

Health IT that's been around the Blockchain

New interoperable healthcare technologies are transforming health data into something like a new form of currency. It is no surprise then that health IT is looking to other industries like Financial Tech ([Fintech](#)) for inspiration.

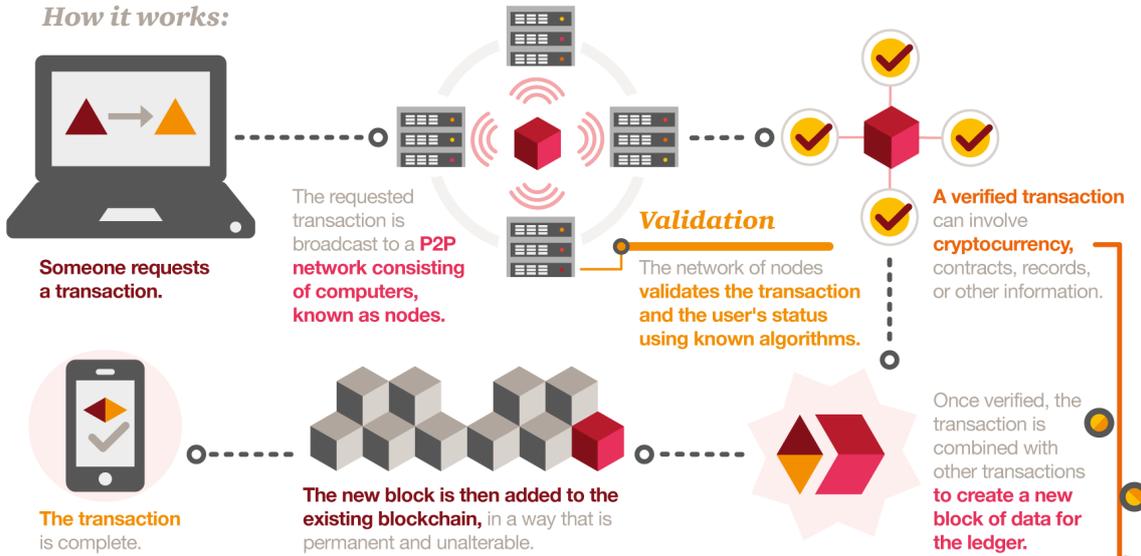
[Blockchain](#)—a technology initially developed to secure transactions of digital currency—is the latest innovation on our radar. With interoperability close to mind, the healthcare industry is looking at ways Blockchain could be used to secure health information across entities. And Blockchain is capable of extremely secure transactions, which makes it the perfect candidate for handling our most personal health information. Here's an infographic from [Price Waterhouse Cooper \(PwC\)](#) on how it works:

A look at *blockchain technology*

What is it?

The **blockchain** is a decentralized ledger of all transactions across a peer-to-peer network. Using this technology, participants can confirm transactions without the need for a central certifying authority. Potential applications include fund transfers, settling trades, voting, and many other uses.

How it works:



Benefits

- Increased transparency
- Accurate tracking
- Permanent ledger
- Cost reduction

Unknowns

- Complex technology
- Regulatory implications
- Implementation challenges
- Competing platforms

Cryptocurrency

Cryptocurrency is a medium of exchange, created and stored electronically in the blockchain, using encryption techniques to control the creation of monetary units and to verify the transfer of funds. Bitcoin is the best known example.

- Has no intrinsic value in that it is not redeemable for another commodity, such as gold.
- Has no physical form and exists only in the network.
- Its supply is not determined by a central bank and the network is completely decentralized.

Potential applications



Automotive

Consumers could use the **blockchain** to manage fractional ownership in autonomous cars.



Financial services

Faster, cheaper settlements could shave billions of dollars from transaction costs while improving transparency.



Voting

Using a blockchain code, constituents could cast votes via smartphone, tablet or computer, **resulting in immediately verifiable results.**



Healthcare

Patients' encrypted health information could be shared with multiple providers without the risk of privacy breaches.

Source: "Money is no object: Understanding the exciting cryptocurrency market," PwC, 2015. "Blockchain: A Guide to Blockchain," Strategy Business, January 2016. "How Blockchain Technology is Disrupting Everything," TechCrunch, 2016.

To accelerate these secure, interoperability efforts, the [Office of the National Coordinator for Health IT \(ONC\)](#) recently [announced the start of its “Blockchain Challenge.”](#) ONC is asking interested parties to submit a white paper on how Blockchain technology can “potentially be used in health IT to address privacy, security, and scalability challenges of managing electronic health records and resources.” The goal is for industry leaders to explore and ideate on ways Blockchain can support ONC’s interoperability initiatives including the [Shared Nationwide Interoperability Roadmap](#), [Patient Centered Outcomes Research \(PCOR\)](#), and the [Precision Medicine Initiative \(PMI\)](#).

Think you’ve got what it takes to come up with a radical crossover solution? Visit the ONC’s [Blockchain Challenge website](#) for more details. The winners are eligible for a cash prize and the opportunity to present their ideas at a workshop hosted by the [National Institute of Standards and Technology](#). We look forward to seeing how the application of this innovative technology can push forward our most important health IT interoperability initiatives.

In the meantime, tweet us your thoughts by finding us on Twitter [@CNSIcorp](#).