

## ETA Summary Sheet – Blockchain Technology

### What is Blockchain?

A blockchain is a data structure that makes it possible to create a digital ledger of transactions and share it among a distributed network of computers. It uses cryptography to allow each participant on the network to manipulate the ledger in a secure way without the need for a central authority. Most people are familiar with the blockchain as the technology underpinning Bitcoin, which was the first application built on top of a blockchain.

Blockchain is similar to the public records states keep to record the sale of land. Everyone can see who owns a particular piece of land, or in this case, a Bitcoin transaction. However, what's unique to blockchain is that we can only view the user's blockchain ID number, not the individual's actual name. This raises regulatory compliance issues that are the focus of discussion within the blockchain community directed toward finding solutions acceptable to both the public and private sectors.

Although the blockchain technology is most often associated with Bitcoin (or other digital currencies), it is important to recognize that the blockchain technology has many potential uses and applications beyond digital currency. At the most basic level, the blockchain is a secure record of data that could be used to transmit and record information in many industries. What makes Blockchain so secure is that each transaction must be verified by the Bitcoin community. Everyone on the Bitcoin network is aware of a transaction, and its history can be traced back to the point where the bitcoins were produced. Like the two teams that make it to the finals of a basketball tournament, their road to the championship game can be traced back to tip-off in the first round.

### How Can the Blockchain Impact Financial Services?

Beyond the security benefits and increased transparency of transactions for all parties, the blockchain holds promise to improve financial services, including through a beneficial impact on pricing and costs in the market. It also provides the opportunity for more accurate tracking of customer repayment histories, tracking of payments across borders and banks, and better risk management of defaults or fraud. Blockchain could make the exchange of value ubiquitous and very low cost, in the same way that people can now share information in any format, and communicate with anyone in any format, globally for the cost of an internet connection.

### The Blockchain Beyond Financial Services

Blockchain technology can benefit a variety of organizations from mortgage lenders, to police departments, to banks and lawyers – enabling them to store and transfer information quickly, securely, and permanently– without depending on a middle man.