President Barack Obama The White House 1600 Pennsylvania Avenue NW Washington, DC 20500

May 19, 2015

Dear President Obama,

We the undersigned represent a wide variety of civil society organizations dedicated to protecting civil liberties, human rights, and innovation online, as well as technology companies, trade associations, and security and policy experts. We are writing today to respond to recent statements by some Administration officials regarding the deployment of strong encryption technology in the devices and services offered by the U.S. technology industry. Those officials have suggested that American companies should refrain from providing any products that are secured by encryption, unless those companies also weaken their security in order to maintain the capability to decrypt their customers' data at the government's request. Some officials have gone so far as to suggest that Congress should act to ban such products or mandate such capabilities.

We urge you to reject any proposal that U.S. companies deliberately weaken the security of their products. We request that the White House instead focus on developing policies that will promote rather than undermine the wide adoption of strong encryption technology. Such policies will in turn help to promote and protect cybersecurity, economic growth, and human rights, both here and abroad.

Strong encryption is the cornerstone of the modern information economy's security. Encryption protects billions of people every day against countless threats—be they street criminals trying to steal our phones and laptops, computer criminals trying to defraud us, corporate spies trying to obtain our companies' most valuable trade secrets, repressive governments trying to stifle dissent, or foreign intelligence agencies trying to compromise our and our allies' most sensitive national security secrets.

Encryption thereby protects us from innumerable criminal and national security threats. This protection would be undermined by the mandatory insertion of any new vulnerabilities into encrypted devices and services. Whether you call them "front doors" or "back doors", introducing intentional vulnerabilities into secure products for the government's use will make those products less secure against other attackers. Every computer security expert that has spoken publicly on this issue agrees on this point, including the government's own experts.

In addition to undermining cybersecurity, any kind of vulnerability mandate would also seriously undermine our economic security. U.S. companies are already struggling to maintain international trust in the wake of revelations about the National Security Agency's surveillance programs. Introducing mandatory vulnerabilities into American products would further push many customers—be they domestic or international, individual or institutional—to turn away from those compromised products and services. Instead, they—and many of the bad actors whose behavior the government is hoping to impact—will simply rely on encrypted offerings from foreign providers, or avail themselves of the wide range of free and open source encryption products that are easily available online.

More than undermining every American's cybersecurity and the nation's economic security, introducing new vulnerabilities to weaken encrypted products in the U.S. would also undermine human rights and information security around the globe. If American companies maintain the ability to unlock their customers' data and devices on request, governments other than the United States will demand the same access, and will also be emboldened to demand the same capability from their native companies. The U.S. government, having made the same demands, will have little room to object. The result will be an information environment riddled with vulnerabilities that could be exploited by even the most repressive or dangerous regimes. That's not a future that the American people or the people of the world deserve.

The Administration faces a critical choice: will it adopt policies that foster a global digital ecosystem that is more secure, or less? That choice may well define the future of the Internet in the 21<sup>st</sup> century. When faced with a similar choice at the end of the last century, during the so-called "Crypto Wars", U.S. policymakers weighed many of the same concerns and arguments that have been raised in the current debate, and correctly concluded that the serious costs of undermining encryption technology outweighed the purported benefits. So too did the President's Review Group on Intelligence and Communications Technologies, who unanimously recommended in their December 2013 report that the US Government should "(1) fully support and not undermine efforts to create encryption standards; (2) not in any way subvert, undermine, weaken, or make vulnerable generally available commercial software; and (3) increase the use of encryption and urge US companies to do so, in order to better protect data in transit, at rest, in the cloud, and in other storage."

We urge the Administration to follow the Review Group's recommendation and adopt policies that promote rather than undermine the widespread adoption of strong encryption technologies, and by doing so help lead the way to a more secure, prosperous, and rights-respecting future for America and for the world.

Thank you,

## **Civil Society Organizations**

Access Advocacy for Principled Action in Government American-Arab Anti-Discrimination Committee (ADC) American Civil Liberties Union American Library Association Benetech Bill of Rights Defense Committee Center for Democracy & Technology Committee to Protect Journalists The Constitution Project **Constitutional Alliance** Council on American-Islamic Relations **Demand Progress Defending Dissent Foundation** DownsizeDC.org, Inc. **Electronic Frontier Foundation** Electronic Privacy Information Center (EPIC) Engine Fight for the Future Free Press Free Software Foundation Freedom of the Press Foundation **GNOME** Foundation Human Rights Watch The Media Consortium New America's Open Technology Institute Niskanen Center **Open Source Initiative** PEN American Center Project Censored/Media Freedom Foundation R Street Reporters Committee for Freedom of the Press TechFreedom The Tor Project U.S. Public Policy Council of Association for Computing Machinery World Privacy Forum X-Lab

## **Companies & Trade Associations**

ACT | The App Association Adobe Apple Inc. The Application Developers Alliance Automattic Blockstream Cisco Systems Coinbase Cloud Linux Inc. CloudFlare Computer & Communications Industry Association Consumer Electronics Association (CEA) Context Relevant The Copia Institute

**CREDO** Mobile Data Foundry Dropbox Evernote Facebook Gandi.net Golden Frog Google HackerOne Hackers/Founders Hewlett-Packard Company Internet Archive Internet Association Internet Infrastructure Coalition (i2Coalition) Level 3 Communications LinkedIn Microsoft Misk.com Mozilla Open Spectrum Inc. Rackspace Rapid7 **Reform Government Surveillance** Sonic ServInt Silent Circle Slack Technologies, Inc. Symantec Tech Assets Inc. TechNet Tumblr Twitter Wikimedia Foundation Yahoo

## Security and Policy Experts\*

Hal Abelson, Professor of Computer Science and Engineering, Massachusetts Institute of Technology
Ben Adida, VP Engineering, Clever Inc.
Jacob Appelbaum, The Tor Project
Adam Back, PhD, Inventor, HashCash, Co-Founder & President, Blockstream
Alvaro Bedoya, Executive Director, Center on Privacy & Technology at Georgetown Law
Brian Behlendorf, Open Source software pioneer
Steven M. Bellovin, Percy K. and Vida L.W. Hudson Professor of Computer Science, Columbia University

Matt Bishop, Professor of Computer Science, University of California at Davis Matthew Blaze, Director, Distributed Systems Laboratory, University of Pennsylvania Dan Boneh, Professor of Computer Science and Electrical Engineering at Stanford University Eric Burger, Research Professor of Computer Science and Director, Security and Software Engineering Research Center (Georgetown), Georgetown University Jon Callas, CTO, Silent Circle L. Jean Camp, Professor of Informatics, Indiana University Richard A. Clarke, Chairman, Good Harbor Security Risk Management Gabriella Coleman, Wolfe Chair in Scientific and Technological Literacy, McGill University Whitfield Diffie, Dr. sc. techn., Center for International Security and Cooperation, Stanford University David Evans, Professor of Computer Science, University of Virginia David J. Farber, Alfred Filter Moore Professor Emeritus of Telecommunications, University of Pennsylvania Dan Farmer, Security Consultant and Researcher, Vicious Fishes Consulting Rik Farrow, Internet Security Joan Feigenbaum, Department Chair and Grace Murray Hopper Professor of Computer Science Yale University Richard Forno, Jr. Affiliate Scholar, Stanford Law School Center for Internet and Society Alex Fowler, Co-Founder & SVP, Blockstream Jim Fruchterman, Founder and CEO, Benetech Daniel Kahn Gillmor, ACLU Staff Technologist Robert Graham, creator of BlackICE, sidejacking, and masscan Jennifer Stisa Granick, Director of Civil Liberties, Stanford Center for Internet and Society Matthew D. Green, Assistant Research Professor, Johns Hopkins University Information Security Institute Robert Hansen, Vice President of Labs at WhiteHat Security Lance Hoffman, Director, George Washington University, Cyber Security Policy and **Research** Institute Marcia Hofmann, Law Office of Marcia Hofmann Nadim Kobeissi, PhD Researcher, INRIA Joseph Lorenzo Hall, Chief Technologist, Center for Democracy & Technology Nadia Heninger, Assistant Professor, Department of Computer and Information Science, University of Pennsylvania David S. Isenberg, Producer, Freedom 2 Connect Douglas W. Jones, Department of Computer Science, University of Iowa Susan Landau, Worcester Polytechnic Institute Gordon Fyodor Lyon, Founder, Nmap Security Scanner Project Aaron Massey, Postdoctoral Fellow, School of Interactive Computing, Georgia Institute of Technology Jonathan Mayer, Graduate Fellow, Stanford University Jeff Moss, Founder, DEF CON and Black Hat security conferences

- Peter G. Neumann, Senior Principal Scientist, SRI International Computer Science Lab, Moderator of the ACM Risks Forum
- Ken Pfeil, former CISO at Pioneer Investments
- Ronald L. Rivest, Vannevar Bush Professor, Massachusetts Institute of Technology
- Paul Rosenzweig, Professorial Lecturer in Law, George Washington University School of Law
- Jeffrey I. Schiller, Area Director for Security, Internet Engineering Task Force (1994-2003), Massachusetts Institute of Technology
- Bruce Schneier, Fellow, Berkman Center for Internet and Society, Harvard Law School
- Micah Sherr, Assistant Professor of Computer Science, Georgetown University

Adam Shostack, author, "Threat Modeling: Designing for Security"

Eugene H. Spafford, CERIAS Executive Director, Purdue University

- Alex Stamos, CISO, Yahoo
- Geoffrey R. Stone, Edward H. Levi Distinguished Service Professor of Law, The University of Chicago
- Peter Swire, Huang Professor of Law and Ethics, Scheller College of Business, Georgia Institute of Technology
- C. Thomas (Space Rogue), Security Strategist, Tenable Network Security
- Dan S. Wallach, Professor, Department of Computer Science and Rice Scholar, Baker Institute of Public Policy
- Nicholas Weaver, Researcher, International Computer Science Institute
- Chris Wysopal, Co-Founder and CTO, Veracode, Inc.
- Philip Zimmermann, Chief Scientist and Co-Founder, Silent Circle

\*Affiliations provided only for identification purposes.