



The Hedera Council response to the Department of Commerce’s RFC: *Developing a Framework on Competitiveness of Digital Asset Technologies*

As a coalition of organizations actively operating and governing a network built on innovative digital asset technology, we welcome the opportunity to provide the International Trade Administration and the Department of Commerce with our feedback to the Request for Comment titled *Developing a Framework on Competitiveness of Digital Asset Technologies* in line with the Executive Order of March 9, 2022, titled *Ensuring Responsible Development of Digital Assets*.

The Hedera Council (“Council”) is a coalition of twenty-six (26) decentralized organizations¹ who collectively operate and govern a distributed public ledger (the “Hedera Network”)² based on the hashgraph consensus algorithm³, a digital asset technology (also known as a “Distributed Ledger Technology” or “DLT”). As with other distributed public ledgers, our coalition provides a network-native digital asset for application developers and users to utilize when making the micropayments required whenever they consume a Hedera Network service, i.e. whenever their application makes an API call. In the case of the Hedera Network, that digital asset is the HBAR.

This is a fundamental requirement of any public implementation of digital asset technology because anyone can use these APIs to build Web3 applications with high throughput, fair ordering, and low-latency consensus finality in seconds without relying on centralized infrastructure, but only if there is a cryptographically secure method of fairly compensating all of the decentralized infrastructure providers responsible for making these services available to the public in an environmentally and financially sustainable manner. In the case of the Hedera Network, we use a proof-of-stake security model, which is an increasingly popular and environmentally sustainable method of securing a distributed public ledger. In fact, the Hedera Network was recently identified as the most environmentally sustainable distributed public ledger in a study published by the IEEE⁴.

¹ <https://hedera.com/council>

² <https://hedera.com/services>

³ <https://hedera.com/how-it-works>

⁴ <http://blockchain.cs.ucl.ac.uk/blockchain-energy-consumption/>

Question 3: How does the current U.S. regulatory landscape affect U.S. digital asset businesses' global competitiveness? Are there future regulatory shifts that could support greater global competitiveness of U.S. digital asset businesses?

The current U.S. regulatory landscape hinders the competitiveness of U.S. digital asset businesses' due to the uncertain application and incompatibility of existing laws and regulations to digital assets and their underlying infrastructure. As a result, financial and intellectual capital may be disproportionately driven to other jurisdictions. Future regulatory shifts that create clear legal pathways to operate and develop products and services on distributed ledger networks will increase the global competitiveness of U.S. digital asset businesses.

In many cases, it remains unclear which regulatory agency and body of regulations apply to any given digital asset and its underlying infrastructure, operators, and users. Various courts and guidance from regulatory agencies have demonstrated that a digital asset may be currency, a commodity, and/or a security depending on the surrounding facts and circumstances. However, such body of instruction fails to resolve key questions of boundaries and overlap, such as how to determine whether purchasers of a digital asset are not (or are no longer) relying on the entrepreneurial and managerial efforts of others, if ever. The answer to that threshold question could shift the classification of a digital asset from a security to a commodity and comprehensively alter the regulatory obligations of digital asset businesses interacting with such asset.

In the event a given digital asset is classified as a security, whether during its early development phase or during the entirety of its existence, existing securities regulations materially hinder its growth towards decentralized sustainability. For example, securities regulations contain myriad transfer restrictions and requirements, such as the Rule 144 holding period safe harbor for the sale of securities acquired in unregistered, private sales, and requirements for broker-dealers to act as intermediaries on certain transactions. Such restrictions and requirements are conflicting with the inherent value of the digital asset as a medium of exchange and reduce the likelihood a digital asset's ecosystem will become decentralized enough to eliminate the purchaser's reliance on the entrepreneurial and managerial efforts of others, preventing the evolution of the asset to its intended state.

Further, the application of existing securities regulations designed to regulate intermediaries to digital assets designed to disintermediate transactions would result in fundamentally incompatible obligations. For example, entities that "permit or facilitate

the settlement of securities transactions”⁵ are considered to be acting as a “clearing agency” and are required to register with the SEC; however, validators on distributed ledger networks are the closest analog to traditional clearing agencies yet share almost no other meaningful duties or relationships to the transaction being settled. In addition, validators are passive infrastructure typically unaware of the characteristics of the digital assets transferred within the network.

As a result of the uncertain application and incompatibility of existing laws and regulations to digital assets and their underlying infrastructure, innovation is occurring disproportionately outside of the United States. For example, many major digital asset businesses are choosing to base their operations outside of the U.S. while targeting U.S. customers or completely prohibiting the use of their services from within the U.S. The U.S. ranks eighth in cryptocurrency adoption by citizens according to Chainalysis, and even higher when excluding non-intermediated peer-to-peer transaction activity.⁶ However, according to CryptoCompare, a market data provider, only one of the top 18 digital asset exchanges by volume are headquartered in the U.S., while two are in China, two are in the United Kingdom, and five are in the European Union.⁷

In addition, while the Hedera network attracts some of the largest global enterprises for participation in network governance, operation, and application development, participation from the financial services sector is primarily non-U.S., including banks in Japan, Singapore, South Africa, South Korea, and others.⁸ The lack of a competitive regulatory framework with a clear, legal pathway to operate and develop products and services on distributed ledger networks in the U.S. is actively limiting the investment of financial and intellectual capital into such innovative technologies.

U.S. regulators can create clear, legal pathways to operate and develop products and services on distributed ledger networks in multiple different ways. First, by issuance of clear, actionable interagency guidance or call for legislation to determine which regulatory agency governs activities with respect to any given digital asset. Proposals that include safe harbors, such as SEC Commissioner Hester Peirce’s “Token Safe Harbor Proposal 2.0,” would allow for the unimpeded decentralization of the ecosystem, as discussed above, and increase the U.S. global competitiveness.

⁵ Exchange Act § 3(a)(23)

⁶ <https://go.chainalysis.com/rs/503-FAP-074/images/Geography-of-Cryptocurrency-2021.pdf>

⁷ <https://www.cryptocompare.com/exchanges/#/overview>

⁸ <https://hedera.com/council>

Second, the regulators with jurisdiction over any subset of digital assets or related activities should comprehensively review and amend their existing regulatory regime to ensure compatibility with the decentralized and disintermediated nature of distributed ledger networks. For example, if the SEC retains jurisdiction over a subset of digital assets and their underlying infrastructure, the agency should clarify that validators are not considered intermediaries or facilitators in any way under existing regulations, as discussed above.

Third, regulators should maintain an environment of collaboration with distributed technology developers and digital asset businesses. Enforcement actions rarely provide comprehensive guidance to other industry participants and decrease the global competitiveness of the U.S. regulatory landscape, driving innovation to other jurisdictions. Hedera and its Council Members invite collaborative forums to inform regulators of their challenges and opportunities and learn from regulators how the Hedera ecosystem can better achieve the regulators' public policy goals.

Question 6: What, if any, is the future role of digital assets mining in the U.S. digital assets sector? Can digital assets be compatible with a low-carbon economy that emphasizes renewable energy? If so, how? In what ways can the U.S. government and U.S. companies drive competitive, sustainable (for the environment and energy consumption) development of digital assets?

The Hedera Council responded to the White House Office of Science Technology and Policy (OSTP) with observations regarding consensus mechanisms and energy usage, as well as a focus on how distributed ledger technology could be used to help with transparency and the growth of carbon credit exchange marketplaces, with the potential of tokenization of digital assets representing carbon credits that are recorded on a DLT platform. In the attachment, we share with you our comments from the RFI response we submitted to OSTP for your reference and consideration. The attachment to our response includes our overall observations regarding the potential for DLT to provide transparency and analysis that could combat climate change.⁹

⁹ **Attachment A:** Request for Information on the Energy and Climate Implications of Digital Assets, Submitted May 9, 2022

Question 15: To what extent do new standards for digital assets and their underlying technologies need to be maintained or developed, for instance those related to custody, identity, security, privacy, and interoperability? What existing standards are already relevant?

NIST plays an important role in pushing the state of the art with the development and deployment of cryptography. Early on, NIST recognized the need to evolve cryptography given advances in quantum computing. We applaud this work and while we recognize that these efforts have been ongoing for several years, consideration of their application and suitability for DLTs would be most welcome. While previous legal restrictions on the use or “export” of cryptographic protocols have eased over the years, a recommitment to unrestricted use of developed algorithms globally would be particularly welcome for deventralized technologies.

An area of specific interest for DLTs, particularly from an end-user perspective is the fragility of key management and recovery. One common method commonly used is the 24 word recovery seed, but this still relies on the protection of the seed in a manner similar to the associated private key. Research and development of alternative recovery methods including multi-party distributed recovery that are fault tolerant might provide the necessary resiliency and, in turn, confidence with using DLTs by a much broader audience.

The term “blockchain” refers to a particular DLT technology. While initially the only form of DLT, new algorithms and platforms such as the hashgraph algorithm used on the Hedera Network emerged. Even in recent publications, NIST has continued use of the term “blockchain” when describing DLT options, such as in *NISTIR 8403 Blockchain for Access Control Systems*. We believe the term DLT would be a more appropriate and inclusive reflection of the diverse technologies found in the market today. We suggest that NIST use DLT moving forward to be more encompassing and cross-reference DLT against historic publications where appropriate.

One issue of concern with DLTs is fragmentation and potential isolation of work to a particular platform. The ability to transport information in a trusted manner across DLT boundaries is an increasingly important focus area to allay concerns that a particular protocol will continue to operate over time. Industry standardization of transitive trust mechanisms such as “state-proofs” could foster more rapid adoption of DLTs in both the private and public sector, opening up opportunities which might otherwise be abandoned due to asset portability concerns.

Question 15 (Continued): How might existing standardization efforts be harmonized to support the responsible development of digital assets?

Since 2013, The Cybersecurity Framework (CSF) has been developed under NIST's leadership in concert with strong engagement from industry and has evolved since its original publication. We believe that this evolution must continue, but should take into account the decentralized operational and governance model typical of distributed ledgers. Unlike traditional IT operations, DLTs operate in a much more decentralized manner and evaluating risks when adopting DLTs has been challenging for those attempting to use tools such as the CSF which have not specifically profiled this unique paradigm.

NIST could use its convening authority to bring together various groups, such as the Hedera Council, who have begun to tackle the unique security challenges inherent with DLTs in the form of workshops or similar venues. Activities may include development of DLT profiles for the existing CSF and identification of areas of focus for development.

Conclusion

We support the U.S. administration in their efforts to ensure a competitive and thriving DLT industry here in the U.S. We look forward to future opportunities to engage with the administration where our experience might be helpful to policy makers navigating the complexities of ensuring consumer protection while enabling these innovations to grow the U.S. economy.