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SEI Investments embraces blockchain for Wall Street pros. Mom and Pop investors? Not yet

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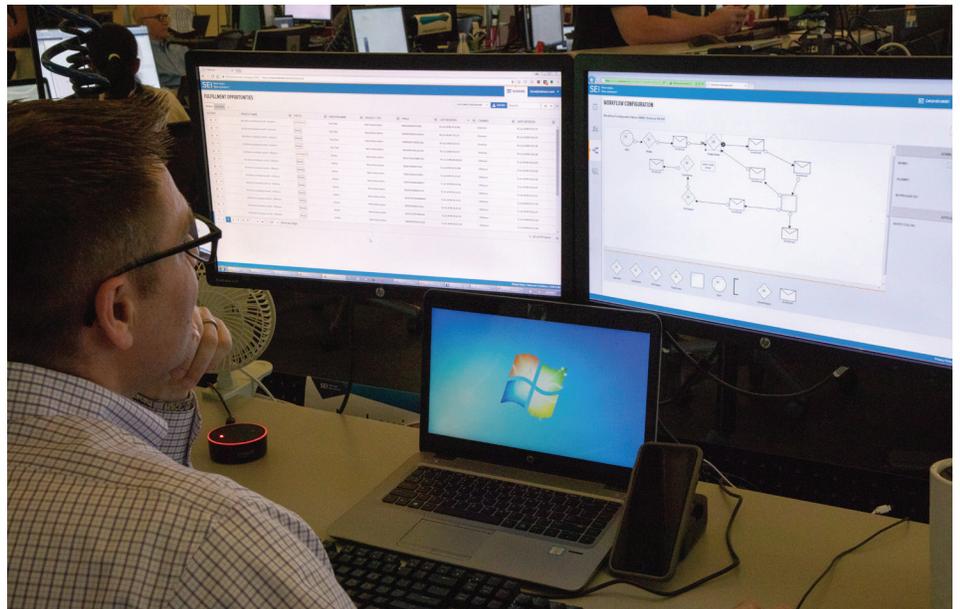
Say you're a hedge-fund manager, and people want to give you money. Investors have to fill out a hundred-page paper document by hand, sign it in ink, and mail it back. They may also need to cough up a copy of their driver's license or passport, proof of funds, bank wiring instructions and account numbers, again, much of that on paper, also mailed, faxed, or scanned. Weeks elapse, mistakes are common, and both sides waste time when new money could be invested.

What if there were a faster way? What if technology could track every document, every account number, every transaction, kept securely and traceable forever?

That's the promise of blockchain, and SEI Investments, based in Oaks, Montgomery County, is now offering such software for its Wall Street clients.

First, what is blockchain? Think of an accountant's old-fashioned paper ledger, the kind Santa uses to track naughty and nice children, but a ledger existing only virtually. Every time Santa adds or deletes someone, the ledger generates "code," or blockchain, that verifies each boy or girl, name, age, and address, updated every minute of every day. The public can see Santa's blockchain ledger but can't change the list.

Another good description comes from colleague Joe DiStefano. He described blockchain as a digital ledger program that allows a network of verified users to update data quickly without a central authority or intermediary. Think Excel-type



PHOTOGRAPH BY: SEI

SEI is integrating blockchain into hedge fund and alternative asset management business, using the technology to track investors' documentation in the funds.

spreadsheets, linked, and sped up for the smartphone era.

Sounds amazing — but does it work?

SEI, which employs over 3,600 full-time workers, is one of many financial firms configuring a blockchain option: SEI Trade, its in-house trading software, uses blockchain in wealth management, although for now it's strictly for eight Wall Street clients. SEI Trade helps investment managers solve the paperwork problem, tracking money going in and out of their hedge funds, private equity funds, and other vehicles.

In January, SEI also launched the SEI Blockchain Center of Excellence, enabling

employees to take a 13-week course that builds an in-house team of certified experts "to explore use cases for this emerging technology," said spokesperson Leslie Wojcik.

In March, SEI signed an agreement with Synechron, a consulting firm, to use its blockchain curriculum to train SEI's internal team of experts, said Wojcik. So far, 90 SEI employees have completed the Synechron training.

Of course, hurdles remain. Chief among them: that the blockchain is slow, handling an estimated seven transactions per second, compared with 2,000 per second for a typical credit card network.

The blockchain consumes massive amounts of energy. Questions remain whether a blockchain can satisfy audit and record-keeping requirements while protecting confidentiality and maintaining cybersecurity.

So, Wall Street is testing the blockchain concept internally at first.

“Each piece of data in the investor process generates computer code,” said Jim Warren, head of solutions strategy and development in SEI’s investment manager services division. He leads the team responsible for developing blockchain-based SEI Trade to track user setup, investor subscription documents for hedge funds and private equity funds, wiring and bank information. SEI Trade digitally records every transaction in a fund for an investor or manager — how much invested, by an “onshore” or “offshore” investor, and which bank is wiring in and out of the fund — all tracked via blockchain.

“We started building the trading platform in 2014 and 2015, and went fully live in 2016,” he said, before making it available to external clients in January 2017. So far, eight SEI Trade clients have signed on and have experienced “no issues,” the spokeswoman said.

Wall Street has lagged behind other sectors using blockchain but has much to gain from the new technology. SEI is also looking at using artificial intelligence to track investor data already inside SEI, including a computer model predicting redemptions in underlying funds. It’s a way of using behavioral finance to predict when investors will pull money out of the market.

SEI isn’t alone on the blockchain frontier. As the Inquirer has reported, Philadelphia-area companies trying out blockchain include Vanguard Group, the Malvern investment giant; the Institutes,

the Willistown Township-based insurance-industry group that wants insurers to embrace the new technology; the upstart Delaware Board of Trade in Wilmington; and area blockchain start-ups, including Quickblocks (accounting), Clinical Blockchain (drug trials), Amino Payments (advertising), and Alpha Point (securities trading).

Insurance companies are also pursuing the use of blockchain. The quantitative trading firm Susquehanna International Group is already doing a lot of trading in blockchain-backed currencies, according to the New York Times.

Some Wall Street firms prefer to invest in blockchain start-ups. This year, Kadena, a blockchain platform provider, raised \$12 million from Devonshire Investors, a private firm affiliated with Fidelity Investments, and Susquehanna International Group. Susquehanna also invested \$5 million in the blockchain start-up TigerWit. In the last decade, Susquehanna has invested \$1.3 billion in over 200 companies.

In August 2017, Delaware passed a law that the start-up Symbiont helped write, recognizing blockchain as an acceptable form of record-keeping for Delaware-registered corporations. They can now issue shares and track ownership records using Symbiont blockchain technology. Symbiont is a four-year-old start-up, based in New York City. It builds blockchain platforms for financial-services clients.

Symbiont is “on a very long road map” with the index-fund giant Vanguard Group to develop several blockchain products, Symbiont CEO Mark Smith said. The first automated the distribution of equity index data.

Vanguard is now moving a pilot program into production, in which “they deploy our

blockchain and smart contracts to solve problems with corporate action data,” Smith said.

Index providers such as Standard & Poor’s and the Financial Times Stock Exchange 100 deliver updates in an antiquated, manual way, and “Vanguard wanted to modernize that process. We’ll have a few more successful deployments and hopefully in 2019 over time wind down their previous methods of getting index data,” Smith said.

For example, Vanguard manually pulled data, sometimes by having a live person monitor those index sites all day, and then reformatted the data to send to its traders in-house.

“Now we help them do a 24-hour, seven-day-a-week automatic download ... to the traders themselves. So they have all they need to buy and sell,” Smith said. “As an owner of a Vanguard fund, we lower costs for you.”

By the Numbers

SEI Investments (symbol:SEIC) provides investment processing, management, and operations solutions that help corporations, financial institutions, financial advisors, and ultra-high-net-worth families create and manage wealth. As of March 31, 2018, SEI manages, advises or administers \$869 billion in hedge, private equity, mutual fund and separately managed assets, including \$335 billion in assets under management and \$530 billion in client assets under administration. SEI was founded in 1968 and is headquartered in Oaks, Pa.

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