REALIZING THE SUCCESS OF VISION 2023

Statewide IT Annual Report

California Department of Technology

2023

INTRODUCTION

A message from State CIO and CDT Director

Technology empowers compassionate, human-centered government, which is why we work with State leaders to leverage technology that enables us to listen to people, help them, and improve our services. This annual report marks the third year of the Vision 2023 California Technology Strategic Plan, which was formed out of the emergencies of 2020 with input from thousands of passionate, dedicated public servants representing California's state government IT community.

Vision 2023 is an innovative approach built on the strengths of collaboration as demonstrated by the state's response to a worldwide pandemic. It highlights the importance of how technology can support Californians in their time of need. Vision 2023 aligned technology initiatives and solutions with the needs of the people and the challenges that put a strain on agency and department operations, as well as their programs and services. Each year of the plan's evolution focused on goals to address challenges and brought our principles to life through effective, efficient, and innovative use of technology.

In 2021, we put Vision 2023 into action, not just for continued pandemic support but for many other efforts that required us to leverage technology to meet our society's needs and make progress on the large, complex problems affecting us all.

In 2022, we advanced the goals of Vision 2023 and brought our principles to life through technology. During this period, the state's technology community stepped up to mitigate the health and economic impacts of wildfires and heatwaves that affected all residents and fell disproportionately on our most vulnerable communities.

In 2023, we embraced the digital age and set the pace for California to lead the way. This is evidenced by the California Department of Technology's Bridge to the Future strategic plan that reflects our department's commitment to the ideal of doing more than just keeping pace with technological advances—we cemented our role as the keystone for statewide strategic, technology. Bridge to the Future outlines our goals for the coming years and charts a course for how we will improve our department's operations, services, and policies to remain the state's leader in technological advancement. Although the plan focuses on CDT as a department, it also uniquely complements California's Statewide IT Strategic Plan, Cybersecurity Strategic Roadmap, and Statewide Digital Strategy. Currently, we are developing the next 3-year California Statewide Technology Strategy to inform, exemplify, and amplify the IT strategy plans and roadmaps throughout the state agencies, departments, educational entities, and local governments in positive and meaningful ways.

We are learning from each other every day and through every iteration and owning our successes as we grow through our challenges. This year's annual report tells the story of how the state's IT community worked together to bring about real change to better serve the people of California.

Liana Bailey-Crimmins
State Chief Information Officer &
Department Director

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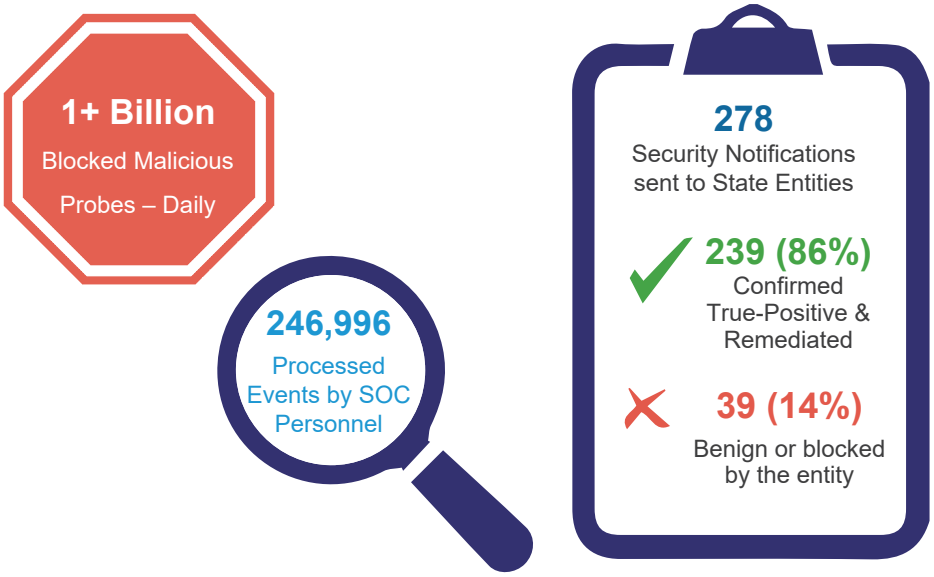
STATEWIDE IT PERFORMANCE METRICS

The following metrics are part of CDT's performance management framework. Performance targets were initially identified in the 2016 Annual Report. Subsequent reports show the annual measurements of progress in improving and enhancing the state's information technology program.

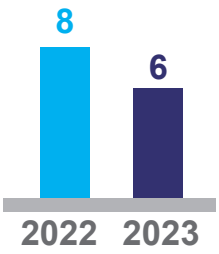
SECURITY

Malicious Activity Detected by the Security Operations Center



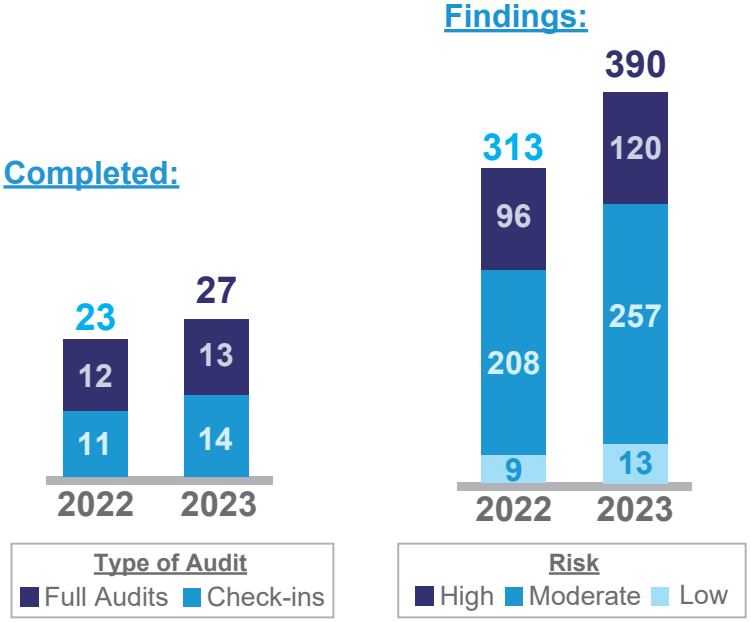
The number of malicious activities detected in 2023 by CDT's Security Operations Center (SOC) targeting the California Government Enterprise Network (CGEN) and other IT systems owned and/or managed by the State Data Center.

Number of Electronic Incidents Resulting in the Unauthorized Disclosure of Personal Information



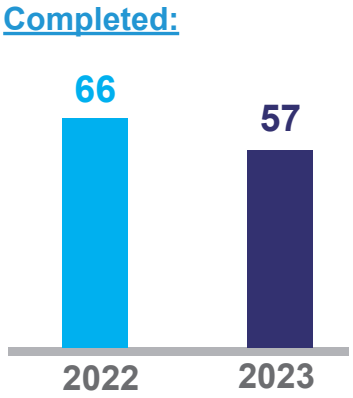
The number of breaches during the calendar year that involved Personally Identifiable Information (PII) contained in lost or stolen unencrypted electronic devices and storage media. This number does not include paper and verbal releases of information.

Information Security Audits (Policy Focused)



The number of Information Security Audits conducted by CDT and their corresponding findings. Each audit includes a comprehensive evaluation of the state entity's infrastructure and security practices to ensure compliance with state policy and federal standards.

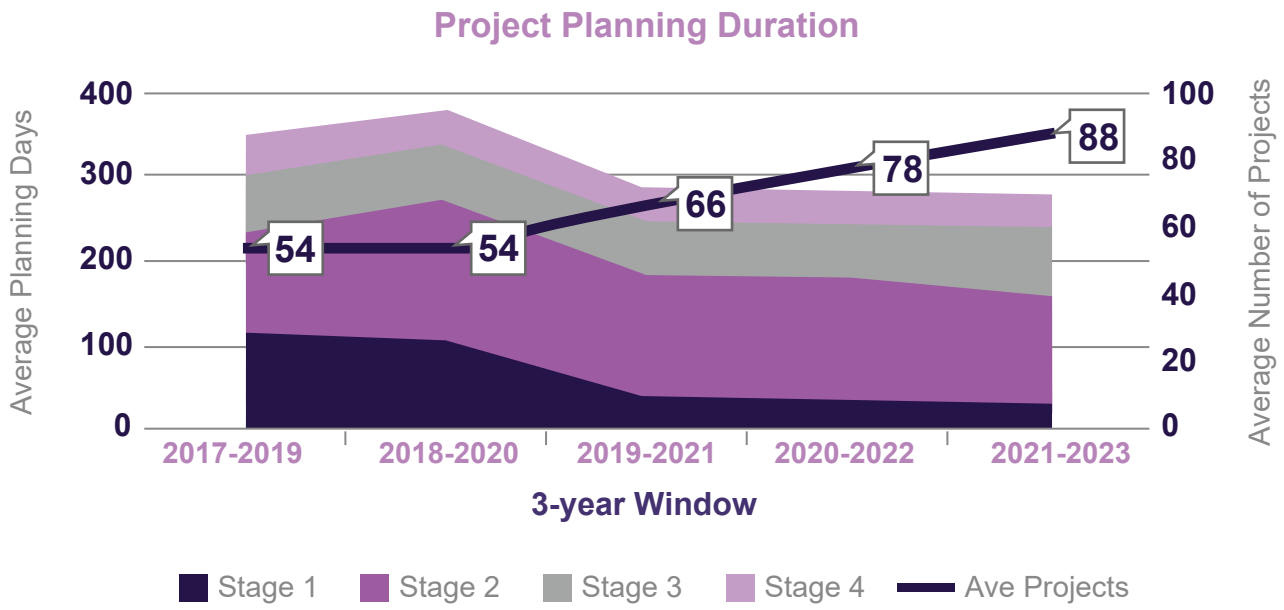
Independent Security Assessments (Technical Focused)



The number of Independent Security Assessments conducted by the California Military Department, or an approved third party, and a summary of their findings. Some focus areas include: asset management, continuous user training against phishing attacks, and consistent patching for vulnerabilities.

PROJECT DELIVERY

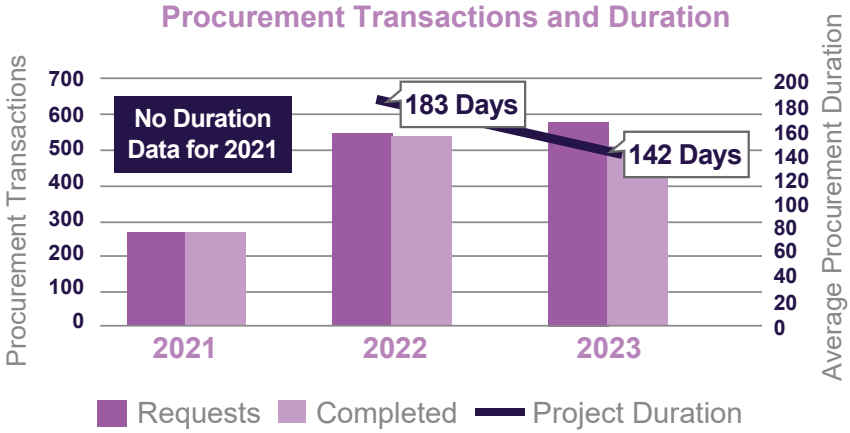
Number of IT Projects Increased while IT Project Planning Duration Decreased



The Project Approval Lifecycle (PAL) ensures projects are undertaken with a strong business case, clear business objectives, accurate costs, and realistic schedules.

The graph presents state technology projects in planning over several 3-year periods and illustrates the average IT project planning period is decreasing while the average number of IT projects is increasing.

State Technology Procurement Accomplishments 2023



While the duration data is unavailable for 2021, the graph demonstrates a significant reduction of 41 days (22%) in procurement duration (the total time for procurement) between 2022-2023.

The graph shows procurements for 2021-2022 doubled, while the solicitation duration in 2023 over 2022 was reduced by 22%, due primarily to:

- *Online pre-approval of qualified vendor applications reducing the timeframe by 2 weeks,*
- *Digital tools that increased procurement efficiency through intradepartmental communication and collaboration, and*
- *ServiceNow that streamlined every stage of the procurement workflow.*

Non-delegated Projects Outcomes

Non-delegated IT Projects	Calendar Years 2019 – 2023	Industry Benchmark
Successful Projects	67%	31%
Challenged Projects	33%	50%
Failed Projects	0%	19%

The State IT project outcomes is better than the industry benchmark[1].

Successful *– within 10% variance in scope, schedule, or cost.*
Challenged *– 10% or more variance in scope, schedule, or cost.*

Failed *– Terminated by CDT*

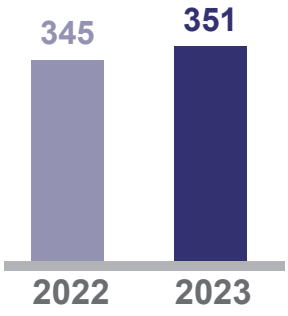
Projects withdrawn by the department are not included in this report.

1 *Standish Group CHAOS [1] Report. (CHAOS - the Comprehensive Human Appraisal for Originating Software)*

WORKFORCE

By offering remote training, CDT has expanded its audience to the entire state:

Number of Individuals Completing IT Leadership Training

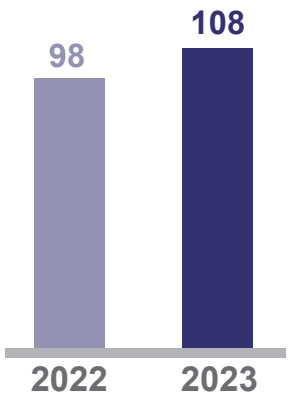


300
Individual subscriptions

Premier Advantage CA eLearning (**PACe**) leadership training

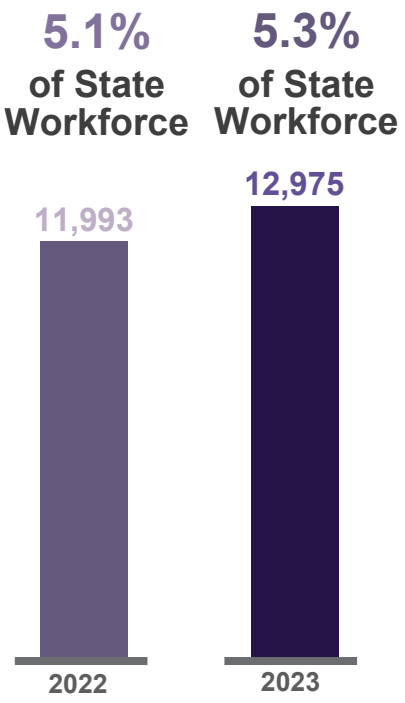
IT leadership training consists of a combination of academies and open-enrollment training courses offered by the Office of Professional Development.

Number of individual departments/cities/counties/courts attending training

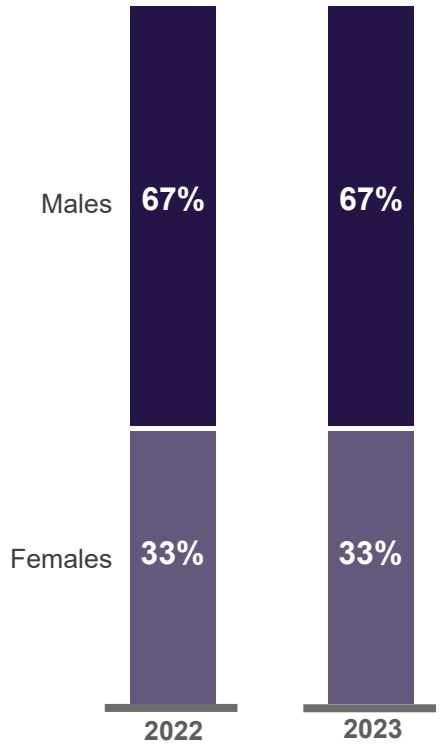


STATEWIDE IT WORKFORCE DEMOGRAPHICS

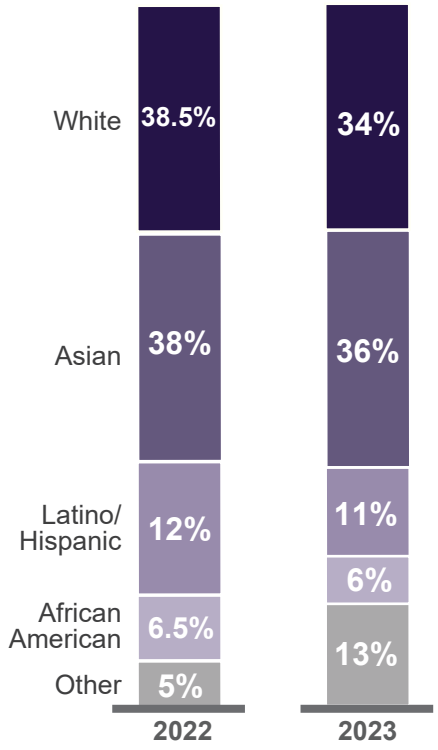
State IT Employees



Gender

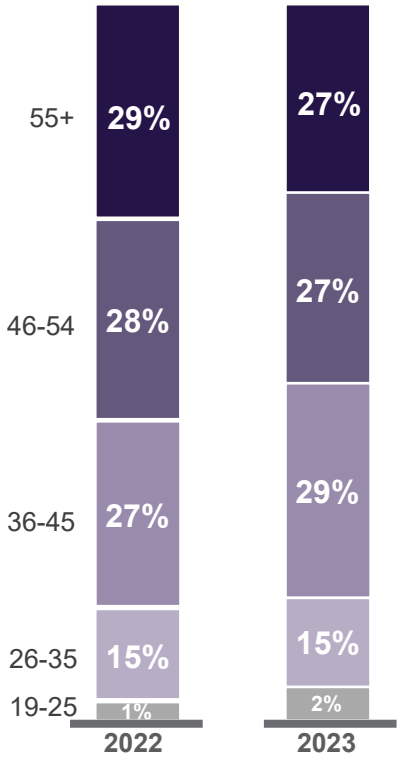


Ethnicity

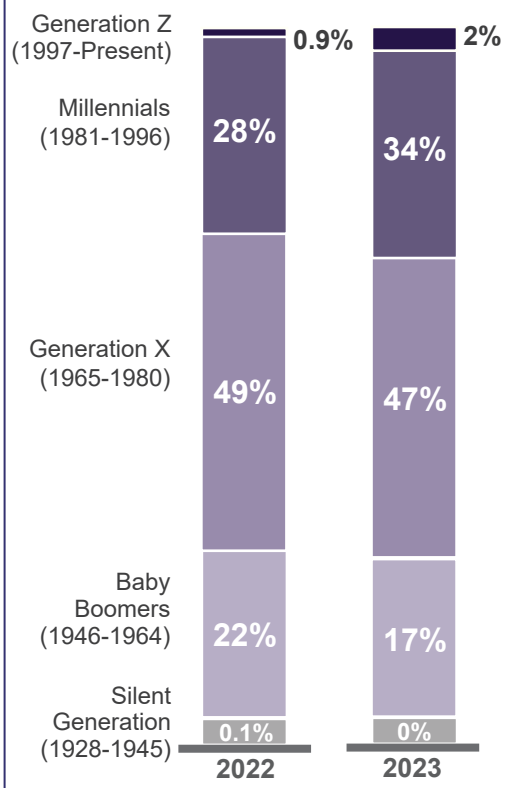


**Other represents several ethnicities, including Native American, Eskimo, Puerto Rican, those Unknown and those who Chose Not to Identify.*

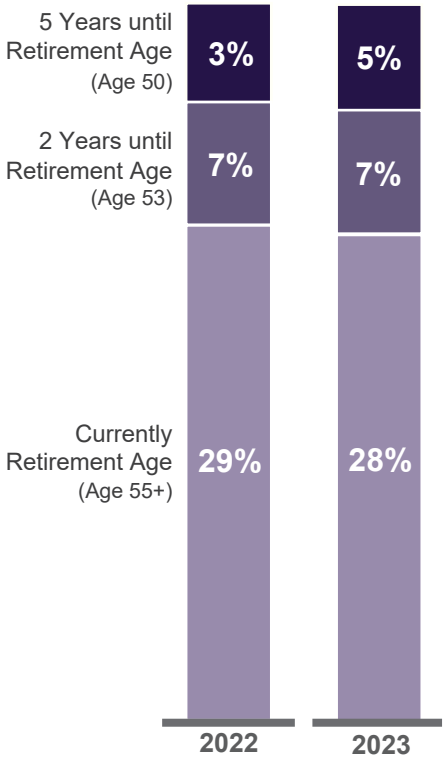
Age



Generation



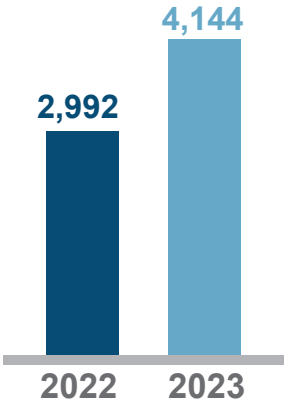
Range to Retirement

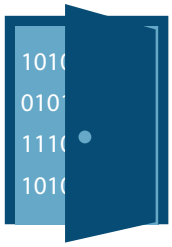


Source: *CalHR*

TECHNOLOGY INNOVATION

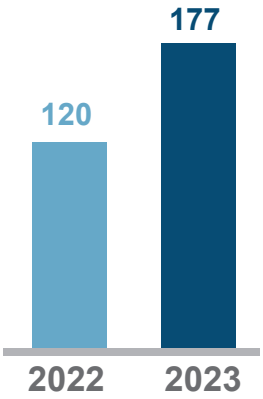
Number of Datasets Available to the Public





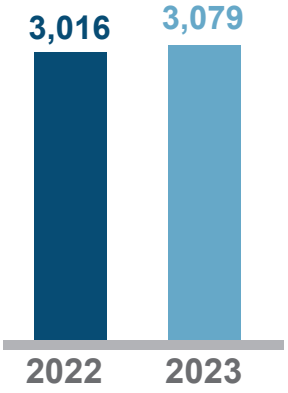
data.ca.gov

Number of State Contributed Open Source Code Sets repositories



Includes codes from code.ca.gov and github.

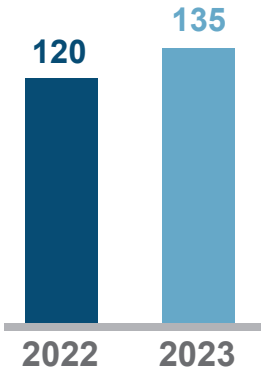
Number of GIS-based Datasets Available to the Public through the Statewide Geoportal



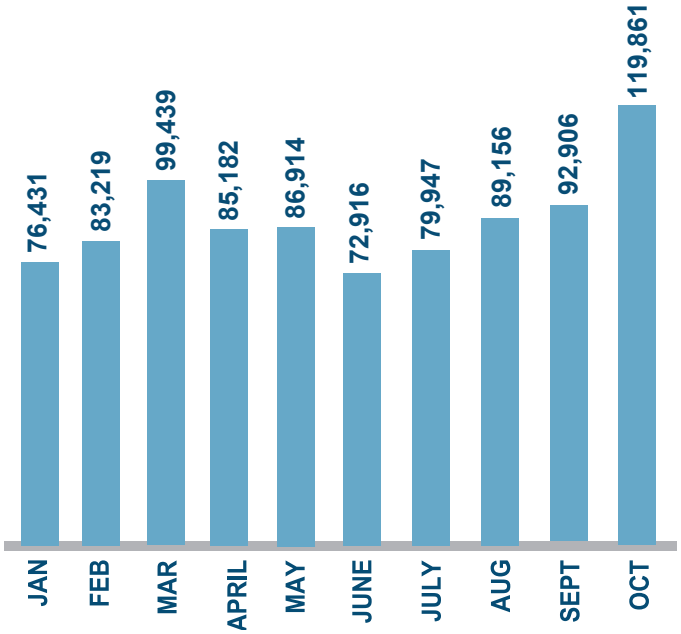
gis.data.ca.gov

Number of GIS Applications Available to the Public through the Statewide Geoportal

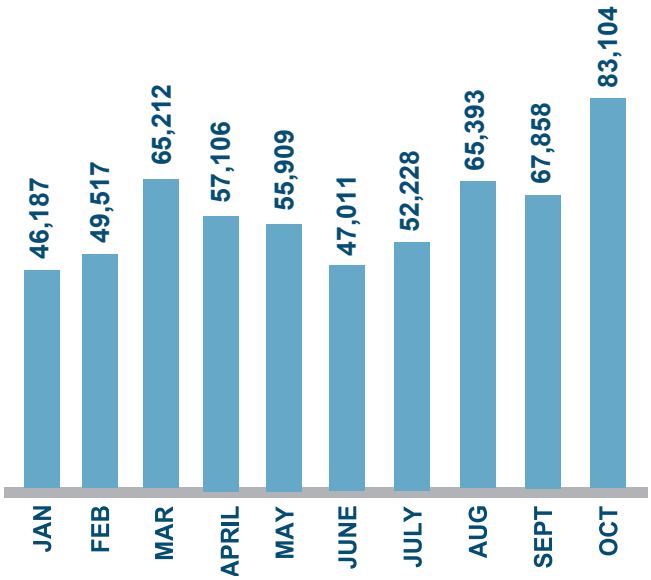
gis.data.ca.gov



Data.ca.gov Page Views

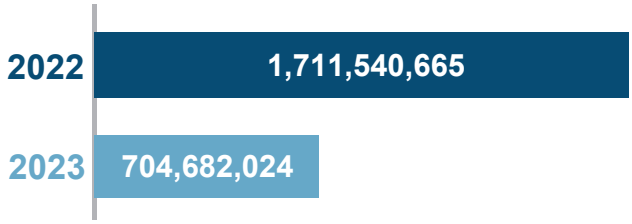


Geoportal Page Views



TECHNOLOGY INNOVATION

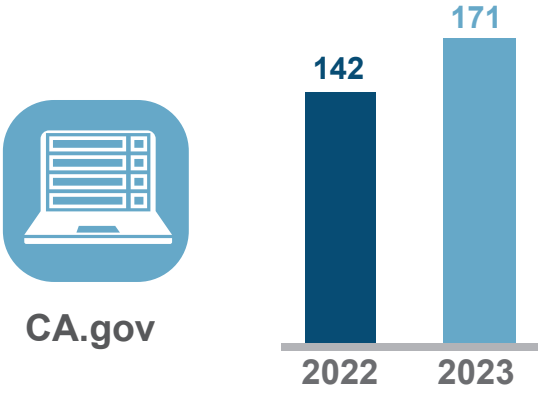
Number of Unique Page Views of All Websites Within the CA.gov Domain



2023 Page Views declined as pandemic information needs subsided.

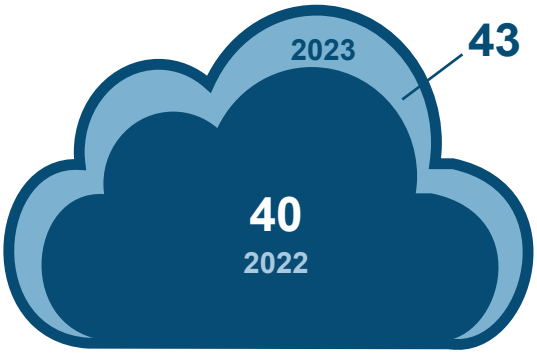
CDT is working to address Government Code Section 11546.45(b), to identify and implement additional centralized contract opportunities across state departments. The data is being evaluated for feasibility, cost, and long-term benefits. These efforts will leverage the State's buying power to ensure the lowest pricing to the benefit of all State entities.

Number of Digital Services Accessible Through the CA State Portal



The number of digital services accessible through the California State Portal (www.ca.gov), a single navigation link for common public services.

Number of Subscriptions to Software as a Service (SaaS) Cloud Services by State Entities Offered through the State Data Center

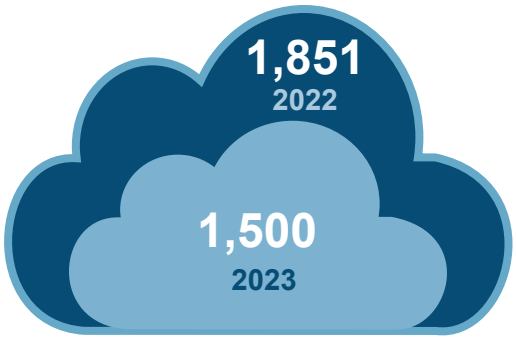


The cloud-based SaaS solutions used by state entities offered through the state data center as part of its Vendor Hosted Subscription Services (VHSS).

CDT retired some products and services in the SaaS line.

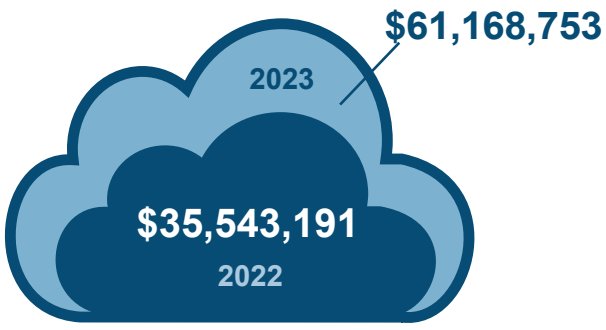
Number of Subscriptions to Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) Cloud Services by State Entities Offered through the State Data Center

Number of Subscriptions to IaaS/PaaS



The number of subscriptions to cloud-based IaaS/PaaS solutions by state entities offered through the State Data Center.

Total Subscriptions for Services Utilized



The total amount spent on subscriptions by state entities using cloud-based IaaS and PaaS solutions offered through the State Data Center.

Despite a decrease in subscriptions for IaaS and PaaS, these services have realized a net increase in usage and expenditures against active contracts.

Vision into Action

California's state government IT community has a vision of the future inspired by thousands of passionate, dedicated public servants.

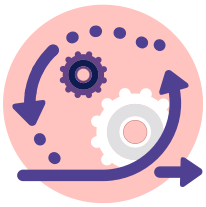
Vision 2023

Technology powering a compassionate, human-centered government.

Our Principles

Put people first

Deliver what Californians and the public servants working for them need.



Create continuous and timely improvements

Update and improve systems and services every day.

Working together beats working alone

Solve big challenges with multi-disciplinary teams from different departments.

Our Goals

Deliver clear, fast, secure and dependable public services
Make government services and information stable, easy to find and simple to navigate.

Ensure public services are equitable and inclusive
Improve interaction with the government by providing equitable access to all services and information, and expand diversity in the state workforce.

Make common technology easy to access, use, share and reuse across government
Encourage collaboration among multi-disciplinary teams by making it easier and faster to apply shared experience and patterns to solve problems.

Build digital government more quickly and effectively
Prioritize technology investments, and balance oversight and planning to increase project delivery. Modernize state legacy systems through an agile management and procurement approach, and document successes and failures so others may learn.

Build confident, empowered multi-disciplinary teams
Empower leaders to integrate technology into their programs and operations to improve outcomes by attracting new talent, developing diverse technology leadership, continuously upgrading training, and fostering multi-disciplinary teamwork.

vision2023.cdt.ca.gov

Our Goals

- Deliver clear, fast, secure and dependable public services
- Ensure public services are equitable and inclusive
- Make common technology easy to access, use, share and reuse across government
- Build digital government more quickly and more effectively
- Build confident, empowered multi-disciplinary teams

Putting People First

Delivering what Californians and the public servants working for them need.

CalHEERS initiative meets the healthcare needs of millions

The California Health and Human Services Office of Technology and Solutions Integration (OTSI), Department of Health Care Services, and Covered California came together in 2023 in a collaborative effort to enhance the California Healthcare Enrollment, Eligibility and Retention System (CalHEERS), to make it simpler for 14 million Californians to access affordable healthcare. The challenge of these efforts involved balancing the unique needs of residents with the risks of developing a custom, tailor-made solution for California that had never been done before.

CalHEERS used human-centered design to better understand users and to establish a strong foundation for new tools, technologies, and innovations. CalHEERS also used the latest cloud technology, ensuring flexibility and cost-effectiveness during peak times like the October to January, during the Renewal and Open Enrollment period. The project's use of cloud technology resulted in improved efficiency and the ability to adapt to changing demand effectively without sacrificing service quality.

Redesigning the self-service portal with a focus on user-friendly design principles like popular software enhanced the overall user experience for Californians seeking essential health coverage. Through these efforts, the CalHEERS team positioned California as a leader in healthcare innovation and demonstrated their ongoing commitment to modernize the CalHEERS Platform to meet the healthcare needs to millions of Californians.

New initiatives to spur zero-emission vehicle adoption

California leads the nation in zero-emission passenger and goods movement. The State's system of incentives, regulations, workforce development, and active stakeholder engagement is designed to enable industry to deliver the technologies and scale we need to secure a prosperous, clean, and climate friendly future. To further the adoption of zero-emission vehicles, the Governor's Office of Business and Economic Development (GO-Biz) created two mapping applications to track progress of local ordinances that will help streamline the adoption of electric vehicles.

The first application focused on tracking where there is streamlined local permitting for electric vehicle charging stations across the state, including tracking compliance with California laws AB 1236 and AB 970. This application is a living companion to the Electric Vehicle Charging Station Permitting Guidebook, and includes a public facing front end and an editable back end for easy updates to the map and database.

The second application tracks adoption of local building standards that include new zero-emission vehicle reach codes. New codes include minimum charging station standards for multifamily, hotel, offices, and new single-family buildings. This application is continuously updated to reflect the rolling 3-year adoption cycle that Building Codes are updated in California.

Communities across the state can use these tools to replicate success, leverage lessons learned, and save time as California works to build out its zero-emission vehicle infrastructure network.

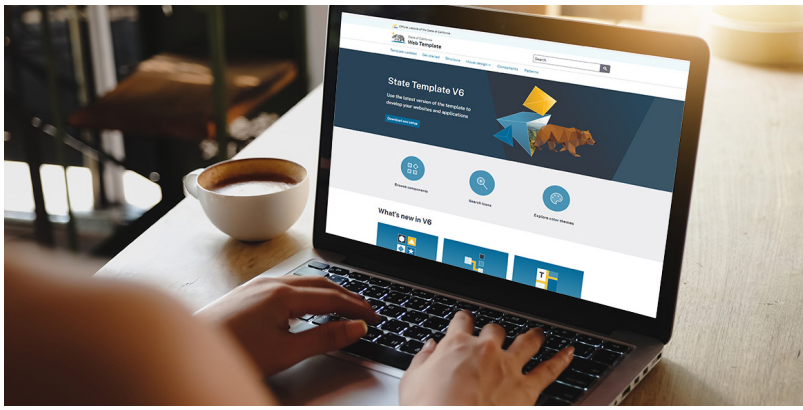
Latest Web Template makes State websites more user friendly

Released January 2023, the enhanced features of the State Web Template latest version (V6) were shaped by community feedback and in-depth user research. The template's user-first approach is informed by data and research from state entities, to better understand how people use websites and provides content and visual design style guides and is available in multiple frameworks.

The new V6 ensures a consistent approach across state websites and online services, based on accessibility, transparency, and iterative design. The template provides content and visual design style guides, enhancing user-friendliness, and is available in multiple frameworks.

Recognizing that not all devices support State web components, V6 provides a well-tested set of tools that work independently, ensuring maximum accessibility for all residents. The components can be linked together and easily added or removed using HTML tags. This dependability and reusability of the template allow developers and designers to focus on innovating in other areas instead of rewriting redundant code. Achieving these goals requires more than just a website alone, so a dedicated website was created for the State Web Template to provide guidance to state agencies during implementation. This ensures a consistent approach across various state websites and online services, basing its principles on accessibility, transparency, and iterative design.

The California State Web Template streamlines the development of State websites by providing essential design elements, tools, and best practices to create user-friendly, mobile-responsive, and accessible sites. The template includes a component library and incorporates built-in accessibility and performance standards, resulting in significant time and cost savings for state departments and vendor partners. Its widespread adoption by over 200 entities demonstrates its effectiveness in enabling websites to perform optimally on various devices and connection speeds.



CalPERS health demographic profile project

Existing research data shows communities of color are disproportionately affected by most major chronic health conditions, like asthma, diabetes, cystic fibrosis, and a variety of genetic and other birth defects. With so many members from various demographic backgrounds, the California Public Employee Retirement System (CalPERS) needed to quantify the quality of care its members are provided to know where disparities exist, to develop interventions based on where the data shows it's needed.

CalPERS developed and deployed an app to allow its 1.5 million enrolled health members to safely and securely self-report directly to CalPERS their race, ethnicity, and preferred language, as well as sexual orientation, and gender identity. This data became known as the Health Demographic Profile (HDP) and is vital to helping CalPERS learn about each of its health members and use the information to work with its health plan partners to reveal trends and potential inequities in how they provide access to care and treatment options. Considering the sensitive nature of the data being requested, a cloud-based app integrated with CalPERS's existing legacy framework allowed the data to be saved and stored in real-time, securely within its current database, and easily accessible to share with its health plans via secure file sharing.

CalPERS leadership set a success goal of 100,000 HDP records by January 1, 2023. Following the implementation of phase 1 in 2021, the HDP submissions trickled in to over 60,000 HDP profiles. Since the implementation of phase 2 in 2022, and the inclusion of a gift card incentive, HDP submissions soared. In the first week, they received nearly 50,000 new HDP profiles, reaching the goal of 100,000 profiles just 4 days post-launch. Phase 3 went live in January 2023. By April, they had collected just under 198,000 total HDP profiles.

Nearly all of CalPERS 1.5 million health members will benefit from the HDP project in some way. Whether it's the ease in which our members can submit their HDP data with or without a myCalPERS account, or that the data will help CalPERS and its health plan partners work to identify and eliminate health disparities and improve overall health outcomes for our members, the HDP project will have a lasting impact on its health benefits program.

ODI helps Californians find more State benefits

Californians are eligible for more benefits than they claim, possibly because they are unaware of the benefits available. The Benefits Recommender, created by the Office of Data and Innovation (ODI), uses simple, existing technology in an innovative way, meeting people where they are on a benefits journey and connecting them into a web of care that breaks stereotypical government silos. The Recommender is a lightweight web component, or widget, generated on a government website once an individual has applied for an assistance service, like unemployment benefits. Based on that context, other assistance programs are suggested to the applicant. This approach mirrors technology used in the private sector to sell products. In this case, the product is public benefits. The Recommender uses analytics, a fast-loading prototype, and coordination across multiple agencies to provide resources in a user-friendly way to Californians.

The ODI Recommender team used a human-centered design lens to leverage existing web properties and daily web traffic against user journey data and UX best practices. User research included analyzing data to uncover which additional benefits applicants might be interested in and potentially eligible for. These findings were then translated into a technical solution tailored to actual user needs. As a technical solution, the Recommender widget is just 2 lines of code that requires a one-time integration for placement partners, with no maintenance overhead or tech debt to deal with. The widget is responsive and integrates smoothly into any given website's design by inheriting fonts and styles. The pilot phase resulted in widget placements on three Employment Development Department (EDD) benefits pages, referring users to six additional benefit opportunities outside of EDD.

The Benefits Recommender successfully eases the burden of finding benefits by reaching Californians while they are in a benefits application mindset. Compared to advertising, the Recommender widget is low-to-no cost and the audience reached is more targeted, without compromising user privacy. Data from the pilot phase show that the Recommender received 2.1 million views and had a click-through rate of 8.5%, resulting in over 4,300 new benefits applications.

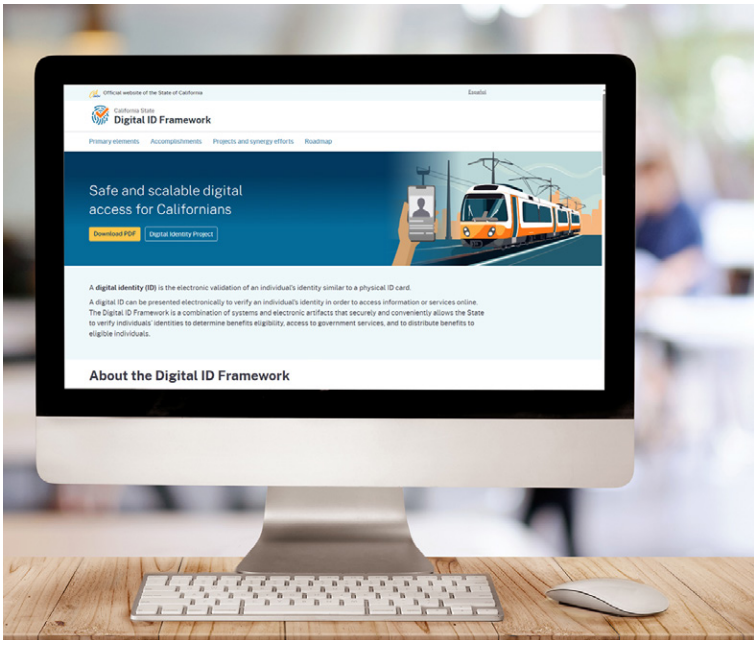
California advances Digital ID

For over 150 state departments to serve more than 40 million Californians and administer benefits from thousands of local programs, digital identification is becoming an integral part of the process. Currently, California government authorities must verify the identity of recipients to confirm whether they are eligible to receive services, benefits and/or discounts through a mix of physical and biometric identification.

Through digital ID, government will become more effective for residents who will no longer need to re-verify their identity, manage multiple log-in credentials, or navigate several complex user interfaces. A digital ID ecosystem will reduce the timeline needed to create new benefits programs, while increasing the consistency in user experience and data security across programs.

A snapshot of the State's Digital Identity efforts:

- Partnered with Monterey-Salinas Transit, California Department of Transportation, the California Integrated Travel Project (Cal-ITP), and the US General Services Administration's Login.gov to launch a pilot demonstration on Veteran's Day November 2023 for veterans to facilitate eligibility verification for transit benefits based on veteran status.
- Expanded support for regional transit providers by partnering with both Santa Barbara Municipal Transit District and Sacramento Regional Transit to provide senior transit riders with an online tool to verify their identity and benefit eligibility. Service launched in Santa Barbara in October 2023.
- Published the State Digital Identity Framework and launched a website to convey the strategy in an accessible and inclusive manner. The website launched in October 2023 and is available in both English and Spanish.
- Identified a new state partner and demonstration opportunity with the Department of Social Services to integrate CalFresh as a component of the identity gateway platform. This partnership will enable income verification based on CalFresh status for other income-based benefits.
- Initiated evaluation of native digital wallet platforms to inform policy proposals for state-wide approach to digital wallets. Developed a prototype mechanism for creating state-issued passes to explore options for design and support of state-wide pass standards.
- Participated in the California Integrated Travel Project to bring identity and eligibility verification services to market and allow the State to demonstrate with government partners how eligibility verification for benefit programs can be modernized and streamlined for specific groups including seniors, veterans, students, persons with disabilities, and persons with low-income.
- Advised the California Public Utilities Commission on its Concurrent Application System Working Group vendor solicitation to build a simple, secure, and inclusive web portal for eligible residents to apply for income-based energy programs.
- Partnered with the Office of Data & Innovation to research data sources for expanding CDT's eligibility verification services will provide evidence-based opportunities and a roadmap to further partnerships.



High-speed broadband moving full speed ahead!

In 2021, Governor Gavin Newsom took a significant step toward closing the digital divide in California by signing Senate Bill 156 into law. This legislation paved the way for the creation of an open-access, middle-mile broadband network designed to bring equitable high-speed internet to underserved and unserved communities across the state. Known as the Middle-Mile Broadband Initiative (MMBI), the project has made substantial progress in developing this critical infrastructure.

The MMBI's objective is to develop a backbone to provide open access to high-speed internet to unconnected and under-connected communities in California. To accomplish this, the initiative will develop a broadband network spanning over 10,000 miles and roughly following the corridors along two-thirds of the state's extensive 15,000-mile highway network.

So far, contracts have been secured for 83% of the network, or more than 8,300 miles. The remaining approximately 2,200 miles will be developed using a combination of partnerships and construction using the state's authority for Job Order Contracting (JOC), Construction Manager/General Contractor (CMGC), and Government-to-Government partnerships. JOCs enable the state to issue work orders against master contracts, allowing for real-time scaling and swift mobilization of labor and equipment. CMGC procurement, on the other hand, facilitates cost-effective construction approaches during the design phase. Caltrans is diligently working on the preconstruction phase for the approximately 4,000 miles it plans to construct, as California moves towards full network deployment. Construction has already begun and will accelerate during the first quarter of 2024.

To optimize costs and speed up development and the time it will become operational, MMBI continues to explore alternative approaches such as Indefeasible Rights of Use (IRUs), or long-term leased agreements, purchases, and joint-build agreements with private and public sector partners. Currently, these alternatives cover more than 6,500 miles of the network at half the cost of standalone construction, while reducing environmental impact and expediting time-to-market.

One of the key provisions of SB 156 is that the more than 200 Internet Service Providers (ISPs) currently operating in California, along with eligible entities like local and tribal governments, can connect to the open-access middle-mile network to deliver last-mile service to customers. The California Public Utility Commission's Federal Funding Account grant program will fund projects to connect communities to the Middle-Mile Broadband Network to deliver internet to households, governments, education facilities and all who need it. Being open access, it will boost competition, and enhance reliability and affordability for consumers. It's a win-win situation, as more Californians gain access to high-speed internet at affordable costs.

The ambitious goal is to complete the middle-mile network's construction by December 2026 to provide service to communities in all 58 counties where more than 675,000 households lack high-speed internet access. The CPUC is distributing over $2 billion in last-mile funding for projects that can connect to the state's MMBI network, further expanding access to underserved areas.

California's Middle-Mile Broadband Initiative is a promising step towards closing the digital divide by ensuring that high-speed internet access becomes a reality for all Californians. With strategic planning, alternative approaches, and last-mile partnerships with ISPs, this initiative is well on its way to connecting communities and enhancing the quality of life for residents across the state.

California Home and Healthcare Services Electronic Visit Verification initiatives

Due to the enactment of the 21st Century Cures Act in late 2016, California was required to implement an Electronic Visit Verification (EVV) solution to electronically capture in-home and community-based Medicaid-funded personal care services (PCS) by January 1, 2020, and home health care services (HHCS) by January 1, 2023. If it failed to comply, the state would be subject to federal penalties starting in 2021, which would cost the state tens of millions of dollars annually in lost federal funding.

California's Medicaid population is the most complex in the nation, comprising 12 programs across six state departments and serving more than 900,000 recipients and their providers.

To expediently implement EVV and halt penalties, California implemented it in two separate projects focusing on the different user populations. The IHSS project went live on July 1, 2023, and includes more than 300,000 individual, non-live-in IHSS providers. The EVV Phase II (CalEVV) Project went live by January 1, 2023, with more than 150 jurisdictional entities and 7,000 provider agencies.

The IHSS Project enhanced the existing Case Management Information and Payrolling System (CMIPS) already in use by the impacted population by significantly enhancing the existing web-based electronic and telephonic timesheet components. The CalEVV Project implemented a new statewide EVV system to capture EVV data. Both projects implemented entirely new mobile applications, and both had effective governance structures, active sponsorship, collaborative decision-making, and a dedicated team to meet the federal EVV mandate.

Thanks to the EVV solutions, the state is relieved of federal penalties and the solutions help reduce fraud, waste, and abuse in delivery of PCS and HHCS by helping to ensure the provider is in the home or community when required.

Our Goals

- Deliver clear, fast, secure and dependable public services
- Ensure public services are equitable and inclusive
- Make common technology easy to access, use, share and reuse across government
- Build digital government more quickly and more effectively
- Build confident, empowered multi-disciplinary teams

Continuous, Timely Improvement

Updating and improving systems and services every day.

CDT's new CA Cloud Service Program ensures a comfortable journey to the cloud

In the 10 years since the California Department of Technology's Cloud First policy was released, much has changed in the world of cloud-based solutions. Under this previous strategy, tech leaders moved workloads and applications to the cloud without a clear digital roadmap or guidance related to critical security measures. They experienced an abundance of choices, but also a high level of complexity resulting in slower migrations.

Now, CDT has aligned with the Federal Cloud Smart Computing Strategy to embrace enhanced security measures and deliver an improved coordinated approach to navigating the cloud environment. By focusing on five key components of successful cloud adoption—partnerships to improve State security, architecture, procurement, and human capital—the program will improve return on investments, enhance security, prepare the state workforce for success, and offer higher quality services to residents.

As part of its cloud smart offering, CDT offers a new service—the California Cloud Services Assessment and review process through the California Cloud Service portal. Customers submit design and planning documentation, which allows CDT to ensure alignment with IT security, architecture, procurement, and workforce requirements and methodologies to best meet service objectives. After the documents are reviewed, CDT provides recommendations or areas for remediation for new and existing cloud services.

A Cloud Smart Strategic Playbook will be available in early 2024. This guide will outline strategies and operating models for the implementation of Cloud Services across the State, giving departments and agencies actionable steps to adopting the Cloud Smart Strategy. Policies related to cloud computing have been modified or added to ensure California's technology services are provided and maintained to the highest standards possible. The policies align with the objectives of the new California Cloud Services Program.

The California Cloud Services Program provides a path for agencies and other state entities an efficient means to migrate to a safe and secure cloud infrastructure and will provide support to achieve consistent, maintainable, cost-efficient delivery of services.

All-Hazards Dashboard aligns key data across CalHHS departments

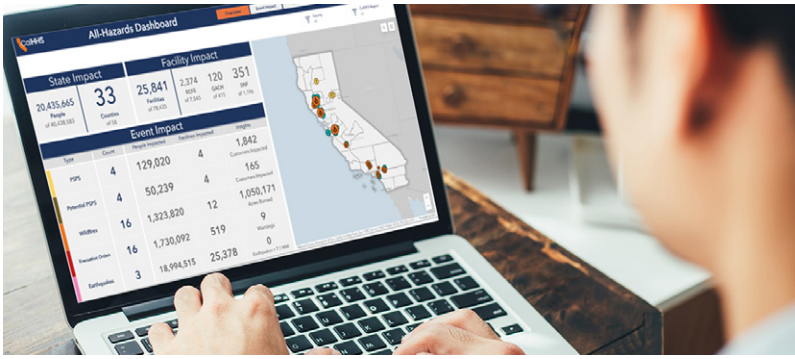
During emergencies, California Health and Human Services coordinated across multiple departments through manual data collection processes which were slow, cumbersome, expensive, and had the potential for errors. The manual processes also made it nearly impossible for decision-makers to see the true level of impact to communities, sometimes providing resources to incorrect locations.

In response, CalHHS developed the All-Hazards Dashboard (AHD) which combines 33 different data streams into a single, integrated system and aligns key data elements across CalHHS departments into one location in near real time to provide situational awareness of natural or man-made hazards. The AHD uses a geospatial information system for easy incident visualization and provides a unified picture of hazards. Additionally, AHD employs the CalHHS Data platform to automate data processes, reduce discrepancies caused by manual processes, retain historical data for analysis, and produce higher quality data, faster.

After initial roll-out and feedback, some updates were recommended to enhance CalHHS operational capabilities and maintain critical services under emergency conditions:

- Redesign of the dashboard visualizations to be more user centric.
- Breakdown of data silos and enhanced data accuracy and transparency across CalHHS departments, state agencies and other entities.
- Creation of tools to collect and analyze historical data for future projections.

These improvements not only provide operational benefits and time and cost savings, but most importantly, protects Californians.



The CalHHS AHD is the 2023 received the National Association of State Chief Information Officers (NASCIO) State IT Recognition Award for “Data Management, Analytics & Visualization.”

CA Horse Racing Board’s CA Horse Racing Info System/Fi$CAL

The California Horse Racing Board’s (CHRB) effort to modernize its California Horse Racing Information System (CHRIS) and align it with California’s statewide financial system, Fi$Cal, resulted in a smart, cloud-based solution.

As stewards of the current business rules for licensing, enforcement/case management, board ruling management, the CHRB rulebook, and horse race overview management and CHRB named its new information system, CHRIS 2. The efficient new system requires the services of only two state staff, and a contractor was brought aboard for a brief period. As CHRIS 2 is supported by an extensive array of interfaces, CHRB was able to commence and/or resume integration with horse racing industry organizations and groups around the world.

CHRB implemented a key CDT strategy by moving its production support system into the cloud where its supporting server applications and database are installed and operating.

CHRB will save about 70% in server supporting costs as cloud server costs over mainframe costs, where the original CHRIS was developed 37 years ago. safety, climate change, environmental health, and the wise stewardship of the state’s natural resources for both present and future needs.

California's Path to Responsible Generative Artificial Intelligence Implementation

California, with its diverse population and thriving economy, has long been at the forefront of technology and innovation. It's no surprise that the Golden State is exploring the potential of Generative Artificial Intelligence (GenAI) to drive progress and improve the lives of its residents. In November 2023, the State released the Benefits and Risks of Generative Artificial Intelligence Report an assessment on GenAI usage in California's government and its implications.

A Vision for Responsible Innovation

Under the leadership of Governor Newsom's Executive Order N-12-23, California has embarked on a journey to harness the power of GenAI ethically and transparently. The aim is to foster innovation, support the state workforce, and enhance the well-being of Californians. The Benefits and Risks of Generative Artificial Intelligence Report, the first major outcome of this executive order, represents a significant step towards achieving these goals.

Exploring Potential Benefits

GenAI, as a unique form of artificial intelligence, offers promising opportunities for California's state government. It has the potential to revolutionize service delivery, expand access to government programs, and empower the state's workforce. By analyzing input from academia, industry experts, government agencies, and community organizations, the report identifies several key themes:

1. **A unique approach:** GenAI is not your typical AI. It requires a distinct approach to implementation and evaluation, recognizing its distinctive capabilities.

2. **Enhanced use cases:** GenAI introduces novel use cases for state government, leveraging its unique capabilities to improve various aspects of public services.

3. **Novel risks:** While GenAI offers great promise, it also presents novel risks, especially in areas like democratic processes, biases, public health, safety, and economic stability. Addressing these risks is crucial.

Guarding Against Bias and Promoting Equity

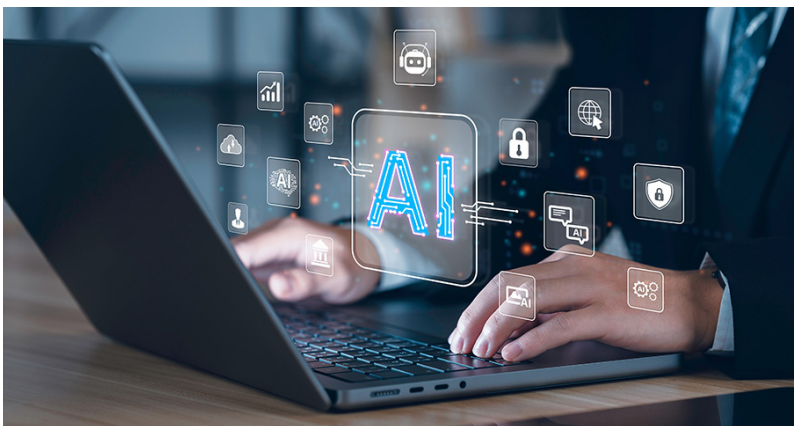
One of the pressing concerns with GenAI is its potential to amplify existing biases. As the technology learns from input data, it may inadvertently reinforce biases present in society. To prevent this, California must meticulously consider the impact on individuals from diverse backgrounds, including factors such as region, income, race, ethnicity, gender, age, religion, abilities, and sexual orientation. This ensures that GenAI promotes equity and avoids harmful biases.

A Collaborative Effort

Recognizing the unprecedented nature of GenAI, California is committed to working collaboratively with federal and international partners. The report draws upon insights from the National Institute of Standards and Technology's (NIST) AI Risk Management Framework (RMF) and international governance policies. The NIST AI RMF emphasizes trustworthiness in AI products, services, and systems, aligning with California's commitment to transparency.

Conclusion

The State of California's report on GenAI benefits and risks marks the beginning of a multi-year, iterative process. It paves the way for responsible innovation and sets the stage for ongoing collaboration with stakeholders, government agencies, and global partners. As GenAI continues to evolve, California aims to lead the way in harnessing its potential for the greater good, while safeguarding against potential pitfalls. The future of technology and innovation in the Golden State looks promising as it embarks on this exciting GenAI journey.



Statewide IT strategic planning underway

The California Department of Technology (CDT) embarked on developing the new Statewide IT Strategic Plan for California's state government to replace its current plan, Vision 2023. This new three-year strategic plan will be used to provide direction and influence technology leadership throughout state and local government. The plan is being developed under contract with consultants and in partnership with the State's IT leadership community through internal and external focus groups and surveys.

The first step will be to close out Vision 2023 by assessing lessons learned and celebrating the State's accomplishments. The project will then evolve the vision, mission, goals, and guiding principles for State government IT organizations resulting in a new IT strategy. Other project components include developing a communications strategy to drive adoption, a governance model based on operational knowledge and challenges facing government IT environments, and a performance management framework with tools and metrics to measure future outcomes.

Maximizing the benefits of Enterprise License Agreements

Individual California Health and Human Services (CalHHS) department licenses that utilize the same software, increase the cost and resources necessary for administering them. Managing separate licenses across departments requires purchasing, tracking, and renewing each license individually. CalHHS departments face an increased risk of business disruptions if individual licenses aren't renewed in time and expire. There is also increased waste if departments purchase additional licenses that remain unused, or only used occasionally.

To solve these challenges, CalHHS is continually identifying opportunities to leverage Enterprise License Agreements (ELA) which combine individual agreements, allows agency-wide use at a discounted rate, reduces the time and labor spent on management, and maximizes the benefits of scale. As a result, CalHHS successfully negotiated, implemented, and administered the first Agency-wide ELA on August 24, 2023. The ELA expands service to 12 CalHHS departments and offices. CalHHS also created strategic plans to assist departments with ongoing questions and requests, and there is also support for the departments that did not participate in the new agreement but are interested in leveraging the ELA.

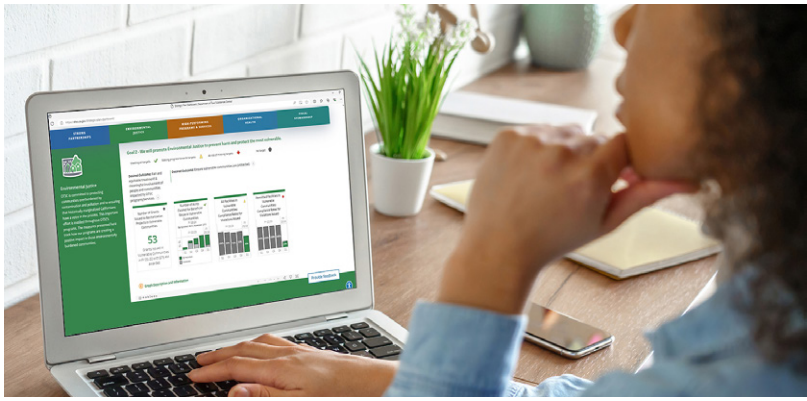
The new ELA allows CalHHS departments and offices the largest access to date. It ensures a lower cost per license, a customized catalog of available tools and services, and dedicated customer support contacts, technology advisors, and training professionals. Additionally, the ELA reduces overhead and waste, decreases business impact, and allows for more service flexibility and predictable spend.

Department of Toxic Substances Control data empowerment project

As the amount of data generated within the Department of Toxic Substances Control (DTSC) continues to grow, the department sought to develop innovative ways to manage, analyze, and extract insights from this data. This vision evolved into the multi-faceted Data Empowerment Project (DEP), which helps DTSC maximize the use of its data and provide transparency to its stakeholders, including the public, on the Department's progress and commitment toward its overarching goals and objectives.

DTSC analyzed its existing practices and adopted a modern data framework to refine and streamline data access, processes, and visualizations. This long-term effort aims to help DTSC use data as a strategic asset to increase transparency, streamline operations, and drive change. One of the key deliverables of the DEP is the Strategic Plan Dashboard website, which showcases goal-centric measures for public audiences. It includes more than 30 KPIs that provide insights into DTSC's operations and allow the public to track its progress on key goals and objectives. The dashboard was designed to be user-friendly, intuitive, and accessible to all stakeholders, including the communities DTSC serves.

The overall project effort included an in-depth analysis of the Department's existing and future state data architecture framework (governance, management, literacy), the development of a comprehensive data initiative and roadmap, and an implementation plan that included new processes, literacy materials, technologies, and tools. The DEP benefits DTSC and the public alike by streamlining the use of data to provide transparent and actionable insights efficiently and effectively.



Training driven by a changing workforce

Much of the professional training for the state's government IT community is offered by CDT's Office of Professional Development (OPD). OPD has been on a trajectory to build one of the nation's finest technology training programs by constantly updating, enhancing, and transforming its offerings.

Those efforts continued to pay off in 2023 as OPD witnessed a rise in interest and participation for its academies, boot camps, registration courses and eLearning platform, PACe — a low-cost, comprehensive training program packed with thousands of online courses, accessible using a PC or mobile device. Other improvements resulting in record registrations include virtual class delivery, half-day sessions, and increased opportunities for students to shadow leaders and subject matter experts. The office also widened the demographic reach for certain academies and boot camps.

In 2023, OPD's IT Leadership Academy experienced a 12% increase in applicants compared to the previous year, while the Information Security Leadership Academy saw a 21% rise. Not to be outdone, Project Management Leadership Academy applications soared over 300% from 2021 to 2023. To meet this growing demand, OPD introduced the Emerging IT Leaders Boot Camp and the Cybersecurity Boot Camp.

OPD's training equips individuals with new skills, enhances performance, boosts confidence, and increases employability. By continuously investing in their professional development, individuals can adapt to changing circumstances, remain competitive, and unlock new opportunities in their careers.

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Working Together Beats Working Alone

Solving big challenges with multi-disciplinary teams from different departments.

Unveiling the future with California's new digital strategy

The Statewide Digital Strategy by the California Department of Technology, developed in collaboration with the Government Operations Agency and the Office of Data and Innovation, paves the way for a dynamic shift in how technology is utilized, and forges a fresh path forward to innovate and improve user experiences.

What sets this strategy apart is its focus on core values, particularly accessibility and inclusion. By leveraging cutting-edge and time-tested technology, the state will create resident-centered approaches that improve efficiency, accessibility, and equity in digital services for all Californians. The plan acknowledges the burgeoning interest in transformative emerging technologies like Generative AI, blockchain, and quantum computing.

The strategy is guided by such key values as commitment to digital services, fostering an innovation culture, prioritizing Californians, and nurturing statewide partnerships to build a foundation for technology innovation. The Plan is a comprehensive framework that empowers all levels of California government and education systems to utilize technology and enhance experiences and services for residents. The strategy embodies the State's commitment to shape the future and drive impactful change by expanding and sustaining California's culture of innovation. Through technology, the State has made significant improvements in accessibility, efficiency, and equity—ultimately improving the way the government serves its residents. California's Digital Strategy showcases how California has taken the lead in government technology by prioritizing resident-focused digital services now and in the future.

State Website Emergency Alert—When time is of the essence

This past winter, the state experienced record-setting storms that turned entire neighborhoods into lakes, unleashed sewage into floodwater, and spurred state of emergency proclamations in 51 of California's 58 counties. California takes a proactive approach to emergency preparedness, which may include various communications from various governmental and nonprofit organizations. Yet even the best strategy may not reach all affected individuals and provide them with the important information they need, further cerbating the damage from the event.

To supplement the State's existing emergency communication methods, the Government Operations Agency and the California Department of Technology created the State Website Emergency Alert program that enables authorized state staff to post alerts to the State of California websites (e.g., websites with "ca.gov" domains) to convey important emergency information to the public in a consistent, coordinated, and timely manner.

The project was organized into four-day sprints and transformed from a concept to a live product by February 24—only five weeks from concept to go-live. This urgency aligned with the disaster relief announcement for 13 counties on March 1, validating the need for comprehensive emergency communication.

Originally aimed for deployment on the top 10 state websites, the system is adaptable for any government site. It includes an intuitive, secure administrative console for editing, publishing, and deleting alerts. The system also offers web analytics for tracking the impact of alerts on site traffic. The system ensures that only one emergency alert can be displayed at a time. This approach ensures the system's effectiveness and incorporates best practices in terms of usability and accessibility considerations.

California Climate Action website is a breath of fresh air

The California Climate Action website serves as a one-stop destination for Californians seeking information and resources to address climate change in their daily lives. The platform provides a variety of tools and knowledge to help users understand the significant financial advantages associated with adopting environmentally friendly practices.

The website aims to educate and assist individuals in making energy-efficient upgrades to their homes. Californians can access valuable information on various sustainable home improvements that not only reduce carbon footprints but also yield substantial financial savings. By showcasing the direct financial benefits, the platform motivates users to make greener choices. Moreover, the website facilitates the transition to electric vehicles, a crucial step in reducing greenhouse gas emissions. Californians can explore the benefits of electric vehicle adoption, including the long-term cost savings compared to traditional gaspowered vehicles. The platform provides comprehensive resources, such as charging station locations, incentives, and guidance on electric vehicle financing, making the transition more accessible and appealing to a wider audience. The California Climate Action website goes beyond information dissemination and actively supports users in taking tangible steps towards combating climate change. The platform offers access to incentive programs and funding opportunities, empowering individuals, and organizations to implement sustainable practices more readily. By providing financial support and guidance, the website encourages widespread adoption of climate-friendly initiatives and enhances the overall impact of the state's efforts.

The creation of the website exemplifies effective collaboration among stakeholders, including government agencies, environmental organizations, and technology experts. This seamless cooperation allowed for a rapid launch timeline, ensuring that Californians could access the platform quickly and benefit from its resources. The website's efficient collaboration, rapid deployment, and user-centric design make it a groundbreaking initiative in the fight against climate change and a shining example for other regions seeking to address climate change.

Personally Identifiable Information Redaction Project

Improves protection of sensitive data in Traffic Crash Reports

Caltrans needed an on-premise, automated redaction system that limits the exposure of personally identifiable information to Transportation System Network users in Traffic Crash Reports (TCRs) electronically submitted from the California Highway Patrol to Caltrans. Additionally, the new system needed to work for the different versions of TCRs that are transmitted.

The previous system was built on an outdated platform and insufficient to meet the training needs of the Division of Project Delivery. A robust, user-friendly, and unified training platform that could foster and support employee engagement, administration, teaching, and learning was needed. The solution was the creation of the Enterprise Supervisory Control and Data Acquisition Project (SCADA) that could remotely access, monitor, gather, and process data from geographically disparate facilities such as rest areas, truck inspection facilities, and maintenance stations. It was a solution that would apply to numerous industrial applications for water and wastewater treatment systems, storm water pumping plants, and tunnel monitoring systems at statewide transportation-related facilities.

To increase privacy and data security, Caltrans implemented the Personally Identifiable Information Redaction Project (PRP) that automated the redaction of personally identifiable information in the electronically submitted Traffic Crash Report. The system added functionality that supports new business requirements and limits the exposure of PII to users. From Go-Live, the PRP system has electronically redacted and stored over 100,000 TCRs.

Numerous benefits have sprung from the creation of SCADA and PRP, including:

- Automatically redacting the TCRs during the California Collision Reporting System process and standardizing the TCR redaction processes.
- Ensuring compliance with CalHR, CDT, Departmental, and other applicable requirements and standards relating to data security, accuracy, retention, and accessibility.
- Reducing waste and improving efficiency at statewide facilities.
- Automating inspection and monitoring process for increased public safety.

California's State Digital Equity Plan—A step towards Broadband for All

The internet is critical for accessing education, healthcare, and essential services and other government benefits programs. Californians' ability to access broadband is the difference between being able to fully engage in life and being cut off.

Unfortunately, 1 in 5 Californians lack adequate home internet services, devices, and the skills and training to use them. While the State and Newsom Administration Broadband for All program have invested billions of dollars to address middle-mile broadband infrastructure and last-mile service needs, more funding is needed to address affordability, adoption, and digital literacy and skills training.

CDT received a federal digital equity planning grant in 2022 and spent much of 2023 convening with over 50,000 residents and stakeholders across the state to develop a State Digital Equity Plan. This plan identifies digital equity barriers for the state's most vulnerable residents, outlines strategies and actions the State will take to overcome those barriers and identifies how the plan will empower outcomes in education, healthcare, and increase access to essentials services and vital government benefit programs resources.

Once the State's Digital Equity Plan is approved by the federal government, CDT will receive a federal digital equity capacity grant to implement the program. CDT will develop a set of digital equity sub-grant programs to provide funding to state-managed and locally driven efforts to increase broadband adoption rates, provide digital literacy and digital navigation services, and develop device distribution program for those most in need.

When fully implemented, the Digital Equity Plan will enable the state's most vulnerable residents to better access digital government programs and services and realize other social and economic benefits.

Two statewide Initiatives Provide Stabilization and Innovation of Critical Services

Two key State initiatives have advanced government IT stabilization and innovation to produce more reliable, useful, efficient, and effective public services.

The initiative to Stabilize Critical Services and IT Infrastructure, known as Stabilization Service, was established as a partnership with government agencies and departments to improve their IT stability and scalability as vital parts of the State's most critical systems. The service performs assessments, prioritizes solutions and, through the Technology Stabilization Fund (TSF), funds stabilization projects and plays a pivotal role in improving critical service delivery.

As of October 31, the TSF program completed 13 system assessments and continues to provide resources to increase the usability and sustainability of California's most critical systems.

- Seven system remediation efforts have successfully closed. Over 60% of the services recommendations have been implemented, with 20% in progress at the time of closeout.
- A System Risk Indicator (SRI) scoring tool was implemented to improve the identification of systems that would most benefit from an assessment. The SRI enables the TSF to proactively target the systems with the greatest risk and highest impact to the State.
- The TSF has begun data analysis of the findings and recommendations provided in assessment reports to identify trends and will begin issuing guidance in the form of white papers to enable state entities to proactively identify and address issues that may be impacting their systems.

The Technology Modernization Fund (TMF) offers a unique option for state departments that have a concept to improve a business process. The TMF helps put good ideas into practice without the need to wait for a normal budget cycle. It provides quick wins for those qualifying State entities with low-risk and high-value projects through a competitive application and review process.

As of October 31, four projects have been delivered under the TMF and 21 proposals approved. TMF proposals are approved through the process of using an Advisory Committee to assess technical viability and a cross-agency Selection Committee to determine business value to the State. Some of the critical modernization efforts that have already gained approval include:

- California Resource Request Modernization project for the California Office of Emergency Services The system will provide a customer-centric resource requesting and mission-tasking solution for end-users at all levels of government.
- Recruitment and Onboarding Modernization for the Department of Corrections and Rehabilitations (CDCR). The system will help CDCR to decrease time to hire and increase employee satisfaction and retention.
- California Environmental Reporting System for California Environmental Protection Agency (CalEPA). The system will collect and report data pertaining to abandoned leaking underground storage tanks.
- Improving Field Office Access to the Public for the Department of Motor Vehicles (DMV). The system will provide position management for the DMV's Field Operations Division to enable them to meet the needs of the public effectively.

Work for California: A step to improve statewide hiring and recruiting

The Work for California (W4CA) hiring and recruitment campaign was a short-term pilot aimed at attracting new talent into State service and improving recruitment and hiring practices statewide. Although it initially targeted recently displaced employees from the technology sector, the campaign advertised a wide range of employment opportunities across the State. W4CA was defined by a guiding purpose to innovate and test new ideas to test recruitment ideas to bring more talent into State service.

The campaign ran from January through March 2023 and featured a high level of engagement by staff to recruit new talent. All campaign activities centered around three core objectives:

Increase applications to State jobs

In recent years, applications for State jobs have been in decline. Statewide, the average number of applications per job advertisement has declined from 59 in 2019 to 22 in 2022. To ensure the continuous growth and renewal of our workforce, we need to be reached recruit new audiences to join State service.

Reduce high-vacancy rates at participating departments

Many departments are experiencing high vacancy rates due to an aging workforce and fierce competition for talent in the private and other government sectors. Since 2016, the statewide vacancy rate gradually increased from 13.5% to 20.9% in 2022. The inability to fill key roles has a significant impact on the State's ability to fulfill its mission and poses a significant risk to the health and well-being of our communities.

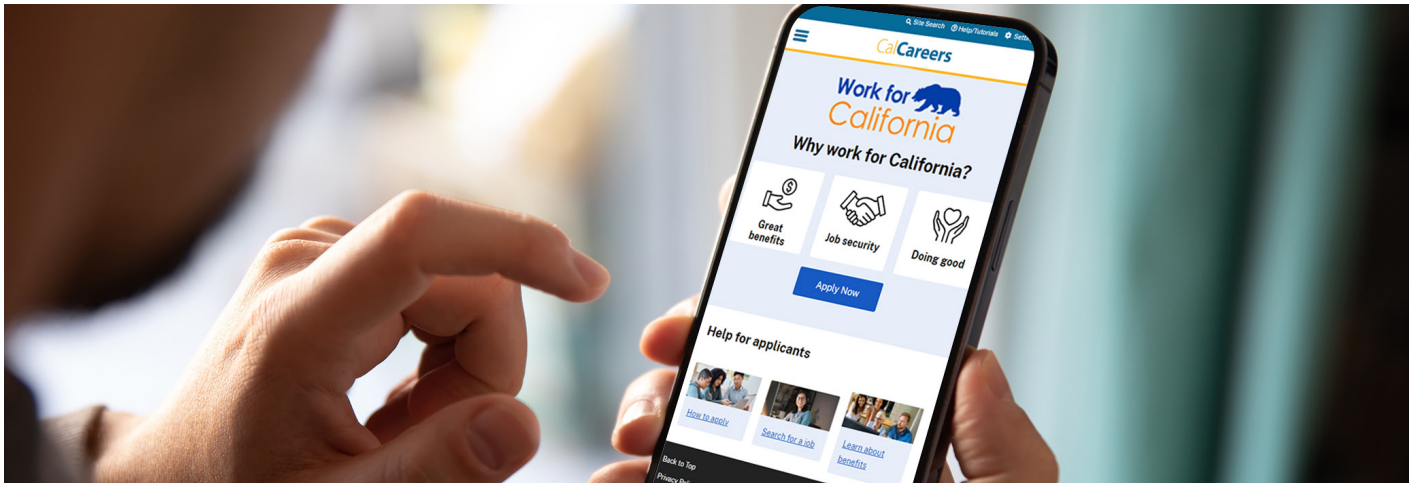
Reduce application-to-hire timeframe

The State application and hiring process has become a significant issue for candidates, hiring managers, and HR personnel even when the State does make hires. Some roles take more than four months to fill, highlighting the urgent need to streamline internal processes.

Underlying all three objectives was the core goal of groundbreaking collaboration among State agencies to drive innovation in the hiring and recruitment landscape of State service. The effort was led by the Government Operations Agency, Department of Human Resources, Department of Technology and Office of Data and Innovation, and worked in partnership with 19 other departments across nine agencies to test the efficacy of its activities across multiple sectors of California's Executive Branch.

The launch of WorkForCalifornia.ca.gov included a dozen promotional videos and a video from Governor Gavin Newsom. Coordinated social media posts across agencies and departments resulted in over 5.4 million interactions. This spurred earned media across multiple channels, including television and radio, reaching an estimated additional audience of more than 7 million.

Work for California represents the initial phase of a broader initiative to improve statewide hiring and recruiting practices. Cross-agency collaborations and a focus on the candidate experience are core elements to future innovations and improvements.



RECOGNITION 2023

American Association of Motor Vehicle Administrators Awards

Excellence in Government Partnership

California Department of Motor Vehicles - Vehicle Dismantler Industry Strike Team

Customer Service Award

California Department of Motor Vehicles - DMV Community Outreach

Fraud Prevention Award

California Department of Motor Vehicles - Lien Sales Automation

Communications/Special Events Award

California Department of Motor Vehicles - Innovative Program Helps LAX/United Customers Get Onboard with REAL ID

Best of CA

Best Application Serving the Public

California Department of Technology Office of Digital Services - State Department Website Emergency Alerts

California Office of Emergency Services - Public Assistance Closeout Portal

California Department of Transportation - Personally Identifiable Information Redaction Project; California Department of Transportation

Best Application Serving An Agency's Business Needs

California Department of Technology Office of Digital Services - State Web Template

California Office of Emergency Services - Mutual Aid Reimbursement System

California Department of General Services - SB/DVBE Emergency Registry

Best IT Collaboration

California Office of Emergency Services and Office of Data and Innovation - Human-centered design and technology modernization at the California State Warning Center

California Department of Toxic Substances Control - Data Empowerment Project

CIO Academy:

CIO of the Year - Heather Pettit, Chief Information Officer, Judicial Council of California

CIO of the Year - Ryan Morris, Chief Technology Officer – Department of Health Care Access and Information

Hall of Fame Award - Russ Nichols, Deputy State CIO and California Department of Technology Chief Deputy Director (retired)

NASCIO:

NASCIO State IT Recognition Award Winner

Data Management, Analytics & Visualization

California Health and Human Services Agency - All Hazards Dashboard

NASCIO State IT Recognition Finalist

Enterprise IT Management Initiatives

California Department of Corrections and Rehabilitation Technology for Incarcerated Population

StateScoop:

State Scoop50; Golden Gov – State Executive of the Year: Liana Bailey-Crimmins

State Scoop50; Stabilization Service – State IT Innovation of the Year

CyberScoop; Government Leadership Award: Vitaliy Panych

California Department of Technology
703 3rd Street ● West Sacramento
California 95605