



March 31, 2017

Marcia E. Asquith  
Office of the Corporate Secretary  
FINRA  
1735 K Street, NW  
Washington, D.C. 20006-1506

Re: Distributed Ledger Technology:  
Implications of Blockchain for the Securities Industry

Dear Ms. Asquith:

Nasdaq, Inc. ("Nasdaq") respectfully submits this letter in response to FINRA's request for public comments on the development and adoption of distributed ledger technology ("DLT") in the securities industry. We support FINRA's effort to solicit input from FINRA regulated firms and other market participants on this timely topic. Nasdaq believes that efforts to craft a regulatory framework that is flexible enough to support the adoption of new technologies, such as DLT, will ultimately result in significant benefits to investors, marketplaces, and market participants.

Like other industries, the capital markets are undergoing a remarkable wave of disruption and innovation, driven by new technologies. Nasdaq is deeply interested in how disruptive technology can transform the landscape in the capital markets. As the creator of the world's first electronic stock market, we value our role in the marketplace as a technology leader. Today, in our role as a provider of market technology, Nasdaq technology now powers more than 85 marketplaces in 50 countries, and 1 in 10 of the world's securities transactions. Nasdaq also operates five broker dealers that are regulated by FINRA.

Over the past three years, Nasdaq has been exploring the potential benefits of DLT, and has been working on several applications of DLT in the United States and globally. We have developed a blockchain-enabled technology platform called Linq, which was used by a customer to successfully complete and record a private securities transaction. We have also built and tested a proof of concept for a new proxy e-voting platform on the Nasdaq Tallinn Stock Exchange in Estonia using blockchain technology. Additionally, Nasdaq recently announced that a market technology customer plans to deploy its exchange in the cloud and run on blockchain technology leveraging the Nasdaq Financial Framework, our full service technology offering that provides business

functionality supporting the full trade lifecycle and includes blockchain capabilities.<sup>1</sup>

Based on what we have learned through our efforts to bring the benefits of DLT to our customers, we believe that innovation in the DLT space has the potential to create increased operational efficiencies, improve transparency, reduce costs, and allow for new business models and market structures. In the securities industry, DLT solutions have the potential to create efficiencies in, among other things, the reconciliation of securities transactions, collateral management, security and resilience.

Full scale adoption of DLT in the financial services industry will require regulations that are flexible and can support new and ever evolving use cases. While there are technological and other hurdles for firms that wish to implement DLT solutions, these hurdles are quickly being overcome. The current regulatory landscape, however, still poses a challenge for firms that wish to take advantage of the benefits of DLT. The regulatory hurdles are difficult to overcome because, in many cases, the current regulatory regime is outdated and was designed with specific legacy technologies and market structures in mind. Some of the pertinent regulatory requirements are outlined in FINRA's DLT report.

For example, DLT has the potential to significantly reduce the burdens associated with recordkeeping through the use of an automated, shared ledger. As outlined in the FINRA report, FINRA regulated firms are subject to record retention requirements in Exchange Act Rules 17a-3 and 17a-4, and FINRA Rule 4511 (Books and Records: General Requirements). These rules require that firms store and/or produce records on "micrographic media" or "electronic storage media" that is "non-rewritable, non-erasable" or "write-once, read-many" (WORM) compliant. These references to specific and in many cases outdated technologies should be reassessed based on not only the attributes of blockchain technology, but also the impact of cloud storage and other modern ways to store records. The very idea of what is a business "record" is also impacted by the many new ways to digitally store information as well as assets. As written, these SEC and FINRA rules create significant uncertainty for firms – including the broker dealers that Nasdaq operates – that want to modernize their systems, and reduce inefficiencies and costs in order to compete effectively in the marketplace.

We believe that efforts to update existing rules, or create new regulatory requirements, should take into account the evolving environment. To the extent possible, this means that rules should remain technologically neutral and accommodating to advances in technology. In many cases, specific references to certain types of technology or storage mediums can be replaced with more general requirements. While this process may require substantial time and effort

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<sup>1</sup> Nasdaq, Inc. Press Release, "Announcing NYIAX, the World's First Advertising Contract Exchange," March 14, 2017.

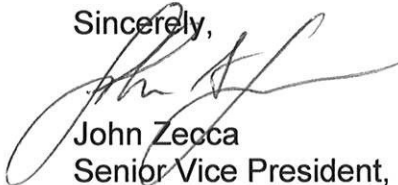
by FINRA in conjunction with firms that are developing DLT, an evolving regulatory framework can benefit market participants while still ensuring that the fundamental principles of investor protection and market integrity are maintained.

Other regulators in the United States and around the world have been open to such an approach. For example, in the U.S., CFTC Commissioner Giancarlo has proposed a “do no harm” regulatory approach to DLT initiatives and the CFTC recently proposed amendments to its recordkeeping requirements that are intended to be technologically neutral.<sup>2</sup> In the State of Delaware, proposed amendments to the Delaware General Corporate Law, if adopted, will explicitly permit a company to use “distributed electronic networks or databases” for its stock ledger and other corporate records. Regulators in several countries such as the United Kingdom, Australia, Singapore, Malaysia, Canada, Dubai and Hong Kong have set up or are exploring creating regulatory sandboxes to encourage start-ups and innovative technology companies to experiment with or test new products and offerings in a flexible regulatory environment.<sup>3</sup>

Nasdaq believes that FINRA’s proactive review of DLT, and request for information from firms that are actively developing DLT and other new technologies, further demonstrates to market participants that U.S. regulators are open to the adoption of new technologies and interested in learning how existing rules can impact innovation. We urge FINRA to use the information gathered in this process when considering changes to its existing rules, and when adopting new requirements and obligations for FINRA regulated firms. If DLT is implemented to its full potential in the securities industry, we believe the role of market participants, including FINRA regulated firms, could change significantly, and existing business models could be profoundly impacted. The quickly evolving nature of these developments clearly poses a challenge to markets, as well as the regulators. We appreciate the efforts of FINRA to study this issue and to play an active part in supporting innovation in the securities industry.

If you have any additional questions, or if we can be of further assistance in this matter, please do not hesitate to contact us.

Sincerely,



John Zecca  
Senior Vice President,

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<sup>2</sup> See Special Address of CFTC Commissioner J. Christopher Giancarlo Before the Depository Trust & Clearing Corporation 2016 Blockchain Symposium, March 29, 2016, available at <http://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo-13>; Proposed rule changes to Rule 1.31 to the Commodity Exchange Act, 82 FR 6367 (Jan. 19, 2017).

<sup>3</sup> See International Organization of Securities Commissions (IOSCO) Research Report on Financial Technologies (Fintech) February 2017; Dubai Financial Services Authority, Consultation Paper 112, *Testing Fintech Innovations in the DIFC*, March 6, 2017.