

DAVID Y. IGE  
GOVERNOR

SHAN S. TSUTSUI  
LIEUTENANT GOVERNOR



LINDA CHU TAKAYAMA  
DIRECTOR

LEONARD HOSHIJO  
DEPUTY DIRECTOR

**STATE OF HAWAII  
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS**

830 PUNCHBOWL STREET, ROOM 321  
HONOLULU, HAWAII 96813  
[www.labor.hawaii.gov](http://www.labor.hawaii.gov)  
Phone: (808) 586-8844 / Fax: (808) 586-9099  
Email: [dliir.director@hawaii.gov](mailto:dliir.director@hawaii.gov)

February 3, 2017

TO: The Honorable Mark M. Nakashima, Chair,  
The Honorable Jarrett Keohokalole, Vice-Chair, and  
Members of the House Committee on Economic Development & Business

Date: Friday, February 3, 2017  
Time: 9:15 a.m.  
Place: Conference Room 309, State Capitol

From: Linda Chu Takayama, Director  
Department of Labor and Industrial Relations (DLIR)

**Re: HB 598 HD1 Proposed Relating to Cybersecurity**

**I. OVERVIEW OF PROPOSED LEGISLATION**

HB598 HD1 Proposed establishes a cybersecurity pilot project in the office of the Vice President for Research and Innovation at the University of Hawaii to plan, develop, and implement a cyber ecosystem to address the many aspects of cybersecurity, including workforce development, curriculum development, threat preparedness, and economic innovation.

The department supports this bill provided its passage does not adversely affect priorities identified in the Governor's Executive Budget request, and offers comments.

**II. CURRENT LAW**

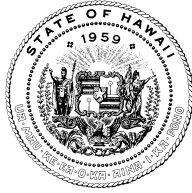
Cybersecurity will be a growing concern as more of the economic and personal activities of Hawaii's people have some online component, which creates potential vulnerabilities and exploits of which many people may be unaware. Other coordinated efforts such as the National and State Cyber Security Awareness Month in October have recognized that the shared vulnerabilities created by online activity entails the need for shared responsibility for such potential threats. However, more work is required to ensure that Hawaii's workforce is able to proactively meet cybersecurity challenges in the coming years.

### **III. COMMENTS ON THE HOUSE BILL**

The department supports this bill as a way to build cybersecurity understanding and awareness into Hawaii's education, workforce development, and economic ecosystem, provided that its passage does not adversely affect priorities identified in the Governor's Executive Budget request, and offers the following comment:

Cybersecurity is deeply intertwined with the opportunities for innovation afforded by advancements in digital technologies. A focus on cybersecurity can both ensure a cutting edge workforce while also protecting Hawaii from sophisticated cyber threats.

DLIR notes that currently it has grant funding of \$3,000,000 (American Apprenticeship Initiative) to develop apprenticeships in information technology, which may include cybersecurity. This measure, if enacted, could contribute to the development of information technology career pathways, including those needed in the important cybersecurity field.



**STATE OF HAWAII**  
**OFFICE OF ENTERPRISE TECHNOLOGY SERVICES**

P.O. BOX 119, HONOLULU, HI 96810-0119  
Ph: (808) 586-6000 | Fax: (808) 586-1922  
ETS.HAWAII.GOV

Testimony of  
TODD NACAPUY  
Chief Information Officer, State of Hawai'i

Before the

HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT AND BUSINESS  
Friday, February 3, 2017; 9:15 a.m.  
State Capitol, Conference Room 309

HOUSE BILL NO. 598, H.D. 1  
RELATING TO CYBERSECURITY

Chair Nakashima, Vice Chair Keohokalole, and Members of the Committee:

I am Todd Nacapuy, Chief Information Officer of the State of Hawai'i and head of the Office of Enterprise Technology Services (ETS), testifying in **strong support** of House Bill No. 598 H.D. 1, Relating to Cybersecurity.

I am pleased to report that we have made great strides in securing the State government network and expanding our employee-led cybersecurity program that serves to protect the people's information and data that reside on our systems. However, cybersecurity remains a shared responsibility in which every citizen has a critical role to play in improving the security of cyberspace for all of us. Cyber threats and vulnerabilities outside of the government network also have the potential to impact Hawai'i's residents and the various resources — public and private — on which they rely.

ETS supports the proposed partnership between academia, government and the private sector to offer focused cybersecurity education, training, and workforce development. These pilot programs led by the University of Hawai'i will strengthen the cybersecurity workforce as a whole by ensuring there are well-trained cybersecurity professionals to meet today's needs, and by maintaining a strong pipeline to produce future cybersecurity professionals critical to securing private industry, the government and the Nation against increasing threats in cyber space. These efforts will build upon each partners' successful programs for cybersecurity professionals who keep our businesses and governments secure.

Further, this collaborative program will supplement ETS's IT workforce development strategies and programs that involve establishing flexible programs to attract and retain individuals possessing modern IT disciplines to fill service and skill gaps within the State's IT operations, building outreach campaigns to recruit candidates from non-traditional sectors, and developing internship and apprenticeship programs that proactively share government opportunities with high school graduates as well as two-year and four-year degree program participants.

Thank you for this opportunity to testify in strong support of this bill.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

---

Testimony Presented Before the  
House Committee on Economic Development & Business  
February 3, 2017 at 9:15 a.m.

by  
Vassilis L. Syrmos, Vice President for Research and Innovation  
University of Hawai'i System

### HB 598 Proposed HD1 – RELATING TO CYBERSECURITY

Chair Nakashima, Vice Chair Keohokalole and members of the committee:

The University of Hawai'i (UH) supports HB 598 Proposed HD1 to establish a Cyber Hawai'i Pilot Project to plan, develop and implement a “cyber-ecosystem” to coordinate and support cyber activities related to readiness and resilience, education and workforce development, economic development and innovation.

Cyber threats are among the gravest national security dangers to the United States – as citizens and those in the private sector and government are increasingly confronted by a range of actors attempting to do harm through identity theft, cyber-enabled economic espionage, politically motivated cyberattacks and other malicious activity.

It is also one of the most strategic threats that federal, state and private sector industries face in Hawai'i. Operation-critical systems in every sector have a dependency on cyber, which expands capacity and range of capability -- but also introduces new and evolving forms of vulnerabilities that threaten the security infrastructure.

The University of Hawai'i is well-engaged in numerous cybersecurity research, education and workforce development initiatives, including the establishment of NSA-designated Centers of Academic Excellence in Cyber Defense & Research at UH Mānoa, Honolulu Community College and at UH West O'ahu; conducting annual joint cybersecurity exercises involving the Hawai'i National Guard, U.S. Coast Guard and a number of business, industry and government organizations; and annually hosting the GenCyber Camps that encourage STEM pathways in cybersecurity to middle and high school students.

Through its active engagements and partnerships with U.S. Pacific Command, NSA Hawai'i, Military Affairs Council, CIO Council of Hawai'i and other influential organizations, UH's is in perfect position to serve as the “quarterback” to coordinate and articulate a statewide “cyber-ecosystem” that will be able to share real-time threat intelligence with a trusted, vetted community and grow a skilled cybersecurity workforce here in the state of Hawai'i.

The University of Hawai'i would like to request that the Legislature pass this measure and appropriate \$250,000 to fund the project. To further demonstrate its commitment to this important initiative, UH pledges a 1-1 match of the appropriation.

Thank you for the opportunity to provide this testimony.

Written Only

DAVID Y. IGE  
GOVERNOR



KATHRYN S. MATAYOSHI  
SUPERINTENDENT

STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

**Date:** 02/03/2017

**Time:** 09:15 AM

**Location:** 309

**Committee:** House Economic Development &  
Business

**Department:** Education

**Person Testifying:** Kathryn S. Matayoshi, Superintendent of Education

**Title of Bill:** HB 0598 RELATING TO CYBERSECURITY.

**Purpose of Bill:** Places the Hawaii Cybersecurity, Economic, Education, and Infrastructure Security Coordinator within the Office of Enterprise Technology Services.

**Department's Position:**

Chair Nakashima and Members of the House Committee on Economic Development & Business. Thank you for this opportunity to submit testimony **in strong support of HB 598 Proposed HD 1** that establishes a cyber Hawaii pilot project to plan, develop, and implement a cyber ecosystem that addresses the many aspects of cybersecurity in Hawaii.

The Department of Education currently works closely and collaboratively with the University of Hawaii System, including its Community Colleges, to prepare our students for careers in technology related disciplines. The implementation of a pilot project relating to Hawaii's cybersecurity requirements will provide our students with not only additional and continued technology based educational curriculum, but also the additional opportunities for careers in Hawaii's technology and innovation economy.

Thank you again for your consideration of the Department of Education's **strong support** of HB 598 Proposed HD1.

Statement of  
Nelson Kanemoto  
President and CEO  
Referentia Systems Incorporated  
before the  
COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS  
Friday, February 3, 2017  
9:15 a.m.  
State Capitol, Conference Room 309  
In consideration of  
HB 598 HD 1 PROPOSED  
RELATING CYBERSECURITY

Chair Nakashima, Vice Chair Keohokalole, and members of the House Committee on Economic Development and Business. Thank you for this opportunity to submit testimony on HB 598 HD 1 PROPOSED.

My name is Nelson Kanemoto, President and CEO of Referentia Systems Inc. Referentia strongly supports HB 598 HD1. Referentia Systems is a National Security Agency (NSA) Trusted Integrator headquartered in Hawaii and a nationally recognized provider of cybersecurity solutions for the federal government, the Department of Defense (DoD), and other critical infrastructure. Referentia has a strong track record of successful advanced solutions to address critical cybersecurity concerns threatening IT modernization including the Nation's smart grid.

As a developer of cybersecurity and advanced network solutions for critical infrastructure, Referentia understands the central role that broadband and the Internet plays in local, national and global economic development and modernization including the development of the smart grid, healthcare information exchange, transportation security, etc. as well as financial, tourism, military, and other key industries – all vulnerable to cyber threats.

Referentia is in full support of establishing a cyber Hawaii pilot project at the University of Hawaii to plan, develop and implement a cyber ecosystem to include education, workforce development, innovation and economic develop in cybersecurity. A cybersecure Hawaii at the community level across the islands is critical for Hawaii's economic stability and internet safety of its citizens, businesses and especially, critical infrastructure.

For Hawaii to compete as an economic stronghold in the global marketplace, the cybersecurity of our critical infrastructure and our communities are key to driving innovation, modernization, economy development and job creation. Thank you again for this opportunity to submit testimony in strong support of HB 598 HD1 PROPOSED.

Sincerely,



Nelson Kanemoto  
President and CEO



# Chamber of Commerce HAWAII

*The Voice of Business*

**Testimony to the House Committee on Economic Development  
& Business  
Friday, February 3, 2017 at 9:15 A.M.  
Conference Room 309, State Capitol**

**RE: HOUSE BILL 598 RELATING TO CYBERSECURITY**

Chair Nakashima, Vice Chair Keohokalole and Members of the Committee:

The Chamber of Commerce of Hawaii (“The Chamber”) **supports** the proposed House Draft 1 for HB 598, which establishes and appropriates funds for a Cyber Hawaii pilot project in the University of Hawaii’s Office of the Vice President for Research and Innovation.

Last year, the Chamber’s Military Affairs Council (“MAC”) established an Ad Hoc Committee pertaining to critical infrastructure and the University of Hawaii’s University Affiliated Research Center (“UARC”) to focus on the importance of a secure critical infrastructure to protect our island community and to support applied research in cybersecurity, smart grid and resiliency, data science and analytics. We are pleased to partner with a Cyber Hawaii organization which will focus on threat assessments and vulnerabilities, information sharing amongst stakeholders and critical infrastructure sectors, as well as workforce development and career pathways, and innovation and technology.

Once established, the MAC hopes that Cyber Hawaii will join and connect with Cyber USA, the national network, and avail itself of national resources, both public and private, to further the overall goal of a safe and secure island home, together with a trained cyber security workforce.

Thank you for this opportunity to testify.



Testimony Presented Before the  
House Committee on Economic Development & Business  
Thursday, February 2, 2017 at 9:15 a.m.

by  
Brandon Marc Higa (as current law student)

HB 598 – RELATING TO CYBERSECURITY

Chair Nakashima, Vice Chair Keohokalole and members of the committee:

My name is Brandon Marc Higa, a second year law student at the University of Hawaii William S. Richardson School of Law. I am submitting this testimony as a private citizen and not in my capacity as a current member of the University of Hawaii Board of Regents.

I am writing in support of HB 598, pertaining to the establishment of a Cyber Hawaii Pilot Project in the Office of the Vice President for Research and Innovation at the University of Hawaii to plan, develop, and implement a cyber ecosystem that addresses the many aspects of cybersecurity.

The proposed Cyber Hawaii Pilot Project will complement the ongoing efforts at the community colleges to provide system-wide leadership in the area of cybersecurity throughout the University of Hawaii. This will provide infrastructure that will foster alignment of programs that will better suit student interests and workforce partner needs.

The proposed Cyber Hawaii Pilot Project will complement the University of Hawaii's ongoing efforts to address workforce needs in various areas of cybersecurity. In 2014, the University of Hawaii Maui College established a consortium of UH Community College campuses to provide workforce development skills for various cybersecurity professions – Information Security Analyst, Computer Support Specialist, Web Developer, and Network Specialist. At the time the project was conceptualized, the Federal Government (nationally) alone needed 10,000 cybersecurity experts by 2020, double what it currently has in 2014. The need for a firm commitment to meeting workforce and societal demands for professionals trained in cybersecurity is clear.

Thank you for the opportunity to testify in support of HB 598.

Respectfully submitted: February 2, 2017

s/Brandon Marc Higa

**LATE**



Chamber of Commerce HAWAII  
*The Voice of Business*

**Testimony to the House Committee on Economic Development & Business  
Friday, February 3, 2017 at 9:15 A.M.  
Conference Room 309, State Capitol**

**RE: HOUSE BILL 598 HD1 RELATING TO CYBERSECURITY**

Chair Nakashima, Vice Chair Keohokalole, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports** HB 598 HD1, which establishes a Cyber Hawaii Pilot Project in the Office of the Vice President for Research and Innovation at the University of Hawaii to plan, develop, and implement a cyber ecosystem that addresses the many aspects of cybersecurity.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 1,600+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

This bill would provide crucial support to plan, develop and implement a cyber security center at the University of Hawaii. This is an important project that should be implemented in this age of internet connectivity and rampant cyber threats around the world today. The bill would also provide the talent pipeline needed today by businesses in Hawaii.

Thank you for the opportunity to testify.