

Cohort 2019 Outcomes:

Team 2 Digi Up Transformers



Innovation Priority: Digital Transformation and Upskilling the Workforce

Team 2: [Presentation Video](#)

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Executive Summary

Assemble. Innovate. Roll Out.

Digi-Up Transformers

California State Government faces many challenges as it struggles to balance needed technological improvements and innovations with its current and future workforce. In a digital environment where customers expect seamless, user friendly and secure digital services, California State services still require multiple sites, user accounts and passwords. This 20th century model of website service delivery fails our citizens who expect and should receive the latest technology to meet their needs.

Meanwhile, in order to improve state technology services, the state must also address workforce needs. Current workers will require training to adapt to using new service delivery in the digital world through upskilling and right-skilling. New employees who do have the tech skills the state needs must be attracted to working for the State.

Team 2 members of the 2019 California Innovation Playbook for Government Change Agents (Cal-IPGCA) “Digi-Up Transformers” held monthly trainings, weekly teleconferences, and Champion Summits. They researched local, national, and global initiatives, and participated in Cal-IPGCA’s first Hackathon to enhance state skill as government innovators.

From feedback at this Hackathon, they developed a two pronged solution to address these challenges: a Single Sign-On (SSO) and “CALtalent.” An SSO will dramatically improve the user experience for stakeholders seeking state services, and CALtalent will assist state employees and job seekers find the right skills and the right training for the jobs of the future.

This whitepaper describes the rationale for a SSO for all State of California government services and a CALtalent system for upskilling and right-skilling the workforce. Finally, it offers the State a roadmap for a pilot project that would move California into the future.

“How do we position our organizations to thrive at unprecedented levels of change driven by digital transformation? Change needs to be a proactive, operational norm.”

Background on Cal-IPGCA

Cal-IPGCA Innovation Priorities (IP)

Contributed by State of California Leadership, an IP represents an enterprise-wide challenge that the State of California faces. Through program iterations that have taken place yearly since 2012, Cal-IPGCA has defined a solution-driven approach to innovation that can support statewide priorities. Cal-IPGCA is comprised of teams of up to 12 full-time trainees, an innovation facilitator, and an assistant facilitator.

Cal-IPGCA enterprise-wide teams are mentored and guided by state leadership and program champions to develop innovative “Moonshot” outcomes. The essence of a Moonshot is the combination of a huge problem, a re-imagined solution to that problem, and the creation of innovative ideas that can shift approach and outcomes of people, process, and technology to make that solution possible.

IP 2 - Digital Transformation and Upskilling the Workforce

Team 2 was assigned the IP for Digital Transformation and Upskilling the workforce. This IP states that the digital transformation of organizations will change how work is conducted and service is delivered. New collaboration technologies do more than just digitize old ways of doing things—they make possible new ways of doing things.

How do we upskill the workforce by training them to use and integrate currently available and new technology to innovate and meet mission critical needs of today? How do we increase digital fluency, attract and sustain qualified talent pools as well as embed collaborative technologies? For example, many departments already pay for and have access to tools such as PowerBI and SharePoint. Unfortunately, few know how to use those effectively. Broader and more targeted training with these tools is indeed necessary.

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How do we position our organizations to thrive at unprecedented levels of change driven by digital transformation? Change needs to be a proactive, operational norm. What are the change management activities that shape, encourage, and incentivize desired collaborative behaviors and technological acuity?

While it is critical to ensure the productive development of the workforce, we must be aware of both the disruptive potential and the positive effect of human potential and technology. What is the best path forward for the State to upskill and right-skill staff needs, and employment gaps caused by a lack of digital talent?

The Digi-Up Transformers distilled this IP into our Problem Statement and Moonshot.

Problem statement: California State government must upskill and right-skill the workforce by optimizing innovative and collaborative technologies that will improve delivery of all services to all stakeholders.

Moonshot: Transform California State government through global collaborative partnerships to drive innovative technology changes for the delivery of government services.

Introduction to SSO

Upskilling and right-skilling involves delivering an intelligent means for supporting team member skillsets, growth, and value through effective and prioritized delivery of education, tools, resources, and support. This involves leveraging technologies that are simple, straight-forward and accessible, and provide customized delivery that is based on the needs and interests of the individual team members.

To effectively upskill and right-skill the workforce, the state of California must implement technology that integrates easily into the daily workflow of our state workers. This can be done through an SSO. The SSO would provide a means to deliver a personalized experience to the end user both as a team member and as a citizen.

“While it is critical to ensure the productive development of the workforce, we must be aware of both the disruptive potential and the positive effect of human potential and technology.”

What is SSO For Government services?

With only a single set of login credentials, the user gains access to a connected system of all State of California government systems. With this one login Californians will be able to request, track, and receive services. The portal will provide safe and secure communication between the user stakeholders and the state agencies that are fulfilling their requests. Californians will be able to upload and download relevant documents related to their transactions. For upcoming appointments or deadlines, stakeholders will be able to view and send reminders to their electronic devices. The portal will track its effectiveness via satisfaction surveys and data analytics through Key Performance Indicators.

Why A Single Sign-On (SSO) For Government Services?

Over the last ten years, private sector companies such as Apple, Google, Facebook, and Amazon have been growing at an unprecedented pace. This has rapidly shifted citizens' expectations. The shift happened because these companies have refocused their attention to customer experience. They have built value-driven relationships for better customer experience and, in return, encountered better consumer satisfaction outcomes.

This has resulted in stakeholders with increased demands and expectations regarding public agencies' websites, application processes, customer service experiences for online services, and around-the-clock access. Mike Wilkening, Special Advisor of Innovation and Digital Services, states, “At the end of the day, democracy requires citizens' participation. If people don't know how to connect with the government, then the government has failed.”

The end-user should not have to spend countless hours searching for the agency or department that offers the services they need. Moreover, the end user should not be forced to learn multiple user interfaces from different departments but instead learn just one interface that is

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accessible, intelligent, and able to communicate on the backend across all departments. An SSO portal has been proven to reduce password fatigue and increases employee productivity by providing access to more organized data at faster speeds.

For example, senior citizens over age 65 receiving Medi-Cal may not know that they are eligible to receive personal care services through the In-Home Support Services Program. A small business restaurant owner may not know how to become a registered business entity with the Secretary of State, obtain a liquor license from the Department of Alcoholic Beverage Control, or know which agency to call for food safety inspections.

These people should only have to fill-out one online application containing all their relevant information. Their government should then be able to immediately inform them about what services they are eligible for and what they need to do to obtain them.

The federal government as well as a growing number of states are implementing an SSO portal to allow their users—the public—to access multiple services. California is considered the leader on several fronts and should not fall behind.

By allowing the public to access multiple services from one page, the state government can provide more efficient services, build trust, and be more reliable to stakeholders. Fortunately, some departments in the state of California government have already begun the process of piloting this type of portal. The following examples of in-progress projects (State, National and International) inspired the Digi-Up Transformers' vision for a comprehensive SSO.

Leveraging Current State of California Projects

- **Governor's Office of Emergency Services and the California Victim Compensation Board**

Collectively collaborated to create a strategic plan. Over the next three years they will work together to achieve their goals, one of them being a "comprehensive, centralized platform of information about victim services and financial assistance." Office of Emergency Services Strategic-Plan-Victim's Compensation Board (<https://victims.ca.gov/oes-calvcb-plan-2019/strategic-plan-oes-vcb-2019.pdf>)

Grace Koch, former CalOES Chief Deputy Director, in an interview with Team 2, stated "access should be user friendly and intuitive from a user's standpoint." Moreover,

in another interview, Kristen Shelton of the Department of Finance advised that this system should contemplate the context of some online applicants who are in crisis and may not have resources available in their situation.

- **California's Departments of Public Health, Consumer Affairs, and Food & Agriculture**

Collaborated to create one portal to assist with licensing and regulating commercial cannabis manufacturing in California. This portal has common coding and licensing so that whether an end user is a retailer, distributor, laboratory, microbusiness, manufacturer or cultivator, only one profile (background information) needs to be created at one time. This information is shared between all three agencies to provide better services.

Leveraging and Modeling National Government Services

There are numerous national examples of SSO services.

- **Login.gov**

Provided by the Federal General Services Administration service, login.gov is being used by over 60 applications at 17 federal agencies including Cabinet level agencies. Over 17 million people have signed up to use login.gov across all applications.

- **Identity and access management (IAM)**

Some U.S. states are developing IAM to emulate a unified credential portal similar to Amazon's log in. IAM transforms current repetitive and siloed application processes. Some states using IAM technology are:

- **Utah**

Since 2002, Utah has piloted an SSO for employee's onboarding, off boarding, tools and resources to do their jobs. Utah provides business and citizen-facing services, including 1,300 online services. Business owners sign up for notifications, deadlines and have multiple accounts that can be managed from one site.

- **Michigan**

Michigan has an SSO called MILogin to access its statewide enterprise and resource planning system called SIGMA. The state has almost 230 web and mobile applications that are integrated behind MILogin. More than 4 million Michigan citizens use this.

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- Pennsylvania

This state has been working on streamlining citizen experience and enhancing security by adjusting the level of security clearance based on the type of transaction the resident is trying to accomplish.

- Oklahoma

This state launched its “Simplified Government” initiative by prioritizing the state’s digital service delivery; this involves moving thousands of its services online. Oklahoma will launch the first citizen portal of its kind in the U.S. With an initial launch of 35 services, this portal will offer citizens, businesses, and visitors access to online services 24 hours a day, seven days a week.

- Indiana’s “Access Indiana”

Indiana’s SSO solution allows its citizens to manage their profiles for state government needs by customizing the design so they see only the notifications of interest.

Leveraging and Modeling Global Government Services

At the international level, the United Kingdom has a system that is saving money and increasing service delivery. Since 2014, the United Kingdom (UK) Government Digital Service (DGS) has been improving its end user experience in the public and private sectors using electronic ID verification. The UK has utilized a platform that allows their citizens to access countless services without the hassle of hundreds of different usernames and passwords.

GOV.UK Notify, a messaging service that has been used for the past four years, is saving people time by reducing researching for information and the need to contact call centers. More than 1,200 government services use the Notify service for important messages, ranging from council tax reminders to doctors’ appointments. The system is now on track to save UK taxpayers an average of £35 million a year over the next five years. This program is also saving the government £175 million over the next five years by eliminating call centers.

Key Features of an SSO

California’s SSO portal should have the following features based on current best practices.

- **Model existing systems**
 - ID me (<https://www.id.me/>)
 - [Ca.gov](https://www.ca.gov)
 - [Data.ca.gov](https://www.data.ca.gov)
- **Security**
 - Personal Health Information (PHI) and Personal Identifying Information (PII) must be secured
 - Authorization for Release, Opt-In, Disclaimers
- **Document Management**
 - Able to upload, download, share
 - Redact information for future use
 - Streamlines
 - Auto fills to request various services
- **Calendar / Reminder / Notifications**
 - Task lists such as: to-dos, due dates, reminders
 - Send and sync to personal electronic devices
- **Surveys and Reporting**
 - A space for feedback, comments, suggestions, etc. for each service to be improved over time
 - Reporting on effectiveness metrics will also be used to improve the user experience over time
- **Maintenance must be conducted using state resources**

Why CALTalent?

The State must create a robust platform - CALTalent - that can provide and implement a skills, training and career exchange for California’s current and future workforce. This needs to be a multi-tenant platform that will allow for scalability and collaboration. To accomplish all these goals, CALTalent will need to link skills and jobs of the future to current jobs and skills with a training component, an LMS. CALTalent will be part of the SSO Platform, ensuring usability for current and future state employees.

The workforce will need to integrate existing institutional knowledge about the established business process with its innovative and lean business processes. Given California’s

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diversity, the customer service experience will have to be very dynamic. It will need to accommodate various languages, ability level of end users, and access to digital technology.

When recruiting, State agencies will look to bring in new talent that meets the needs of the new portal, not just the existing process. As the SSO portal expands into other services, training will be offered so that current staff are familiar and confident in the new system and the jobs it creates.

CALtalent training will be offered to the current workforce to promote new career opportunities to those created by the new technology as well as those that may be eliminated by new E-processes. In addition to the new jobs created by SSO technology, upskilling and right-skilling training must be offered to all State employees if California is to create a 21st century workforce with the digital fluency needed to operate in the future.

These goals cannot be achieved by only updating current Learning Management Systems and the current State jobs application system, CalCareers. Rather, a robust platform is needed that integrates skills, training, job opportunities, and career pathways open to current staff and potential employees. CALtalent will be a component within the aforementioned SSO but intended for managing and delivering workforce upskilling and right-skilling processes and resources.

Executive Order N-17-19: Future of Work Commission

On May 1, 2019, Governor Newsom signed into effect Executive Order N-17-19 which empowered a Future of Work Commission to study, understand, analyze, and make recommendations regarding what kind of jobs Californians could have in the decades to come as well as the impact of technology on work, workers, employers and jobs in society to come. This includes the best way to preserve good jobs,

ready the workforce for the jobs of the future through lifelong learning, and ensure lifelong prosperity for all.

All State of California agencies are to align with this mission, with the mandate that the Future of Work Commission is to report on its progress by February 1, 2020. The Commission findings should be incorporated into the building of the skills and jobs dataset within CALtalent.

Leveraging and Modeling a Learning Management System

The State currently provides training through a variety of Learning Management Systems that could be leveraged to become one section of the CALtalent platform.

- **Employee Development Department**

One example of a hosted but separate entity is the State of California employee talent website Boomerang (<https://boomerang.ca.gov/>.) Boomerang contains an applicant pool for retired annuitants to connect with state departments that are hiring. The EDD and other departments utilize the Boomerang database when it is interested in filling a position with a retired annuitant.

- **California Department of Technology**

The California Department of Technology hosts a workforce development LMS through its website CDT Workforce Development (<https://cdt.ca.gov/workforce-development/>). CDT is partnered with CalHR as well as the Sacramento State University for its training and leadership academies.

- **California Department of Human Resources**

According to CalHR Statewide Talent Director John Sandborn, CalHR is rolling out BlackBoard as the state LMS system. It is designed to provide and track mandated leadership training. BlackBoard will allow state employees to obtain online training and education and track their

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progress. The current LMS can be found at CalHR Learning Management System. (<https://www.calhr.ca.gov/state-hr-professionals/Pages/learning-management-system.aspx>)

• California Community Colleges Chancellor's Office

Although not a State agency, the California Community Colleges Chancellor's Office (CCCCO) statewide LMS (Canvas) serves all California Community Colleges.

- With more than 2.1 million students at 115 colleges, the California Community Colleges is the largest system of higher education in the country.
- One in every four community college students in the nation attends a California community college.
- One in every four Californians aged 18-24 is enrolled in a California Community College.

Statewide implementations such as Canvas also offer supply-side economies of scale from the volume and variety of educational content already available in CCC system. Instead of reinventing the wheel, each state department can expand and leverage their learning experiences from existing successful and sustainable LMS systems. Tapping into and leveraging the CCC resources, whether for the talent pool, existing education or learning resources and/or possibly extend Canvas for the State use, is a win-win situation.

Leveraging CalCareers

Currently, a CalCareers (<https://www.calcareers.ca.gov>) website exists to provide guidance to State of California employee applicants and currently credentialed employees who seek and apply for jobs. A registered user can access current job postings by department or classification, take an exam, receive notifications of job postings, upload resumes, provide requested certifications or statements of qualifications and complete applications.

This website is driven by job postings and does not allow for searches by skills or training. Should the job search function be part of CALTalent, CalCareers would need to be redesigned and reconfigured. No labor relations issues are presented at this juncture, since it is a purely voluntary and non-merit based system for internal and external state applicants to use at their discretion.

1. Clifton Strengths assessment, visited online in November 2019 at <https://www.gallup.com/cliftonstrengths/en/254033/strengthsfinder.aspx>

Skills Information, Training, and Certifications

The State could utilize the Federal Standard Occupational Classification System (SOC) to identify skills and link them to job categories in state government. CalHR already uses a similar methodology to place U.S. military veterans in jobs using a skills/occupation matrix, similar to My Next Move *for Veterans*, a federal website linked to the O* Net site that leverages the SOC system.

The CalHR Blackboard and the CCCCCO Canvas CALTalent systems can provide current and potential employees with training, certifications, and skills information. Governor Newsom's Future of Work Commission is tasked with determining types of jobs Californians might have in the future and how to prepare the workforce for jobs of the future through lifelong learning. The Commission's results are due May 2020 and will provide further context into the CALTalent.

Lastly, CalHR/ECOS would house all duty statements that list the necessary skills for each state job. Data elements from mining these duty statements can be used as inputs into CALTalent to link skills to jobs. Accordingly, a universal taxonomy can and should be developed to align California state workforce specific language and terminology with private sector and even the global labor market.

This information can help to build a platform that would be a searchable format that links employees and job applicants to a robust system. The platform would create a pathway that leads from skills, to jobs, to careers. The necessary and recommended training would also be identified and available through CALTalent and leveraging current LMS systems. Potential applicants, such as those in the California Community Colleges, could also use the system to link their skills and training to vacant jobs at the state, thus ensuring a flow of qualified and eligible candidates to the State.

Key Features of CALTalent

- Provide online visibility in real time for state employee to see completed records, volunteer hours, pending applications, etc.
- Direct and encourage upskilling and right-skilling by offering training based on skills and desired career paths.
- Offer employee growth and opportunities available programs. For example, talent assessment to recommend which fields to follow, mentorship programs, leadership training, continuing education, etc.¹

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- Allow both employees and job applicants to directly link their skills to vacant jobs.
- Allow the Future of Work Commission established by Executive Order N-17-19 to list skills and the jobs that require those skills.

Privacy and Security of CalTalent Data

Data privacy and security is a critically important concern. All end users of this voluntary system, would need to register for use which would include mandatory multifactor authentication. The end user may need to opt-in to this system which may also function as a workforce analytics database if hosted by a state entity.

State of California entities and vendor contractors are held responsible for accessing, maintaining, and disclosing any data. This might be in the form of employee or third-party personal information, consumer or customer data, or protected health information if it is a Health Information Portability and Accountability Act (HIPAA) covered entity pursuant to the federal Social Security Act (SSA) at 29 U.S.C. section 175, the California Information Practices Act (IPA) privacy and security provisions in Civil Code section 1798 et seq., to name a few federal and state level statutes and regulations. CalTalent would also be subject to the Department of General Services State Administrative Manual (SAM) policies and information security practices found in the State Information Management Manual (SIMM).

Building a Pilot Project

The key to success is good governance. Therefore, this initiative must be led by executive sponsors from various agencies to include the Governor's Office, the California Office of Human Resources, and the California Department of Technology.

Subject matter experts, communications directors, marketing committee, and call center assistance will help roll out the initiative. Each Department has its own unique needs, so this must be addressed in the early development and planning of this digital transformation. To be successful, departments and agencies must be brought into the process in phases, and given the tools needed to thrive.

A pilot project would leverage current systems identified in this paper and build-upon them to create a portal. During the pilot, state government will continue to offer their services as

they do now so there is no disruption and will start offering their services via the online portal. Before launching the pilot, security procedures will be developed.

The effectiveness of the portal will be tracked with measures such as: time saved, accuracy of data, and increased end user satisfaction. California state government will also identify the skills needed to continue to build and maintain a SSO portal. Transactions chosen for the pilot should include some of the most often utilized services, require an exchange of documents between residents and state government, and have recurring deadlines and/or in-person appointments.

Conclusion

The rapid pace of global digital innovation has created both expectations and opportunities for the State of California workforce to improve the quality and efficiency of service delivery to citizens. A digital transformation of California's state government is a massive project that requires collaboration at every level.

Team 2 Digi-Up Transformers' dual approach, utilizing Single Sign-On and CalTalent, can usher in a dramatic improvement in government service delivery and upskilling the state employee workforce. Accordingly, a pilot project, focused on change at an agency level is a realistic approach to implementing a technological change and workforce upskilling to meet tomorrow's challenges.

To achieve this Moonshot, the state can leverage existing SSO projects, LMS platforms, CalCareers and ECOS and utilize the findings of Governor Newsom's Future of Work Commission, Executive Order N-17-19, to build a pilot project.

Future Team 2 cohorts are encouraged to take the next steps toward this innovation priority with a Project Charter. (http://test.capmf.cio.ca.gov/files/CA-PMF_Initiating_Templates_with_Instructions/Project_Charter_Template_with_Instructions.docx). The Charter will provide a framework to outline the plan and phases, and further collaborative efforts amongst other teams, industry, and State of California leaders to reach the Moonshot of transforming State government by innovating technological solutions to deliver government services.

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Figure 1 Single Sign-On Process Flow Chart

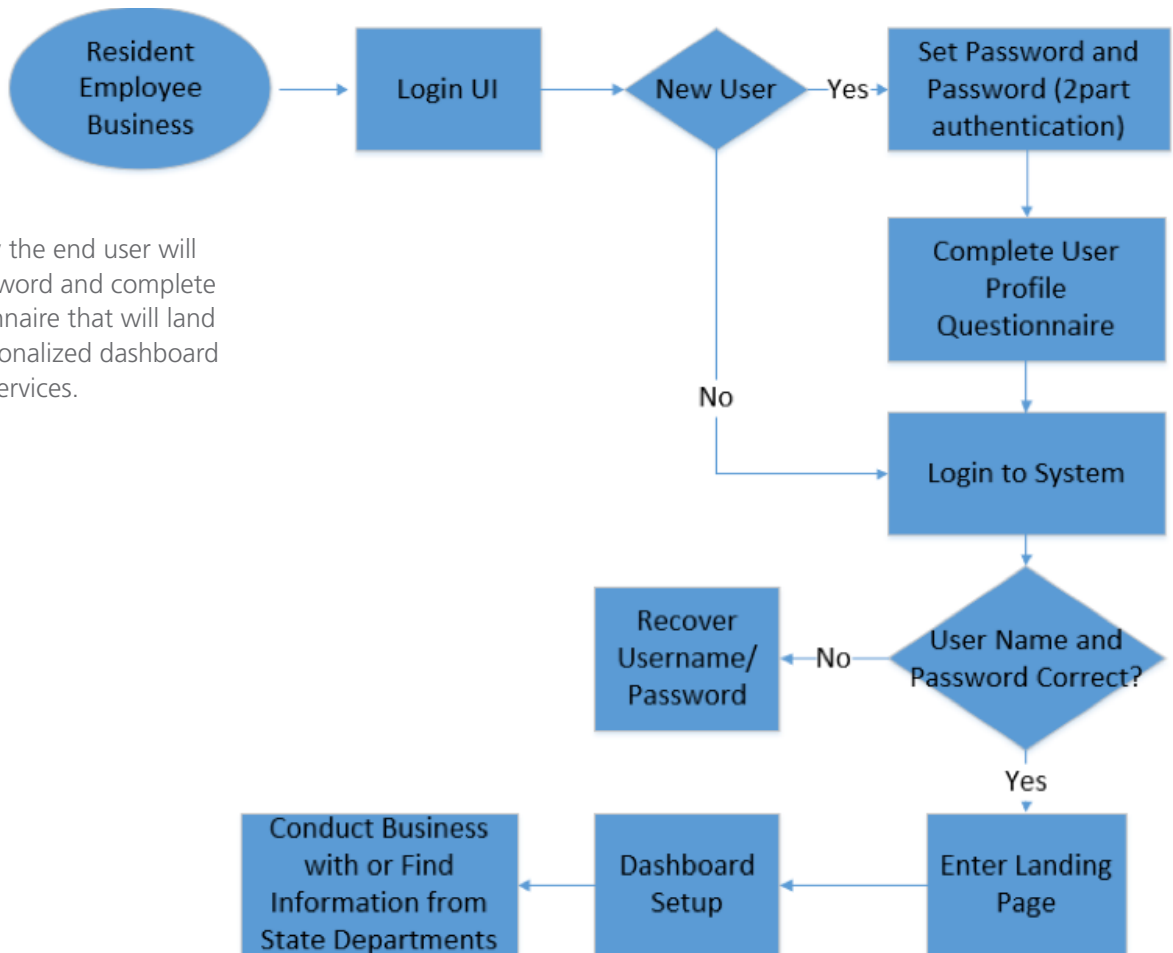


Figure 1 illustrates how the end user will login, set up their password and complete a quick profile questionnaire that will land end users on their personalized dashboard for state government services.

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Figure 2 CALTalent Flow Chart

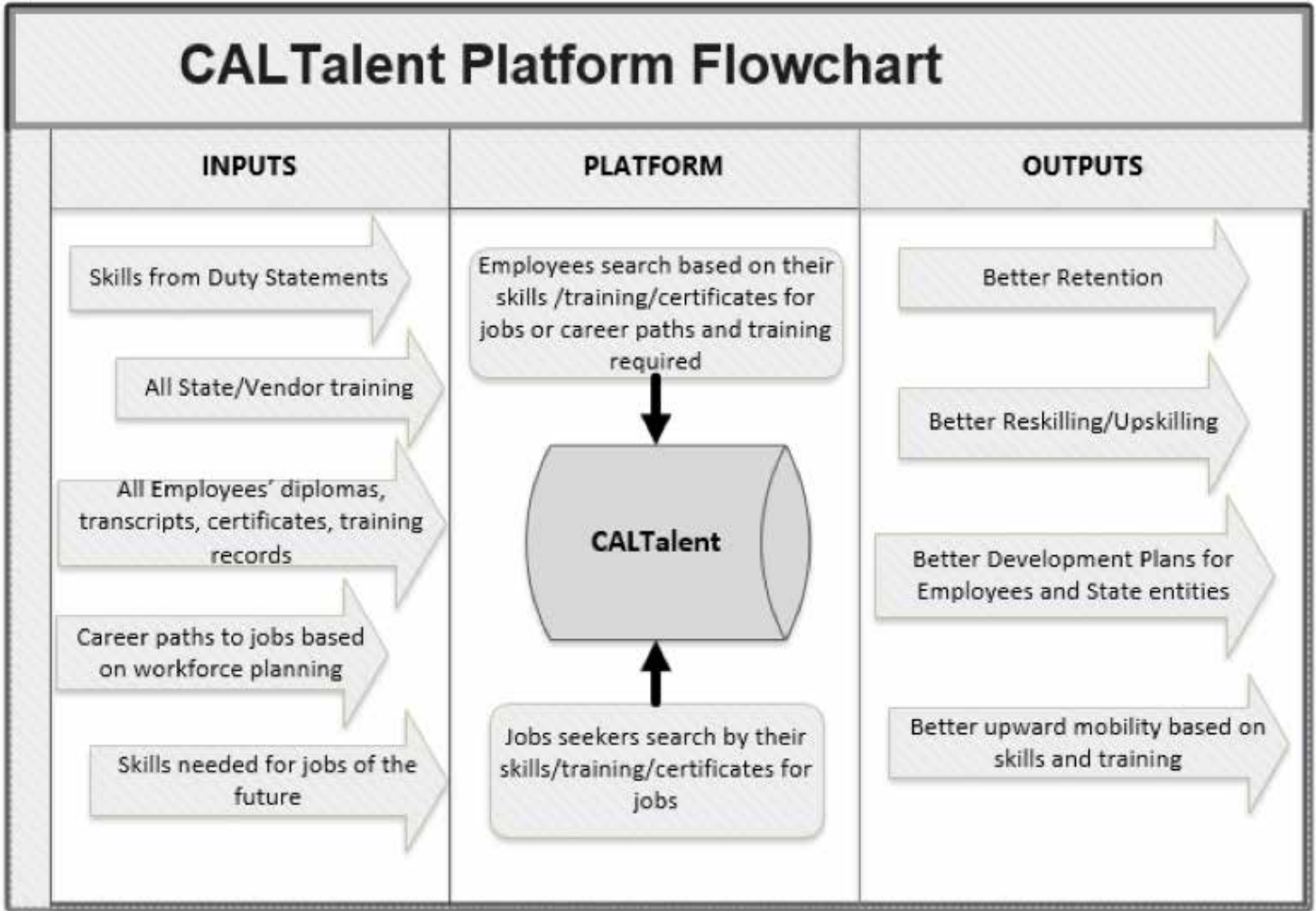


Figure 2 illustrates the inputs into CALTalent, how employees and job seekers interact with the CALTalent platform, and the expected outputs.