

VI. THE ROLE OF STATE GOVERNMENT

Key Recommendations:

- Amend the statute related to vital records:

Current statute language: HSC § 103526.5(a) The State Registrar, local registrar, or county recorder shall, upon request and payment of the required fee, supply to an applicant a certified copy of the record of a birth, fetal death, death, marriage, or marriage dissolution registered with the official. When the original forms of certificates of live birth furnished by the State Registrar contain a printed section at the bottom containing medical and social data or labeled “Confidential Information for Public Health Use Only,” that section shall not be reproduced in a certified copy of the record except as specifically authorized in § 102430.

Suggested amendments:

- Notwithstanding subdivision (b) of § 103526.5, a county recorder may issue a certified copy of a marriage record pursuant to Section 103525 by means of blockchain technology.
- For purposes of this section, “blockchain technology” means a mathematically secured, chronological, and decentralized consensus ledger or database.
- Consider establishing a Blockchain Innovation Zone to incentivize and provide safe harbor to blockchain companies working to solve California’s most pressing problems.
- Promote collaboration through:
 - Creating a multi-stakeholder governance model for regulating blockchain technologies that would include government regulatory agencies, together with consumer advocacy groups and other industry stakeholders.
 - Create a resource for best practices to be shared and co-created among businesses of various sizes and types.

FOSTERING A WELCOMING BUSINESS ENVIRONMENT

INTRODUCTION – CALIFORNIA CONTEXT

Blockchain technology offers decentralization, immutability, interoperability, security, transparency, and financial innovation to the economy and other fields. Over the next decade, blockchain technology may be integrated within many industries to enhance trust, safety, health, and efficiency in sectors such as healthcare, real estate, finance,

data, energy, trade, and government. Blockchain technology is projected to have a value of \$176 billion by 2025,¹ and 10% of global GDP is projected to be stored on blockchain ledgers by 2027.²

California is home to 571 blockchain companies, down from 731 and continuing to decline.³ This represents around 6% of the global blockchain market. However, as the home of Silicon Valley, California typically commands 20% of market share for most technology fields. This precipitous decline stems in part from a less-than-welcoming business environment. Blockchain companies face regulatory uncertainty, and lack incentives and safe harbors granted to other emerging industries. At the same time, such companies face extensive enforcement by several Federal agencies including the SEC, the CFTC, the IRS.⁴

The vast majority of blockchain businesses in California are small businesses and startups. Nearly two-thirds of the companies have 10 or fewer employees. California has an opportunity to support this nascent industry

California can add value to this market trend and help address inequality in opportunity, education, and wealth by supporting blockchain entrepreneurs with 1) Blockchain centered incentives; and 2) Regulatory certainty; and 3) Digital asset banking.

BLOCKCHAIN INNOVATION ZONE

California should create a Blockchain Innovation Zone in which qualifying companies receive a bundle of incentives and resources. The incentives program should be tied to achieving state economic development benchmarks over the next decade, and only those companies working toward those goals (although not necessarily their only line of business) should be granted such incentives.

Qualifying blockchain companies could receive specific enforcement safe harbors and legal exemptions that are lacking at the Federal level but have been adopted in other

¹ConsensSys, "Gartner: Blockchain Will Deliver \$3.1 Trillion Dollars in Value by 2030."
<https://media.consensys.net/gartner-blockchain-will-deliver-3-1-trillion-dollars-in-value-by-2030-d32b79c4c560>

² McKinsey Digital, "Blockchain beyond the hype: What is the Strategic Business Value?"
<https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/blockchain-beyond-the-hype-what-is-the-strategic-business-value>

³ "California Blockchain Companies," Crunchbase
https://www.crunchbase.com/search/organization.companies/field/hubs/org_num/california-blockchain-companies

⁴"Crypto Asset Market Coverage", Report by Satis Group
https://research.bloomberg.com/pub/res/d2gg3p_HTg39HRCuzQjlyy8NVZQ

states including AZ, CO, and WY. The state could also offer grants, loans, and tax credits for blockchain startups working to serve key industries.

To qualify, blockchain companies should target sectors affecting California including affordable housing and homelessness, healthcare, sustainability, water, financial inclusion, transportation, manufacturing, farming, the arts, real estate, education, and workforce development. This incentive package would drastically reduce expenses for young, cash-strapped companies looking to help California meet its policy goals.

- a. **Allow people to work for equity compensation.** The blockchain ecosystem is composed of many people who would like to work on a project for equity. Likewise, many projects can provide equity to early contributors, but can't afford to employ them. Under existing law such arrangements are often disallowed. California could provide an exemption to qualifying blockchain companies.
- b. **Incubation.** Permit co-living incubators in Los Angeles, the Bay Area, San Diego and Sacramento specifically focused on disruptive technology and blockchain technologies. These 24-hour work/live spaces could draw top talent from abroad, with low costs, and foster a collaborative environment.
- c. **Public-Private Partnerships.** Open the state government to public-private partnerships, and sponsor pilot projects.
- d. **Money Transmitter License.** Like other states, California has licensing laws for transmitting money. As with several states, the text of the law may require cryptocurrency companies to become licensed. Unlike other states, the California regulator has refused to either grant licenses to cryptocurrency companies or publicly say that licensing requirements do not apply. Qualifying companies could receive exemptions from California money transmitter licensing requirements. Or alternatively, California could offer a clear and simple regulatory pathway to obtaining a money transmission license. Alternatively, adopting a flexible Special Purpose Depository Institution (SPDI) regime that provides exemption from state money transmitter licenses could also achieve this goal.
- e. **Benefit Corporation Personhood for Decentralized Autonomous Organizations.** A cornerstone of blockchain companies is the Decentralized Autonomous Organization (DAO). DAOs are a collection of smart contract automated agreements and business processes which guide the governance of many blockchain businesses. Participation in the DAO may require operating the blockchain's code ("proof of work") or obtaining and assigning the native-network asset ("proof of stake"). DAOs might be thought of as an advancement of co-ops with bylaws written in computer code.

DAOs can serve the same purpose as co-ops while removing many of the administrative frictions. For DAOs working toward the public good, California should provide protections like those created for non-governmental

organizations (NGOs) and specifically, offer legal standing as a California Benefit Corporation.⁵

- f. **Facilitate blockchain-enabled municipal finance.** Municipal finance is about to face its biggest challenge in over a century with depressed revenues and likely continued need for social distancing, making paper-based approaches very difficult. The current proposal from the Federal Reserve to expand its plans to buy municipal bonds under emergency powers, currently limits this option for counties with fewer than two million people or cities with fewer than one million residents. Such municipalities are raising their concerns, but States may be faced with needing to establish new arrangements to enable smaller entities to effectively raise financing. This is just one aspect of the challenges that smaller municipalities will face in the coming months and years.⁶ By expressly supporting the adoption of blockchain-based digital municipal bond issuance programs, the State can help address the inevitable issues that will arise with municipal finance as well as support enterprise-class adoption of blockchain technology. A starting point would be to rapidly adopt similar legislation to WY, expressly allowing bonds issued by municipalities to be digital securities.⁷

REGULATORY CLARITY

A cornerstone of business success is clarity of the regulatory regime. Cryptocurrency is defined in five ways at the federal level: securities (SEC); commodities (CFTC); currency (Treasury); property (IRS); and money transmission (FinCEN). The latter is a particular thorn; in addition to obtaining necessary federal Money Service Business licenses, companies wishing to engage U.S. customers must comply with individual licensing requirements in all 50 states and then must also apply for BitLicenses in states such as NY and WA.

California can greatly improve the blockchain business climate by clarifying a few key regulations. California could follow the lead of other states such as AZ, CO and WY and countries such as Singapore, Germany and Switzerland: define digital assets based on their function and regulate them separately. California could create three categories: i) payment, ii) consumptive/utility tokens, and iii) asset tokens, and exempt consumptive or utility tokens from state securities laws.

⁵ California Corp Code Div. 1.5 "Social Purpose Corporations Act"

https://leginfo.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=CORP&division=&title=1.&part=&chapter=&article=

⁶ Smiaek, Jenna " Fed Gearing Up to Help Smaller Local Governments"

<https://www.nytimes.com/2020/04/20/business/economy/fed-local-governments-coronavirus.html>

⁷ State of Wyoming Legislation 2020 <https://wyoleg.gov/Legislation/2020/HB0020>.

DIGITAL ASSET BANKING

California should follow Wyoming's example and charter digital asset banks. Digital asset banks would allow California entities to provide prime brokerage services for the digital asset economy, digital and traditional currency on/off ramps, provide custodial services, and facilitate USD banking for blockchain companies.

These Special Purpose Depository Institutions or SPDIs offer the possibility of a state chartered and regulated bank that is non-FDIC insured, and that has access to a Federal Reserve master account. Appropriately structured SPDIs are believed to not be subject to certain other state's regulations on digital assets and conventional funds. Wyoming was the first state to adopt a SPDI, but the uptake has been hampered by a number of issues, in particular, Wyoming's very restrictive capital requirements.⁸ A similarly designed structure in California could be tailored to avoid such roadblocks and provide the critical financial infrastructure for not only California's blockchain ecosystem, but the nation as a whole.

WORKING WITH CONSUMER ADVOCATES AND OTHER STAKEHOLDERS

INTRODUCTION – CALIFORNIA CONTEXT

The need for regulators and advocates to work together on blockchain policy is clear. As a complex emerging technology, blockchain policymaking requires a great degree of collaboration between subject matter experts and regulatory agencies to ensure that the proposed regulations imposed are proportional to the issue being addressed. While there is inherent risk in allowing stakeholders with business-fueled incentives to influence policy, a degree of inclusion is necessary to develop proper regulation that addresses the true demands.

Consider the New York State BitLicense. The designer of the virtual currency licensing framework indicated on numerous occasions that BitLicense was largely a response to the Mt. Gox cryptocurrency exchange hack.⁹ While good-intentioned, the regulatory framework was prohibitively expensive for many smaller cryptocurrency businesses, and ultimately drove cryptocurrency business out of the state.¹⁰ The complexity of

⁸ Wallach, Andrew and Bloomer, Brian "Wyoming, the Equality State," Seeks to Level the Playing Field for Digital Assets Businesses" <https://blogs.orrick.com/blockchain/wyoming-the-equality-state-seeks-to-level-the-playing-field-for-digital-assets-businesses/>

⁹ https://www.reddit.com/r/Bitcoin/comments/2aycxs/hi_this_is_ben_lawsky_at_nydfs_here_are_the/

¹⁰ <https://www.bizjournals.com/newyork/news/2015/08/12/the-great-bitcoin-exodus-has-totally-changed-new.html>

cryptocurrency necessitates increased collaboration between industry experts who understand and have experience with real-world use cases and the regulators creating and enforcing licenses and other frameworks. The end goal is creating regulatory policy that protects consumers, provides businesses with legal certainty, and does not compromise the core concepts of a decentralized blockchain system.

Technical limitations also apply to policy and regulation incited by blockchain. Because of the dynamic and continuously-changing nature of blockchain technologies, regulators alone are not able to execute regulatory functions. Rather, continual collaboration between industry stakeholders and advocates is needed to effectively create, enforce and update regulations on blockchain.

From a paper in the Stanford Journal of Blockchain Law and Policy: “Especially because code embedded in a blockchain system could determine the level of oversight on the activities within a blockchain-based financial ecosystem, regulators should consider ways to cooperate with engineering communities developing code despite often disparate incentives and mindsets.”¹¹

IMPEDIMENTS TO COLLABORATION AMONG REGULATORS, CONSUMER ADVOCATES AND STAKEHOLDERS

One of the biggest roadblocks to regulators working together with advocates and stakeholders is the lack of open communication. While regulators are consistently becoming more technologically literate, agencies may not have the resources to become subject-matter experts on blockchain technology, capable of making regulatory decisions in a vacuum. In response to this knowledge gap, open communication between the builders of blockchain systems and the regulatory agencies is essential. Shin'ichiro Matuso, research professor and director of the Blockchain Technology and Ecosystem Design Research Center at Georgetown University, has highlighted the need to solve this communication problem.

Referring to the lack of open communication and traditionally tense relationship between regulators and stakeholders: “The main issue is, we still don't have proper communication channels among stakeholders in this ecosystem. Regulators don't have a functional language to talk with open-source engineers. Open-source engineers sometimes do not want to speak with regulators.”¹²

Legislators who are unfamiliar with the industry are generally less comfortable engaging in regulatory discussions. Although policymakers routinely deal with complex topics, the

¹¹ <https://stanford-jblp.pubpub.org/pub/multistakeholder-comm-governance>

¹² <https://www.coindesk.com/bridging-the-gap-between-bitcoin-and-global-regulators>

complexity and constant evolution of this technology make it a prohibitively complicated topic for regulators to address with confidence.

Open communication between consumer advocates/stakeholders, subject-matter experts, and regulatory agencies must increase in order to create viable long-term blockchain regulatory policy. To this end, government regulatory agencies, together with consumer advocacy groups and industry stakeholders, should consider a multi-stakeholder governance model for regulating blockchain technologies. Blockchain advocacy groups may include: Electronic Frontier Foundation, Blockchain Advocacy Coalition, Chamber of Digital Commerce, Colorado Council for the Advancement of Blockchain Technology Use, and Global Blockchain Business Council.

As a result of the decentralized and open-source nature of blockchain, a multi-stakeholder governance framework is necessary for oversight of blockchain systems. This is in contradiction to the typical position of regulatory agencies, which are by definition central authorities. A multi-stakeholder framework, similar to the governance standard adopted for the Internet, has the potential to benefit all parties involved.

Concerned stakeholders should include business of a variety of types and sizes. While larger cryptocurrency exchanges finance much of the current advocacy efforts, the industry is diverse. Cryptocurrency ATMs, supply-chain projects, sovereign-identity businesses, companies conducting real estate transactions on blockchain networks, and many more fields comprise the wide range of companies with vested interests in regulation. Many smaller blockchain companies do not have a dedicated outreach team, so utilizing coalitions' communications channels and common cryptocurrency media sources is a useful tactic to broaden the conversation.

RECOMMENDED AMENDMENTS TO CALIFORNIA STATUTES

INTRODUCTION – THE CALIFORNIA CONTEXT

By establishing the Blockchain Working Group, California's legislature has taken the first step in studying blockchain technology and assessing its potential value in the public and private sectors, while weighing potential risks. Given the complexity of the technology and lack of familiarity among most lawmakers and residents, clarity is needed to evaluate any meaningful regulation or adoption. Rather than outlining comprehensive steps for current statutes to accommodate possible blockchain applications, this section intends to describe what other states have done, what principles should guide California's regulatory framework, and what incremental changes could be implemented to meet California's needs.

RELATED EFFORTS IN OTHER STATES

According to a study conducted by the Journal of Government Financial Management, 80% of states are responding to or embracing blockchain technology, while 20% are demonstrating a “wait and see” attitude. (More research in this section to come).

States such as Wyoming have taken a business-friendly approach, enacting a total of thirteen blockchain-enabling laws allowing the industry to flourish there.

Meanwhile, states like New York have instituted a tighter regulatory framework, creating a license that imposes specific requirements for any business offering crypto-currency services to New York-based customers. Like New York, California has tens of millions of consumers and access to investor capital. However, New York's approach is often regarded as too restrictive. Wyoming has been highlighted as successful in attracting business, but it is a far less populous state with the ability to be more nimble.

GUIDING PRINCIPLES

An important distinction that sets California apart from other states is Silicon Valley and its leadership in technology innovation. Given this characteristic, the following principles should guide California's regulatory framework.

1. **Promoting Innovation and a Welcoming Environment:** As leaders in innovation, California companies seek to attract talent and startups from around the world. Overly prescriptive definitions or requirements may stifle innovation.
2. **Protecting Consumers:** Some of the world's best known and most valuable companies are technology companies based in California. This makes them an attractive target for cybersecurity attacks. Indeed, six Silicon Valley companies are listed among the 15 largest security breaches of the 21st century, representing half of those in the United States. Given this reality, it is absolutely critical to adopt proper guardrails to protect all Californians from data breaches and bad actors. One way to ensure these protections would be to create a unit within the California Department of Technology to monitor developments in the blockchain industry. This unit could:
 - Monitor and report any consumer protection issues, including working with the federal government to protect against fraudulent activities.
 - Train the IT workforce within government agencies to understand the technology.
 - Work with the state legislature and local governments to create flexible and adaptive regulations, possibly including state disclosure requirements modeled after the federal securities laws.
 - Attend or host conferences to encourage responsible blockchain business development in California.

- Arrange community education programs to teach more Californians about consumer protective measures related to blockchain and ensure that our laws are adaptive to changes in the industry.
3. **Equity and Accessibility:** As the fifth largest economy in the world, and one of the most culturally and ethnically diverse, California has an opportunity to promote access to underserved and underrepresented communities. The state must ask how it can make the blockchain industry itself more diverse, based on gender, race, age, national origin, and socioeconomic factors, and how it can educate Californians about the potential of blockchain technology. A key component will be to expand workforce training. Partnerships with public universities and bolstering programs within the workforce development division of the California Department of Technology would be a good place to start.

NEXT STEPS

Blockchain Definition. We recommend the legislature adopt an accurate, concise definition of blockchain, such as that proposed in this report. With this agreement, policymakers can turn to two questions: 1) How can blockchain be used to increase efficiency? and 2) What changes to state laws and regulations will be needed to implement the new technology?

Neutral Terminology. Technology-neutral terminology is required to expand use cases for blockchain. The flexibility can be seen in Civil Code (CIV) §1633.7 which states that “a record or signature may not be denied legal effect or enforceability solely because it is in electronic form.” This statute, added to the California Civil Code in 1999, arguably gives agencies the authority to accept blockchain-based documents that otherwise meet regulatory requirements. The state should avoid codifying terms that are too restrictive, as that could limit application of this rapidly changing technology.

ENDNOTES