



Pillsbury Winthrop Shaw Pittman LLP
1540 Broadway | New York, NY 10036-4039 | tel 212.858.1000 | fax 212.858.1500

Marco A. Santori
tel: [REDACTED]

April 14, 2016

Mr. Brent J. Fields
Secretary
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: Securities and Exchange Commission Release No. 34-76743, File No. S7-27-15 (the "Release")

Dear Mr. Fields,

We are pleased to provide these comments to the Securities and Exchange Commission (the "Commission") with regards to the Release and the related Advance Notice of Proposed Rulemaking on Transfer Agent Regulations (the "Rulemaking"). As you are aware, we are counsel to Symbiont, Inc. ("Symbiont"). Symbiont is a provider of distributed ledger technology ("DLT")¹ to the financial services industry. Specifically, Symbiont provides a series of technology layers between financial services companies and distributed ledgers, which enables these companies to interact directly with the distributed ledger.

The Rulemaking is an excellent opportunity to consider the policy implications of Distributed Ledger Technology on the transfer agent regulations. Today, transfer agency is dominated by relatively opaque and error-prone processes for manually inputting information into centralized databases that themselves are susceptible to tampering and data loss. Though transfer agents might employ computer spreadsheets and databases as tools, ultimately human employees are tasked with manually confirming the issuance, cancellation, transfer and collateralization of corporate shares. Besides being slow and costly, the Commission has concluded that this system was sufficiently error-prone to deserve comprehensive, regulation-based governance in the transfer agent rules.

¹ One particular application of DLT is a blockchain. One particular application of a blockchain – and the only one currently being used at scale for its intended purpose – is the Bitcoin Network.

DLT is different. A single distributed ledger can enable autonomous computer networks to issue, cancel, trade, transfer, sequester, and collateralize corporate shares algorithmically and automatically, with near-zero exposure to human error, negligence or fraud. Each transaction is completed in mere seconds instead of days. This dramatically reduces the risk and cost involved in market actors, such as broker dealers, exchanges and clearing agencies maintaining multiple disconnected ledgers. DLT dramatically reduces clearing and settlement times, and it does so without settlement risk, because transactions by all participants are written to a single distributed, but shared, ledger. It dramatically reduces identity, confidentiality and access risks, since identity verification is managed through cryptographic key signatures. Finally, DLT dramatically *increases* transparency into public transactions and systemic trends that can forecast looming macroeconomic failures.

In other words, **DLT uses algorithmic governance on distributed ledgers to achieve the same policy goals that require regulatory governance on legacy systems.** Symbiont believes the advent of DLT warrants a fresh look at what regulations ought to apply to it, and how they ought to apply.

To be sure, participants need no less protection today than prior to the advent of DLT. The issue is not whether participants need protection, but how to best achieve that protection in the face of a paradigm shift in the way parties transact with one another. The Commission rightly identified this issue in the Release:

A new technology, the blockchain or distributed ledger system, is being tested in a variety of settings, to determine whether it has utility in the securities industry. What utility, if any, would a distributed public ledger system have for transfer agents, and how would it be used? What regulatory actions, if any, would facilitate that utility? How would transfer agents ensure their use of or interaction with such a system would comply and be consistent with federal securities laws and regulations, including the transfer agent rules? Please explain.²

Symbiont's response is straightforward: The transfer agent rules as currently drafted do not address the DLT paradigm shift. They leave actors who merely provide DLT to guess whether and how the existing regulations apply to them. If, on the one hand, existing regulations do apply, they are inadvertently technology-specific: They could, depending upon interpretation, demand the use of legacy network topologies and other arrangements that strip away the benefits of DLT. If, on the other hand, the regulations do not apply to mere providers of DLT, then potential innovators may be deterred without cause from building lean, beneficial businesses.

² Release, Section VI.F, Question 70.

Instead, the better approach is an explicit, but temporary, exemption for mere DLT providers, combined with enhanced reporting requirements that will enable SEC to glean first-hand, actionable data from their risk management successes and failures.

We hope that, in this letter, Symbiont can give a brief survey of some significant policy considerations around this proposal, and provide more in-depth analysis and more specific examples during the upcoming comment period.

I. It is Unclear, Under the Current Regulations, Whether the Commission will Hold Mere Providers of DLT to be Transfer Agents.

It is difficult to describe with specificity the functionality of every DLT provider. Indeed, a taxonomy of these would at best be a snapshot of a quickly morphing set of technology solutions. Many, though, share a common characteristic: They provide software to third party market participant (broker-dealer, issuer, institutional investor, clearinghouse etc.) and the participant, via that software, executes trades on a distributed ledger. The contents of the ledger are, in most relevant respects, outside of the DLT provider's control.³ Transactions are validated, cleared and settled not by the DLT provider, or at the provider's discretion, but by participants in the distributed ledger. This letter is concerned primarily with these providers, known as "mere" providers of DLT.

It is unclear whether mere DLT providers fall under the current definition of a transfer agent. Section 3(a)(25) of the Exchange Act defines a "transfer agent" as any person who engages on behalf of an issuer of securities or on behalf of itself as an issuer of securities in:

- (A) countersigning such securities upon issuance;
- (B) monitoring the issuance of such securities with a view to preventing unauthorized issuance (i.e., a registrar);
- (C) registering the transfer of such securities;
- (D) exchanging or converting such securities; or
- (E) transferring record ownership of securities by bookkeeping entry without the physical issuance of securities certificates.

It is unlikely that any DLT provider would literally countersign securities. However, applying the remaining prongs of this definition to DLT providers is, at best, an exercise in metaphor. It is unclear whether sections (B) through (E) capture the functionality of the DLT provider or the blockchain itself that is outside of its control. For example, a mere provider of DLT might monitor the ledger, but it cannot prevent unauthorized (or authorized) issuance.⁴ The ledger itself does that work according to

³ Ledgers can generally be categorized as (i) open ledgers, like the Bitcoin or Ethereum blockchains, which do not by default restrict participant membership, (ii) closed, permissioned ledgers such as those that are now entering proof-of-concept application mainly among financial institutions, or (iii) some combination of these.

⁴ In fact, this limitation is one of the foremost value propositions of DLT.

a set of algorithms. Should a mere provider of software used to access the ledger be held to account for the functionality of the ledger? Probably not, without more, but this is not clear from the text of the regulation.

Other examples include the exchanging, converting, and registering the transfer of securities. Again, this work is typically done algorithmically by a consensus mechanism embedded in the ledger's protocol, not by the DLT provider. However, a participant wishing to do these things in a private ledger must generally contract with the DLT provider first for permission to access the ledger. Thus, the provider arguably controls who may or may not participate in the consensus algorithm in the first instance. Similar ambiguities face the question of whether a mere DLT provider is responsible for "transferring" record ownership, and whether a distributed ledger constitutes "bookkeeping entry" if it is not the provider who "keeps" the "books" – in this case the ledger itself. These concepts are, at best, metaphors when applied to DLT. This leaves innovators in this industry to guess at regulation – and fail at their peril.

II. If the Existing Regulations Do Apply, They are Ill-Suited to Mere DLT Providers.

To be sure, some of the existing regulations can be readily applied to transfer agents. Many, though, cannot.

a. Some Language can be Stretched to Reasonably Cover DLT

Several rules, for example, set the basic timing performance standards for transfer agents. Assuming, *arguendo*, that they applied to pure DLT providers, they probably could apply reasonably. For example, Rule 17Ad-2(a) requires transfer agents to "turnaround within three business days of receipt at least 90 percent of all routine items received for transfer during a month." Assuming a clear understanding of what "item" means (easier said than done, as set forth below), this type of requirement can be understood in the context of DLT, as well as existing legacy systems. Namely, a mere DLT provider might be required to pass through to the distributed ledger all items received within the timeframes required by the rules. The same is likely true for Rules 17Ad-3 and 17Ad-4 with regards to their timing requirements and their consequences of non-compliance. They are not perfect fits, given the way that most mere DLT providers operate today, but they are at least cognizable.

b. Most of the Rules are Not So Elastic

Several of the defined terms in Rules 17Ad-1 and 17Ad-9 can only be understood in the context of existing legacy systems, and provide little guidance in the context of DLT.

i. Rule 17Ad-1(a)

Under Rule 17Ad-1(a), an “item,” means one of three different things. Rule 17Ad-1(a)(1)(i) refers to certificates covered by a “ticket”, and 17-Ad(1)(1)(iii) refers to certificates countersigned by an outside registrar. Rule 17Ad-1(a)(1)(ii) refers to a “line on a ‘deposit shipment control list’ or a ‘withdrawal shipment control list’ submitted by a registered clearing agency.”

To be sure, as technologies have evolved, so have the industry’s and the Commission’s understandings of how these rules ought to apply. But the definition in (ii) – arguably the most technologically advanced of the three and the most likely to accommodate a sophisticated technological advancement like DLT – falls far short. Indeed it limits its applicability to registered clearing agencies that hold certificates in book-entry form, which likely acts as an outright bar to some mere DLT providers.

Indeed, the “shipment control list” contemplated by the provision has little applicability to a mere DLT provider. If this list includes the actual transfer instructions submitted to the ledger by the DLT provider or participant in real-time, is each set of instructions a separate item or are all instructions submitted by a user over the course of a single session from login to logout a single item? It is difficult to tell. The definition of “item” is particularly problematic because the term pervades the transfer agent rules, leading to endless interpretative questions.

ii. Rule 17Ad-5

Rule 17Ad-5 obligates transfer agents to respond to “written inquiries”. This is problematic for a number of reasons. If a DLT-provider-as-transfer-agent merely provides a software interface to a distributed ledger, why should it be obligated to respond to written inquiries at all? The DLT provider is not the keeper of any meaningful information; the ledger is the keeper and the provider does not necessarily keep the ledger. A better, if still imperfect, approach might be to require the DLT provider to provide *access* to certain entries on the ledger to certain parties under certain reasonable circumstances. Still, and particularly in the case of those mere DLT providers of access to open ledgers, providing such access may be outside their control. The current language does not address this issue.

iii. Rule 17Ad-9 and 10

Under Rules 17Ad-9 and 17Ad-10, transfer agents are required to maintain a “master securityholder file,” defined as “the official list of individual securityholder accounts. With respect to uncertificated securities of companies registered under the Investment Company Act of 1940, the master securityholder file may consist of multiple, but linked, automated files.” The Commission states that in the absence of a master securityholder file, “registered owners of an issuer’s securities cannot be assured that they are recognized as such by the issuer and that they will receive corporate distributions, communications, and the other rights of security ownership to which

they are entitled.”⁵ But distributed ledgers do not necessarily offer a single, unlinked list, nor clearly linked automated files⁶, even though they achieve each of these policy goals. There currently exists a wide variety of ledger topologies that may or may not fall into one of the rule’s set categories.

iv. Rule 17Ad-12

Rule 17Ad-12 presents another novel challenge to the use of DLT. This rule deals with safeguarding of funds and securities, raising the question of where securities are actually located and who ought to be responsible for their safeguarding. The current rule allocates this responsibility to transfer agents, who traditionally might safeguard physical certificates. But in the context of DLT, the “location” of the securities — to the extent there is one at all — is probably not singular: The securities might exist on every node of ledger, or only on certain nodes, none of which are necessarily those operated or controlled by a pure DLT provider. A blanket requirement that they keep such records is unreasonable.

III. One Solution is a Qualified, Temporary Exemption for Mere DLT Providers.

Today, entrepreneurs are left to guess whether they can innovate freely and build a lean technology company, or whether they must construct a very different, regulated entity, complete with compliance officers, lawyers, and policy experts. Even then, if they choose the latter, there is little guidance as to just how these companies should apply the existing rules.

This lack of regulatory clarity will have the same effect in the DLT industry as it would in any other: It will restrain innovation and curb healthy competition. Not only are founders today left confused, investors will have no basis for assessing risk, further diminishing the resources available to those who would innovate.

Worse, because the industry is developing so rapidly, and changing so much of the way that markets can behave, the Commission itself will lose out on a tremendous opportunity. Instead of monitoring a blossoming ecosystem of startups, understanding the risks these startups face and gathering data on the results of their mitigating efforts, the Commission is left to extrapolate from a small handful of anecdotes provided by the very well-funded or very risk-tolerant.

Unfortunately, an attempt at comprehensive amendment to accommodate DLT as it exists today would have a short shelf life. The industry is probably changing too rapidly to accurately address policy concerns via granular amendments to the transfer agency regulations. Amendments that might seem appropriate based on the state of

⁵ Release, Section V.A.1.

⁶ Transactions recorded on a distributed ledger are cryptographically linked, which also raises the question of whether that link would satisfy the latter clause of Rule 17Ad-9(b), if it were also to apply to companies not registered under the Investment Company Act.

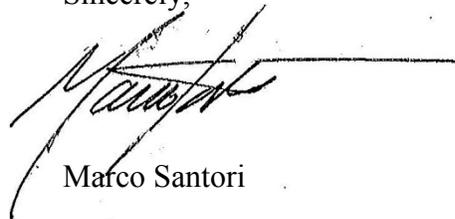
the technology today would likely not be appropriate for the state of the technology just two or three years from today.

A temporary, but explicit, exemption from certain transfer agent regulations for mere DLT providers could address these concerns elegantly. It would largely eliminate investor uncertainty as to whether the regulations apply to mere DLT providers, and how they might apply if they do. This, in turn, would ensure a broad base of innovators from which the Commission could learn. DLT presents itself as a magic bullet for some of the most critical challenges facing the financial markets today. The only way to determine whether this is really the case is to test it. A broad base of innovative companies building DLT would provide the ideal proving ground. This means solid, actionable data on real risks – not just hypothetical ones – and real mitigating policies, processes and procedures – not just promises. Then, if this test demonstrates that some form of regulation is in fact required, the Commission will be in the best position to craft smart regulations based upon real risks faced by the market participants, and informed by the successes and failures of their own mitigating attempts.

To ensure that the Commission benefits from the information available to it during this process, it might combine an exemption with a registration requirement and enhanced reporting requirements. The Commission might require quarterly updates on any complaints received, risks faced and mitigating processes adopted during the quarter. This flow of information is critical to the rulemaking process. The best way to gather it is to nurture a welcoming environment for innovators, and learn from them as they build. This “funneling” function can be a powerful tool in for policy making.

Symbiont is cognizant that a great deal of consideration will accompany the Rulemaking, and that the issues at play bear discussion beyond a single letter from a single DLT provider. We welcome the opportunity to provide further comment, and greatly appreciate the opportunity to offer assistance to the Commission during this process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Marco Santori', with a long horizontal line extending to the right.

Marco Santori