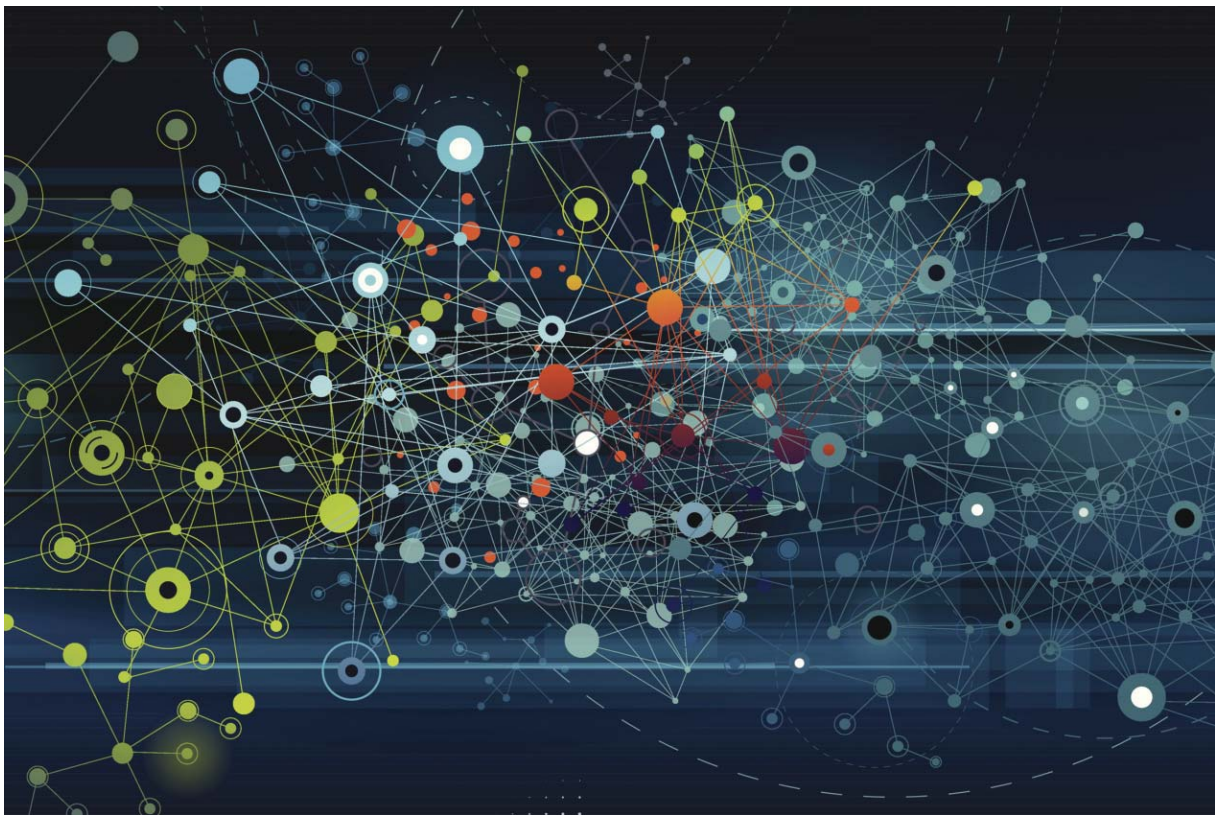
Nuts & Bolts



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» TECH TALK

Breaking Down Blockchain

What to know about the potential of the digital data-ledger technology

By Elizabeth Judd

Many community bankers have heard the term "blockchain technology," thanks to the wild, woolly and widely publicized adventures of digital currencies such as bitcoin. But even though bitcoin experienced outsized problems, the concept holds the promise of numerous secure uses for financial-service providers.

D+H, a software and technology company based in Lake Mary, Fla., is testing blockchain because the technology could become a major disrupter for financial-service companies. Specifically, the technology could be a foundation for highly secure payments, data transfers, more accurate trade data (with shorter settlement times), and even smart contracts.

In a nutshell, blockchain technology uses "a database that nobody owns and that anybody can write to," says Gene Neyer, head of product management for global transaction banking solutions at D+H. It is essentially an indelible online version of the old-fashioned ledgers that storekeepers and bankers used to keep track of what sums had been paid and what were still owed. The difference with blockchain is that when a ledger is housed online, it can be accessed by many users and updated quickly.

John Dwyer, senior research analyst at Celent, a technology research and consulting firm, elaborates, noting that blockchain technology is built on a number of attributes, including a distributed system, decentralized consensus, cryptography and tokenization. It also relies on so-called smart contracts, which are written in code rather than with words on paper.

Take the last piece: Smart contracts have obvious applications

for banks because their terms can be built into electronic documents such that they automatically execute once all necessary terms are fulfilled. Dwyer says that for a financial contract—such as those within the mortgage-lending space—blockchain could make for quicker processes that rely less heavily on intermediaries.

More interesting, perhaps, is how blockchain might revolutionize payment systems, allowing funds to move almost instantaneously between parties in distant places. For instance, a startup cryptocurrency firm Ripple Inc. uses blockchain technology to change the way payments are made across borders by allowing banks in different countries to interact directly without involving central banks and other intermediaries, thus assuring very swift settlement of transactions.

While the possibility of moving money or data more safely and quickly is tantalizing, Dwyer cautions that blockchain technology is difficult to test in the abstract without actually moving money, and the stakes are excruciatingly high for banks should anything go wrong. "With bitcoin, there's been quite a lot of fraud," he says. "The reasons for the fraud are specific to bitcoin. It was an amazing technology, but it was a nascent, fringe technology and was not incorporated into mainstream finance."

Smart contracts have applications for banks because their terms can be built into electronic documents that can be automatically executed once all terms of an agreement are fulfilled.

Dwyer believes that for blockchain to take off in the financial-services arena, the ultimate solution would need the blessing of central banks and regulators so it, in fact, does become part of mainstream finance. Without such a blessing, a bank would be taking on considerable risk should fraud occur.

Neyer points out that bitcoin was first to demonstrate a widely used, decentralized ledger not maintained by a central authority. He notes that this openness might pose a problem for community banks because "people want to do their deals with some level of secrecy." That said, he suggests that blockchain and public ledgers could be used for sharing reference data, such as where a bank would properly and safely route an electronic payment to a merchant.

Although blockchain may not be anything community bankers use tomorrow, it's definitely a technology with plenty of promise. "First, it costs very little to connect to the virtual ledger, and second, it's speedy," Neyer says. With pluses like these, community banks and other financial-service players may find it worthwhile to take blockchain very seriously indeed for various purposes. IB

Elizabeth Judd is a freelance financial writer in Maryland.

Takeaway: Blockchain technology can be used for highly secure payments, data transfers and even smart contracts.