# INTRO TO BLOCKCHAIN

DIGITAL BYTES



### DEFINITION

BLOCKCHAIN IS A DECENTRALIZED LEDGER OF ALL TRANSACTIONS IN A NETWORK.

# WHY DOES IT MATTER?

- 1) CUT TRANSACTION COSTS
- 2) SPEED UP TRANSACTIONS
- 3) DECENTRALIZE APPLICATIONS
- 4) SECURITY

#### TRANSACTIONS

BLOCKCHAIN ELIMINATES THE NEED FOR ANY TRUSTED THIRD PARTIES TO BE INVOLVED- THUS CUTTING COSTS AND SPEEDING UP TRANSACTION TIMES.

# SECURITY

BLOCKCHAIN IS DESIGNED TO STORE INFORMATION IN A WAY THAT MAKES IT VIRTUALLY IMPOSSIBLE TO ADD, REMOVE OR CHANGE DATA WITHOUT BEING DETECTED BY OTHER USERS.

#### DECENTRALIZATION

BLOCKCHAIN APPLICATIONS REPLACE CENTRALIZED SYSTEMS WITH DECENTRALIZED ONES. THEREFORE TAKING THE POWER AWAY FROM CENTRAL AUTHORITIES AND PLACING INTO THE HANDS OF MULTIPLE USERS.

# HOW DOES IT WORK?



1) Transaction is requested



2) Transaction is broadcast to other computers (nodes) in the network



3) Network of nodes validate the transaction



4) Verified transaction is combined with other transactions to create a new block of data for the ledger



5) New block is added to network's blockchain



6) Transaction is complete

#### PAYMENT PROCESSING

Blockchain has the potential to eliminate the need for intermediaries that exist within payment processing. Bitcoin is the most widely known example of blockchain being used in payment processing.

#### SMART CONTRACTS

Blockchain will positively impact any industries that are heavily reliant on contracts such insurance, real estate and law.

Smart contracts allow transactions to be executed without the involvement of an intermediary.

#### SUPPLY CHAIN MANAGEMENT

Blockchain is ideally suited for managing a supply chain process where the value changes hands, as it allows for immediate status updates and also increases both the security and visibility of the supply chain.

