HOUSE DOCKET, NO. 4074 FILED ON: 2/19/2021

HOUSE . . . . . No. 103

The Commonwealth of Massachusetts

PRESENTED BY:

Nicholas A. Boldyga

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act relative improving voting systems and expanding accessibility.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
Nicholas A. Boldyga	*3rd Hampden*	*2/19/2021*

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HOUSE . . . . . No. 103

By Mr. Boldyga of Southwick, a petition (accompanied by bill, House, No. 103) of Nicholas A. Boldyga for legislation to establish a commission to investigate blockchain technology, so-called, applications and systems for possible beneficial use to the Commonwealth including, but not limited to, the conduct of elections. Advanced Information Technology, the Internet and Cybersecurity.

The Commonwealth of Massachusetts

In the One Hundred and Ninety-Second General Court
(2021-2022)

An Act relative improving voting systems and expanding accessibility.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. This bill would establish a committee to study the feasibility and practicality of using blockchain technology to secure data and datasets developed from data received from the general public, and for related government functions to improve election integrity, election accessibility and trust in the Commonwealth's voting process.

SECTION 2. (a) A "blockchain" is hereby understood to be a series of mathematically-related units of data in which each new unit, or block, contains a hash of, and verifies through a previously designated protocol or series of instructions, all data in the series of data units preceding the newest unit.

(b) "Blockchain technology" is hereby understood to mean the technology, comprised of systems, methods and processes, by which an algorithmic system containing data which is verified by decentralized, distributed, mathematic-based consensus achieved among participants

within a network of linked computers in accordance with a previously-established rule set or protocol, is used to receive data, store data in its original state, revise and supplement data into updated states without changing any original state of data and retrieve and process said data.

SECTION 3. (a) The commission or body established by this bill would be charged with the objective of studying the feasibility, from a cost, public responsiveness and technology standpoint, of the Commonwealth adopting computer systems using or based on blockchain technology for certain government purposes.

(b) It is believed that blockchain technology applications and systems may be of particular beneficial use to the Commonwealth including, but not limited to, the conduct of elections, maintenance of databases for registered corporate entities, registered voters, licensed drivers and licensed businesses or individuals, and disbursement of certain government benefits.

SECTION 4. (a) The commission or body shall study the feasibility of developing or using a specialized blockchain network comprised of multiple, independent, autonomous blockchains which in turn are connected by one or more "linking" blockchains. The linking mechanisms would permit certain designated datasets to be shared or updated as instructed, while "fencing off" the remainder of datasets so they would be updated only by actions within their respective hosting blockchain.

SECTION 5. VOTING APPLICATIONS. (a) The commission shall be charged with exploring the feasibility of using a blockchain system to conduct a verifiable public office election which meets the core principles of furthering the integrity of core government functions, the confidence of the general public in the fair, efficient and objective conduct of said core government functions and said integrity.

(b) Any "voting" or "election" government function involves multiple datasets, of which each such dataset contains separate information from or about members of the general public, and it is believed at least three discreet datasets are needed to comprise the blockchain system which is the focus of this Section.

(c) One dataset comprises voter identity information, including name, address, political party registration if designated, and a record of the voter's participation in prior elections, and this dataset is envisioned as being contained within one wholly independent blockchain.

(d) The second dataset would ideally be a second blockchain, linked to the first blockchain, and upon which second blockchain vote choices from participating and eligible registered voters, as well as a record of participation or non-participation from all registered voters within the dataset of the first blockchain, would be recorded upon and by said second blockchain.

(e) The third dataset would ideally be a third blockchain, linked to the second blockchain but not to the first said blockchain, which third blockchain would engage in the tabulation function to yield the outcome.

(f) After each such public election, the blockchain referred to in this Section as the first blockchain can be used as the ongoing "present state" of each county's voter registration database. The second and third blockchains can be retired after the election event has concluded and final results are certified.