California Department of Corrections and Rehabilitation

Rehabilitative Programs
Enterprise Information Services
Division of Adult Institutions
California Community Colleges
California State Universities

2023 NASCIO Recognition Award Ceremony
Category: Enterprise IT Management Initiatives

Technology for Incarcerated Population i.e., CDCR Ed-Tech Initiative

Initiation: January 2022

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NASCIO 2023 Enterprise IT Management Initiatives "Technology for Incarcerated Population"

Executive Summary:

"*To facilitate the successful reintegration of the individuals in our care back to their communities equipped with the tools to be drug-free, healthy, and employable members of society by providing education, treatment, rehabilitative, and restorative justice programs, all in a safe and humane environment.*"

Over the past decade, the California Department of Corrections and Rehabilitation (CDCR/the Department) has elevated the importance of rehabilitation of our incarcerated population and operated with the imperative of providing job skills for their successful reentry into our communities. CDCR has become a national leader in correctional education serving students in college, adult basic education, and career and technical education programs.

In 2021 CDCR launched the Ed-Tech initiative, recognizing the essential nature of technology in the modern workforce and education. The goal: infuse a vision of 21st Century learning in 33 institutions throughout the state, from Pelican Bay State Prison at the Oregon border to Richard J. Donovan Correctional Facility near the Mexico border. To accomplish this objective, CDCR determined it must support digital literacy by developing a 1-to-1 laptop ratio for more than 30,000 students.

In order to deliver, CDCR would need to procure infrastructure and technology; install, configure, and deploy infrastructure and technology; develop policy and procedures around the use of the technology; and train for competency in use and student assistance. Ed-Tech would provide the hardware as well as a new student network architecture, virtual learning portal with enhanced security protocols and expanded network capabilities to provide a secure, stable, consistent platform to provide educational and rehabilitative content with academic integrity. The job would be completed in house, with no outside vendors used. The large-scale project had the added complexity of being delivered in a correctional system, with extensive security concerns and concrete block structures.

The scope of the project demanded collaboration with a host of internal and external stakeholders. CDCR developed a team of individuals representing diverse backgrounds and specialties, including security, information technology, infrastructure, and education. This team worked hand-in-hand with more than 25 community colleges as well as the California State University and University of California systems. Internally, Enterprise Information Services (EIS) joined with correctional educators and executives as well as multiple units within Department of Rehabilitative Programs (DRP), Division of Adult Institutions (DAI) and the Office of Public and Employee Communications (OPEC).

All were mindful of the Department's responsibility to prepare all incarcerated people for success after incarceration, including focusing on increasing literacy, obtaining General Education Development (GED) or high school diplomas, providing job skills and training, and offering college-level programs through

completion. CDCR is committed to expanding its use of technology to establish parity with academic instruction and standards in the community, providing greater access to technology for more students, and allowing for greater success upon release.

Project Narrative:

The Department recognizes the responsibility to provide all incarcerated individuals with the knowledge and skills to find success upon release, increasing their employability and life skills and reducing recidivism. Incarcerated students previously had limited access to technology and no means of developing the skills they need to apply for employment, continue with postsecondary education, and access many supports and services which require digital literacy and computer-based skills. To address this problem and provide opportunities for our learners to find success, the Department shifted its focus, redefining what success for our students looked like and working collaboratively to create a secure technological environment in which success would be possible.

Part of this vision is the provisioning of secure laptop computers for students in all educational programs, as well as upgrading the infrastructure to support expansion of student technologies. The students are provided access to the DRP (Virtual) Learning Portal. This learning resource represents a compendium of software programs designed to enhance instruction and extend learning beyond the physical classroom space. In addition, the implementation of a Learning Management System (LMS) allows collaboration with University and Community College partners to deliver stellar content and curriculum to students which would have otherwise been limited.

In order to accomplish the various complex pieces of this effort, DRP worked with EIS to provide a phased approach to expand wireless access points on the Inmate Secure Network to all physical spaces within each institution where DRP educational activities may take place such as academic classrooms, libraries, dining halls, chapels, and gyms, and deliver technology first to face-to-face college students, while planning and implementing needed infrastructure to continue to deploy technology for correspondence college students, high school diploma, GED and ABE students.

Idea

In 2015, the RAND Corporation reported individuals who participate in any type of educational programs while in prison are 43 percent less likely to return to prison. Education improves outcomes from one generation to the next while reducing recidivism. In 2016, The Office of Correctional Education (OCE) focused on building leadership capacity, restructured OCE, and contracted with the National Center for School Board and Executive Leadership to assist with this process. In 2019, a Vision Document was developed; this evolved into the OCE Strategic Plan. The team included The National Center and the OCE Executive Cabinet (Superintendent, Deputy Superintendent, Associate Superintendents, OCE Project Management Unit, and OCE Support Staff). In April of 2020, the Strategic Plan was approved, and in Fiscal Year 2020-2021, the plan was launched. The plan was designed as a continuous process for site administrators and their teams to work with their Regional Associate Superintendent (RAS) to develop and plan for each year. Each year, facility Administrators and RAS present an annual report through Governance Council meetings with the Warden's Office at each facility.

The Technology for Incarcerated Population initiative is unique in that CDCR decided to not procure the services of a contract or vendor company to accomplish the department goals, but instead to use internal

resources to accomplish this complex effort. The initiative is a five-year plan from January 2022 through July 2027 encompassing infrastructure and devices for all educational programs in a phased approach. CDCR invested in the project over time with incremental improvements and implementations. At its completion, more than 30,000 laptop devices will be deployed to learners throughout the system. Making secure laptops available to incarcerated students not only expands their access to educational content, it also teaches them to use technology many may not have experienced prior to their incarceration.

This initiative required innovation on many levels due to the unique correctional environment to ensure not only safety and security of all, but also due to barriers with the infrastructure. The previous student network was limited and was not able to support the expansion of services. Technical teams from CDCR came together to design and implement a new student architecture and virtual learning portal with enhanced security protocols and expanded network capabilities to provide a secure, stable, consistent platform to provide educational and rehabilitative content with academic integrity.

Implementation

This initiative is designed for students who are enrolled in institutional rehabilitative programs. The purpose is to provide DRP technology devices for access to supplement in-person instruction and increase educational programming outside of a traditional classroom setting.

Collaboration amongst IT Goods and Services Procurement, DRP, Endpoint Management and Monitoring (EMM), Customer Service and Field Operations (CSFO), Information Security Office (ISO), Office of Correctional Safety, DAI and DRP OCE was required for identification and procurement of the appropriate technology for the incarcerated population educational use, including all security measures, testing and operational procedures. The laptop computers provided to students represent a shift in Department attitudes and acceptance of the need for incarcerated individuals to have access to tools that represent success in life in their communities. While limited in scope to ensure security, the computers provide students with access to instructional materials, opportunities to learn outside the classroom, and to gain skills with common software they are likely to encounter upon release. The combination of these laptop devices with instruction provided by academic teachers, vocational instructors, and college professors truly supplements and enhances current methodologies and creates communities of learners who engage one another in academic discourse outside of traditional educational spaces. In order to provide the best possible opportunities for the student and maintain security and safety requirements of the Department, purchasing included hardware, software, licensure, and all peripheral instruments necessary for educational success. In order to meet Department requirements, Design Standards was brought in to provide recommendations for consistency throughout all institutions and with all equipment.

A concurrent effort improved the capability and expanded access to the inmate network. This effort allows the student to continue their education activities beyond the time and physical boundaries of the classroom. The Inmate Domain Redesign Project was a significant IT infrastructure effort that required resources from Network Engineering, Servers, Services, Storage and Virtualization, EMM, Unified Communications & Collaborations, ISO, CSFO and Incarcerated Population and Community Services (IPCS). The project began in August 2021 and concluded in October 2022. The project team consisted of roughly 40 people with a capital expenditure of approximately $16 million. The project grew out of a FY 2021-22 Budget Change Proposal (BCP) which called for a significant increase in the number of incarcerated persons participating in rehabilitation programs and thus requiring a multi-fold increase in the scope, size,

and support for the inmate domain. Also, included in the Inmate Domain Redesign was a refreshed approach to network security.

Much of the design of the new Inmate Domain germinated in a previous proof of concept (POC) from 2019. The 2019 POC, commonly referred to as REV, included a shift to centralization and featured the introduction of virtual desktops to student inmate use. While the REV effort demonstrated the feasibility and many functions possible with the new Inmate Domain, REV did not contain all the features, requirements and capabilities the Inmate Domain Redesign Project delivered. Further, the scale and scope of the effort was limited and small.

Overall, the Inmate Domain Redesign Project was very successful and completed on time. Approximately 21,000 inmates have access to the online curriculum for the purpose of advancing rehabilitation. Further, there is a significant increase in the overall security posture of the Inmate Domain. The environment is now extensible, expandable, and able to support 1,000,000 endpoint devices (given adequate hardware and network connectivity). The core design team spent approximately four months discussing design considerations, requirements, and deliverables prior to the start of the technical implementation.

Improvements to existing infrastructure required network evaluations of wireless access points, circuits, switches, Internet Protocols (IPs), etc., with Fire Marshal permitting requirements to be evaluated and submitted, in collaboration with Facility Planning Construction and Management and institution representatives from DAI and CSFO. In order to provide more consistent WIFI coverage throughout educational areas and other identified areas within the institutions, education space management was also evaluated for existing video equipment, cart storage (requiring power and network access), and potential improvements including Smart Boards, Interactive White Boards, and Video/Tele-Conferencing equipment. In order to provide the best outcome possible, Operations and Support procedures for Education and IT Support staff were developed, including training documentation for IT Support, Education Administrators, Principals, and Students. OPEC provided significant communications to both internal and external stakeholders on the progress of the efforts.

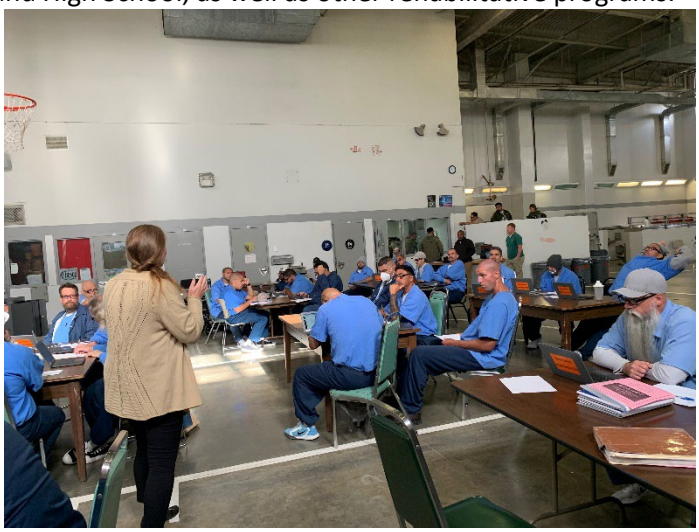
The Technology for Incarcerated Population initiative will be completed with a phased approach over a total of 5 years. The total procurement cost of the laptops and peripherals used as part of this project will be over $68 million dollars.

Impact

EIS has a dedicated unit to focus on all technology resources for the incarcerated population. The IPCS team is a technology and service collaboration division. The IPCS is the gatekeeper and center point for initiatives to provide new and innovative services to improve education, communication, and entertainment to our incarcerated population. IPCS brings together all stakeholders and agency partners for collaboration in order to provide resources and technologies to decrease incarcerated violations, recidivism, and generational incarceration as well as increase opportunities for higher education, work experience, and preparation for life in the community. Offender Technology Support, also known as Education Technology, an emerging team within IPCS, is designed to provide IT services, equipment, and support to the DRP Technology Devices Program. We are providing opportunities to develop skills and abilities to provide better experiences for the incarcerated population and their family and friends, leading

to more successful retention of their freedoms and reduced societal impact from criminal activity and incarceration.

To date, the Department has deployed more than 11,000 computers to students enrolled in face-to-face college programs across the state. Teachers, custody staff, executive staff, and outside college partners have participated in training opportunities to become familiar with the device, its uses, and its limitations. Thousands of students have also participated in training and demonstrated responsible use of the devices. More than sixty-five college courses were facilitated via the laptop computers at thirteen community colleges and in six bachelor's degree programs during the spring 2022 term. Feedback from professors indicates that the quality of student work has been significantly elevated and that students are demonstrating a greater commitment to learning and academic attitudes. In a recent visit to Folsom State Prison, students in that bachelor's degree program said the laptops were the greatest resource they had received and that they were indispensable tools for furthering their education. For the fall 2022 term, more than 250 college courses were published for twenty-five community colleges and seven BA programs to utilize the laptops to extend the reach of the programs to students in all institutions. That number increased to more than 360 for spring 2023 and an additional BA program was brought online. Each year, the initiative will continue to build upon this foundation to support all students, from Adult Basic Education, GED, and High School, as well as other rehabilitative programs.



CDCR is providing a secure network, virtual learning portal, and laptops in support of incarcerated students taking part in educational programs statewide. This technology is transforming the way teachers deliver instruction, allowing greater access to professional content, resources, and interactive lesson

plans. In-person student-teacher interactions remain critical for success, modeling healthy interpersonal connections students will replicate in personal and professional interactions for the rest of their lives. Secure online learning will supplement - never replace - face-to-face instruction in institutions.

Over the next three years, an additional 21,000 laptops will be distributed to inmates enrolled in college and other educational programming which will allow the students access to the inmate network, Canvas Learning Management System (LMS), and other educational support programs. This initiative expands the availability of electronic textbooks and course materials to students to assist in achieving educational advancement that may lead to milestone credits.

Although at this time most metrics are qualitative, the pride and enthusiasm from current and future students is immeasurable. This is evident from improved quality of work and participation in class. The changes made to the student architecture and DRP (Virtual) Learning Portal greatly improve the students' user experience as they are able to access their portal from any device to continue their learning. This foundation allows for increased access to assessments given to provide data collection. Examples are the on-line high school diploma completions program that are increasing student's achievements, an online GED testing platform that provides feedback to students and teachers more quickly, and the use of CASAS (Comprehensive Adult Student Assessment System) e-Testing which allows for students and teachers to know exactly what skills are needed and target teaching and learning accordingly.

Since the inception of this effort and as of April 2023, CDCR has seen a total of 3,232 students receive their GED/High School diplomas, 1,180 community college graduates, 29 bachelors' program graduates, and 9 master's program graduates.

Ed-Tech has been a highly successful initiative and CDCR is very excited about what can be accomplished in the future as more devices are distributed, more education programs are added and our network expands. CDCR will continue to monitor Ed-tech's success in tangible ways, like course and degree completions, but also in intangible ways, like feedback from teachers and students. This initiative continues to provide opportunities to collaborate with internal CDCR entities as well as external resources and programs to provide education and rehabilitation as never before seen in California, possibly anywhere in the United States, so far. The goal of reducing recidivism through improving the knowledge and experience in marketable skills of our incarcerated population is innovative and we believe will provide a blueprint for other Correctional agencies to emulate, thus expanding our ability to collaborate even further.