

# North Carolina Uses Blockchain to Give First Responders Rapid Access to Data

## What is Blockchain?

Blockchain uses advanced cryptography to create a trusted framework of linked data records — called a ledger — that are decentralized, immutable and available to authorized members of the blockchain network. Organizations can use blockchain to establish and verify identities, record transactions, register and track assets, share information and more. An important benefit of blockchain is that it creates a single version of the truth, thereby eliminating redundancies, outdated records and conflicts. It also allows organizations to improve trust, efficiency and the user experience without replacing legacy systems or losing existing data.

The state of North Carolina has been a leader in the adoption of cloud services, artificial intelligence (AI) and other emerging technologies to improve operations and better serve citizens. It has recently incorporated blockchain technology to decentralize identity and permissions management in emergency situations, thereby speeding access to potentially life-saving data. In starting with this compelling use case, the state has quickly created an important win that will help pave the way for expansion into other areas.

## In an Emergency, Every Second Counts

Tracy Doaks, North Carolina's Chief Deputy CIO, says state leaders recognized the potential of blockchain and were well-prepared to take advantage of it when the perfect use case for a pilot project arose. The opportunity grew out of a state school safety initiative that gained momentum after the Marjory Stoneman Douglas High School shootings in February 2018. To improve school safety, state leaders wanted to consider a new application that law enforcement personnel could use to gain access to school plans; however, the state's existing identity management and authentication service was unstable and complex. The state needed a way to grant law enforcement personnel access without requiring users to enter a user ID and password.

"When you're talking about a school shooting and how that occurs in seconds, we don't want law enforcement fiddling around with their passwords or trying to figure out how to reset them," Doaks says.

These problems extended beyond the state's law enforcement agencies, hindering user access to applications across functions, roles and agencies. Essentially, the issue was password reset requirements. Depending on the agency, passwords must be refreshed every 60 to 90 days. Users who infrequently use the identity system often must reset their password by the time they

use the system again. This process degrades the user experience, interrupts productivity and — in emergencies or rapidly evolving situations — delays response times.

### **Faster Access and Lower Costs — Without Sacrificing Security and Governance**

To address these challenges, the state partnered with IBM to pilot a decentralized identity management and permissions solution that uses blockchain technology to manage and confirm identities. Using the cloud-based solution, law enforcement officers, firefighters and other emergency responders will have immediate, unfettered access to school systems and information even when it resides in multiple silos (where access typically requires separate logins with separate passwords for each). The approach simplifies the user experience and accelerates access without relaxing governance and security requirements. In addition, the solution reduces costs associated with service desk calls.

“When you have users struggling to use these services, there are service desk calls and other resources associated with that,” Doaks says. “Time equals money, and those costs are passed back to agencies, and ultimately to citizens. Making it easy to use and reducing access time cuts costs,” Doaks says.

### **The Right Project, the Right People, the Right Time**

When asked about the key to successful implementation and adoption of the blockchain solution, Doaks recommended the following approach.

**Find a compelling use case.** Avoid focusing on technology for technology’s sake. Learn what users are struggling with and focus on a use case that solves an urgent, real-world problem.

**Gain executive sponsorship.** Top-down support is essential. A passionate leader can use his or her platform and resources to drive interest, ensure adequate funding and align the project with the organization’s long-term goals.

**Bide your time.** Wait for the right circumstances and use case. “It’s about things coming together that make sense, that help it

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become a compelling story or use case,” Doaks says. “You have to pick the right time, because we’re not technologists for the sake of technology; we’re business enablers.”

### **Maximizing the Potential of Blockchain**

Although the pilot project specifically targets public safety, Doaks’ long-term vision is to expand the solution to other use cases. North Carolina’s recently implemented cloud broker platform will be vital in expanding blockchain services over time — allowing the state to pull together siloed information sources and layer in artificial intelligence to create ever more powerful solutions.

Doaks points to the state of Delaware, where many companies go to incorporate their business. The state built a blockchain trust and security mechanism into the incorporation process so other entities do not have to validate and verify an applicant’s information. Doaks hopes to see North Carolina offer that use case to entities that do business in her state.

She highlights the importance of using blockchain — especially its identity management capabilities — across other sectors to maximize its value both within government and in people’s daily lives.

Says Doaks: “I would love to see North Carolina extend this solution to other sectors so it can scale and be as valuable as possible.”

***This session is part of the IBM Government Cloud Virtual Summit, a free, online event featuring 17 sessions with insightful keynotes, illustrative case studies and deep dives into job-critical topics for government leaders. To view any of these sessions, visit [www.govtech.com/ibmvirtualsummit](http://www.govtech.com/ibmvirtualsummit)***

