Linking Blockchain to Federal Data Has its Benefits

The emerging technology could improve data transparency, accountability and security, say agency innovation leads.

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Government agencies are already examining ways to use blockchain to make government data more transparent and secure, including streamlining data related to federal acquisitions, maintaining device logs in real time and sharing information across community grant foundations.
Made infamous by cryptocurrencies, blockchain is an emerging technology that most associate with the dark web and illicit transactions more than any legitimate purpose. However, removed from dark web marketplace transactions, blockchain is best thought of as “a distributed computer for metadata ... fundamentally about running processes on a decentralized platform,” as one industry leader put it during the launch for Data Foundation’s “Bringing Blockchain into Government” report.

IT leaders from the General Services Administration, Department of the Treasury and software provider GrantSolutions spoke at the report launch about their approaches to implementing blockchain in the federal government.

GSA's challenge has been finding the right use case for its data, said Keith Nakasone, deputy assistant commissioner for IT acquisition at the agency.

“Data is one of the big challenges we’re going to have to work through,” Nakasone said. “As we go through the process, if [we’re using] multiple systems and the data is not recognized the same or it has different data definitions, it’s problematic.” His office is applying agile methodology to overcome these impediments and attempt to advance implementation efficiently.

The Department of the Treasury’s test case has been in physical asset management, particularly work phones and software licenses, said Craig Fischer, innovation program manager at the agency. The department spends about $8 billion on software licenses annually, Fischer explained. When employees left the department and the licenses on their computers remained active, that was effectively lost money.

“The idea was we’d use the blockchain to have better built-in transparency,” Fischer said. While the process was effective in transferring software licenses from former employees to current ones, data proved to be the impediment. “What we learned, governmentwide, is that data standardization is absolutely critical,” he said. “A massive data standardization effort would have to take place across the government for this to work at all.”
Blockchain can increase transparency and lower costs not only for federal government, but also for its partners, explained David Martens, director of strategic initiatives for GrantSolutions.

“There’s $750 billion a year that the government invests into communities around the world via grants,” he said. “Our grant recipients report that roughly 30 to 40% of their time working on federal grants ends up going toward administrative activities ... every dollar spent on that is one not being spent on their mission. We’re really focused on trying to connect those communities to reduce costs.” Blockchain could link those communities, enabling them to securely store and update their data to cut back on both costs and time spent on administrative activities.

Martens believes the critical challenge in implementing blockchain is not only standardizing data across agencies and communities, but also encouraging a culture change toward information and data sharing.

“I wouldn’t say the federal government has a culture of sharing,” he said. “But we’ve found that the culture of sharing is something that’s really important to get people to see that there’s power in sharing information with one another, and that gets you a little closer to the standardization that Craig talked about.”

“A lot of it has to do with organizational change,” Nakasone agreed. “It’s the people, process and technology together.” He has found success in gradually introducing new technologies, demonstrating the value in how those technologies can help the mission, encouraging “the ones on the fence” and “the resisters” to adopt technologies like blockchain.

GSA demonstrated proof of concept for blockchain in 2017 and debuted a pilot program in 2018. Nakasone hopes that 2019 will be the year GSA moves beyond the pilot program and looks toward agency-wide applications.

“It’s slow, but we want to get it right,” he said. “Really, it’s transformation. When we adopt new technology, it’s changing the culture.”
Looking forward to implementing blockchain and other advanced technologies across agencies or government as a whole, focusing on business and mission is the most critical enabler of implementation, all three speakers agreed. Fischer said it took him a year to secure approval for the blockchain asset management test case.

“I think one of the big lessons learned is that I was trying to explain the technology as opposed to trying to explain how this could improve our lives,” he said. “The big thing for me now is to talk about this in a simple way.”

“Customer experience is key,” Nakasone added. “When we look at the entire process as a whole, the business challenge is how we get to rapid acquisitions.” He added that his office is lucky to have supportive executives who are willing to try new technological solutions to business problems.