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Testimony of the Department of Commerce and Consumer Affairs

**Before the
House Committee on Intrastate Commerce
Tuesday, February 4, 2020
9:30 a.m.
State Capitol, Conference Room 430**

**On the following measure:
H.B. 2594, RELATING TO BLOCKCHAIN TECHNOLOGY**

Chair Ohno and Members of the Committee:

My name is Catherine Awakuni Colón, and I am the Director of the Department of Commerce and Consumer Affairs' (DCCA or Department). The Department appreciates the intent of and offers comments on this bill.

The purpose of this bill is to: (1) require the DCCA to establish a blockchain working group to determine a recommended definition for blockchain technology; and (2) make recommendations for individuals, businesses, and state agencies to use blockchain technology and report to the Legislature.

The Department appreciates the bill's intent to use blockchain technology to support government and public-sector applications. As the bill points out, blockchain technology can be leveraged to support a diverse range of applications, such as land registration, taxation, voting, digital currency and payments, and legal entities management.

While the DCCA has some knowledge of blockchain technology through its pilot program collaboration between the Hawaii Technology Development Corporation and the Department's Division of Financial Institutions, that program is in its infancy and relates solely to virtual currency.

Despite this pilot program, the Department believes a blockchain working group would require oversight by an agency better equipped to evaluate the application of blockchain technology in a broader context. Most of these applications are well outside the jurisdiction of the DCCA, which protects consumers through business registration and professional licensure, monitoring the financial solvency of local financial institutions and insurance companies, and investigating complaints of unfair business practices and license violations. Given the tailored mission of the DCCA, it would be difficult to use existing staff expertise to oversee the working group.

Thank you for the opportunity to testify on this bill.



LATE

**Testimony of
Nathaniel Harmon on behalf of
Blockchain Solutions Hawaii LLC**

**Before the House Committee on
INTRASTATE COMMERCE**

**Tuesday, February 04, 2020
9:30am
State Capitol, Conference Room 430**

**In consideration of
HOUSE BILL 2594
RELATING TO BLOCKCHAIN TECHNOLOGY.**

House Bill 2594 seeks to establish a blockchain working group to determine a recommended definition for blockchain technology and recommendations for individuals, businesses, and state agencies to use blockchain technology and report to the legislature. **Blockchain Solutions Hawaii LLC strongly supports this measure.**

Blockchain Solutions Hawaii (BSH) is a small local business that focuses on education and proliferation of open-source technology related to Bitcoin and blockchain. Our experience in programming and understanding of the underlying protocol that underpins Bitcoin and other blockchains has led us to the conclusion that, this technology offers the same or greater efficiency gains to society as the internet. These efficiency gains stem from the unique security model originally implemented in the Bitcoin protocol.

The security model is called proof-of-work and represents a major technological breakthrough in computer science solving a century old problem. Simplified, the problem boils down to scarcity/uniqueness on the internet. Prior to Bitcoins invention if you were to put a file on the internet, that file could be copied and pasted creating two identical copies. The inability to have scarcity on the internet manifests today in wide spread identity theft, supply chain fraud, copy-write infringement, and large scale theft of personal information costing consumers and businesses \$billions. Traditionally, in order to mitigate the problems inherent to the current internet, we as a society outsource trust to a number of third party functionaries who act as gatekeepers, until they don't. The result of relying on these third party functionaries has been the proliferation of data mining. As we are all aware data mining has similar, if not worse, effects on society than the criminal data theft that it is meant to protect from in the first place.

In contrast to traditional systems of verification with a single third-party functionary being responsible, Bitcoin tasks all parties in the verification process i.e. unilateral verification or consensus. Bitcoins proof-of-work consensus model embodies the concept of "many hands make for light work" and by this redefines the standard for immutability, security, and decentralization at a fraction of the cost, zero-marginal cost. Bitcoins consensus extends to a set of standardized rules that must be followed in order to interact with the network. With any change to those rules requiring +95% of all participants to agree. These rules ensure that the network maintains neutrality and trust-less execution of small programs, know as transactions.

The first use case found for this new technology was in payments. Currently an electronic payment costs ~3% of the total value, for the merchant that 3% can represent +50% of their profit margin for the sale. Additionally, that 3% of every transaction is being syphoned out of the local economy to the mainland. But payments are not the only use for Bitcoin.

In BSH's daily activities we use a tiny fraction of a Bitcoin, not for its value but for its security properties. This brings the cost and manpower required for our activities down to a level to where we can offer a superior service on-island at a fraction of the cost to that of large scale traditional mainland businesses.

Bitcoin is not a panacea, as an individual can still be compromised. The difference is that the individual being "hacked" does not compromise anyone else nor the entire system, which is the case with the traditional system. Further, an individual can set up a system where Bitcoin theft requires a criminal physically steal the Bitcoin and coerce the victim into providing a password. Contrast this with custodial Bitcoin services, where users relinquish control of their Bitcoin to a third party, in a similar way to the traditional system. These services can and have been hacked with all clients losing everything instantly. Whereas physical theft from an individual is an insurable event, as it cannot be duplicated to millions with a single click, hacking a custodial service is not.

Another risk to consumers comes in the form alternative blockchains. Not all blockchains are created equal, none are as secure as Bitcoin and many are Ponzi schemes designed only to enrich the founder, something Bitcoin does not have. The phrase "blockchain not Bitcoin" often heard in the media results in public confusion. It conveys that because Bitcoin is secure and uses a blockchain, other blockchain projects must be secure as well.

A blockchain is not inherently secure. Just looking at the top 5 blockchain projects after Bitcoin, all have had and still have major technical flaws in their implementation that make them either insecure or outright scams. Understanding what the difference is between the different projects is crucial to crafting common sense legislation.

There are many applications that do not require the level of security that Bitcoin offers, but our personal data, identity, vote, healthcare records, and the foundation for which a less intrusive internet should be built on do. In order to start proliferating the benefits offered by Bitcoin to the general population, a set of standards and definition need to be established regarding Bitcoin and blockchains. Particularly with regards to custodial vs non-custodial services, as much of the security benefits of using Bitcoin are lost when using custodial services. Treating both the same presents a barrier to entry for local businesses that should be encouraged while artificially selecting for large mainland custodial firms that should be discouraged. Additionally, an official Bitcoin full node should be established and made public for all residents as a reference.

It is because of the above reasons that BSH supports the commission of a blockchain working group. BSH would also like to extend our expertise in this subject from the academic, technical, and small business perspective to the working group.

Mahalo
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February 3, 2020

Aloha, Rep. Takashi Ohno, Chair, Rep. Dale T. Kobayashi, Vice Chair, and members of the Committee on Intrastate Commerce:

I am writing to express my **support** of HB 2594 as it relates to blockchain technology.

Blockchain technology, which underlies a range of applications including cryptocurrency and bitcoin, is both mainstream and secure. Hawaii's current policy posture, largely controlled by the Department of Financial Institutions under the DCCA, needlessly opts the state and its citizens out of the benefits and opportunities available via blockchain technology.

Lawmakers should certainly not charge blindly into the unknown, so a working group is a reasonable first step. But I would encourage you to act swiftly and decisively in favor of next-generation technologies lest Hawaii be left in the backwaters of a global phenomenon.

Thank you for your consideration.

LATE

BLOCKCHAIN IMPLEMENTATION

For The State of Hawaii

The Future of the Financial Economy

The islands of Hawaii Visitors to the Hawaiian Islands spent a total of \$1.39 billion in May 2019, a decrease of 2.1% compared to the same month last year, according HTA. On a statewide level, average daily visitor spending was down in May year-over-year. Visitors from Canada spent more per day, while travelers spent less from U.S. West, U.S. East, Japan, and All Other International Markets. By integrating digital currencies, along with Blockchain technology into the local economy visitors will not have the restrictions of any type of currency exchange, or limitations of the amount of currency they bring with them. Blockchain technology will allow for easier, and increased spending habits.

Beyond decentralization, blockchain offers the country the possibility of having compliance “baked into the currency protocol itself,” — in the minister’s words — “while maintaining privacy for individuals.” The technology, he notes, allows the state to automate much of its compliance obligations, lowering the costs associated with existing systems and thus helping it take a more proactive role in the global fight against money laundering and financing of terrorism. Other aspects of the essay point to the fact that fiat remittance services are currently extremely expensive for citizens, something that frictionless blockchain-based systems can help mitigate.

As recently [reported](#), China is now readying itself to launch a central bank-backed, blockchain-based digital currency for use in retail scenarios.

Apple Pay vice president Jennifer Bailey, [talking to CNN](#) at a private event in San Francisco, said “We think it’s interesting. We think it has interesting long-term potential.” The document indicated that Apple was involved in the drafting of “Blockchain Guidelines” for the Responsible Business Alliance’s Responsible Minerals Initiative and had been working with the RBA’s blockchain team. Elsewhere in the CNN report, Bailey said that in launching Apple Pay, the firm has made it harder for users to tip. The firm is looking at the problem, she indicated.

Cryptocurrency exchange Binance has announced that it’s launching a project that will develop cryptocurrencies and digital assets pegged to fiat currencies around the world. Dubbed Venus, the “localized” stablecoin initiative will see the firm utilize its existing infrastructure, such as its public blockchain, Binance Chain, and international payment system, “to empower developed and developing countries to spur new currencies.” Binance said it’s seeking to create new partnerships with governments, enterprises and cryptocurrency and blockchain firms to assist the effort.

The blockchain technology can optimize the global financial infrastructure, achieving sustainable development, using more efficient systems than at present. In fact, many banks are currently focusing on blockchain technology to promote economic growth and accelerate the development of green technologies.

The future of blockchain will disrupt all intermediaries, such as title companies and escrow. removing this part of the home buying process will streamline everything to enhance the buying and selling experience.

The main problem we face as consumers is the unfair fees involved in the record keeping and escrow process involved in real estate transactions. Smart contracts and public ledger will soon remedy the problem by enabling everything these title companies do in a free, and more public way that allows the home owner to own the data about their own as well. Without smaller businesses leeching off the real estate industry consumers will be more empowered than ever and will allow the entire industry to flourish.

Humana, Multiplan, UnitedHealth Group's Optum, UnitedHealthcare and Quest Diagnostics are embarking on a pilot program to apply blockchain to healthcare provider demographic data.

Currently, organizations across the healthcare industry usually keep separate copies of provider data. Reconciling the data can take a lot of time and money—as much as \$2.1 billion annually, according to the companies. By using the encrypted system of data exchange that relies on a distributed ledger, they aim to make this data both more accurate and administratively friendly.

Blockchain is a popular buzzword both within and outside of healthcare. Some hope the technology will enable greater sharing of patient records, thereby driving interoperability. Others think it will make claims processing and payments more efficient. With [Change Healthcare's blockchain network](#), for instance, hospitals, physicians, and payers can track claims status.

Digital currencies are reshaping local, and worldwide economies.

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HB-2594

Submitted on: 2/4/2020 8:37:24 AM

Testimony for IAC on 2/4/2020 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mike Caraang	Individual	Support	No

Comments:

Hawaii needs to implement the use of Blockchain technology, and remove the restrictions of acquiring and using it. All the other States have accepted, and are beginning to use it. The residents of Hawaii want to get involved, but can not due to the current restrictions.

LATE

HB-2594

Submitted on: 2/4/2020 8:43:17 AM

Testimony for IAC on 2/4/2020 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Rey Tumamao	Individual	Support	No

Comments:

The use of blockchain technology will help people track items better, and send payments cheaper and faster. Please help the people of Hawaii, and not continue to restrict this technology any longer. Thank you