

Digital Evidence Storage and Management

Project Name & Type:	Date:
Study for centralized data storage and sharing for recordings from body-worn recording equipment and dashboard cameras across the State (Type=Study)	Start August 1, 2023, estimate 6-9 month study phase
Project Manager:	Project Sponsor:
Program Manager Mark Tezaris, CJIS consultants, CJIS-CT	Marc Pelka, OPM
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Executive Summary

The Connecticut General Assembly has allocated \$500,000 for the Office of Policy and Management to explore centralized data storage for digital recordings obtained from bodyworn cameras, dashboard cameras, and other sources of bulk media obtained as part of law enforcement field operations. This initiative aims to enhance transparency for both law enforcement and the public, while acknowledging the complexity and cost surrounding the storage, transfer, and utilization of digital information within the criminal justice system.

Digital evidence information technology systems play a crucial role in enabling reliable and efficient collection, storage, and analysis of digital evidence. Recognizing the importance of these systems, the Criminal Justice Information System (CJIS) Governing Board (GB) will utilize the OPM funds to finance a study focused on centralized data storage for recordings from body-worn and dashboard cameras across the state, leveraging the State's investment in the Connecticut Information Sharing System or CISS. The State of CT is implementing electronic workflows in law enforcement and removing paper based documentation from the arrest process. To this end, CISS was built and is being deployed to all LEAs across the State for the transition to an electronic arrest process. All of the information required as part of the arrest process is submitted from the police department and agencies through CISS and is distributed to the Courts, DCJ, and the other criminal justice agencies securely. Naturally, an extension of the current CISS capabilities to include Digital Evidence as part of the electronic arrest information may be a proper fit for consideration in the Study.

The study aims to characterize the multitude of challenges facing LEAs and provide a potential design(s) and implementation methodology of a centralized storage system, with sharing capabilities, effectively addressing the challenges faced by organizations in managing bulk media and storing digital evidence securely and efficiently. This includes the integration and searchability of existing body-worn, dashboard camera systems, security footage, and public provided recordings that are commonly utilized by municipal



and State Police. The proposed system will provide a centralized repository that allows for the seamless integration of these existing systems, making them searchable and ensuring secure sharing when requested by authorized parties. By establishing a centralized repository, this system will ensure the integrity, availability, and chain of custody throughout the investigation process. The Study will aim to streamline evidence management, expedite investigations, and enhance the overall effectiveness of digital management processes. The proposed system will strengthen collaboration and communication among criminal justice stakeholders, fostering seamless information exchange and coordination.

The CJIS-CT GB will oversee the study, maximizing its benefits for the criminal justice system. The results and recommendations derived from this study will be shared with relevant legislative committees, including Appropriations and Judiciary. This ensures that the proposed centralized storage system aligns with the needs and priorities of the stakeholders.

By embracing a centralized storage approach and addressing the integration of existing systems, this initiative represents a significant step toward modernizing the management of digital media and Digital Evidence integration into the criminal justice electronic workflows. Law enforcement agencies, including municipal police departments with their own body-worn and dashboard camera systems, will experience improved efficiency and effectiveness in storing, managing, and retrieving digital evidence.

Ultimately, the study holds great potential for revolutionizing the criminal justice system's approach to digital evidence management. It will showcase Connecticut's commitment to transparency, accountability, and enhancing the relationship between law enforcement agencies and communities they serve. The integration and searchability of existing body-worn and dashboard camera systems will further enhance the capabilities of the centralized storage system, ensuring authorized parties can securely access and share digital evidence as needed.

Project Justification (explains why the project is being undertaken; why it is being done now and why the organization should support its successful implementation)

The purpose of this study is to address the financial burdens faced by municipalities in storing and managing digital evidence obtained from body worn cameras and dashboard cameras. The cost burdens on municipal police departments for body-worn camera storage arise due to several factors, highlighting the need for a centralized data storage solution:

- Data Storage Capacity: Body-worn cameras generate large volumes of video and audio recordings, requiring substantial storage capacity. To accommodate the growing volume of footage, police departments currently must invest significant resources in operating and maintaining robust and scalable storage.
- Retention Periods: Retention policies dictate how long law enforcement agencies must retain body-worn camera footage. Varied retention periods, influenced by local regulations and legal requirements, increase storage space requirements and associated costs for police departments.



- Data Management: Managing and organizing vast amounts of recorded footage is a
 complex task. Police departments must allocate resources to properly categorize,
 index, and archive the footage to ensure easy retrieval and compliance with legal and
 internal requirements. Data management systems and personnel training may be
 necessary, adding to the overall cost.
- Backup and Redundancy: To ensure data integrity and prevent loss, police departments
 must implement backup and redundancy measures for digital media footage. In some
 conditions, duplicate copies must be created and stored securely, either in off-site
 locations or reliable cloud-based platforms, incurring additional costs.
- Technological Infrastructure: Supporting body-worn camera systems requires a robust technological infrastructure encompassing server, network equipment, software licenses, and maintenance expenses. Police departments must invest in reliable hardware and software solutions which are necessary to support the storage and retrieval of digital media such as body-worn camera footage.
- Privacy and Security: Crime Scene digital media recording such as body-worn camera footage contains sensitive information. This requires robust security measures to protect privacy and data integrity. Additionally, implementing encryption, access controls, and data protection protocols adds to the financial burden for the hosting agency. Compliance with data privacy regulations further increases costs.
- Upgrades and Maintenance: As technology advances, camera systems require periodic upgrades to ensure compatibility, reliability, and compliance with evolving standards. Ongoing maintenance and upgrades contribute to the overall cost of operating bodyworn camera programs.

By conducting this study and implementing a centralized data storage solution, the financial burdens on municipalities can be significantly alleviated. The proposed system will streamline storage, management, and retrieval of digital evidence, enabling cost savings through efficient processes. Moreover, it will enhance data security, compliance with privacy regulations, and future scalability, ensuring sustainable and effective management of digital evidence for law enforcement agencies.

Project Description (basic framework of the project - who, what, when, where)

Objective: The main objective of this study is to develop a robust and secure centralized storage system and sharing strategy for digital evidence, which includes the following specific objectives:

• Assessing the current challenges: Analyze the existing digital evidence storage practices utilized by stakeholders and identify the key challenges faced by organizations, such as data security, redaction, scalability, accessibility, and data retention.



- System requirements and design: Define the functional and non-functional requirements
 for the centralized storage system. Design an architecture and data model capable of
 accommodating various types of digital evidence, associated metadata, and information.
 Analyze the Connecticut Information Sharing System (CISS) to leverage its capabilities
 for sharing digital evidence to authorized users based on Global Federated Identity and
 Privilege Management (GFIPM) claims system used by CISS.
- Security and access control: Develop robust security measures to ensure the
 confidentiality, integrity, and availability of stored digital evidence. Implement access
 control mechanisms to regulate user permissions, authentication, and audit trails to
 maintain the chain of custody. Leverage existing GFIPM claims methodologies for access
 control.
- Scalability and performance: Design the system to efficiently handle a large volume of digital evidence. Evaluate storage technologies, compression algorithms, and indexing mechanisms to optimize storage capacity, retrieval speed, and overall system performance.
- Integration with forensic tools: Investigate the integration of the storage system with existing digital forensic tools and systems, enabling seamless data transfer, indexing, and analysis. Ensure compatibility with common forensic standards and formats.
- Chain of custody management: Implement mechanisms to track the chain of custody for digital evidence, including timestamps, digital signatures, and audit logs. These measures ensure the authenticity and admissibility of evidence in legal proceedings.
- Testing and evaluation: Conduct extensive testing to assess the performance, security, and usability of the centralized storage system. Validate the system against real-world scenarios, considering various types of digital evidence and use cases.

Other legal concerns:

- Data privacy and protection: When dealing with digital evidence, privacy and data protection laws must be followed. Ensure compliance with applicable regulations, such as the General Data Protection Regulation (GDPR) in the European Union, to safeguard personal information and ensure lawful processing of data.
- Legal admissibility: Digital evidence must meet certain legal requirements to be admissible in court. Consider the rules of evidence in your jurisdiction and ensure that the new system complies with those requirements, such as maintaining an audit trail and capturing metadata to establish the authenticity and reliability of the evidence.
- Jurisdictional issues: Digital evidence can often cross jurisdictional boundaries. It is
 important to understand the legal implications and potential conflicts that may arise when
 dealing with evidence from different jurisdictions. Consider issues such as data
 sovereignty, mutual legal assistance treaties (MLATs), and cross-border data transfer
 regulations.
- Retention and preservation: Determine the appropriate retention periods for digital evidence based on legal and regulatory requirements. Implement proper preservation



strategies to ensure the evidence remains intact and accessible throughout its lifecycle, especially considering the potential for long-term storage and technological changes.

- Compliance with industry standards: Evaluate the system's adherence to recognized industry standards for digital evidence management, such as those provided by organizations like the National Institute of Standards and Technology (NIST) or the International Organization for Standardization (ISO).
- Ethical considerations: Digital evidence management raises ethical considerations, such as the potential for bias, discrimination, or misuse of technology. Consider the ethical implications and ensure appropriate safeguards are in place to address these concerns.

Project Deliverables (lists out the specific outcomes produced, including what the deliverable is, who will be the owner and the due date)

The Owners for each deliverable, and deliverable completion date, are to be determined by the project team. A preliminary list is shown below.

IT Service	Deliverable Description
Business Integration and	
optimization	Management & Project Administration
	-Project Kickoff Meeting
	-Biweekly Project Risk/Review Meetings
Business Integration and optimization	Report: Connecticut Current State - Technical and Business Model
IT Strategy, IT Research	Report: Survey of public and private sector trends
IT Strategy, Information Management, Solution Development	Report: Connecticut Future State - Technical and Business Model
Business Integration and Optimization	Report: Gap Analysis (what gaps need to be closed to achieve the future state?)
Information Management, Business Integration and Optimization	Report: Business and Technical Requirements for Digital Evidence Management in Connecticut leveraging CISS
IT research, legal/compliance	Report: Regulatory, Legal and Compliance environmental assessment for managing digital evidence
Business Integration and Optimization	Report: Project management roadmap, timeline, organization chart and implementation estimate Report: Executive Summary
Business Integration and Optimization	



Business Integration and Optimization	Deliver final briefing to CJIS- CTGB/stakeholders/OPM	
Solution Development	Small scale demonstration of concept by vendor(s) Q1 of 2024	

Resources Required (logistics, \$, people – make sure to list out total dollars associated with the project and where the funds are coming from)

The Work Breakdown Structure, resources and cost plan are defined in the attached work plan.

Total Estimated Project Costs: \$500K. Funds are coming from OPM. Additional funds are to be requested by a formal change order process.

Key Stakeholders – CJIS-CT	Governing Board – Na	ame, Title, Organization
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<u>Name</u>	<u>Title</u>	Organization
Marc Pelka	Undersecretary of Criminal Justice Policy and Planning; Co-Chair	Office of Policy and Management
Judge Patrick L. Carroll, III	Chief Court Administrator, Co-Chair; Member	Office of the Chief Court Administrator
Judge Elizabeth Bozzuto	Deputy Chief Court Administrator; (Designee)	Office of the Chief Court Administrator
Mark Raymond	Chief Information Officer; (Designee)	Department of Administrative Services Bureau- Enterprise Systems/Technology
Jennifer Zaccagnini	Chairperson; Member	Board of Pardons and Paroles
Vilmaris Diaz	Associate Research Analyst; (Designee)	Board of Pardons and Paroles
Patrick J. Griffin, Esq.	Chief State's Attorney; Member	Office of the Chief State's Attorney
John J. Russotto., Esq.	Assistant Chief State's Attorney (Designee)	Office of the Chief State's Attorney
Chief Neil Dryfe	President; Member	Connecticut Police Chiefs Association
Chief Donald Melanson	Director; (Designee)	Connecticut Police Chiefs Association
Angel Quiros	Interim Commissioner	Department of Correction
Sharonda Carlos	Deputy Commissioner; (Designee)	Department of Correction
James Rovella	Commissioner; Member	Department of Emergency Services and Public Protection
Tony Guerrera	Commissioner	Department of Motor Vehicles



Christopher Smith Division Chief Department of Motor Vehicles

Deb Notarino Division Manager Department of Motor Vehicles

TaShun Bowden-Lewis

Member

Division of Public Defender Services

Esq.

Esq., Victim Advocate;

Office of Victim Advocate

Natasha Pierre

Member

Office of Victim Advocate

Hakima Bey-Coon

Esq., Staff Attorney;

Chief Public Defender;

Office of Victim Advocate

(Designee)

Measurement (how you will measure progress and what does success look like?)

Performance measurement is based on progress against project plan milestones, schedule % completion, % spent on funding and customer satisfaction based on project reviews.

Risks, Issues, Concerns - includes restrictions on time, resources, scope, budget (these are the things that may keep the project from being successful)

Although a dedicated Solutions Architect and Business Analyst will be retained for this study, CJIS GB staff will be supportive of this project and will be split between this project and other on-going work. This risk will be mitigated via regular project prioritization meetings to arbitrate between priorities.

Project Assumptions (known "truths")

- CISS will be used to share digital evidence.
- Not all municipal police departments have to participate in centralized storage, but must provide access for sharing digital evidence via CISS.
- Must comply with federal, state and local laws, regulations, ethical and privacy requirements for criminal justice information and digital evidence.
- Necessary systems and tools are available in the marketplace.

Implementation Plan (Gannt Chart, spreadsheet, MS project, calendar – whatever helps you to stay on track)

Assuming project start of August 1, 2023, the planned completion will be early Q1-2024 to allow sufficient time for legislative reporting and planning for the implementation phase. The project team will prepare the detailed Gantt chart.



Communication Plan

The Team at a minimum will have the following communication strategies:

- Weekly team meeting to coordinate action steps and risk/issue management.
- Subgroup meetings are at the discretion of the project leaders.
- Biweekly management steering committee briefing
- Weekly written progress report, including accomplishments, risks/issues, and progress against schedule, and spending.
- MS Project Server will be used for Gantt chart and resource management.

Sustainment Plan (what is required to continue to generate results?)

Not applicable to the study phase. However, the study final report should include a section on sustainment of a system should the project implementation receive the go-ahead.

Submitted by:	Approved by:
Draft by J. McGennis	
Attachment: Workplan document	Project-Work-Plan-Di gitial_Evidence_Study.c

- Hiring and Onboarding Team Members
 - Mitigation
 - Set time expectations with candidates
 - Background Check escalations when possible
- CJIS Team Internal Resources Time and Participation Contrastraints
 - Mitigation
 - Use PMO Process to prioritize the competition for resources with many high priority projects
- Participation by Key Stakeholders
 - Mitigation
 - Initial high level collaboration discussions and setting boundaries of the Study that are complementary to ongoing efforts and iniatives
- Participation by LEAs and Police Departments
 - Mitigation
 - Initial outreach that provides robust "What's-In-It-For-Me (WIIFM)
 incentives and Vision of Potential Future State which removes much of the
 burdens from LEAs



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Objective

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Strategy

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Implementation

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Collaboration

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Schedule

Charter Approved 09/12/2023 Project Work-Plan 09/12/2023 Internal Study Document 01/30/2024 Final Externally Released Study Document 02/28/2024 Study Ended 03/28/2024



Check

Project managers regularly check project elements such as: Status, Budget, Tasks, Schedules, Quality assurance, Dependencies, Potential risks.

Always empower team members to speak up if they see an issue or feel something is not working during project execution.