PERSPECTIVES

3 POTENTIAL BENEFITS OF BLOCKCHAIN FOR GOVERNMENT

Written by Kate Boeding, Jonah Czerwinski, and Richard McConkie

Public sector blockchain can build trust, protect data, and reduce costs

Blockchain—the technology underpinning Bitcoin— has gone from relative obscurity to mainstream topic in just a few years. Realizing the cross-cutting applicability of blockchain, hundreds of leaders in government have joined the General Services Administration's (GSA) blockchain working group to share use cases and best practices (https://gcn.com/Articles/2017/07/11/blockchain-forum.aspx).

Excitement around the technology is building as agencies begin piloting and testing blockchain applications for payments, supply chain, identity management, secure data sharing, and more. We have seen firsthand the tangible benefits blockchain can deliver for government clients. While the list of potential public sector blockchain applications continues to grow, here are three compelling benefits within the public sector today.

Meet Sean Memmen

Sean Memmen is an expert in assured Positioning, Navigation and Timing, or PNT. **Read More**

Benefit No. 1: Building Trust with Citizens

According to the Pew Research Center, American trust in government is near an all-time low. Only 18 percent of Americans say they can trust the government to do what is right most of the

time (http://www.people-press.org/2017/05/03/public-trust-in-government-1958-2017/). Reasons for this distrust are numerous and complex, but there's potential for blockchain to contribute to a reversal of this trend.

A key feature of blockchain-based solutions is transparency through decentralization, allowing participating parties to see and verify data. A blockchain solution for some citizen services could allow for independent verification of governmental claims. For example, the governments of Sweden, Estonia, and Georgia are experimenting with blockchain-based land registries, enabling multiple parties to securely hold copies of the registry. This model could help quickly resolve property disputes or prevent them altogether. When citizens and governments share access to records, potential for distrust decreases.

Benefit No. 2: Protecting Sensitive Data

Breaches of personal data have become a fact of life in today's digital world. The full names, Social Security numbers, birthdates, addresses, and driver's license numbers of 143 million Americans were exposed in the 2017 Equifax database breach (http://www.chicagotribune.com/business/national/ct-equifax-data-breach-20170907-story.html). Just 2 years earlier, more than 20 million records of past and present government employees were stolen from databases maintained by the Office of Personnel Management (https://www.wired.com/2015/07/massive-opm-hack-actually-affected-25-million/).

As the default record keeper for society, governments are large targets for hackers. But rather than accept such attacks as the cost of doing business in the information era, they could be mitigated or avoided through the responsible deployment of blockchain data

structures. Such data structures harden network security by reducing single-point-of-failure risk and can make attempting a breach prohibitively challenging.

Government agencies, like the Department of Homeland Security, are getting serious about blockchain applications in cybersecurity. DHS is funding blockchain startups to conduct research and development and explore new approaches to cybersecurity. According to a DHS official "blockchain technologies have the potential to revolutionize the way we manage online identity and access the internet; this R&D project will help bring this potential closer to reality (https://www.dhs.gov/science-and-technology/news/2017/09/25/news-release-dhs-st-awards-750k-virginia-tech-company)."

Benefit No. 3: Reducing Costs & Improving Efficiency

Government agencies must fulfill their mission while responsibly managing scarce resources. For government leaders walking this budget tightrope, blockchain may be a much-needed lifeline. In the right context, blockchain solutions could reduce redundancy, streamline processes, decrease audit burden, increase security, and ensure data integrity.

Take, for example, the GSA FASTLane process. This system—used by GSA to manage incoming proposals from vendors—currently takes 40 days to process incoming proposals, but GSA is hoping a blockchain solution can help meet a target time of 10 days. A GSA official recently stated that a blockchain solution could "lower the direct costs of analyzing a proposal by close to 80 percent (https://fedtechmagazine.com/article/2018/01/treasury-gsa-see-benefits-blockchain)."

To further illustrate how blockchain solutions could increase efficiency, consider the federal government's ongoing challenge with reconciling intragovernmental transfers. At any given time, there are trillions of dollars in unreconciled funds in the federal budget (https://www.gao.gov/assets/690/682081.pdf). The process of reconciling these funds is time consuming, expensive, and creates budget uncertainty. A payment and accounting system that used blockchain could provide a permanent audit trail and facilitate faster reconciliation.

Getting Started

Being a relatively new technology in practice, but more importantly, a new tradecraft, the blockchain ecosystem is quickly evolving to narrow in on use cases and collaborate to test and explore its potential. With many possibilities for ledger-based solutions, the first step is to responsibly identify viable blockchain challenges, then test and develop the corresponding solution. As blockchain matures, we anticipate new and previously unforeseen applications for the government, ultimately increasing trust, security, and efficiency for citizens.

Experts in the Field
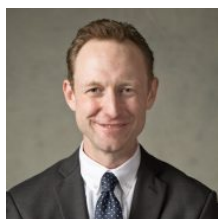
Jonah Czerwinski

Steve Escaravage

Julie McPherson
Digital,

Analytics, and Strategy Lead

Bill Ott

Tags

Digital Solutions   Government Industry

Innovation Solutions   Data Science

Related [Insights (https://www.boozallen.com/search-results/articles.html#?i=1;q10=articles;q12=Data+Science|Government+Industry|Innovation+Solutions|Digital+Solutions|;sort=relevance;x10=category;x12=tags)](https://www.boozallen.com/search-results/articles.html)

Meet Sean Memmen

PEOPLE PROFILE

Guide to Immersive Technology

PUBLICATION

Booz Allen Is Taking Clients to the Future in San Antonio

LOCATIONS

DEXi: Personalized Search for Government Programs

CASE STUDY

Giving Taxpayers a Customer Experience

CASE STUDY

5 Myths of Technology Business Management

PERSPECTIVES

Mobility and Security for

8 Cybersecurity Trends to

Military Devices

CASE STUDY

Watch in 2019

PERSPECTIVES

https://www.linkedin.com/company/booz-allen-hamilton

https://twitter.com/BoozAllen

https://www.instagram.com/boozallen/

https://www.facebook.com/boozallen/

https://www.boozallen.com/s/insight/blog/3-potential-benefits-of-government-blockchain.html