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JUL 4, 2018 @ 12:35 PM

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The Little Black Book of Billionaire Secrets

Tokenized Securities Are Not Secured By Delaware Blockchain Amendments

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I am the CIO for Global Kompass Strategies, a US-based management consulting firm. I help organizations develop breakthrough opportunities using blockchain and other emerging technologies. In 2014, the Markell Administration recruited me to start an economic development division in the Delaware Department of State. The following year, I conceived the Delaware Blockchain Initiative which gave rise to the "Blockchain Amendments." The amendments were the first of their kind anywhere in the world. They expressly authorized Delaware corporations to maintain their corporate records, including stock ledgers, on a blockchain. I graduated magna cum laude from Delaware Law School. After that, I clerked for William B. Chandler III, former Chancellor of the Delaware Court of Chancery. I received my undergraduate degree in economics from Brown University. I am a member of the global Wharton RegTech think tank. In 2017, MarketsMedia awarded me its "Women in Finance Award" for Excellence in Blockchain.

The author is a Forbes contributor. The opinions expressed are those of the writer.



Photographer: Luke MacGregor/Bloomberg

In the last year, more and more blockchain entrepreneurs have sought to leverage public blockchains, such as Ethereum, to create registries allowing for the recording and transferring of assets, such as diamonds, real estate and securities, through a system that allows the assets to be represented by specific computer code, often referred to as tokens.

Tokenizing securities, including shares of stock and bonds, can eliminate friction and create efficiencies in capital markets. But contrary to many assertions, the Delaware Blockchain Amendments (which revised Delaware's General Corporation Law to authorize the use of distributed ledger technology for the issuance and transfer of shares) do *not* provide blanket authority for shares of stock of a Delaware corporation to be tokenized.

Tokenized shares do not eliminate many of the types of errors that

are symptomatic of a system that relies on third-party intermediaries to manage and control shareholder databases. **This is problematic** because purchasers who have been advised that their tokenized shares have been “authorized” by the Blockchain Amendments could be under the misimpression that they are insulated against all risks stemming from potential defects in the authorization, issuance or transfer of their shares.

For example, one recent [article](#) describes ERC-884, a draft Ethereum token specification designed to represent equity in any Delaware corporation. Each of these tokens represent a single unnumbered share. Issuers maintain a private database (off the blockchain) that records the name and physical address of the token’s owner as well as the Ethereum address corresponding to the token. Token owners are whitelisted and have their identity verified. Shareholders who lose their private key, or otherwise lose access to their tokens, can cancel their tokens and have them reissued. Thus, although the ERC-884 is designed to *transfer* shares of stock, the share ownership information is captured in an *off-chain* database.

This arrangement is in stark contrast to what was contemplated by the Delaware Blockchain Amendments which I set in motion as the founding director of the Delaware Blockchain Initiative. The Delaware Blockchain Amendments eliminated the requirement of a central authority to maintain the stock ledger, and with it certain risks of human error related to the issuance and transfer of shares. Specifically, the Amendments clarified that a Delaware corporation may issue shares and maintain its stock ledger on a blockchain (through smart contract functionality), without the need for a single central officer or agent (e.g., the corporate

secretary or transfer agent) to serve as the recorder and clearing house for all issuances and transfers. Indeed, the Delaware Blockchain Amendments eliminated the requirement that any such officer or agent be responsible for updating the corporation's records, including its stock ledger, providing instead that the stock ledger constitutes one or more records "administered by or on or behalf of the corporation" and that records administered by or on behalf of the corporation, including the stock ledger, may be kept on or by means of one or more electronic networks, including one or more distributed electronic networks or databases.

Although the Delaware Blockchain Amendments apply by their terms to all Delaware corporations, not all corporations will be able to immediately and completely take advantage of the Amendments. Specifically, corporations that have shares represented by certificates may not avail themselves of the Amendments, as the procedures for transferring certificated shares are not compatible with the notion of shares being transferred via smart contract through a distributed ledger platform.

Currently, if a single shareholder has shares represented by a certificate, any other shareholder is similarly entitled to have a certificate. Thus, a corporation that wishes to move to a complete blockchain environment for the issuance and transfer of all of its shares would need to take steps to move to a completely uncertificated state, whether by converting all of the outstanding shares into new shares in a holding company reorganization or other transaction.

It would appear that the question of whether or not certificated

shares have been issued largely becomes irrelevant under a regime in which shares of Delaware corporations are tokenized. This is because certificated and uncertificated shares can both be tokenized.

Further, the tokenized scenario envisioned by ERC-884 requires third party intervention. Although the corporation's stock transfer information is maintained on a blockchain, the list of shareholders and their concomitant information is maintained off chain. It is only after these two databases are reconciled (off chain) that a stock ledger can be created. Since the stock ledger is *not* maintained on a blockchain and, instead, is maintained off chain, the Delaware Blockchain Amendments are *not* implicated.

Let that sink in.

The issuance of tokens in a process that merely allows for the transfer of shares (without more) is not specifically authorized by the Delaware Blockchain Amendments. So, the next time you hear that a certain tokenized share is "authorized" by the Delaware Blockchain Amendments, think again.