Bitcoin Foundation

Benjamin M. Lawsky
Superintendent of Financial Services
New York Department of Financial Services
One State Street
New York, NY 10004-1511

October 8, 2014

Dear Superintendent Lawsky:

The Bitcoin Foundation is pleased to offer this comment on DFS-29-14-00015-P, "Regulation of the conduct of virtual currency businesses." Given the prospects Bitcoin holds out for global financial inclusion, enhanced liberty and dignity, improved privacy protection, and a stable money supply for people the world over, the Bitcoin community is very passionate about digital currency and keenly interested in the proposed regulation. Your engagement with the community so far we appreciate, and we are confident that continuing to engage with the community by conducting a fully open, transparent, participatory, and collaborative rulemaking will help produce a credible and workable regulation for digital currency businesses located in New York or serving New York customers.

Properly formulated and implemented government regulation can maximize the value of Bitcoin as a worldwide community asset. We desire strongly to work with you toward that end. The Bitcoin Foundation and the Bitcoin community at large will be able to do a better job of calibrating regulation to the risks your office perceives from Bitcoin and other digital currencies if you release the research and analysis that underlies the proposed regulation. We are concerned that the current delay in its release may extend beyond even the second comment deadline.

Bitcoin is a digital currency, and our preference is that it be called "digital" as opposed to "virtual." The latter term should be reserved for currencies that inhabit closed commercial and game-playing systems. Your office is interested in Bitcoin because of the very real—not virtual—potential of Bitcoin for New York consumers, markets, and jobs, and your regulatory proposal should refer to it as digital and real, not virtual.

Chief among our concerns about the "BitLicense" proposal, though, is its technology-specific character. Under the "BitLicense" regime, financial services that are the same from the consumer's perspective and in terms of risk would be regulated differently simply because

they use a different financial technology. Technology-specific regulation of Bitcoin would undercut competition between conventional financial firms and Bitcoin-based financial firms, depriving New York consumers of the quality improvements and price reductions that competition forces on both. If a "BitLicense" is required, a firm that offers consumers the option of Bitcoin- or dollar-based financial services may have to have two compliance regimes, one for each technology, even though the financial service they provide is the same.

It is possible that separate regulation for each financial technology provides net benefits. It is more likely that uniform regulation of financial services—irrespective of the technology they use—will provide better, more cost-effective coverage of risks to New York consumers and markets and will better support economic growth and job creation in New York.

Coordination and time will produce better regulation of Bitcoin businesses than an all-at-once effort. Relevant agencies in the U.S. federal government have taken steps to integrate Bitcoin into their regulatory regimes, and U.S. legal and regulatory bodies have begun coordinating efforts. A number of U.S. states have taken preliminary steps to integrate Bitcoin businesses into their laws and regulations. These more modest efforts are more likely to create confidence that the U.S. will be a safe and sane regulatory environment for Bitcoin and other digital currencies.

Bitcoin being a global protocol, Bitcoin businesses regard themselves as global. Having unique regulation in one U.S. state is a disincentive to serve that state and even to serve the United States, which already has a heavy regulatory regime for many financial services. Some significant Bitcoin businesses have determined that they would not serve New York customers if the "BitLicense" goes into effect as proposed. We are thankful for signals that it will not.

The proposed regulation raises many questions and potential roadblocks to implementation. The language of the "BitLicense" proposal would apply to non-financial uses of Bitcoin's global public ledger, including communicative and expressive uses. This would run afoul of U.S. constitutional protections against regulation of speech. The intensive financial surveillance that the "BitLicense" proposal requires would violate better interpretations of the Fourth Amendment. It is unreasonable to require Bitcoin businesses to perform detailed financial surveillance of their customers simply because of the possibility of future government investigations. In the American tradition, people are presumed innocent and they are protected by the constitutional requirement that surveillance of their private financial activities be conducted subject to warrants.

The "BitLicense" proposal may be culturally suitable and familiar to large, staid financial services firms, but it is inconsistent with the experimental, iterative, and innovative approach taken in software development. Financial security to consumers is important, so it is not a given that Bitcoin businesses should have entirely free reign to experiment, but

there should be some regard given to the consumer benefits that experimentation and rapid innovation produce.

When you announced that the deadline in the current comment period would be extended, we were pleased by the signal that a second draft and a second comment period would occur. That second round will be a valuable opportunity for your office and the Bitcoin community to come closer together. This will be especially possible if you release the analysis that underlies the proposed regulation to the Bitcoin Foundation and the Bitcoin community soon.

Bitcoin, Trade-offs, and Regulation

Access to the "extensive research and analysis" your office cited when introducing the proposed regulation is an essential component of a successful rulemaking process. The Bitcoin community expects rigor from us at the Bitcoin Foundation, just as New Yorkers expect rigor from the Department of Financial Services. Our premise is that well formulated regulation can help the Bitcoin financial ecosystem grow, producing benefits for all, including New York consumers, markets, jobs, and the economy. Poorly formulated regulation would have the opposite effect. For your benefit and that of other readers, below we detail our thinking on Bitcoin and trade-offs in the area of regulation.

As you know, Bitcoin is an Internet protocol that provides users a global public ledger, known as the "blockchain," on which they can conduct transactions directly, without the intervention of any third-party intermediary. Currently, the primary use of this ledger is to administer the transfer of value through units known as bitcoins. The open-source Bitcoin protocol is maintained and used by a global community. The community of users regulates the protocol itself and the implementing software through consensus—adoption and non-adoption of iterations to the core protocol and reference implementation.

It is widely agreed that Bitcoin is an important, valuable, and perhaps even revolutionary technology. Knowing exactly what makes Bitcoin special can help policymakers and society reap the benefits of Bitcoin while mitigating any risks it creates or increases. We captured the dimensions of Bitcoin as a community asset in the foundation's study of risks to Bitcoin, entitled: "Removing Impediments to Bitcoin's Success: A Risk Management Study."[1]

The essence of Bitcoin is decentralization. Along at least four dimensions, participation in the Bitcoin ecosystem is and should be open to all comers on whatever terms the consensus of the Bitcoin community permits. No central actor should control Bitcoin's development, its mining, the operation of nodes, or Bitcoin's use.

[1] Bitcoin Foundation, "Removing Impediments to Bitcoin's Success: A Risk Management Study," (Spring 2014)

Decentralization is not everything, though. Bitcoin's success relies on broad adoption among people around the world. Our risk management study identified important factors that contribute to adoption:

- development of advanced services that improve the utility of Bitcoin;

- a healthy Bitcoin business environment that provides the greatest number and quality of interfaces between consumers and the core protocol; and

- consumer acceptance—public confidence in the usefulness, safety, and value of Bitcoin.

Widespread adoption of the decentralized Bitcoin protocol will contribute to a number of outcome goals. While not "of the essence" for Bitcoin, these outcome goals are important motivations for pursuing Bitcoin's success. Bitcoin can improve global financial inclusion, for example, allowing some among the half of the world's people without access to formal financial services to accumulate wealth; to feed, clothe, house, and educate their families better; to build businesses and other economic infrastructure; and to pay taxes that support basic government functions like police and court systems. This will foster security and the rule of law domestically in countries around the world, creating a more stable international security environment. Bitcoin may also foster increased liberty and dignity for people worldwide, who may gain greater control over their lives and freedom to make use of their assets as they wish. The use of Bitcoin may improve the lot of consumers and citizens in terms of privacy, positioning law-abiding people to control information about their personal financial lives and to participate more selectively in the information economy. Finally, Bitcoin offers people in countries with poorly managed fiat currency a stable money supply, enabling them to trade confidently and preserve their assets.

Given that Bitcoin's use around the world will improve lives and, in cases, save them, the challenge is to get Bitcoin widely adopted without sacrificing its decentralized essence and genius. Doing so may involve trade-offs, including trading away some decentralization in the use of Bitcoin if that produces adoption more valuable to the Bitcoin ecosystem than the loss.

Some voices in the Bitcoin community flatly oppose government regulation of Bitcoin businesses. They do so based on sound principle, because of long experience with government regulation that produces sub-optimal or perverse outcomes, or both. But we adopt the premise here that properly formulated and implemented government regulation can maximize the value of Bitcoin as a worldwide community asset.

If a Bitcoin business line poses great risks to consumers, and could financially devastate good people, government-imposed conditions on the conduct of those businesses may ensure that they are run well. This may create confidence among the public that using Bitcoin is not too risky, bringing more people into a growing Bitcoin community. It is a

worthwhile trade-off if regulation produces adoption that is more valuable to the ecosystem than the loss of decentralization in Bitcoin use.

There is at least a theoretical case that regulation can breed consumer confidence.[2] Actual evidence on either side of the argument is hard to come by, however. In the world of advertising, consumer beliefs have varied little even while the intensity of regulation has surged and declined from decade to decade.[3]

The Bitcoin Foundation risk management study identified as threats to Bitcoin many of the same things that regulators identify as threats to the public. Poorly run Bitcoin businesses, for example, are a threat to Bitcoin adoption, because the losses some consumers suffer will warn others away from participating in the Bitcoin ecosystem. Bitcoin uses that foster violent crime or exploitation will likewise tarnish Bitcoin's reputation and suppress adoption while undercutting the benefits Bitcoin can deliver to societies worldwide.

The study identified exaggeration of such threats by politicians and regulators as another threat to Bitcoin, but the Bitcoin community and regulators have largely the same goals: getting the benefits of Bitcoin for society while mitigating the risks. The question is not "thumbs up" or "thumbs down" on regulation, nor is it "thumbs up" or "thumbs down" on Bitcoin. Rather, the fruitful analysis comes from examining trade-offs in light of our generally agreed-upon goals.

Trade-offs like the ones we discuss here—the sacrifice of some decentralization in furtherance of other benefits to the Bitcoin ecosystem—must meet a high burden of proof. Nobody should want a regulation that sacrifices Bitcoin's benefits if doing so produces unknown or merely speculative benefits for New York consumers of the New York financial services marketplace.

The proposed regulation imposes centralized controls on important uses of the Bitcoin protocol, outlawing and severely punishing New Yorkers' use of Bitcoin if the conditions imposed by the regulation are not met. There must be strong justification for such regulations, and they should directly and cost-effectively serve public interest goals. This makes public access to the Department's analysis supporting the regulation very important.

The Need for Research and Analysis

On August 5, 2014, we submitted an initial, procedural comment, which included a request for "copies of any risk management and cost-benefit analysis (or any other systematic assessment) that is a part of the 'extensive research and analysis' referred to in the

[2] *See* Carpenter et al., "Approval Regulation and Endogenous Consumer Confidence: Theory and Analogies to Licensing, Safety, and Financial Regulation," Regulation & Governance (2010) 4, 383-407.
[3] John E. Calfee and Deborah Jones Ringold, "The 70% Majority: Enduring Consumer Beliefs About Advertising," Journal of Public Policy & Marketing (Fall 1994) Vol. 13 (2), 228-238.

statement of needs and benefits for the proposed regulation."[4] By letter the same day, your office anticipated responding within twenty days. Though New York law requires the response in five days, we were pleased by your promised response because it would give us and the Bitcoin community access to this information prior to the close of the comment period.

We were concerned to learn in a letter dated September 8th that your office had postponed the release of this research up to 120 days from the date of that letter. Early December is well past the close of the current comment period, even with the welcome deadline extension your Department granted. Given your evident plan to issue a re-drafted proposal—also a welcome sign—we hope that the research and analysis can be made available timely for the second comment round.

Timely access to the material that the Department produced during its year-long inquiry into Bitcoin would allow for fruitful analysis of threats to Bitcoin and the public, and the responses that could suppress them. Our comment, and the comments of many others, could more effectively help your office match means to ends if we had access to this information.

We emphasize that our request was for "copies of any risk management and cost-benefit analysis (or any other systematic assessment) that is a part of the 'extensive research and analysis' referred to in the statement of needs and benefits for the proposed regulation." We did not request you to create any new material, but rather to share the analysis your Department has already performed. We hope you would make a priority of sharing a copy of the material you cited in the *New York Register* when you introduced the regulation.

Not having that study is a strong theme in these comments because having access to your research would allow the Bitcoin Foundation and others in the Bitcoin community to provide the most constructive comments. Without a sense of the risks your department perceives from Bitcoin, we are limited in our ability to join you in assessing those risks and in determining how best to prevent or mitigate them.

Given the complexity of the proposal, this comment is not comprehensive. Many other comments from members of the Bitcoin Foundation and others in the Bitcoin community add important dimensions to the discussion. We appreciate very much and anticipate a great deal of benefit from the re-drafting and additional comment period that your office signaled when you extended the deadline for comments on the initial draft.

Bitcoin is Real Digital Currency, not a "Virtual" One

[4] Bitcoin Foundation comment letter to Superintendent Benjamin M. Lawsky dated August 5, 2014, available at https://bitcoinfoundation.org/wp-content/uploads/2014/08/Bitcoin-Foundation-Letter-to-NYDFS.pdf.

Though it is customary in some circles to refer to Bitcoin and similar currencies as "virtual,"[5] this is not the appropriate way to refer to this important innovation.

The word "virtual" has increasingly come to mean "on a computer or the Internet," but its longstanding meaning is: "very close to being something without actually being it" or: "being such in essence or effect though not formally recognized or admitted."[6] We do not believe it is your intention, but using the word "virtual" serves in part to suggest that Bitcoin is "not quite there."

We call Bitcoin a "digital currency" because this distinguishes it from analog currencies, which are most recognized in their tangible form-factors, such as rectangular pieces of paper or cylinders of metal. While people continue to call Bitcoin a "virtual currency," they will tend to think that the system based on pieces of paper and metal is "real" while the fully digital system is not.

Your department's year-long effort and your production of the draft regulation are premised on the fact that Bitcoin and similar currencies are very real, not virtual. Bitcoin is a digital currency, interesting to the Department because of its real potential effects, good and bad, on New Yorkers and New York's financial services marketplace.

The definition of "Virtual Currency" in section 200.2(m) of the draft would comport more naturally with the world if it were titled "Digital Currency," and if it used more natural language to describe the relevant concepts. The digital units that the draft excludes from regulation—those with "no market or application outside of … gaming platforms" and those that "cannot be converted into, or redeemed for, Fiat Currency"—have no name in the language scheme the draft uses. While Bitcoin is digital and real, these other currencies you should call "virtual" because they inhabit small, contained gaming and commercial worlds. Do not make a linguistic orphan of the units used in gaming and small commercial worlds by calling Bitcoin "virtual currency," leaving true virtual currencies with no word that describes them.

The Proposed "BitLicense" is Technology-Specific Regulation

In the testimony we submitted to your hearing in January, we asked the question whether the "BitLicense" was technology-specific regulation.[7] The Department's research may have concluded otherwise, but we do not conceive of Bitcoin as creating any new financial services. Rather, it is a new technology for performing existing functions, such as making

[5] For purposes of this comment, we refer to Bitcoin in its capacity as money or currency. The Bitcoin protocol is highly versatile and the units represented by entries in the Bitcoin ledger system have uses well beyond money/currency and even beyond financial services.
[6] Merriam-Webster.com definition of "virtual," http://www.merriam-webster.com/dictionary/virtual.
[7] Testimony of Marco Santori, Chairman, Regulatory Affairs Committee, the Bitcoin Foundation, to the New York Department of Financial Services Hearing on Virtual Currencies (Jan. 28, 2014) https://bitcoinfoundation.org/wp-content/uploads/2014/01/Bitcoin-Foundation-Marco-Santori-NYDFS-Hearing-on-Virtual-Currencies-Testimony1.pdf

payments, storing value, and so on. There are differences between Bitcoin and other forms of money, but its uses are familiar, and they are direct parallels to well-known financial services. This counsels placing Bitcoin-based financial services in the same functional categories as existing financial services and regulating them the same way.

The principle of technological neutrality in regulation serves important consumer benefits. If the provision of goods and services is regulated without regard to the technology used to provide them, new competitors can enter existing markets and use new technologies to improve service and lower costs for consumers. If new technologies are regulated separately and distinctly, this Balkanizes the marketplace, hampering head-to-head competition among providers of the same service and reducing the consumer benefits of competition.

It is probably easiest to illustrate this dynamic through analogy to another market where innovation, long-stagnant, has begun again. For decades, the motorized vehicle market has consisted of a few manufacturers in each region of the world. Over decades, some foreign car makes have entered the U.S. market, and the frills that are available in cars are highly refined. But until recently it would be a stretch to call this a truly innovative sector. In just the last few years, however, hybrid and all-electric vehicles have entered the automobile market. These innovations represent forward progress in fuel efficiency, style, and other public and consumer interests.

Should there be a new regulatory regime for each vehicle powered by new motor technology? Most people probably agree that there should not. The vehicles themselves should meet the same standards conventional vehicles do in terms of braking, impact absorption, and occupant protection, for example. They should have the same lights and signals as conventional vehicles. They should obey the same traffic laws and speed limits as all other vehicles, and they should travel on the same roads. Operating them should not require a new kind of license. This is technological neutrality in the area of automobiles.

Largely uniform regulation of motor vehicles—without regard to how they are propelled—means that new vehicle makes compete with old makes for consumers. Function-based regulation lets new entrants force existing firms to improve, increasing quality and reducing prices even for consumers who do not adopt the newest technology.

When a Bitcoin firm provides a financial service, it should be required to meet the same standards as non-Bitcoin financial services firms. This will make Bitcoin-based and non-Bitcoin-based financial services interchangeable to consumers. Competition among Bitcoin-based and non-Bitcoin-based financial services providers will improve the delivery of financial services to all New Yorkers whether they use Bitcoin or not.

The "BitLicense" proposal would regulate Bitcoin-based financial services providers differently from conventional financial services providers, even when they are providing identical services from the perspective of the consumer. The result will be that one or the other form of financial service will be hindered in the marketplace by living under more

costly, less cost-effective regulation. The "BitLicense" proposal may require a firm providing services in both Bitcoin and fiat currencies to maintain two compliance regimes, one for the Bitcoin service and another for the dollar-based service.

As with differing methods for propelling cars, there are some differences between Bitcoin and fiat currencies that may necessitate modest differences in regulatory treatment. The Department's research may have produced some examples or illustration of this for digital currencies. Presently we are aware of no evidence that an entirely new regulatory regime for digital currencies has any consumer or public benefit. Indeed, by Balkanizing the market for financial services, the technology-specific "BitLicense" proposal could produce net costs to New York consumers, markets, and jobs.

Because of its adverse effects on virtuous economic processes, technology-specific regulation is generally frowned upon. Without an articulated and valid rationale, the choice to create an all-new regulation for a technology that better serves existing functions is subject to the charge that it is arbitrary and capricious. The right approach to regulating Bitcoin businesses is difficult to determine, though, and we commend the ongoing, more cautious efforts to determine the right course.

Coordination and Time Will Improve Digital Currency Business Regulation

Our belief at this time is that the "BitLicense" proposal is not ripe. At this very early stage in the development of Bitcoin and the Bitcoin business community, the most important risks to consumers, markets, and the public are uncertain. The best ways to address those risks are unknown.

It is likely that Bitcoin businesses will present a suite of consumer protection challenges similar to what existing financial services providers do. Bitcoin businesses may naturally provide superior consumer protection because of the transparency of the public ledger and the capabilities of cryptography.[8] If the Department's study of Bitcoin found otherwise, we would welcome seeing that analysis.

Lack of coordination with other regulators may undercut the Department's stated goal of fostering Bitcoin adoption. New York is by no means legally obligated to follow the lead of any other state or sovereign, but the consensus approach to Bitcoin regulation in the states and at the U.S. federal level is to integrate Bitcoin into existing regulatory structures. The U.S. Treasury Department's Financial Crimes Enforcement Network (FinCEN),[9] the U.S. Internal

[8] *See* Jim Harper, "Consumer Protection in the Bitcoin Era," American Banker (May 14, 2014) http://www.americanbanker.com/bankthink/consumer-protection-in-the-bitcoin-era-1067434-1.html.

[9] Department of the Treasury, Financial Crimes Enforcement Network, "Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies," (March 18, 2013) http://fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf; Department of the Treasury, Financial Crimes Enforcement Network, "Application of FinCEN's Regulations to Virtual Currency Mining Operations" (January 30, 2014), http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R001.pdf.

Revenue Service,[10] the U.S. Federal Election Commission,[11] the Texas Department of Banking,[12] and Kansas's Office of the State Bank Commissioner[13] have all issued guidance addressing how digital currencies intersect with the laws they administer. The North Carolina Commission of Banks has signaled its plan to do the same.[14]

At least two U.S. bodies are carefully examining digital currency and its regulation. Taking time and showing due care, they are likely to produce approaches to regulation that manage risks more cost-effectively and foster an inherently more friendly nationwide regulatory environment for Bitcoin. As you know because you are a member of it, the Conference of State Bank Supervisors convened an Emerging Payments Task Force in February to examine issues around digital currencies and coordinate a response.[15] The Uniform Law Commission has convened a Committee on Alternative and Mobile Payment Systems that has commenced work on the many complex issues in this area.[16]

A regulatory regime that is markedly out of step with others is very likely to create inefficiency in national and global markets, which would suppress competition, hamper the delivery of benefits to consumers, and frustrate consumers. These costs may be worth paying if the "BitLicense" proposal cost-effectively solves even greater problems. Access to the analysis your Department conducted would help us understand the "BitLicense" proposal's benefits.

After the original "BitLicense" draft emerged, a number of businesses announced their intention to exit the New York market if it were finalized without change. This would obviously result in reduced competition to serve New York consumers and it would frustrate economic growth and job creation in New York. Last month, we released a primer on jurisdiction to help small, innovative companies who feel they need protection from the jurisdiction of states with overly burdensome or hostile regulatory regimes.[17]

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[10] Department of the Treasury, Internal Revenue Service, "IRS Virtual Currency Guidance: Virtual Currency Is Treated as Property for U.S. Federal Tax Purposes; General Rules for Property Transactions Apply" (March 25, 2014) http://www.irs.gov/uac/Newsroom/IRS-Virtual-Currency-Guidance.

[11] Federal Election Commission, "AO 2014-02 Political Committee May Accept Bitcoins as Contributions" May 8, 2014 http://www.fec.gov/pages/fecrecord/2014/june/ao2014-02.shtml.

[12] Texas Department of Banking, "Supervisory Memorandum – 1037: Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act," April 3, 2014, http://www.dob.texas.gov/public/uploads/files/consumer-information/sm1037.pdf.

[13] Office of the State Bank Commissioner, "Guidance Document: Regulatory Treatment of Virtual Currencies Under the Kansas Money Transmitter Act," June 6, 2014 http://www.osbckansas.org/mt/guidance/mt2014_01_virtual_currency.pdf.

[14] Taylor Tyler, "North Carolina Taking Different Approach To Regulating Virtual Currencies, No BitLicense Required," CoinFinance (Aug. 26, 2014), http://www.coinfinance.com/news/north-carolina-taking-different-approach-to-regulating-virtual-currencies.

[15] Conference of State Bank Supervisors, "State Regulators Form Task Force to Study Changing Landscape in Payment Systems," February 20, 2014 http://www.csbs.org/news/press-releases/pr2014/Pages/pr-022014.aspx.

[16] *See* Uniform Law Commission, "Alternative and Mobile Payment Systems" web page, http://www.uniformlaws.org/Committee.aspx?title=Alternative%20and%20Mobile%20Payment%20Systems.

[17] Bitcoin Foundation, "A Bitcoin Primer on Jurisdiction,"

If finalized in its current form—and we appreciate signals from your department that it will not be—the "BitLicense" proposal would make New York notable for its inhospitability to Bitcoin. The certainty of inhospitable regulation is not an advantage over temporary uncertainty about the law in jurisdictions that take the modest approach and carefully collaborate with their jurisdictional peers.

New York is a very special state, but we recommend that it join the national and global community of regulatory bodies that are taking a methodical, iterative approach to Bitcoin business regulation. In producing the "BitLicense" proposal all at once, your Department included elements that may raise strong challenges. This could delay you in putting the regulations into effect.

Potential Roadblocks to Implementation

There are a number of provisions in the draft "BitLicense" proposal that are potential roadblocks to implementation. These provisions should be reconsidered in light of the Bitcoin ledger technology, the business environment for Bitcoin, and Americans' constitutional rights.

The Bitcoin global public ledger has uses well beyond financial services, and it will serve a variety of commercial, communicative, administrative, and social functions. But, under the "BitLicense" proposal, any service that receives for transmission and transmits bitcoins—even for the purpose of linking communicative content to the Bitcoin public ledger—would be conducting "Virtual Currency Business Activity" under proposed section 200.2(n). This means that record-keeping services, identity systems, and other functions to which the Bitcoin public ledger may be put are treated as "Virtual Currency Business Activity."

Proofofexistence.com is one example of many, varied services that use the Bitcoin blockchain for non-financial services. It permits a person to establish the existence of a document or any digitized material by publishing cryptographic proof of it on the Bitcoin ledger. A dissident could use Proofofexistence.com to establish her authorship of a political tract, for example. Or a poet could establish the date on which he wrote a poem. Doing so requires Proofofexistence.com to receive "Virtual Currency" for transmission and transmit it to the blockchain, but this is no financial service.

Any final regulation should exclude uses of the Blockchain that are not financial in nature. Licensing of communicative uses of Bitcoin would fall afoul of constitutional restrictions on the authority of governments in the United States to regulate speech.

The bar in proposed section 200.15(f) on any "action that will obfuscate the identity of an individual customer" is an impediment to anonymous speech activities such as providing financial support to controversial causes. The well-known U.S. Supreme Court case of *NAACP v. Alabama* [18] establishes anonymous speech as a right protected by the First Amendment in

[18] 357 U.S. 449 (1958).

the United States. A flat ban on aiding anonymous speech impinges deeply on the exercise of that right.

The comprehensive financial surveillance that the "BitLicense" proposal requires at proposed sections 200.12(a)(1) and 200.15 is unwarranted, and the Department has put forth no evidence or argument that it is calibrated to cost-effectively achieve any public interest goal. Requiring businesses to maintain detailed surveillance of their customers anticipating later law enforcement seizure is itself a constructive seizure, which is unconstitutional under a proper interpretation of the Fourth Amendment to the U.S. Constitution.

Though purporting to establish capital requirements guidelines for Bitcoin businesses, subsection 200.8(a) commits the Department to no formula or fixed methodology. This will be frustrating to business planning, as a Bitcoin firm cannot know in advance how to comply with the requirement. If this section is used as a basis for denial of a "BitLicense," such denial may well violate due process rights protected by the Constitution.

The Bitcoin public ledger has many uses, some of which are a matter of right in the United States. There is no hint anywhere that the Department sought to undercut Americans constitutional rights in proposing the "BitLicense." Public comments are for rooting out that kind of thing.

It may be that capital requirements provisions allowing arbitrary regulator action exist elsewhere in New York financial services law. Large companies may be comfortable with them, or at least willing to deal with them, protected as they are by the fact that they are too big for a regulator to fail. Small businesses do not have the resources and are more exposed to the risk of arbitrary regulatory action. They are not from the same big-business culture as the large financial services firms. Provisions of the "BitLicense" proposal allow the New York Department of Financial Services to inspect "facilities" on demand (proposed sections 200.12(b) and 200.13(c)). This was written for Manhattan offices, not Silicon Valley homes and garages. These provisions illustrate the vast difference in culture between the "BitLicense" proposal and the ways many in the Bitcoin community operate.

The "BitLicense" is Inconsistent with Bitcoin Culture

A comprehensive regulatory super-structure like the proposed "BitLicense" is undoubtedly familiar to the world of traditional financial services. It is inconsistent with the culture of start-ups and the software development world, where experimentation and nimble iteration on business practices predominate.

For example, by making "controlling, administering, or issuing a Virtual Currency" into regulated "Virtual Currency Business Activity," proposed section 200.2(n)(5) may suppress experimentation with altcoins, or variations on the Bitcoin protocol. (As written, the language may also sweep in all Bitcoin holders: "controlling … a Virtual Currency" is "Virtual Currency

Business Activity, and "Virtual Currency" is "any type of digital unit that is used as a medium of exchange or a form of digitally stored value." Having Bitcoin on a software wallet on one's phone in New York is "Virtual Currency Business Activity" under the terms of the proposal because a wallet "controls" a digital unit. The redraft should avoid equivocal uses of the word "currency" that can mean the totality of a currency or any of its units.)

For unfunded or underfunded startup businesses, the obligations in applying for a "BitLicense" under section 200.4 are simply massive. They may be appropriate for businesses that pose some significant level of risk to consumers and markets, but small companies pose only negligible risks.

Section 200.8(b) would deny a Bitcoin business the right to maintain its earnings and profits in Bitcoin, even if the firm, its investors, customers, and employees all used Bitcoin as their functional currency. Restrictions on investments have a basis in ensuring the soundness of businesses whose failure can have damaging effects, but restrictions like this should not apply to early small companies that pose a low risk to consumers. Asset requirements should be stated in the abstract so that when Bitcoin volatility falls to acceptable levels, it automatically qualifies as a suitable investment.

Section 200.9(c) appears to be a flat ban on fractional reserve banking in digital currency anywhere by any licensee, even at the direct request of the beneficial owners of bitcoins. This provision certainly cuts off experimentation in an important potential business line, and it may hinder the development of Bitcoin-based financial services that would benefit New York's consumers, markets, jobs picture, and economy. Without access to the research and analysis that supports the flat ban on Bitcoin lending, we cannot perceive what benefit it has.

Section 200.10, which requires government pre-approval of business adjustments, envisions a Bitcoin business community that is staid and slow-moving, and that keeps stables of regulatory lawyers on hand. It is culturally inconsistent with the fast-moving, innovative software development sector. The requirement of a cybersecurity program in section 200.16 would devote a great deal of resources in small companies to documentation and compliance, rather than activities that actually secure their assets.

The advertising and marketing controls in section 200.18 do not reflect how Bitcoin businesses are likely to conduct themselves. The proposal makes the following phrase mandatory for all advertisements: "Licensed to engage in Virtual Currency Business Activity by the New York State Department of Financial Services." At 112 characters, it doesn't leave much else for the rest of the Tweet.

It may be that heavily bureaucratized business practices are the best way to protect consumers and markets, but recent experience with business failure and data breach in the mainstream financial services sector suggests that neither regulations nor market forces are a panacea. The business-process requirements in the "BitLicense" proposal should be

supported by at least theoretical validation of their net benefits, and we call once again for access to the research and analysis that supports them.

Drafting Difficulties

It is not surprising that a project as substantial as the "BitLicense" proposal contains drafting ambiguities. We anticipate giving a closer read to the language choices in the revised draft, but here are a few quirks that should be corrected if the language survives into the next version.

The definition of "Virtual Currency" in proposed section 200.2(m) is exploded by including "any type of digital unit … that is incorporated into a payment system technology". It would seem to make every element of an online payment system —.jpg files, web pages, every confirmation email, every character in every confirmation email—into "Virtual Currency," because they are all digital units. There can probably never be a digital unit "used as a medium of exchange or a form of digitally stored value" that is not "incorporated into a payment system technology", so the latter language is probably surplus, and it can be removed to improve clarity.

The definition of "Virtual Currency Business Activity" (section 200.2(n)) has many drafting challenges:

As phrased, subsection (1) could make any transmission of Bitcoin "Virtual Currency Business Activity." If the intention is to make only third-party transmitters of digital currency "Virtual Currency Business Activity," there must be a qualifier to that effect on the word "transmitting," as "the same" does not clearly denote currency received for transmission.

As phrased, subsection (2) would make various types of software provision including open-source software development into "Virtual Currency Business Activity." A free service that allowed people to secure their bitcoins using 2-of-3 multisig, for example, would be subject to all the provisions of the regulation. Such a service never has custody of bitcoins and only adds security. The failure of such a service only causes bitcoins to revert to the pre-existing security status quo. We are aware of no sound policy reason why the provision of software of this type should be licensed, and we gratefully acknowledge your public comments implying that you did not intend to license software development.

Subsection (2) would also appear to make virtual currency business activity of varied activities such as maintaining political campaign accounts, maintaining lawyers' trust accounts, and maintaining accounts as the executor of an estate, if digital currency is involved.

Conclusion

Producing a technology-specific regulation like the "BitLicense" proposal all at once is quite an undertaking. Arguably, it requires greater knowledge than exists at the present time. Nobody knows what uses society will make of Bitcoin and the Bitcoin public ledger. Nobody now knows what the most substantial risks are to New York consumers and markets, or how to address them in a way that doesn't sacrifice the benefits Bitcoin holds out for New York's economy and employment rate.

Well-formulated regulation can help optimize the Bitcoin ecosystem by providing stability to Bitcoin businesses and by giving consumers confidence that they can safely use Bitcoin. This would in turn benefit New York consumers and markets, its economy and jobs. But it would be a mistake to presume that any regulation achieves these goals. Rather, systematic study of Bitcoin, Bitcoin's risks, and responses to them should guide the way for regulators and the Bitcoin community.

Hopefully, the "research and analysis" you cited when you issued the "BitLicense" proposal is sufficiently systematic. We renew our request for timely access to that material, as your office promised and as required by New York's Freedom of Information Law.

Most governmental bodies are moving forward incrementally, adapting existing law to Bitcoin as the need arises. This safer route will allow experimentation and innovation with Bitcoin business models, and it makes it more likely that the most valuable uses of Bitcoin will emerge. It remains to be seen whether New York is a state where Bitcoin innovation and job creation will occur.

A final question that arises with a regulatory proposal like this, aimed as it is to make New York a Bitcoin friendly state: What is the Department's metric of success? We invite you to make clear how you think New Yorkers should gauge the success of the "BitLicense" or whatever finally emerges from this process.

Thank you for the opportunity to comment on the draft regulation. We look forward to continuing the process in a second comment round.

Sincerely,

/s/ Jim Harper
Global Policy Counsel
The Bitcoin Foundation