



United States: using blockchain technology to streamline government processes

In May 2016 at a conference in New York on new technologies, the governor of Delaware, Jack Markell¹, announced that he wanted to use blockchain technology to cut red tape for businesses operating in Delaware. Doing so would save money and time, keep exchanges secure and foster good relations between businesses and the state's tax authorities.

Blockchain – a technological revolution similar to Internet?

Blockchain is "a technology for storing and transmitting data"². It consists of a decentralized database of digital transactions³: every transaction is registered and accessible to the public. It is secure and shared by all users. "A public blockchain is comparable to a large, anonymous and unchangeable accounting book"⁴ that uses the "bitcoin" protocol for exchanging currency between two individuals.

A block chain simplifies procedures by using the power of the network to validate and authenticate exchanges between two individuals. The exchange creates a "block" that is validated for both users of the chain, thanks to a unique algorithm created for the transaction⁵. This keeps the public ledgers and databases free from tampering⁶.

This technological revolution, "comparable to the steam engine, the printing press or the Internet"⁷, helps lower the unit cost of intermediation, limits delays in payment, increases security, automates formerly manual procedures and eliminates risks of corruption.

Delaware, the First State⁸ in terms of taxation and digital technology

At only 6,446 km², the state of Delaware is the second-smallest state in the US⁹. It offers a particularly advantageous tax regime¹⁰, and as such attracts a great many businesses, from startups to Fortune 500 companies (Apple, Coca-Cola, Google, etc.), 65.6% of which are domiciled in the state. Moreover, the state's legislative environment is also attractive to businesses: "clear laws that protect companies' interests and well-

¹ <http://governor.delaware.gov/biography.shtml>

² <https://blockchainfrance.net/decouvrir-la-blockchain/c-est-quoi-la-blockchain/>

³ <https://www.letemps.ch/economie/2016/05/29/blockchain-va-affoler-intermediaires-financiers>

⁴ <https://blockchainfrance.net/decouvrir-la-blockchain/c-est-quoi-la-blockchain/>

⁵ <http://www.diplomatie.gouv.fr/fr/politique-etrangere-de-la-france/diplomatie-scientifique/veille-scientifique-et-technologique/etats-unis/article/la-technologie-blockchain-au-service-d-un-etat>

⁶ <http://www.economist.com/news/leaders/21677198-technology-behind-bitcoin-could-transform-how-economy-works-trust-machine>

⁷ <http://www.informatiquenews.fr/blockchain-teste-etat-americain-47698>

⁸ Delaware is nicknamed the "First State" because it was the first state to ratify the American Constitution, on 7 December 1787.

⁹ <http://www.capital.fr/a-la-une/politique-economique/delaware-10-chiffres-pour-mieux-cerner-ce-havre-fiscal-en-plein-caeur-des-etats-unis-1124737#>

¹⁰ <http://www.diplomatie.gouv.fr/fr/politique-etrangere-de-la-france/diplomatie-scientifique/veille-scientifique-et-technologique/etats-unis/article/la-technologie-blockchain-au-service-d-un-etat>

established case law"¹¹. Delaware has more businesses (1 million) than residents (900,000). This generates significant budgetary revenues: in 2014, Delaware collected \$927.8 million in taxes and fees from businesses registered in the state, which represented 26% of its budget. This practice has drawn fire¹², with critics claiming that the state is a tax haven. The Obama administration¹⁴ decided to take measures to put an end to the confidentiality of data¹³, and to improve tax transparency¹⁴ in three states – Delaware, Wyoming and Nevada.

With encouragement from the state's highest levels, Delaware is committing to digital technology and new technologies. 1983 saw the introduction of uncertificated corporate shares. Electronic corporate record transmissions and electronic director votes were introduced in the 1990s, and the latest innovation involves virtual stockholder meetings¹⁵.

The Blockchain Delaware Initiative – one of the top public-sector innovations worldwide¹⁶

According to Rick Geisenberger, Chief Deputy Secretary of State, Delaware's goal is to develop the use of blockchain technology. It will be used for all of businesses' notarised acts, especially shareholders' agreements concerning funding rounds for startups. Acts such as corporate registrations, shares, capitalisation tables and communications between shareholders¹⁷ will be managed by this new technology. Less risky procedures will be the focus at the start, and more complex issues will be addressed at a later date¹⁸.

The goal of the project is to create a legal and regulatory environment that is amenable to developing this technology and encouraging blockchain companies to set up shop in the US¹⁹. It will involve:

- Symbiont, a startup developing a platform for generating contracts
- A specialized team from Pillsbury Winthrop LLP who will work to remove legal roadblocks to the use of encryption systems

For Anne-Sophie Moroni, Deputy Attaché for Science and Technology at the French consulate in Boston, "the principles underlying this decision will create a virtuous circle between businesses and the tax authorities: technology will help speed up procedures and lower costs for the former, and will make businesses' accounts and transactions, along with their capitalisation tables, more transparent and visible for the latter"²⁰. One prerequisite involves ensuring that the legal environment allows this, and adapting it if necessary. The next step, already underway, is the use of blockchain for storing documents in the state's archives. Encryption will be used to record and safely archive them.

This major innovation will no doubt spawn similar efforts. According to the Global Economic Forum, more than 75% of experts think that by 2023, governments will begin to use blockchain to collect taxes²¹. The UK has also identified blockchain as a key driver of reforms as part of its efforts to modernize public services²².

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¹¹ <http://www.diplomatie.gouv.fr/fr/politique-etrangere-de-la-france/diplomatie-scientifique/veille-scientifique-et-technologique/etats-unis/article/la-technologie-blockchain-au-service-d-un-etat>

¹² <http://www.lefigaro.fr/conjoncture/2015/06/26/20002-20150626ARTFIG00096-le-petit-etat-du-delaware-le-paradis-fiscal-america-in-qui-irrite.php>

¹³ <https://www.company-creation.com/regime-fiscal-delaware-nouvelle-reforme/>

¹⁴ <http://www.lefigaro.fr/conjoncture/2015/06/26/20002-20150626ARTFIG00096-le-petit-etat-du-delaware-le-paradis-fiscal-america-in-qui-irrite.php>

¹⁵ <http://www.ibtimes.co.uk/consensus-2016-state-delaware-open-blockchain-business-1557851>

¹⁶ Honduras is testing this technology for managing its land registry, and Estonia is using blockchain technology for managing patients' medical records.

¹⁷ <http://www.wsj.com/articles/delaware-considers-using-blockchain-technology-1462145802>

¹⁸ <http://www.statetechmagazine.com/article/2016/05/delaware-deals-blockchain-technology>

¹⁹ <https://www.cryptocoinsnews.com/delaware-governor-announces-plan-to-embrace-blockchain-in-public-and-private-ventures/>

²⁰ <http://www.informatiquenews.fr/blockchain-teste-etat-america-in-47698>

²¹ http://www.journaldunet.com/economie/finance/1181485-blockchain-les-banques-conscientes-du-potentiel-mais-inactives/?utm_content%20=buffercc72a&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

²² <http://www.diplomatie.gouv.fr/fr/politique-etrangere-de-la-france/diplomatie-scientifique/veille-scientifique-et-technologique/royaume-uni/article/blockchain-et-la-technologie-des-registres-distribues-le-prochain-chantier?xtor=RSS-4>