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Blockchain moves to the public sector

From financial services to retail, market participants are developing blockchain use cases to maximize the potential benefits of the technology on a large scale. The public sector, too, has taken a keen interest. From Australia to Canada via Dubai, governments and regulators have launched blockchain initiatives to enhance understanding, set standards and promote its use to achieve a vision where multilateral agencies interact with each other in a safe, and secure environment, to facilitate seamless economic transactions for the benefit of their citizens. But, as this author argues, blockchain’s ability to enhance how service providers interact with their customers will depend on robust, comprehensive regulatory frameworks to support the blockchain ecosystem.
Blockchain is the new buzzword. In simple terms, it is a decentralized, secure digital ledger (or record) of transactions. There can be hundreds or thousands of copies of this record stored on computers worldwide, but no individual or entity has control over it. Each entry in the record is connected to the one before, and after it, creating a full history of every transaction that cannot be deleted nor amended. While there are different types of blockchain, this transformative technology could, potentially, provide ample benefits to businesses that include reducing the time and cost of transactions, ensuring data security and eliminating human error in operations.

In the Middle East, Dubai has announced its intention to be the world’s first blockchain-powered government by 2020. In its endeavor to make Dubai a Smart City, it hopes to leverage the technology to remove institutional layers, improve collaboration across multiple public-sector entities, reduce time and cost inefficiencies, and improve quality of life for its citizens. Defining parameters and setting one of rules is by no means an easy feat. Defining parameters and setting the rules of engagement will encourage public and private sector entities to adopt blockchain with greater confidence. Setting parameters now around what can and cannot be done is crucial and will protect early adopters if things do go wrong. It can signal to those who may otherwise be hesitant to participate.

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Secondly, establishing the rules of engagement can ensure that the ecosystem remains interconnected and therefore stable—in the long term, as participants increasingly depend on each other and the regulations in place. Aside from providing assurance and protection, regulations can lead to the consensus and standardization required among blockchain participants for the technology to prosper in the future. If there are no laws in place, there can be no agreement about what is permissible or not with blockchain, be that regarding privacy and data confidentiality. Setting parameters now around what can and cannot be done is crucial and will protect early adopters if things do go wrong. It can signal to those who may otherwise be hesitant to participate.

Key considerations for regulators

We highlight below some of the possible steps that public sector entities may take towards the development of a suitable regulatory framework aimed at the smooth adoption of blockchain by public sector entities.

As a first step, these entities can appoint an appropriate authority(ies) to regulate the adoption of blockchain. Such regulatory authorities need to be
empowered to develop regulations, monitor their compliance and take enforcement actions if required.

A benchmarking exercise may be undertaken at this point to understand the approach adopted by leading jurisdictions in the development and implementation of such a regulatory framework.

Next, such authorities can appoint a panel of local and global experts on blockchain technology and public services, which may include experts in the fields of immigration, real estate, transportation, tourism, utilities, financial services, healthcare, education and municipal affairs. This panel may be consulted by the authorities to provide views towards developing a robust regulatory framework for adoption of blockchain in the public sector. The regulatory authorities may also recruit blockchain experts to work with their internal regulatory policy team to develop a draft regulatory guidance for industry consultation. Post-consultations, this draft can be enhanced and circulated for issuance.

Towards the development of a comprehensive and robust regulatory framework, the regulatory authority should identify the key stakeholders. These stakeholders should be consulted to understand the key needs and challenges they face in the adoption of blockchain for provision of public services and consider whether regulations can help address some of these concerns.

The regulatory authority can start with guidance on rules of engagement between various public sector entities and discuss challenges in their adoption by these entities.

Essentially, common sense regulations can provide a safety net for companies to trust, experiment with and benefit from the technology, in turn allowing the blockchain ecosystem to grow.

The regulatory authorities should list the key challenges faced in the adoption of blockchain as a collaborative platform across public sector entities. These may include cyber security and customer data confidentiality when sharing information across entities. These can be vetted by legal experts against local regulatory guidelines as well as global guidelines such as GDPR (General Data Protection Regulation) to ensure a robust framework is adopted for proper consumer data protection. Such risks must be addressed in the regulatory framework.

In conclusion, for a successful implementation of a regulatory framework that will promote the use of blockchain in the public services sector, it is critical that a flexible approach be taken at this stage, recognizing the complexities of the task ahead and the importance of trial and error—for example using regulatory sandboxes, as set up by the UK’s Financial Conduct Authority or Australia’s Securities and Investments Commission. As this is unchartered territory, regulators may adopt innovative approaches. The ultimate goal is a suitable and practical regulatory framework ensuring the successful adoption of blockchain for the provision of public services.

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Endnotes
1. A use case is a set of actions defining interactions between an actor and a system to achieve a defined goal e.g. a blockchain-based land registry (system) that provides controlled access to buyer, seller, land department, real estate agencies, utility companies, and banks (actors) to perform their role towards completing a property sale (goal).