ACLU

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of CALIFORNIA

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September 22, 2015

The Honorable Edmund G. Brown Jr.
California State Capitol, Suite 1173
Sacramento, California 95814

Re: **SB 249 (Hueso)**
Request for Veto

Dear Governor Brown:

The American Civil Liberties Union of California respectfully requests that you veto SB 249, a measure to create a new "enhanced" driver license (EDL) to be used as an additional border-crossing document available only to U.S. citizens. Signing SB 249 would be costly, administratively difficult, inconsistent with the steps that you have taken to upgrade and protect the cybersecurity of state IT systems and sensitive personal information, and without clear benefits to the state.

Obsolete and Insecure Technology. SB 249 authorizes the Department of Motor Vehicles to issue driver licenses embedded with Radio Frequency Identity (RFID) computer chips that broadcast personally identifying information to an electronic reading device for the intended purpose of crossing U.S. borders by vehicle at designated "Ready Lanes" operated by U.S. Customs and Border Patrol (CBP). This controversial federal program, initiated over ten years ago, requires the use of outdated and insecure technology that was originally developed to track products in the manufacturing sector. The use of this technology in government identification documents for border crossing has been sharply criticized by industry experts, leading security researchers, and even DHS' own advisors.

The American Electronics Association warned the U.S. State Department and the Department of Homeland Security that insecure RFID technology was not appropriate for the EDL, noting that it is "highly susceptible to forgery" and "a potential illicit hacker could very easily read (from a distance) the unique ID contained ... and easily create a duplicate."

Prominent computer science and engineering professors and security researchers at the University of Washington conducted extensive security and privacy tests of the EDL and found significant vulnerabilities.[1] The conclusion of these prominent academics was that there is "no encryption of any kind and they can be read by anyone," that "reading and cloning of the currently deployed EDL...is possible," and "inadequate measures are taken to preserve the privacy of document holders." These prominent academics had several recommendations to

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[1] *EPC RFID Tags in Security applications: Passport Cards, Enhanced Drivers Licenses and Beyond. Profs. Koscher, Juels, Brajkovic, Kohno.* available at http://homes.cs.washington.edu/~yoshi/papers/RFID/ccs280-koscher.pdf

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address these concerns, including the addition of anti-cloning and privacy protections and "switch to another technology." [2]

Significant privacy and security concerns were also expressed by Congress and the Department of Homeland Security's own Data Privacy and Integrity Advisory Committee who cautioned against the use of RFID technology for identifying people. [3] Even the DHS Inspector General noted that "[a]dditional security controls [such as encryption] would be required if CBP…migrates to universally readable" RFID chips such as those authorized for use here in California by SB 249. [4] The fundamental security and privacy flaws with the RFID technology authorized by SB 249 have not been addressed, while cybersecurity threats have grown exponentially more sophisticated.

In contrast to other border-crossing documents, for example, the EDL is unencrypted, transmits a unique identification number (personal information under California law) each time the RFID tag is read, and can be read at a distance of up to 30 feet by anyone with an RFID reader. Security researchers have built RFID readers with a few hundred dollars of spare parts and driven around downtown San Francisco reading similar RFID tags at a distance without anyone's knowledge. Ensuring that there are adequate security and privacy protections in the EDL is in many ways, even more essential than in the Passport since travelers usually only carry their passports when they are crossing an international border. However, Californians who obtain an EDL will use this document in lieu of a standard driver's license and will carry it with them all the time. This daily use of EDLs greatly increases the risk of unauthorized reading by RFID readers, especially if the individual forgets to keep the EDL in its unattached protective sleeve. These deficiencies are particularly problematic because polls consistently show that Californians are highly concerned about the privacy of their personal information and the security of government and commercial technology systems.

Passport	SB 249 EDL
Random identification number generated each time RFID is read	Unique identification number (personal information under CA law) used each time RFID tag is read
Data is encrypted	Unique identification number transmitted without encryption
Outside cover of the passport contains metal threads blocks RFID data transmission when passport is completely closed.	EDL does not have built-in security. A "shielding" sleeve will be distributed with new cards for cardholders to physically place around licenses to block RFID transmission. EDL must be in sleeve to be protected

[2] https://seclab.cs.washington.edu/poster-data/affiliates-2010/Koscher_EPC-RFID-Securty.pdf
[3] *Security and Privacy Issues Associated With Federal RFID-Enabled Documents*, Center for Democracy and Technology (July 2008). https://cdt.org/insight/security-and-privacy-issues-associated-with-federal-rfid-enabled-documents/; *The Use of RFID for Human Identification*, DHS Data Privacy & Integrity Advisory Committee http://www.dhs.gov/xlibrary/assets/privacy/privacy_advcom_12-2006_rpt_RFID.pdf
[4] *CBP's Trusted Traveler Systems Using RFID Technology Require Enhanced Security*, DHS Inspector General, available at http://www.oig.dhs.gov/assets/Mgmt/OIGr-06-36_May06.pdf

RFID tag transmits over short distances (a few feet)	DHS admits RFID in EDL can be read at distance up 30 feet.
RFID tag contains a Basic Access Control- cannot be read until Passport physically swiped by an authorized reader.	EDL contains no Basic Access Control or any other form of authentication, can be read by any RFID reader in range.

No Demonstrated Consumer Demand or State Benefit. It is clear that there are serious security and privacy problems associated with the EDLs authorized by SB 249. Further, there is little evidence of any real benefit to using EDLs in California. The premise for SB 249 is that there is a demand for EDLs among California drivers and EDLs will speed border crossing wait times. However, the proponents have offered no evidence that that they would actually reduce border wait times or that there is a demand for EDLs in California

First, we know of no evidence that wait times would be reduced if the DMV began to issue EDLs. In order to make use of Ready Lanes, all travelers in the vehicle over the age of 16 must have an RFID-enabled card – a policy that excludes many vehicles.[5] The US Government Accountability Office has also raised numerous issues about the reliability and performance of the RFID technology, finding that RFID read-rates at the border can be poor." [6]

EDLs have also not proven to be popular in the handful of northern border states that have authorized them, with only a small percentage of drivers choosing to obtain them. No state along the southern border has adopted EDLs. (Texas and Arizona have enacted laws specifically prohibiting the state from participating in the EDL program). Further, anyone wishing to use the existing Ready Lanes at Calexico, Otay Mesa or San Ysidro may already do so by obtaining any one of the existing cards available for the same cost or less than the proposed fee for the EDL, including the U.S. Passport Card; the Enhanced Tribal Card; Trusted Traveler Cards, Enhanced Permanent Resident Card or Border Crossing Card.[7] If for some reason, the experience in other states does not hold true here in California and there was widespread use demand for EDLs, a large number of new users would undoubtedly clog the Ready Lanes, leading to longer waits. In any event, wait times are the result of federal CBP decisions regarding staffing levels and security concerns over which California has no control. Long experience shows that CBP is not particularly focused on facilitating rapid crossings along the southern border.

Significant State Costs and Administrative Complexities. Just as importantly, the proposed EDL program comes at significant cost to the state. According to legislative estimates, the DMW would be required to front initial costs of approximately $4.4 million, and incur ongoing costs of $1.2 million annually. These costs would include significant IT programming and new outlays for RFID readers and other equipment that the DMW does not own and has never used. There are potentially other significant costs related to protocols and procedures for EDL card issuance. As the University of Washington research highlighted, the EDL creates

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[5] https://help.cbp.gov/app/answers/detail/a_id/1211/~/ready-lane-document-requirements
[6] *Border Security: US-Visit Program Faces Strategic, Operational, and Technological Challenges at Land Use Ports of Entry*, Government Accountability Office, http://www.gao.gov/new.items/d07248.pdf
[7] https://help.cbp.gov/app/answers/detail/a_id/1211/~/ready-lane-document-requirements

"a system with delicate dependence on well-conceived and tightly executed border crossing procedures and card issuance. Our observations of the relative weakness of the EDL...support the idea that states may not be as well-equipped to enforce good security practices around document issuance as DHS, or that there was or is not sufficient guidance from DHS." [8]

No revenue would be recovered until DMV incurs these start-up costs – meaning that the DMV would be required to achieve departmental efficiencies or reductions or by borrow from other funds. And even assuming that enough people would purchase EDLs despite the security concerns and the availability of other alternatives that may be priced lower than the EDL, implementation and ongoing costs would not be fully funded until FY 2021-22. If the costs are greater than expected – as they so often are for new projects – or if fewer people purchased EDLs, the break-even point would take even longer. All of this would present a significant administrative and financial burden at a time when the DMV is already facing substantial challenges to meet its existing obligations, as well as the implementation of other priorities, including implementation of AB 60 as well as this year's AB 1465, sponsored by the department.

EDLs are costly and insecure, we know of no factual evidence that they will appreciably affect border crossing times, and there are existing alternatives available from the federal government. It is for good reason that few states have moved forward and authorized this controversial program. In any event, if you believe it is appropriate and prudent for the DMV to issue a border crossing document at some point in the future when the DMW has greater capacity to take on such a project, you could seek to implement an MOU with adequate security and privacy safeguards negotiated between the DMV and the federal government. You do not need the legislative authority proposed by this bill to negotiate an MOU.

For these reasons, we urge you to veto SB 249. If you have any additional questions, please do not hesitate to contact us. Thank you for your consideration.

Sincerely

Kevin Baker
Legislative Director

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[8] *EPC RFID Tags in Security applications: Passport Cards, Enhanced Drivers Licenses and Beyond. Profs. Koscher, Juels, Brajkovic, Kohno.* available at http://homes.cs.washington.edu/~yoshi/papers/RFID/ccs280-koscher.pdf at p.3