WILL DLT WORK FOR MY BUSINESS?

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softserve

Digital currencies, new platforms, creative technologies… The possibility of conducting complex transactions with unprecedented efficiency, security, and trust is tantalizing. But what can blockchain or digital ledger technology (DLT) do for your business, today?

Fear of Missing Out?

Trending aside, there is ample reason to be excited about the technology behind the curtain. According to IDC, **$945 million was spent on blockchain** solutions in 2017, and the interest and investments are growing. Still nascent in its development, application, and acceptance, DLT and its impact on specific businesses and industries could be profound. Some industries stand to gain more than others, so businesses need to explore where the possibilities lie, and whether they can benefit from it. So where to begin?
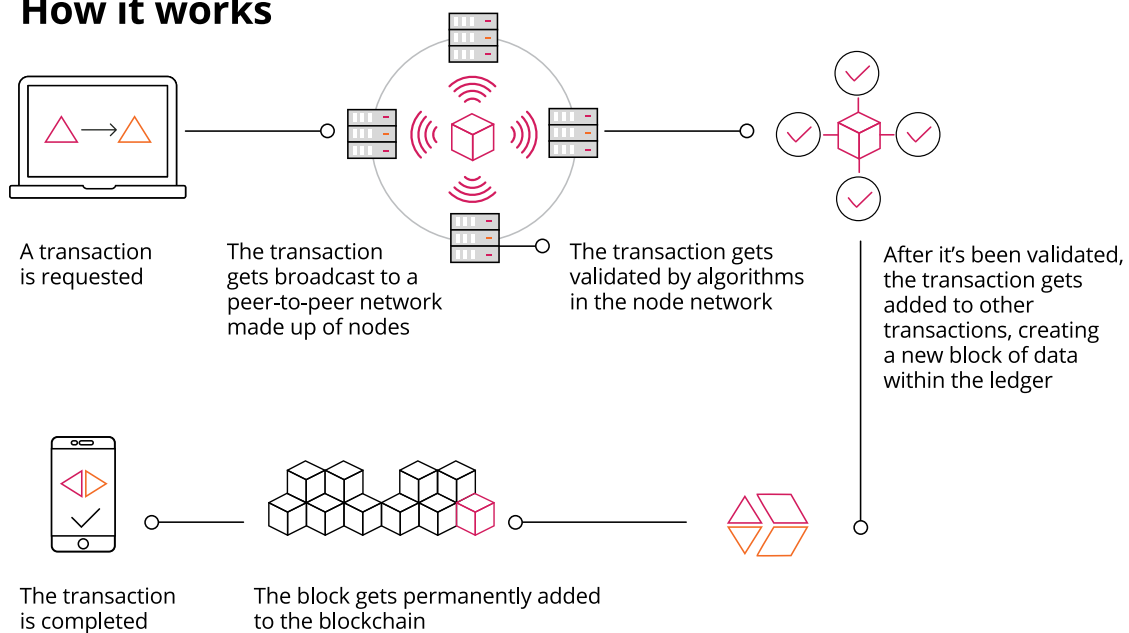
Businesses that join an ecosystem that adopts DLT stand to gain from some unique characteristics pertaining to three critical business needs: security, zero knowledge proof, and efficiency. In the daily course of business, many companies have already satisfied one or another of these needs, perhaps even two. But DLT changes everything, because the very structure of DLT necessitates that all three—security, zero knowledge proof, and efficiency—are always present across the ecosystem.

For example, in an industry such as commodities trading that is heavily reliant upon paperwork, moving to a DLT-supported digital system will provide many benefits. It will streamline processes (less paper means greater efficiency), minimize the risk of forged documents (which, at times, can be worth millions of dollars), and provide greater security and zero knowledge proof, thanks to the mechanism through which transactions are confirmed and recorded.

DLT, Defined

Most businesses rely on ledgers of various kinds to account for their transactions. In fact, business' checking account is essentially a ledger maintained by your bank. With DLT, ledgers are no longer unique to each participant, but rather exist as one database, shared among multiple participants and across varied locations. By removing the intermediary who controls the ledger, the process of decentralization and distribution allows for all participants to view and confirm transactions.

How it works

A transaction is requested

The transaction gets broadcast to a peer-to-peer network made up of nodes

The transaction gets validated by algorithms in the node network

After it's been validated, the transaction gets added to other transactions, creating a new block of data within the ledger

The transaction is completed

The block gets permanently added to the blockchain

Thanks to this simple principle of decentralization, transactions can now be confirmed via consensus among participants before being "etched" into the ledger. Blockchain, a form of a distributed ledger, is differentiated by its compiling of those transactions into blocks, which form a chain on the open ledger. Confirmation or consensus for each transaction can result in a token; the most recognizable is Bitcoin, the cryptocurrency that utilizes blockchain. However, tokens do not have to take the form of a new currency, but can be representative of a standardized fee or some physical aspect unique to the consortium. Creating a consortium utilizing DLT simplifies the way transactions take place in revolutionary ways.

Advantage DLT

For businesses, security is paramount. Forgery, data theft, and cybercrimes can have a crippling impact on business. What makes DLT so secure is the process through which transactions are confirmed and recorded. For every transaction, participants (nodes) have to reach consensus, achieved through complex mathematical algorithms. The larger the network, the more times the transaction is confirmed, the more nodes on the network retain a copy of the transaction, the harder it is for any alterations to be made after the fact. In a decentralized system, there is no single point of failure. **The system as a whole is nearly impossible to hack,** and the loss of one node will not undermine the integrity of the system itself.

How can one be sure that what is being asked is what is being received? It can be hard to have trust without zero knowledge proof, and a prerequisite of confirmation through consensus is zero knowledge proof. So how is this zero knowledge proof achieved? Every node keeps copies of the ledger, making transactions visible, traceable, and immutable. With every transaction visible, every participant is verifiable.
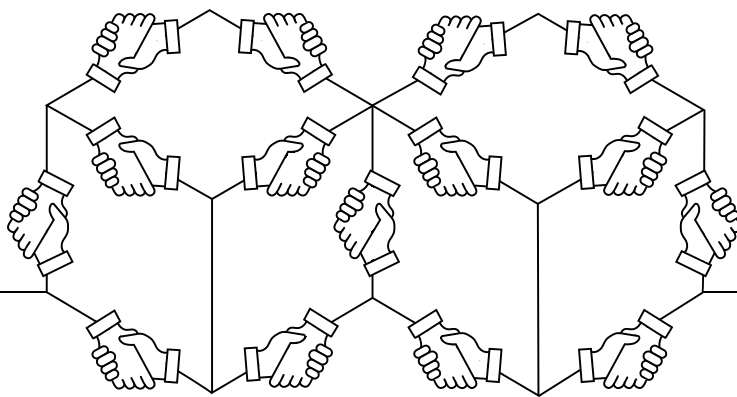
In industries where provenance is essential, being able to see the source and cycle of a product is crucial. It means that when a rubber company wants to know that its rubber is sourced from farms that use sustainable practices, or when a grocer wants to know that he's buying vegetables that are organic or fruit that hasn't sat too long in the harbor, an open ledger provides the ability to track such information. The lifecycle of a product can now be completely visible from the producer to the local aggregator, the packager, all the way to the end-user. Simultaneously, visibility provides a truthful representation of the marketplace, enabling fairer pricing and thus a more accurate representation of product value.

It seems the world keeps moving faster and faster, putting greater emphasis and value on efficiency. Legacy systems, a reliance on paper, conflicting processes, and dependency on third-party verification are but a few examples of hindrances many industries and businesses face.

With DLT, efficiencies are gained in myriad ways. In addition to addressing the aforementioned problems, smart contracts can be set to execute upon the meeting of logical conditions, tokens can be standardized as a form of payment, and settlements can be resolved with less human input. Being part of a DLT consortium brings the value of streamlined and consistent processes, enabling businesses to focus on growth, services, and other deliverables.

THE CONCEPT IS SIMPLE, BUT THE CONTEXT IS CRITICAL

Presented with the many ways in which DLT can improve transactions and processes, businesses may feel ready to dive right in. Nevertheless, each business has unique needs, and each industry has distinct characteristics which may or may not benefit from committing to DLT.

For businesses wondering if they should invest, there are several factors that need to be considered:

• What *specific* business or market processes need restructuring?
• Is there an existing ecosystem that can be leveraged?
• If so, who are the participants?
• How is it organized?
• Are the circumstances and conditions ripe to lead the way?

These are not easy questions to answer, and each factor has several underlying considerations. Even if a process needs restructuring, shifting from legacy systems to an open ledger will have up-front costs that need to be taken into account. If a consortium exists, a hybrid of public and private DLT structures, is it critical that all participants have shared interests? If an ecosystem is already utilizing DLT for certain processes, what are the opportunities for scaling and leveraging that system?

At SoftServe, we understand how to balance the desire for innovation with the need for practical solutions. Certain industries are ripe for DLT. For example, we are actively exploring DLT applications in the commodities trading sector, in financial services, and in a wide range of other industries. Creating a digital ecosystem and leveraging the tokenized system will enable the optimization and acceleration of products and services while providing security and zero knowledge proof.

We understand what business questions to ask. By partnering with the leading innovators in blockchain technologies, we understand how the answers should be mapped for our clients to realize DLT's full potential.

When the right questions are asked, the solutions become clear.

Contact SoftServe today to map out what's next in your journey

ABOUT US

SoftServe is a global digital authority and consulting company, operating at the cutting edge of technology. We reveal, transform, accelerate, and optimize the way large enterprises and software companies do business. With expertise across healthcare, retail, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation – from generating compelling new ideas, to developing and implementing transformational products and services. Our work and client experience is built on a foundation of empathetic, human-focused experience design that ensures continuity from concept to release.

Ultimately, we empower businesses to re-identify their differentiation, accelerate market position, and vigorously compete in today's digital, global economy.

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