



Define your
blockchain strategy:
**Innovate with blockchain,
or face disruption**

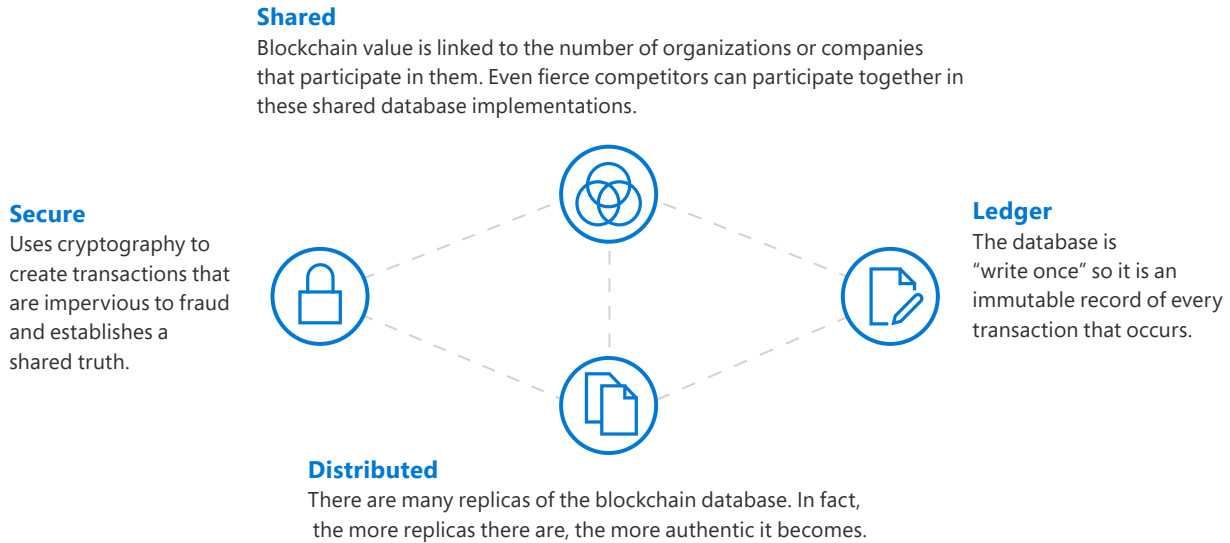
In 2017, the 3M Corporate Research Systems Lab began exploring ways to help its customers protect their supply chains against tampering. **To save money over electronic solutions, the research group focused on using a blockchain-based solution to fully track and prove the authenticity of products throughout the supply chain.**

Using the company's customized distributed blockchain, any 3M partner can track and audit their products throughout the supply chain. The solution provides 3M customers with the ability to authenticate the quality of their products but also gives them more control over their supply chains, reducing the incidence of counterfeit products. Ultimately the blockchain-based effort provided increased revenue opportunities by minimizing the cost of anti-fraud efforts, said Oscar Naim, lead software architecture specialist for 3M.¹



“We see blockchain on Azure as a way to link the physical and digital worlds,” says Naim. “A simple label or number on a box is not a good enough identifier because no one knows if it was printed by the manufacturer or added later—plus it doesn’t provide visual cues that are easy to identify.”

Blockchain-based technologies are increasingly making their way into next-generation solutions for trustworthy information exchanges, protection of the authenticity of a company’s branding, streamlined and automated contract management, and the enablement of next-generation distributed business models like peer-to-peer exchanges. While the technology can be complex, companies interested in furthering innovation need to start learning more about blockchain-based solutions. Blockchain will be the future for digitally managing and optimizing analog assets for end-to-end tracking and authoritative data trust, along with creating trusted and shared ecosystems of data exchange.



From a technical perspective, blockchain is a transparent and verifiable distributed digital ledger that will change the way people think about exchanging value and assets, enforcing contracts, and sharing data. The technology is a shared, secure ledger of transactions distributed among a network of computers, rather than resting with a single provider. Businesses are using blockchain as a common data layer to enable a new class of applications. Now, business processes and data can be shared across multiple organizations, which eliminates waste, reduces the risk of fraud, and creates new revenue streams.

Companies should start evaluating the technology as soon as possible.

“Pure blockchain models are immature and can be difficult to scale,” Gartner stated in a recent report. “However, businesses should begin evaluating the technology, as blockchain will create \$3.1T in business value by 2030.”²

A blockchain-based approach, for example, could save the pharmaceutical industry more than \$200 billion, the estimated cost of counterfeit drugs in that industry.²

Blockchain is not bitcoin

Blockchain is a key technology that forms the foundation of cryptocurrencies like bitcoin, ether, and many others. Blockchain and bitcoin are related in the same way that concrete is related to a skyscraper or bridge—blockchain provides the foundational technical capability for a variety of solutions, such as cryptocurrencies. While cryptocurrencies may or may not succeed in the future, blockchain is here to stay and has already become widely deployed in many business scenarios.

Competitive advantage

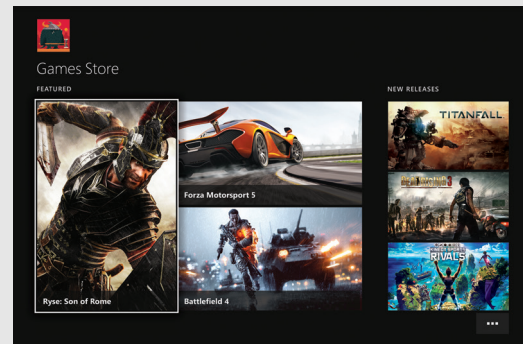
Blockchain has the potential to redefine the economics of the modern world through distributed peer-to-peer business models. Enabled by an intelligent edge and brokered by the intelligent cloud, blockchain can enable companies to approach their industries in entirely new ways and drive significant competitive advantage for early adopters.

As with any emerging technology, blockchain is under constant development and is currently undergoing hyper-evolutionary changes. Leaders should expect inherent false starts and challenges, while also being prepared to fail fast and quickly iterate on scenarios that work for blockchain.

Leading businesses have already proven blockchain to be a critical component of their business strategies. Companies in a variety of industries have demonstrated the value of the business model very clearly, especially those organizations with peer-to-peer business infrastructure, such as firms with complex supply chains, service-enablement companies—such as AirBnB or Uber—or companies needing the transparent storage of legal documents.

Use case:

Microsoft uses blockchain for Xbox royalty payment



To replace a manual, spreadsheet-based system, Microsoft has adopted blockchain technology to track sales and royalty payments for Xbox games. When a consumer purchases a game from Microsoft Store, purchase information is immediately placed on the blockchain where game publishers have instant access to royalty information. Using the blockchain has improved trust by making the royalty payment calculation process more transparent for publishers.

“After adopting the blockchain solution, even with only one-third efforts, we’re able to run the same royalty operations while providing faster, more reliable service.”

—Rohit Amberker: Finance Director, Royalties and Content Operations at Microsoft³

The new blockchain system has cut down Xbox process costs by a projected two-thirds.⁴ Publishers save time by eliminating the need for manual audits, and video game creators get paid sooner.

Recommendations:

1. Educate and rationalize the potential.

The start to implementing blockchain is first to get your organization to learn key concepts and look at important use cases. This phase should include business leaders, technical experts, and managers.

- [Watch the Microsoft Azure CTO provide overview of blockchain at Build 2018](#)
- [Read Microsoft's point of view on blockchain](#)
- [Read *Harvard Business Review*, "How Blockchain Will Accelerate Business Performance and Power the Smart Economy"](#)

2. Plan for blockchain early and iteratively.

Companies should plan to assign a team to create proof-of-concept pilot programs and gain experience in developing blockchain applications. Companies should strive for a minimum viable product, focusing mostly on how groups can effectively create business relationships between blockchain members. The phase is all about getting your hands dirty and gaining the experience.

- [Simplifying blockchain app development with Azure Blockchain Workbench](#)
- [Accelerating the adoption of enterprise blockchain](#)

3. Don't just make a plan—pilot.

Irrespective of the type of organization underpinning the blockchain, companies need to study blockchain concepts and "kick the tires" to become comfortable with the technology. Part of the process should also be to determine which applications are not proper uses of blockchain technology.

- [Rapid prototyping on Azure Blockchain Workbench](#)
- [Introducing Azure Blockchain Development Kit](#)

4. Design for a distributed business model.

Companies also have to decide early on what type of organization they want to create to support their blockchain. A consortium of participants can create a blockchain that is visible and accessible to just its members, allowing them to trust transactions. A joint venture brings two or more companies together and uses the blockchain to establish trusted transactions and communications. An open-source organization can use a peer-to-peer consensus process to determine if transactions should be included on the blockchain. Each business model requires an appropriate blockchain organization.

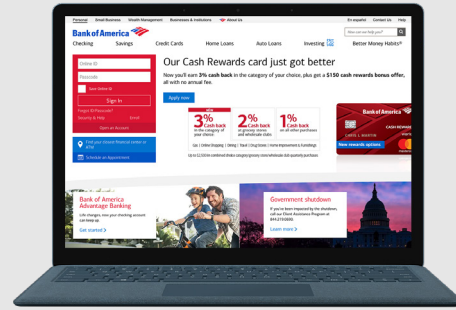
- [See how Microsoft is transforming financial services](#)
- [See how Microsoft is transforming the supply chain](#)

5. Create the economic model. Companies should not just buy into blockchain. During initial consideration your business needs to determine whether—and in what ways—it can benefit from blockchain technologies. Blockchain can help your company gain actionable business insights from accessible ledgers, save time and reduce overhead, and may grant legal and regulatory advantages.

- [Accelerating the adoption of enterprise blockchain](#)
- [Enterprise Smart Contracts: resolving the truth for blockchains](#)
- [Azure introduces a new blockchain proof of concept framework for developers](#)

Use case:

Legal documents for Bank of America



The financial services industry requires the ability to conduct trusted transactions between members who are competitors and require verification. Traditionally, brokering that trust between participants has required costly intermediaries that shoulder the liability of any failure.

Microsoft looked for another way. In 2015, the company evolved from selling software to creating and selling cloud services, which required the firm to regularly vet partners' creditworthiness. To speed those credit checks, the firm collaborated with Bank of America Merrill Lynch to automate the credit-assessment process and the issuing of standby letters of credit (SBLC).

The company benefited quickly from the move. The time to issue a SBLC shrunk to three to five days from three weeks or more. The solution reduced risk between parties, enhanced the transparency of audits, and improved the predictability of working capital.

Conclusion:

Blockchain can seem like a complex technology that has little to do with your business. However, innovative business leaders need to understand the underpinnings of the technology, as it can dramatically improve business processes and make infrastructure more reliable and less reliant on third parties.

To prepare for the future, your company needs to quickly become comfortable with blockchain concepts and look for ways to incorporate the technology into your own business.

The result could change the way that your company does business in the future, opening up new opportunities and possibilities.

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