



16 February 2016

The Honorable Toni G. Atkins
Speaker of the Assembly
State Capitol
Sacramento, CA 94249-0078

Dear Speaker Atkins:

I am contacting you on behalf of the nearly 200,000 members of The Institute of Electrical and Electronics Engineers in the United States, and especially our 36,000 members in California. As the men and women who invented, program and maintain our country's technological infrastructure, we are concerned about the potential risk to consumers created by AB 1681. While the goal of this legislation is improving public safety, we believe that by banning fully encrypted smart phones, the bill in fact compromises public safety.

We urge you to reject AB 1681. We further recommend that the legislature support a study of the technological and policy implications of the requirements in AB 1681, including examining how security would be enhanced and undermined by this bill. Such a study could take the form of a technically informed risk assessment involving all affected parties, including victim advocates, privacy groups, technologists and law enforcement.

Helping law enforcement is an admirable goal. Unfortunately, AB 1681 would make it illegal to create a secure cell phone. Insecure systems, whether designed that way as a result of AB 1681 or accidentally, can be compromised by the very criminals AB 1681 purports to targets. Moreover, foreign powers and terrorists also could benefit from the weakened security imposed by AB 1681. Organized crime, for example, has found the vulnerabilities in information infrastructure to be a boon.¹

There were 175 million² financial and other records stolen from Americans last year. The interaction of mobile phones and embedded devices creates risks for automobiles, home security systems,³ credit cards and other products.

America's technology professionals have worked for years to protect cell phone users from these dangers. We do this out of concern for the public, but also with the realization that the public will only use advanced technologies if they are confident that their technology protects their safety and privacy. We are concerned that intentionally building vulnerabilities into cell phones, which is what AB 1681 requires, would significantly increase risks to California's cell phone users as well as damage the cell-phone marketplace.

California's technology sector is the envy of the world and the global center of mobile innovation. We oppose the proposed legislature that would require that residents of the state use flawed technology products.⁴

¹ L. Dishman, "The New Face of Organized Crime", Slate,

http://www.slate.com/articles/technology/ibm/2015/06/the_new_face_of_organized_crime.html

² D. Bernard, "More Secure Cyber Environment Could Be Coming in 2016", Voice of American,

<http://www.voanews.com/content/more-secure-cyber-environment-could-be-coming-in-2016/3122766.html>

³ For example, there are apps that allow you to open and close your garage door, and unlock your house from a mobile phone.

A phone, in other words, can be used as the key to your house. It does not take much imagination to realize how dangerous this could be if that key could be accessed any time, and from anywhere. Yet this is precisely what AB 1681 requires.

⁴ Ibid, L. Dishman.

No legal structure, no matter how well crafted, can entirely prevent unauthorized people from gaining access to flawed computer systems. The vulnerabilities required by AB 1681 could be used by the malicious to steal from, harass, and even harm the citizens of California. As long as backdoors exist, criminals will use them. And when they succeed, California's citizens will be hurt – all possibly without achieving the stated law enforcement and security objectives.

Nobody wants to make law enforcement harder. We applaud the underlying objective of the bill and we actively support the adoption of technologies to provide this help. But AB 1681 would harm more Californians than it would help.

Please do not hesitate to contact IEEE-USA staffer Russ Harrison at r.t.harrison@ieee.org if you wish further information on this important matter.

Sincerely,



Peter A. Eckstein
2016 IEEE-USA President

IEEE-USA is an organizational unit of the IEEE, the world's largest membership society for technical professionals and an international advocate for the advancement of science, technology, engineering and mathematics for the benefit of humanity. IEEE-USA supports the public policy interests of more than 200,000 engineers, scientists, information technologists and allied professional who are U.S. members of the IEEE.