



DIGITAL. SECURE. CONVENIENT.

mDL for Businesses and Government

GET STARTED



California mDL Community Hackathons

Public Briefing

1/10/2025



Today's session is being
recorded and will be made
available to you later today.

Before We Start...House Keeping

- Online/Webex Event
- You will be automatically muted upon entry
- Chat has been disabled.
- Use the Q&A feature for the Q&A segments of today's event
- If experiencing poor audio quality, please shut down larger applications, such as Chrome or switch your audio connection type in your Webex audio settings
- End Time: 1:00 p.m. PST

Agenda

- Message for the Director
- Background, Overview and Roadmap of the initiative
- Two Hackathon Events (Video)
 - Public Event: October 1, 2024, in Mountain View
 - Government Event: November 1, 2024, in Sacramento
- Highlighted Use Cases
- DMV Support to enable the industry
- Q&A

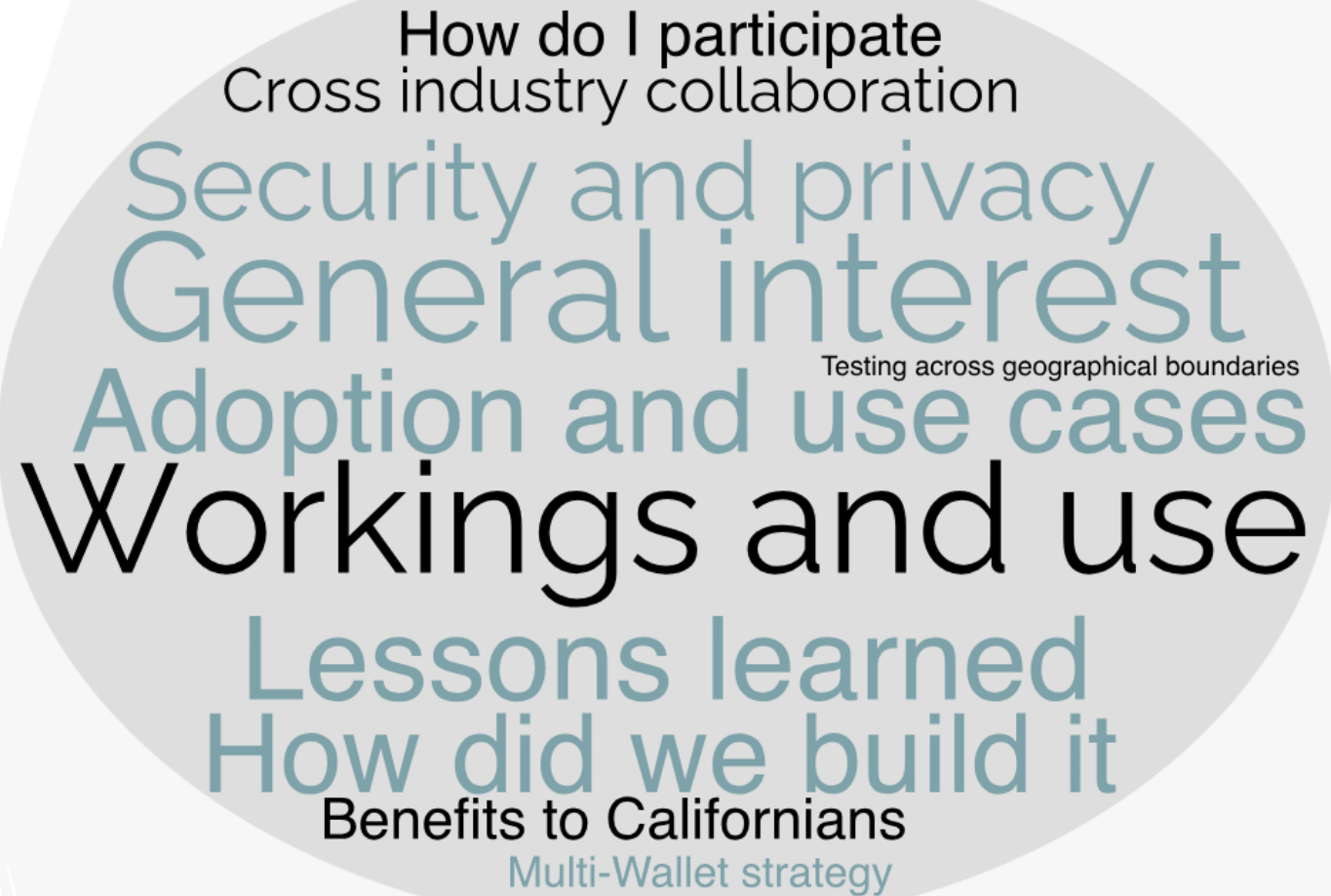
Opening Remarks

- Vision
- Plan
- Commitment



What you said you want out of this session

- Paraphrased categories from your answer to the registration questionnaire
- Agenda adjusted to address most asked topics

A word cloud of session topics is displayed within a light gray oval. The words are arranged in a circular pattern, with 'Workings and use' being the largest and most central. Other prominent words include 'General interest', 'Adoption and use cases', 'Lessons learned', and 'How did we build it'. Smaller words like 'Security and privacy', 'Cross industry collaboration', 'How do I participate', 'Testing across geographical boundaries', 'Benefits to Californians', and 'Multi-Wallet strategy' are also visible.

How do I participate
Cross industry collaboration
Security and privacy
General interest
Adoption and use cases
Testing across geographical boundaries
Workings and use
Lessons learned
How did we build it
Benefits to Californians
Multi-Wallet strategy

Program Overview and Roadmap

Creating the market and posting the market

Ajay Gupta, Chief Digital Transformation Officer of the California Department of Motor Vehicles

Managing Californian Identities

- ~32M unique identities
- Driver's License – Five-year renewal cycle
- Identity Cards – Six-year renewal cycle
- Attributes
 - REAL ID, Federal Non-Compliant
 - Standard, Provisional, Under 21, REAL ID, Temporary, Federal Non-Compliant, Class Types (Commercial, Non-Commercial), Endorsements, Restrictions
 - Verified demographic information (Based on vital records, federal documents, address, legal status)
 - Captured biometrics (Photo, Fingerprints, Signatures)
 - Veteran, Donor designations



Digital Identity in CA - the Challenges

Are current identity solutions accurate and pervasive enough to support access and effectively address threats?



Too often, residents are subjected to identity theft & bias, and the State is vulnerable to large scale fraud, which will increase with generative AI.



Inefficiency – State spends tens of millions annually to manually verify identity for benefits, licensing & permits, and maintain physical IDs (issue, print, mail and replace cards).



Customer Service Concerns – Residents and businesses experience long wait times and endure cumbersome and redundant manual processes when much of what they do is now online.

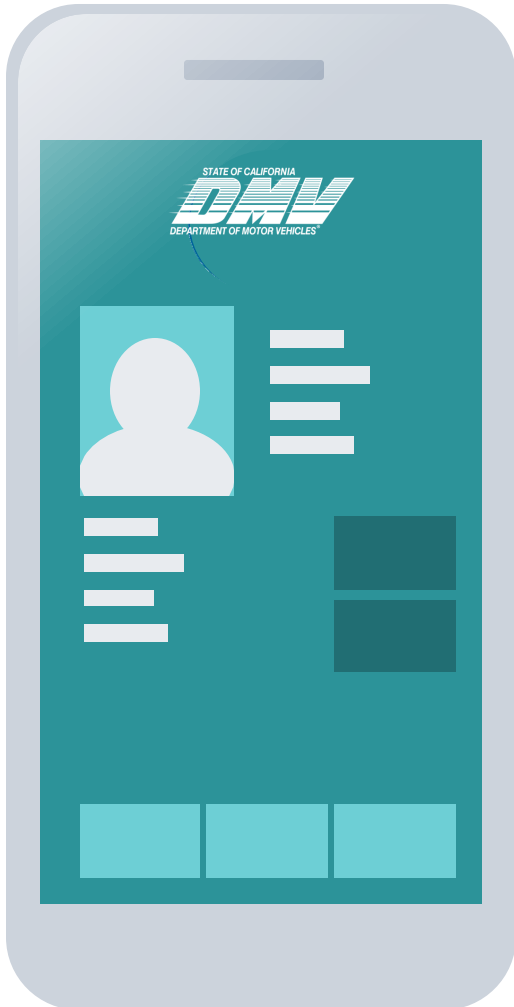


Theft & Fraud – CA lost \$20B+ in fraudulent unemployment payments during the pandemic, and identity theft is on the rise: nationally consumers lost [\\$100+ billion to fraud](#).



Bias & Access – Marginalized communities are often unable to access key financial, educational and governmental resources and antiquated ID verification processes contribute to bias in resource distribution decision making.

California Mobile Driver's License Guiding Principles



- An optional, digital version of a state driving license or ID
- User control of data released from digital ID
- "Pilot First", built ready to scale (5%)
- A California digital issuing and management platform
 - Fair and equitable, serves all Californians
 - Secure and reliable
 - Privacy preserving, abides by California privacy law, and protects Californians
 - Future proofed: mDL & DL standards, new partnerships
 - Promotes a fair relying party ecosystem
- Moving towards user choice of wallet, so beyond CA DMV Wallet, select other wallets will be supported as well

How California is tackling this issue

In 2023, the DMV introduced the **California DMV Wallet and mobile driver's license (mDL) pilot program**, developed on a common set of standards to enable cross-platform interoperability, information security and data privacy. Since the launch, approx **1.6M** Californian devices have been issued a secure, privacy-preserving mDL. The pilot, currently limited to 5% of DMV Identity Cards and DL holders, is built ready to scale.



In the future, all CA residents and businesses will see

- **Cost Savings** – eliminating manual verification for benefits would save state agencies tens of millions.
- **Improved Privacy** – residents control their data instead of a third party seeking to monetize it.
- **Reduced Fraud** – Digital accuracy and data authenticity ensure against errors and falsification
- **Better Customer Service** – easier to do business with the state, private sector, in-person, or online.
- **Bias Mitigation** – fewer opportunities for bias by sharing data on a need to know basis.

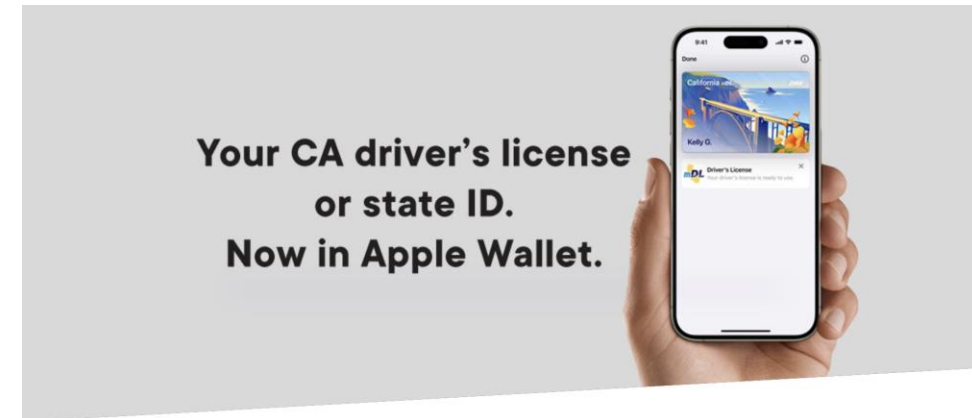
Subsequent Google and Apple Wallets Launches

In 2024, we launched the CA mDL into Google and Apple Wallets respectively in August and September. Now, Californians can choose between three wallets to receive their CA mDL.



Add your ID to Google Wallet

Now you can store and show your California driver's license or ID on your phone easily and securely.



Add your ID in Apple Wallet

Now you can add your California driver's license or state ID to Apple Wallet on iPhone and Apple Watch.



To get started, open Apple Wallet on your iPhone.

mDL Intro Video Viewable at <https://youtu.be/0VErAv4izro>



California mDL Health Report – 514th Day



1.6M

Total mDLs
(1M unique)



~4200

Daily mDLs



1.1M

DMV App Downloads



7

Daily Manual Reviews
(Hyperautomated)

<4K

Daily Website Views



~6:1

IOS/Android Split



~4.1K

Monthly TSA usage
(Nov)



5

DMV Use Cases
(and more coming)



mDL Roadmap: Done, Doing and Doodling

	Expanding existing adoption and adding new channels		Enablement		Cross Industry Engagement				
Travel	 Statewide rollout of mDL Readers at California airports 	 Multiple airport partnerships for customer awareness 	 mDL Readers training and enablement 	 Multiple airport partnerships for customer outreach 					
Daily Life	 Additional convenience stores across California for age verification 	 POS technology enablement for CA Wallet based age verification 	 Disaster Assistance and Unhoused use case enablement 	 MDL on Native Wallets 	 Large scale convenience store rollout for age verification 	 Law Enforcement mock pilots with a local PD and CHP) 	 FEMA/Disaster Recovery/First Responder/Volunteer Program Support 		
Digital Life	 First online use case for mDL presentation 	 Open source credential reader to enable we applications reading mDL 	 Frictionless login experience via mDL 	 Cross industry digital identity awareness campaigns 	 Additional DMV products as credentials in the wallet 	 mDL Acceptance at select DMV offices 	 Additional State departments enabled for online identity verification using mDL 	 Financial Sector and Health care enablement for faster and cheaper KYC and secure transactions 	 Recruiting and Facilities Access 

General Use Cases

California DMV Wallet and mDL

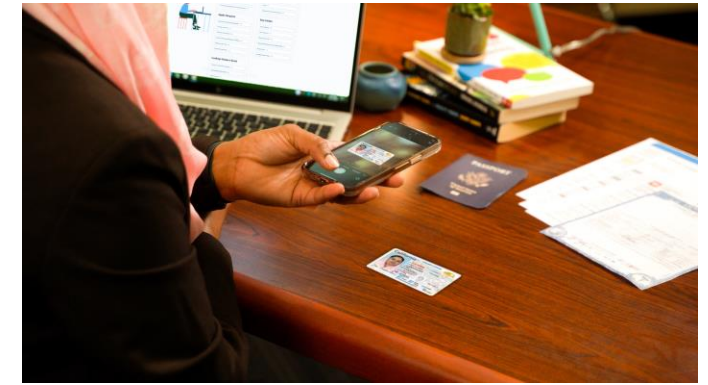
Examples of use cases



In-Person Contactless
(Tru)Age Verification



Online Frictionless Sign-in



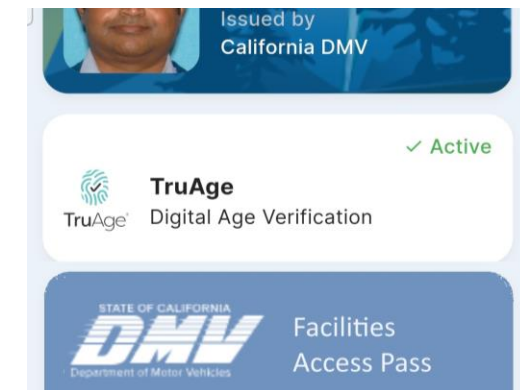
Online Identity Proof Uploads



In-Person Integrated Identity
Data capture

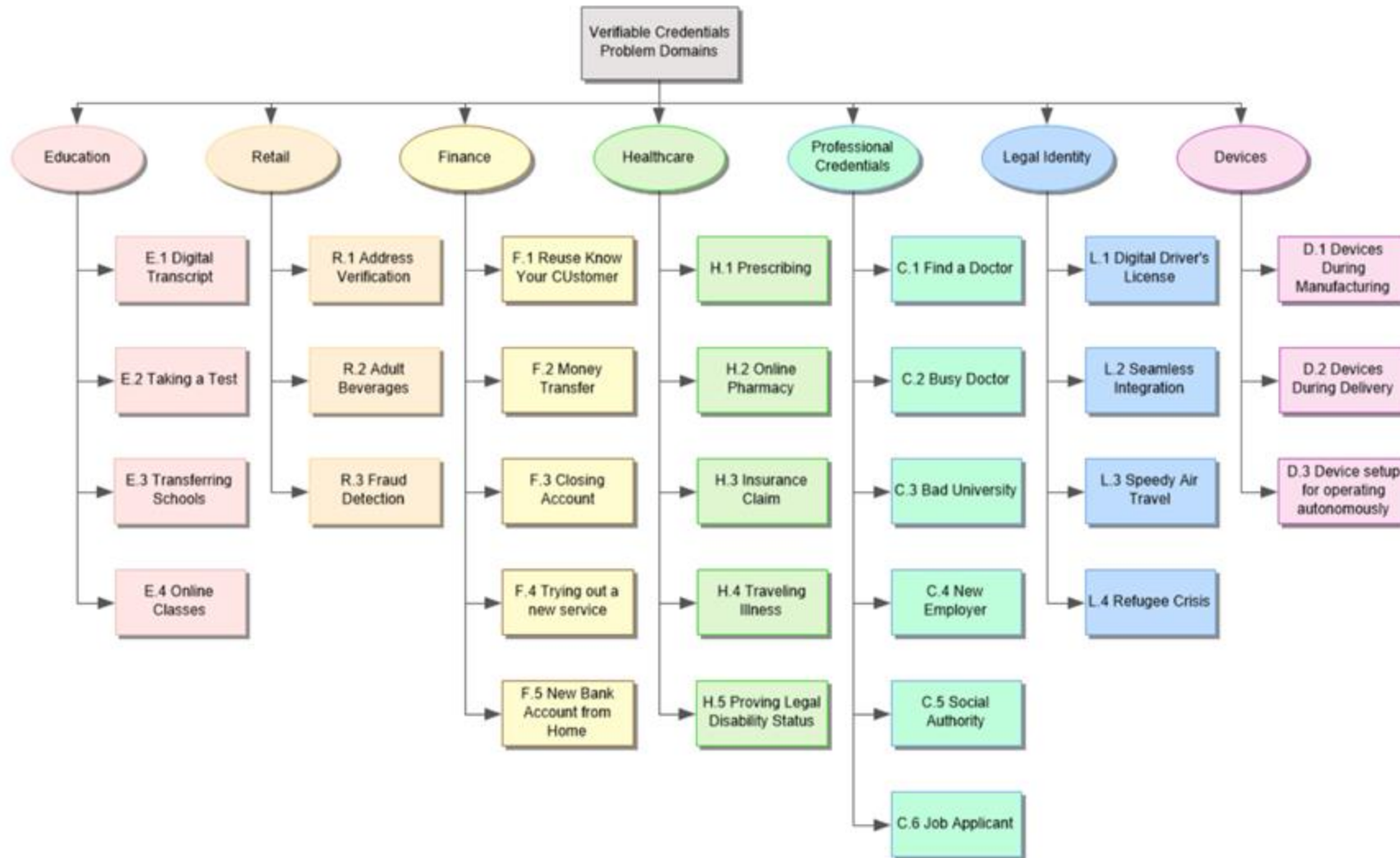


mDL Reader based peer-peer (Age,
Identity, Driver) Verification



Issuance of additional credentials

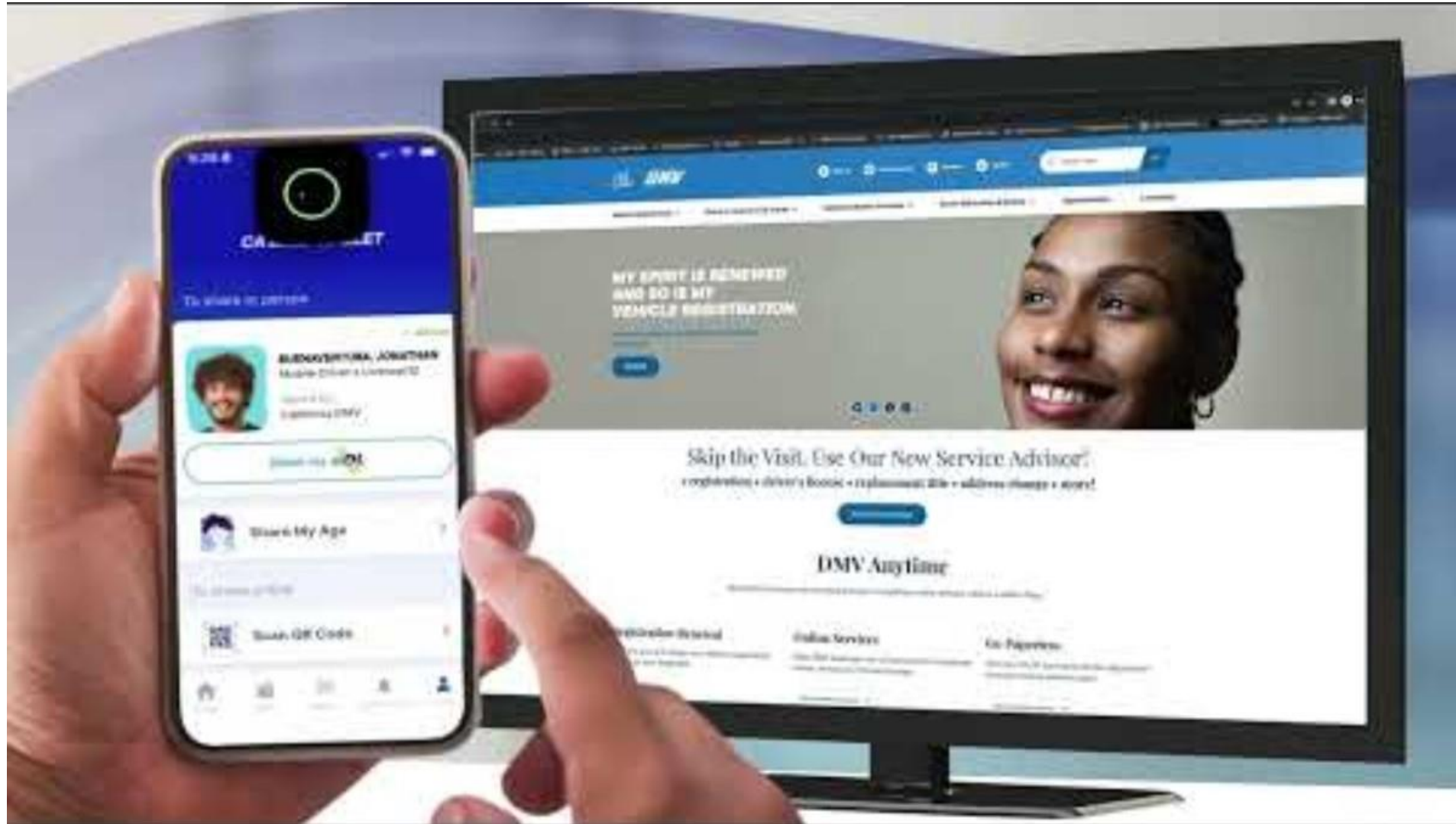
A bigger list of use cases by industry



Source: [W3C Verifiable Credentials Use Cases](#)

Sharing the Identity Online

Viewable at https://youtu.be/pRPAYYz5k_4



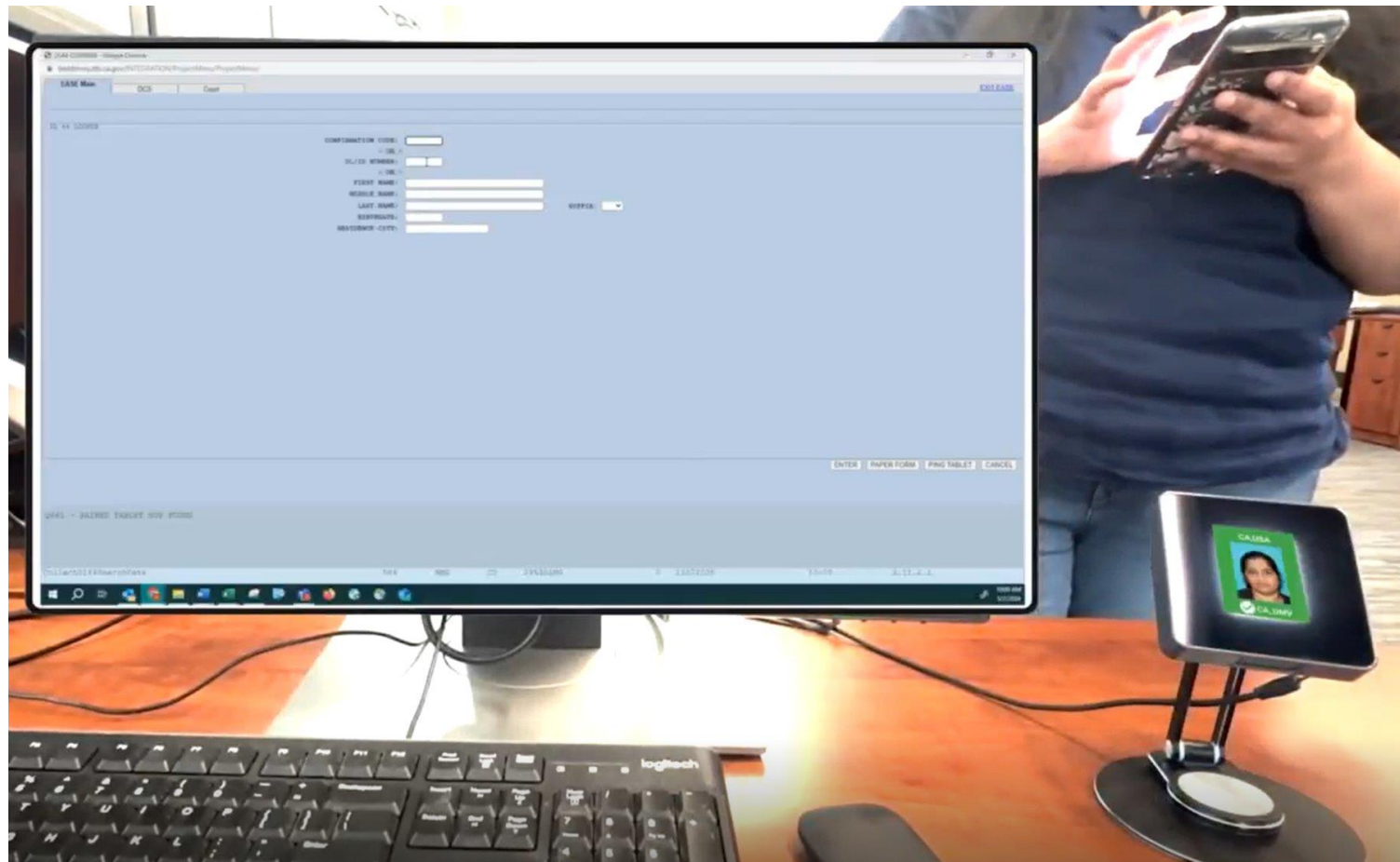
Sharing the Identity In-Person – The mDL Reader

Viewable at <https://youtu.be/q6V6o1mW8Ps>

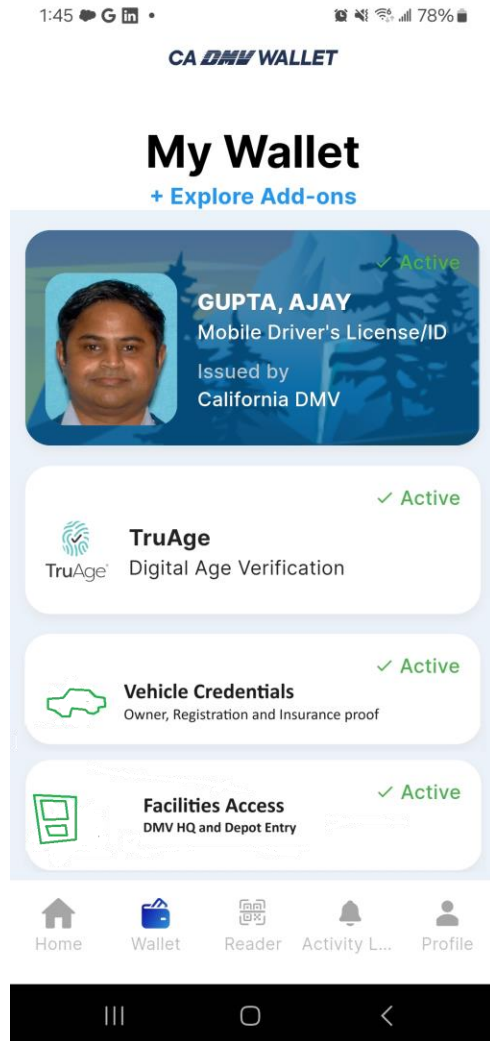


Sharing the Identity In-Person – Data Integration with Business Apps

This video is not available



Additional Credentials



Additional digital credentials using identity as a foundation

Multiple data formats

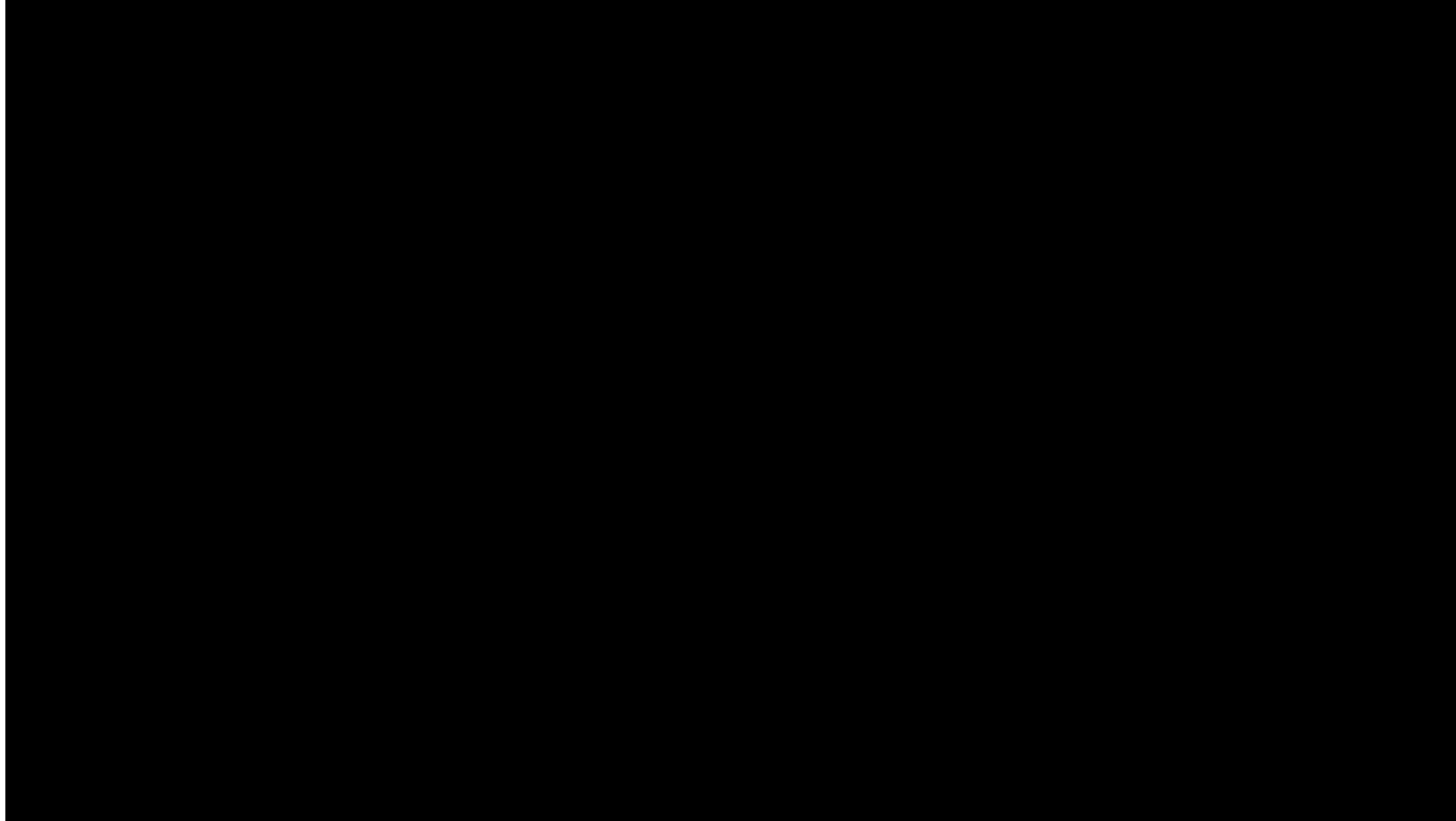
Online and in-person credential sharing

Multiple transmission protocols



Receive Credentials in exchange of mDL

Please see the video in the [session recording](#) (25:35).



Hackathon Events

Cross Industry Partnership

Objectives – Further Acceptance and Usage of CA mDLs

The CA DMV co-hosted the hackathons in partnership with the OpenID Foundation to

- Help **relying party organizations and their partners incorporate mDLs into their user experiences** by offering tooling, tests, and developer support to trouble shoot issues.
- Empower **developers to walk away with use cases that are executive ready** to demonstrate within their own organizations, highlight the topline and bottomline benefits of mDLs and streamline the path to live production.
- Welcome **government and civil society and other VIP observers** to see what the technology offers, the challenges facing the community, and identify barriers to unblock adoption.
- Create **a safe space for digital identity community to support relying party adoption** across platforms and standards.



Ideal use cases we looked for

Real world use cases and that have the potential to go from hackathon to full production in the next 3 to 12 months.

- Is there already a **real-world need** that can benefit from CA mDLs?
- **Who** will be the relying party/parties of the CA mDLs?
- **How** will CA mDLs be used/leveraged in the use case?
- What will be the **impact** of the use case? (customer experience, efficiency, cost, fraud)
- **Viability** to be operational within the organization(s) in the next 3-12 months?

Tracks selected by the participating teams

Teams participated in one or more of the following tracks of their choice to deliver their use cases. Tooling was made available for the hackathons by mid/late August. Technical support was provided to selected teams prior to and during the hackathon events.

Track 1	In-Person Presentation: • ISO mDL 18013-5: QR code or NFC • W3C Verifiable Credential (W3C VC): QR code only
Track 2	Online Presentation and Issuance (only applicable to CA DMV Wallet): • W3C VC v1.1 (JWT) + OpenID for Verifiable Credential Issuance (OID4VCI) • W3C VC v1.1 (JWT) + OpenID for Verifiable Presentation (OID4VP)
Track 3	Online Presentation: • ISO 18013-7: mdoc + OID4VP
Track 4	Online Presentation: • Digital Credentials API: Wallet Selection

Hackathon Events

To further accelerate acceptance and use of Mobile Driver’s Licenses (mDLs), we co-hosted two “hackathons” in partnership with the OpenID Foundation:

	Private Sector Event	Public Sector Event
Date and Location	Oct 1, 2024, in Mountain View	Nov 1, 2024, in Sacramento
Participants	15 teams of... 50+ participants from... 20+ organizations	12 teams of... 40+ participants from... 20+ organizations
Participants and Observers	Teams participated with real-world use cases that have a potential to benefit Californians in the next 3-12 months. 5 relying parties 8 vendors supporting relying parties 1 vendor on international collaboration 50+ observers	Each participating team was backed by a public agency with a real-world use case to tackle: 3 Federal (+ 2 observer federal entities) 4 California + MI + WV 1 Municipal 2 International (+ 6 observer countries) 60+ in person and 20+ virtual observers
Process	- Application and Selection - Preparation (4 weeks) with logistical and technical support - Hackathon Day: Demo Table + Presentation	

Hackathon highlights

Viewable at <https://youtu.be/k4G2KaGQA1Y>

Messages from the leadership, participants and reviewers



Hackathon Takeaways

Use cases and lessons learned

How mDL simplifies identity and age verification



Age Verification for
Restaurants and Bars



Online Banking KYC



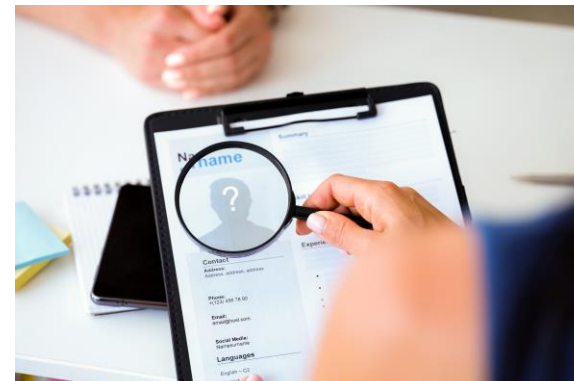
Online account setup



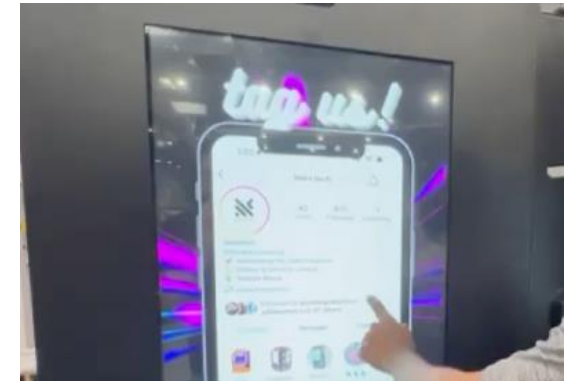
Retail Industry



Secure Locations/
Parking/Events Access

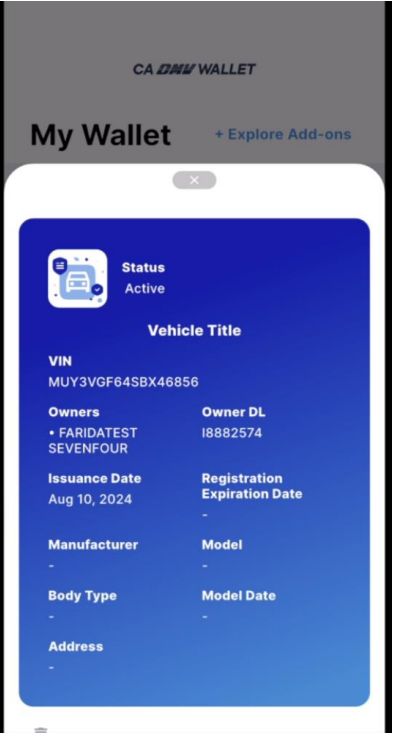


Identity Verification for
Business Credential Issuance



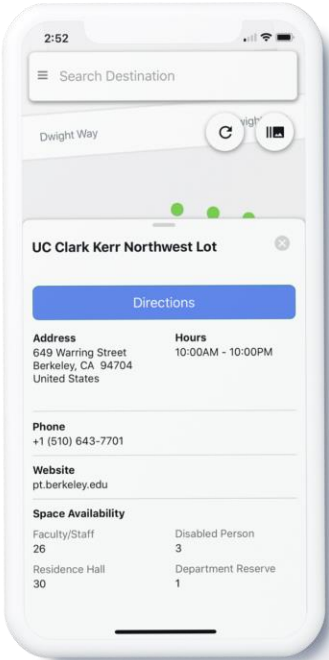
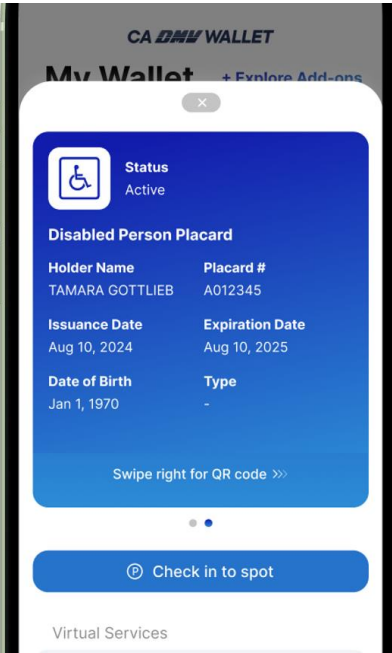
Unattended Age
Verified Product Sales

Additional use cases beyond mDLs



Vehicle
Registration

Disability Placard & Smart Parking (with JAPA)



Temporary
Credentials

Private Sector Event Use Cases

The following list was created based on the use cases submitted for and demonstrated at the hackathons. Participating entities were at different stage of use case development. The list is not indicative of their product development focus, scope, or roadmap.

Category	Participating Orgs	Use Case (Sector Description)	
Identity Proofing / KYC / Onboarding	UltraPass	Telecommunication & more	Encrypted biometrics and mDL for account creation (prevent duplicated accounts)
	Entidad	Community Services	Enroll underserved community members into social benefits programs and access community services
	Visa, Fime	Financial Services	Financial institution logon for new account opening
	Kaiser Permanente	Healthcare & Insurance	Enrollment in employer benefit systems/gov-funded programs and health plans
	Incode	Financial services	mDL for remote KYC/account opening with financial services (for unbanked people)
	Ping Identity	Identity Security	eKYC verification of mDLs with other protections for user registration
	Trinsic, Mitek	Transport & eCommerce	Verify mDL to open an account at a car rental marketplace
Identity and/or Age Verifications	U.S. Bank	Financial Services	In-person ID verification at bank branches for high-risk transactions
	MATTR, Treez, Nuvei, Samsung	Retail & eCommerce	Identity and age verification in cannabis dispensary and delivery services
	Visa, Fime	Financial Services & Retail	Age verification on tap to phone POS devices
	Block	Financial Services & Retail	In-person age verification (for age-restricted purchase) by Square merchants
	tan tan	Retail & Entertainment	Cross-border identity and age verification for Californians in Mexico
	Walter Labs	Retail & Entertainment	iOS verifier app for in-person transactions (bars, liquor stores, vape shops)
	Credence ID, Qmatic	Experience Management	mDL for smart queuing and more convenient check-in
	Kaiser Permanente	Healthcare & Insurance	Identity verification by care providers for services and insurance coverage
Passwordless Authentication	Undisclosed Financial Institution	Financial services	Integrate mDL into existing Identity and Access Management (IAM) systems
	Cisco	Identity Security	mDL as a root digital identity to enable passwordless authentication

Public Sector Event Use Cases

The following list was created based on the use cases submitted for and demonstrated at the hackathons. Participating entities were at different stage of use case development. This list is not indicative of their product development focus, scope, or roadmap.

Category	Participating Organizations	Use Cases
Identity Proofing / KYC /Onboarding	California Office of Emergency Services (CalOES)	mDL as an option for online identity proofing when applying for grants for hardening homes against and mitigating damage from wildfires
	California Office of Data and Innovation (ODI)	Create California state web accounts from an mDL
	City of Los Angeles, UltraPass	Reduce fraudulent accounts in a procurement system
	U.S. General Services Administration (Login.gov)	- Remote unattended identity proofing by Login.gov partner agencies - FEMA (U.S. Federal Emergency Management Agency) mDL in-person disaster recovery identity proofing
Identity and/or Age Verifications	Office of the West Virginia Secretary of State, UltraPass, Free Democracy Foundation	High assurance identity verification with mDLs and biometric authentication to enable mobile voting
	Michigan Department of Health & Human Services, MATTR, VitalChek	Cross-state access to and verification of vital records
	U.S. Airforce, TrustGrid	First Responder use case using Decentralized Team Awareness Kit
	info CDMX (Mexico), tan tan	Cross-border identity and age verification
	Undisclosed foreign agency with a private sector partner	- Age verification for overseas alcohol purchases - Identity verification for purchasing a tourist prepaid card
Passwordless Authentication	California DMV	mDL for MyDMV account login
	Undisclosed federal agency	Remote/distributed workforce authentication using mDLs
Use of Authentic Data	U.S. General Services Administration	Auto-fill the FEMA application using authentic and verifiable mDL data
	California Office of Data and Innovation (ODI)	Auto-fill a state job application with information from an mDL
Law enforcement	California Highway Patrol (CHP), Credence ID	Remote mDL transmission for law enforcement

Learning and takeaways

Range and Quality of Use Cases

- Many different verticals in public and private sectors, indicates range of benefits of this "public good".
- Social business, financial services, health, careers/jobs, benefits, disasters, login, and much more.

The inflection point in community adoption

- Public and private participants, government observers, US (e.g. DHS S&T, NIST), Mexico, Germany, Italy and nonprofits (e.g. Aspen Institute, AAMVA, Secure Technology Alliance, OpenID Foundation).
- The power of connection, for people across verticals, geographies, and even technical focus areas to build relationships with like minded peers, solve problems together, and even explore partnerships.
 - Slack support and debugging, finding the right tooling from the CA DMV and partners (e.g. Google, Digital Bazaar and Spruce), learning about the standards from the ISO, the W3C, and the OpenID Foundation.
 - Proactive support from technical experts in the ramp up and for judging (e.g. Google, Aspen Institute, Jobs for the Future) and expert advice (e.g. DHS S&T, OpenID Foundation).

Drive acceptance

- The CA DMV and other US states are delivering on the mDLs and other capabilities on issuance side, so the real focus now shifts to relying party development and delivery.
- The relying party community now needs to leverage the Hackathons/ Interop/ demo events, and the available platform and product capabilities, to bring their use cases into production.
- State and Federal regulators need to signal their support of the technology (removing doubts on compliance).
- More safe spaces to learn, such as the Secure Technology Alliance mDL showcase at the Identity & Payments Summit.
- NIST NCCoE Mobile Driving License project, starting with opening a bank account with an mDL, creating a baseline approach to the user experience and requirements with the help of leading financial institutions, identity vendors, standards bodies and others. This path offers a mechanism for federal regulators to understand and indicate their support.
- Potential Executive Order highlighting government acceptance of digital identity credentials (Source: NextGov/FCW).

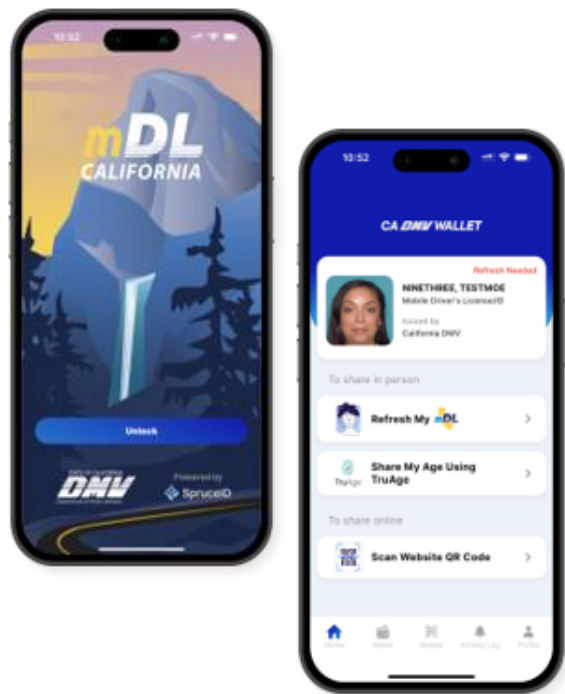
Support going forward

Tools, Credentials and Standards

Hackathon Test Environment and Tooling

We had a managed process for hackathon teams to access our test environment:

- Test app on iOS/Android mobile devices
- Test mDL/credential with dummy data
- Open sourced credential presentation platform



Track 1	In-Person Presentation: • ISO 18013-5: QR code or NFC • W3C Verifiable Credential (W3C VC) for age verification
Track 2	Online Presentation and Issuance : • W3C VC v1.1 + OpenID for Verifiable Credentials
Track 3	Online Presentation: • ISO 18013-7: mdoc + OID4VP
Track 4	Online Presentation: • Digital Credentials API: Wallet Selection

Track 1 and 2 had open source tooling and active hackathon support. Track 3 and 4 were exploratory tracks that require participants to use their own tooling.

Stay Posted - Ongoing Post Hackathon Support Plan

- Continued access to test environment for hackathon teams
- Access to open source repositories
- Access to implementation standards resources

By the end of February 2025, we will launch a process for any entities to be able to request access to our test environment. Please [indicate your interest here](#) by providing the following information and we will share the next steps to obtain support for test credentials:

- Name
- Organization (please write "individual" if not a business)
- Email
- Are you a California resident
- mDL use cases you are working on (that require access to our test environment)
- mDL implementation challenges (ex access to test credentials, understanding of the standards)



SCAN ME



Q&A