

Re-envisioning Data Infrastructure

Public Safety

Data Infrastructure Improvement Project


Recommendations and Requirements

Submitted to:

Department of Public Safety, State of Hawai'i

Research and Evaluation in Public Safety (REPS) Project at Research Corporation of the University of Hawai'i (RCUH)

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Preface

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How the Project Came About

Re-envisioning Data Infrastructure was the title of our response to Research and Evaluation in Public Safety's Request for Proposal (RFP) posted in late 2014. From the outset, our desire was to frame the project from the perspective of what the Department of Public Safety's data infrastructure is and can be.

The RFP was triggered by an expected sunset of the current Motorola Offendertrak system which has been in use since 1999. The request was for a needs assessment geared towards understanding requirements for a new corrections management system while taking a very broad perspective to include information needs for "evaluation, operational and managerial matters as well as across agencies when information sharing is required."

At this time, the Offendertrak application continues to be supported and there are no specific dates for termination of the support. However, the Department of Public Safety (PSD) recognizes the need to plan for transition. The Data Infrastructure Improvement Project (DIIP) is intended to facilitate that plan.

Purpose of the Data Infrastructure Improvement Project

The purpose of the DIIP was to support the Research and Evaluation in Public Safety (REPS) project by addressing the underlying technology needs gaps that prevent REPS and Justice Reinvestment Initiative (JRI) projects from effectively performing studies, implementing programming, making program adjustments, or conducting program evaluations. REPS had identified issues with data breadth, data quality, data access, data sharing across operations and programs, and reporting capabilities. Their desire was to have a "dynamic approach to evaluation" to enable successful implementation of the JRI.

Our Approach

Our philosophy is that technology is about the confluence of people, processes and systems. We performed our assessment through observations, interviews, systems reviews, data reviews and development projects. PSD was thus an integral partner in our approach as we required a number of staff to provide time, access and support.

The broad requirements set forth by the DIIP required an examination of PSD's corrections operations and information as well as the department's data infrastructure and technology capabilities. We developed our understanding of current and future needs, product and project fit, and actionable implementation goals through the following areas of inquiry and corresponding methods of examination:

DESIRED FUTURE VISION

Through interviews and stakeholder meetings, we assessed the clarity of PSD's future vision. How the vision is articulated and the consistency across the organization informed us as to how vision is communicated, the challenges of messaging, the impact of work culture and the organization's experience with driving change.

CURRENT OPERATIONS PROCESSES

We captured formal and informal processes through interviews, observations, and paper artifacts that demonstrated how the department performs the tasks required for day-to-day operations. We considered the tools and contexts that facilitated or hampered the meeting of operational needs and assessed the gaps between what was needed but not provided.

SOFTWARE UTILIZATION

We first looked at the digital ecosystem for the department to identify larger patterns and implications for the data infrastructure. How were users being supported or not supported by their tools? With a focus on custody information management, primary corrections databases were reviewed to understand database structure. Data was reviewed to provide insight into historical database usage such as feature utilization, frequency of use, and depth or consistency of information. Observations and interviews of current and prior processes provided the context to help distinguish between utilization differences such as the impacts of context, individual usage considerations, and software-specific reasons.

DATA UTILIZATION

We considered data access needs and the use of reporting to evaluate how and when the department values data extraction. We gathered information on access and data usability to identify operational needs that are and are not met by the existing software applications and technology infrastructure with implications for broader issues such as policy, support and training.

SUCCESS MEASURES

Success of the department's technology use was evaluated by how well the tools serve the department's operational objectives. We asked how software's original intended uses compare to the expectations for use today? How do those initial plans compare to historical use findings? We also sought to understand how usage has changed and how well the software has been customized or maintained to meet those changing needs. We looked back to the qualitative research findings to identify root cause issues and key points for future success.

Project Timeline

The DIIP was broken into three phases such that findings of the preceding phase could be used to inform decisions whether to continue with the following phase. The following is an overview of the project phases and deliverables to date:

Phase I

February 2015 – July 2015

Research and Phase I Report

- Research across administrative functions and line persons for O‘ahu corrections-related facilities inclusive of the administratively attached Hawaii Paroling Authority (HPA), Correctional Industries (CI) and Crime Victims Compensation Commission (CVCC).
- Survey of other jurisdictions on their needs and systems.
- Overview and comparison of corrections management software.
- Synthesis and mapping/diagramming of custody flows, information flows, uses of custody information and uses of Offendertrak system

Phase IIa

July 2016 – August 2017

Additional Research and Strategic Planning Recommendations

- Research across administrative functions and line persons for Hawai‘i, Maui and Kaua‘i corrections-related facilities.
- In depth research of case management operations at WCCC for user-facing small project
- Obtain data for data and systems analysis
- Synthesis of people, systems, and information processes to determine strategic planning recommendations and setup for IT transformational work of Phase IIb

Phase IIb

September 2017 – January 2019

Small Projects, Final Recommendations

- Custody data and systems analysis
- Guided transformational IT capability development (IT governance body work)
- Small project software design and development with analysis of software project needs and capabilities
- Synthesis of people, systems, and information processes for final recommendations

Phase III

Phase III, proposed as an optional phase, was intended to provide support as needed for a larger-scale software project implementation. Based on the findings of Phase II, Phase III is not recommended for continuation at this time. PSD has significant gaps to address before a larger-scale software implementation is advised.

Purpose of Report

This report comes at the completion of Phase II of the DIIP and builds on earlier findings. Its primary purpose is to provide PSD with recommendations and requirements for moving towards a sustainable technology foundation of which a new corrections management system is a part. The recommendations and requirements are written for the primary audience of PSD's Information Technology (IT) governance body with the purpose of guiding improvement actions towards project readiness. REPS is a secondary audience and the report is intended to inform planning purposes and provide reference materials for continued work with PSD.

Report Contents

Included in this report are:

- Phase II assessment findings with recommendations and requirements for developing software project readiness;
- guidance for the hows and whys of making technology purchase decisions for the department's current state, including recommendations for Offendertrak replacement;
- information on existing custody data;
- and tools and references to help PSD develop a variety skills and competencies that are useful in managing or participating in technology projects.

The analyses are based on the organizational structure, department policies, processes, systems and personnel we observed or worked with between February 2015 and the date of publication of this document. Our assessment captured observed processes and verbalized needs for O'ahu, Hawai'i, Maui and Kaua'i. Custody information needs and flows were reviewed for PSD operations to include Corrections Division, Law Enforcement's Sheriff Division, Administration Division, HPA, CI and CVCC. Where appropriate, we included First Circuit Court custody information and Honolulu Police Department processes. All other state agency considerations were evaluated from the information gathered from within PSD about those relationships.

Much of what is assembled here has been shared with the PSD administration ahead of this report. Note that most of the first phase findings, insights, and documentation are not replicated here. Reference items such as corrections personnel personas, system diagrams, custody flow diagram, and information flow in the custody journey are to be found in the first publication. We hope that this report brings the information together to provide an actionable resource as the Department continues to develop its technology capabilities.