Identification System (ABIS) from its current vendor with recognized expertise both nationally and internationally. Furthermore, in the maintenance of its relationship with the existing vendor’s mature up-to-date modern solution, the State will minimize the risks associated with a new vendor’s solution integration development and the conversion risks associated by a conversion with a new vendor.  The agency will measure the success of the project in several ways. First, we will ensure that the vendor has a full set of requirements that meet the current and future needs of the justice community. Second, manufactured hardware and software will be controlled by DESPP ensuring maintenance upgrade schedules are in place and monitored for compliance. Third, storage and processing capacity will be engineered to last beyond the 10 year contractual period. Fourth, we will monitor our progress toward adoption of various federal standards (NIEM rap sheets and NFF compliance). |

1. **Business Goals**. List up to 5 key business goals you have for this program, when (FY) the goal  
   is expected to be achieved, and how you will measure achievement, Must have at least one.  
   Please use action phrases beginning with a verb to state each goal. Example: "Reduce the  
   Permitting process by 25%". In the metrics column, please explain what data you will use to  
   demonstrate the goal is being achieved and am current metrics.

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| **Business Goal (Action Phase)** | **Target FY for Goal** | **Current Value** | **Expected Value** |
| Increase storage capacity to capture a 10% to 15% volume increase for 10 years | 2016 | TBD | TBD |
| Capture and search on 1000 ppi images providing state-of-the-art identification | 2016 | TBD | TBD |
| Eliminate paper processes providing alternative electronic processes | 2016 | TBD | TBD |
| Deliver user based capabilities that limit vendor dependence | 2016 | TBD | TBD |
| Improve workflow and maintenance processes allowing for growth in volume without the need for additional staff | 2016 | TBD | TBD |
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1. **Technology Goals**. List up to 3 key technology goals you have for this program and when (FY)   
   the goal is expected to be achieved. Please use action phrases beginning with a verb to state  
   each goal. Example: “Improve transaction response time by 10%".

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| **Technology Goal** | **Target FY for Goal** |
| Provide 2 to 3 times the storage capacity and processing capacity for multiple biometric modes | 2016 |
| Convert the 250 thousand fingerprint cards not converted in 2004 | 2016 |
| Provide capability to store and search at 1000 ppi and capture all palm images | 2016 |

1. **Priority Alignment.** The criteria in this table, in concert with other factors, will be used to determine project  
    priorities in the capital funding approval process. Briefly describe how the proposed projects will align with each criterion.

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| **Priority Criterion** | **Y/N** | **Explanation** |
| Aligned with Governor’s Key Priorities | yes | * Make state government more user-friendly and efficient for citizens, businesses and municipalities when transacting business with the state, including areas related to obtaining permits licenses, paying taxes or accessing services; This upgrade lays the groundwork for outsourcing of civil applicant fingerprinting. This means that access to fingerprint facilities for employment purposes may be expanded in the future. * Make information about services and state government more available and easy to find on-line; * Implement efficient, modern business practices that result in clear and identifiable cost savings and service delivery improvements for state agencies; The new system will allow for more accurate fingerprints being taken with less chance of rejection. Rejected prints are a major cause of delay in applicants getting results back. This has been a major concern for employers. * Increase transparency for the public and policy makers regarding costs, effectiveness and service outcomes within and across state agencies; The new system will have reporting tools making it easier for management to relay costs and savings to decision makers. * Reduce the costs to the state regarding its implementation, use and management of technology systems through shared services, applications and hardware across agency boundaries and by other means; The eventual ability to outsource civilian prints will eliminate the need for agencies such as DCF, DPH and others to purchase and operate their own livescan devices. * Implement systems needed in support of health care reform and managing costs and improving outcomes related to the state's health and human service programs; and The eventual ability to outsource civilian prints will allow a streamlined process for health and human services agencies to conduct finger print supported background checks in a speedy manner thereby lessening the chance that a criminal will gain access to a vulnerable population. * Ensure the appropriate confidentiality, integrity and availability of the State's valuable electronic or digital data information resources in order to provide an environment in which the state's user community can safely conduct state business. The new system will continue to run on the state’s secured network. |
| Aligned with business and IT goals of agency | yes | Creation of efficient business processes that deliver on key public safety concerns through the use of modern up-to-date technology |
| Aligned with state of CT IT Strategic Plan | yes | The proposed solution will provide e-government services to citizens (i.e., online criminal history requests with online payments). |
| Reduces or prevents future increases to its operating budget | yes | Increases staff efficiency and reduces waste by eliminating physical processing of paper and time spent on incomplete applications. |
| Results in a shared capability used by multiple agencies | yes | AFIS is a core component of the State’s criminal justice information system. It is used by multiple state agencies and all local law enforcement agencies. With its adoption of federal standards for data transmission, the modernized version of AFIS will facilitate interoperability on a state and federal level. |
| Co-developed through participation of multiple agencies | yes | These efforts will be expanded and formalized when the project is approved. |
| Agency demonstrates readiness to manage project of this size and scope | yes | DESPP has been involved in similar projects using the same core technologies to successfully design, develop and implement the COLLECT V2 application. |
| Agency is ready to deliver the business value proposed. | yes | The agency has been successful in anticipating and meeting the needs of stakeholders. |

1. **Organizational Preparedness**. Is your agency prepared to undertake this program? Is senior management committed, willing to participate, and willing to allocate the necessary time, energy and staffing resources? How will the project be managed and/or governed and who will make the key project decisions?

DESPP has established and implemented a Project Management Office.

1. Program Ramp Up. If capital funds are awarded for this project, how long will It take to ramp up? What are the key ramp-up requirements and have any off these already been started? For example, is a project manager been identified? Has an RFI been issued? Is a major procurement required such as an RFP?

Ramp up time will be approximately 3 - 6 months.

1. **Organizational Skills**. Do you have the experienced staff with the proper training to sustain this initiative once it’s a production system? Do you anticipate having to hire additional staff to sustain this? What training efforts are expected to be needed to maintain this system?

Vendor provided solution maintenance include in-house support. Implementation training is included.

1. Financial Estimates. Include summary from 1B Spreadsheet

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| **Estimated Total Development Cost** | **Estimated total Capital Funding Request** | **Estimated Annual Operating Cost** | **One Time Financial Benefit** | **Recurring Annual Financial Benefit** |
| $5,237,037 | $5,088,086 | $704,250 | $400,000 | $150,000 |
| **Explanation of Estimates** | | | | |
| Estimates include the cost of consultants to perform business analysis and project management functions. Included are estimates to upgrade server storage processing capacity for higher resolution images and search load, software upgrades, livescan and mugshot devices. | | | | |

III. **Expanded Business Case**

1. **Program Impact.** Beyond the top business goals identified in Section II, 1) What impacts will this program  
    have, if any, in the targeted areas below 2) What would be the impact of not doing this program 3) How will the program demonstrate benefits are achieved.

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| **(1) Impact Area (Vision)** | **Description of Program Impact** |
| Provide efficient and easily accessible services for all constituents | Project will ultimately establish a framework for allowing the public to access their histories on-line. |
| Provide a faster response time for requests. | Project accomplishes this by eliminating many of the manual steps currently involved in identification |
| Establish efficient and modern business processes | Project accomplishes this by allowing the business to access electronic workflows |
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| 2) Impact of NOT doing this program: |
| The AFIS has reached the end of its life. The manufacturer supporting hardware and software are no longer supported and the vendor technology while supported by the vendor is no longer widely used doubling vendor developer effort to provide maintenance for out-of-date software. Failure to do this project will affect all agencies that rely on accurate and timely criminal identification. The worst case scenario is a complete system failure resulting in the State’s inability to process and identify criminals being held by law enforcement agencies and an inability to process civil criminal history requests. Partial failures with significant downtime will hamper law enforcement and public safety issues. The additional lengthy processing time required for the civil identification process will lead to large criminal history request back-logs. |

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| (3) How will you demonstrate achievement of benefits: |
| The upgraded ABIS in combination with an updated CCH will enhance the ability by DESPP and the State to attain National Fingerprint File (NFF) compliance. In 2000 Connecticut adopted Public Act 185 The National Crime Prevention and Privacy Compact and is mandated by this statute to participate in the National Fingerprint File (NFF). National Fingerprint File compliance eliminates the redundancy of the States maintenance and update of record information with the FBI. Participation enables a national fingerprint check to respond with the records held at the state level by all 50 states enhancing notification timeliness and accuracy. |

1. **Statutory/Regulatory Mandates.**  1) Cite and describe federal and state mandates that this program in intended to address. 2) What would be the impact of non-compliance?

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| 1. Statutory / Regulatory Mandates: |
| The program goals are intended to benefit all lines of business conducted by the agency and all governing statutes and regulations. Although there are no new requirements mandating this project, it will be developed with the flexibility to adapt to future statutory and regulatory changes. |

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| 1. Impact of non-compliance: |
| Insufficient public availability of information. Inefficient use of staff resources. Slow availability of information to the public and to DESPP for decision making. |

1. **Primary Beneficiaries.**  Who will benefit from this program (citizens businesses, municipalities, other  
   state agencies, staff in your agency, other stakeholders) and in what way?

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| Citizens, businesses, government agencies and Municipalities when requesting histories |

**IV. Financial Analysis**

A. **Estimated Program Development/Implementation Costs- Total Costs.**

1) Total **Cost Estimate**. See AFIS Investment Brief Spreadsheet

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| BEST will host the solution. DESPP will provide the hardware and software. BEST will provide consulting services to ensure the success of the project in a number of areas, including networking and security. |

2**) Assumptions.** Please list key assumptions you are using to estimate program development and  
 implementation costs.

B. **Estimated Program Development/Implementation Costs - IT Capital Bond Funded Costs,** See AFIS Investment Brief Spreadsheet