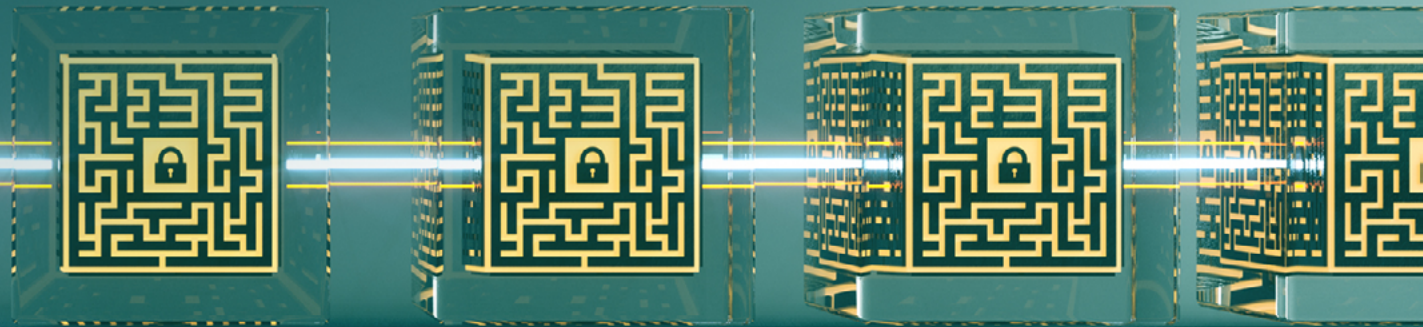


Making blockchain ready for business

Increase trust, accountability,
and transparency across your
business networks



This ebook will highlight the benefits of blockchain to enterprises, why it's important to develop a strategy now, and how IBM can help you along this journey of digital transformation.

1

How blockchain is changing the nature of transactions

2

Enabling businesses to compete in the digital era

Enterprise growth increasingly depends on trusted partnerships

Increasing regulation, cybercrime and fraud inhibit business growth

Generate new business models that leverage the power of an ecosystem

3

Why enterprises need to act now

Improve growth and efficiency

React to rising competition

Increase security

Develop strategy to activate partner ecosystem

4

How to act strategically

Pinpoint where you have vulnerabilities or inefficiencies

Identify new and potential opportunities

Leverage the right technology

5

How IBM can help

Industry and process expertise, and a complete, easily accessible cloud and development platform

Blockchain open community leadership

Demonstrated success enabling business growth

Secure transactions and regulatory experience

Individualized attention

6

Take the next step

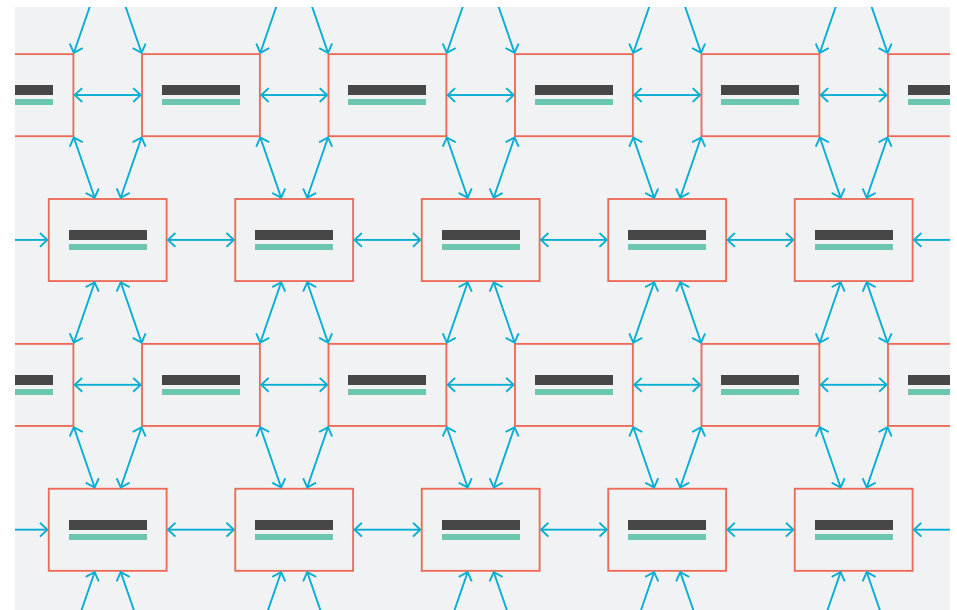
How blockchain is changing the nature of transactions

While Bitcoin is often considered the first real use case for blockchain, the technology has come a long way since those early days. By re-imagining the approach used under bitcoin, we built a blockchain from the ground up that can drive new business models and safeguard regulated industries.



Blockchain can empower enterprises to:

- Leverage the power of your ecosystem to do things faster with greater trust
- Vastly reduce the cost and complexity of cross-enterprise business processes
- Open the door to invent new styles of digital interactions
- Reduce friction and inefficiencies in the market, freeing up capital
- Create cost-efficient business networks where virtually anything of value can be tracked and traded—without requiring a central point of control



Enabling businesses to compete in the digital era

Since the day of clay tablets, people have recorded the exchange of goods and services. As we evolve into the digital age, recording these transactions has become much more complex. The growth of global commerce and trade has created a network of disparate ledger systems, vulnerable to errors, fraud, and misinterpretation. Yet, as enterprises vie to compete in the digital age, the ability to establish trust is more important than ever.

Enterprise growth increasingly depends on trusted partnerships.

Global businesses are becoming more and more interconnected. Supply chains are more integrated and interdependent. And industries are merging and interacting like never before. All of these partnerships require more trust and transparency to succeed.

Increasing regulation, cybercrime, and fraud inhibit business growth.

To keep pace with regulatory changes like the Sarbanes-Oxley Act of 2002 (SOX), the European Union Data Directive, and anti-money laundering rules, companies must rapidly increase compliance staff and budgets.

The confluence of technological innovations is generating new business models.

Cloud computing offers access to compute power to track billions of transactions. Distributed systems enable secure networks that protect the integrity of transactions. And advanced cryptography secures both network and transactions. Together, these technologies enable the powerful potential of blockchain technology.



The average consolidated total cost of a data breach grew to

\$4 million¹



Security incidents are up by

65%²



There's been significant growth of global, cross-industry regulations over the past

10 years³

Why enterprises need to act now

Expectations from customers, partners, and constituents have never been higher. Today's enterprise needs the ability to move quickly, nimbly, and securely to keep up with the pace of the market. With blockchain, enterprises can:

Improve growth and efficiency using the network effect

The potential for business growth from ecosystems is still hampered by disconnected operations, inefficient processes, and siloed information. To scale and grow across

industries, enterprises need the ability to take full advantage of automation and stop relying on one-off solutions and manual back ups.

React to rising competition

Established and new competitors will use these technologies to reimagine and disrupt existing industries. Competition from new entrants, players from other industries, and even consumers will force companies to move faster and more efficiently. With so much competition, profit pools will shrink,

but there will be more of them created, requiring more trusted and secure transactions.

Increase security

Blockchain networks are tamper-evident. They are designed to reveal any alterations and require consensus from the network. By actively addressing security threats and protecting against fraud in tandem with automating operations and securing transactions, businesses will be able to manage costs, drive innovation, and realize the potential for cross-industry growth.

Activating partner ecosystems

Transaction processing is now a team sport. A blockchain network is most successful when multiple parties are involved, and becomes even more valuable and efficient as the blockchain grows. Enterprises need to learn a new model of ecosystem-based processes. It will take time to identify and formulate the right relationships, so it's important to start now.



How to act strategically

Before embarking on a blockchain project, enterprises should consider the following:



Pinpoint where you have vulnerabilities or inefficiencies

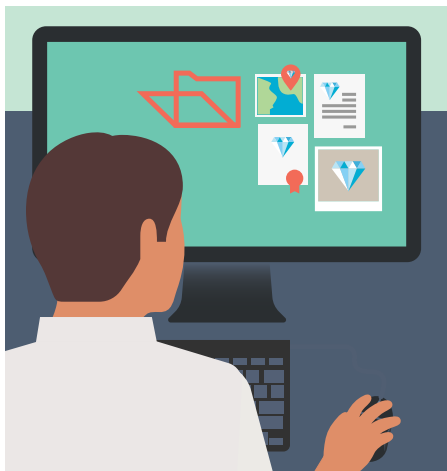
- Increase ability to rapidly react to new regulatory & compliance needs
- Identify key points of friction as targets to pilot blockchain technology

Identify new and potential opportunities

- Identify who would be in your ecosystem—partners, suppliers, manufacturers, lenders, etc
- Discover what new business models could emerge if trust & manual processes are eliminated

Leverage the right technology

- Operate on a permissioned network
- Build a network built on an open-standards framework
- Ensure this platform can integrate into your core business for future growth



Consider:

Where is there friction in your business? What would be possible if you eliminated it? Do you operate in a regulated industry where compliance is of utmost importance?

Consider:

Who are they key players in your current business operations? How should you begin experimenting and collaborating on blockchain now to help shape the future of your business?

Consider:

How might a faster, more secure, standardized, and operationally efficient transaction model create new opportunities for your business?

With IBM you get

Industry and process expertise, and a complete, easily accessible cloud and development platform

IBM® combines industry, process, and transaction expertise with our cloud-based tools and secure blockchain services to establish trusted blockchain networks and solutions. Within minutes, you can easily deploy a permissioned blockchain network to test security, availability, and performance.

Blockchain open community leadership

Working in the open reduces risk of adoption & increases innovation. Dedicated to open source innovation, IBM is a premier sponsor of the Linux Foundation's Hyperledger Project, a collaborative effort created to advance blockchain technology. The project focuses on identifying and addressing important

features for an enterprise-class, cross-industry open standard for distributed ledgers that can transform the way business transactions are conducted globally. IBM donated tens of thousands of lines of code and collaborated on the development of the Hyperledger fabric, a modular and scalable protocol architecture for creating blockchain networks.

IBM Global Financing freed up 40 percent more capital and decreased dispute resolution time from 40+ days to less than 10 with a blockchain solution.

Key benefits of Hyperledger Fabric include:



Data protection & consistency

Use permissions to ensure accountability of membership & access rights



Confidential transactions

Give businesses the flexibility and security to make transactions visible to select parties with the correct encryption keys



No cryptocurrency

Does not require mining and expensive computations to assure transactions



Programmable

Leverage the embedded logic in smart contracts to automate business processes across your network

With IBM you get

Demonstrated success enabling business growth

We have long-standing expertise and experience in driving new business models for companies, including those in highly regulated industries.

Mizuho Financial Group is testing blockchain for settlements using virtual currency, exploring how payments can be instantaneously swapped, potentially leading to new financial services.

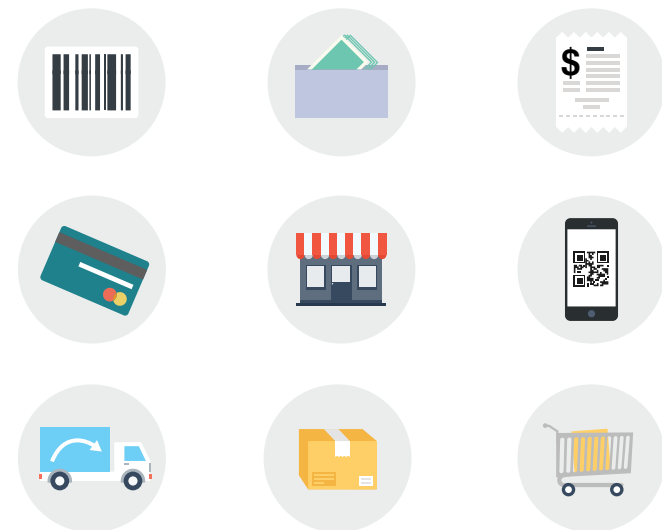
Secure transactions and regulatory experience

IBM was one of the first organizations to launch highly secure blockchain services and frameworks that address regulatory compliance across financial services, government, and healthcare. We have unmatched security expertise with integrated system of analytics, real-time defense, and proven experts to help companies make strategic decisions about how to safeguard their business.

Individualized attention

We work with our clients to select the ideal blockchain solution for their business needs—either building a business network for a client or developing a partnership to build a network together.

Everledger is building a digital business network using IBM Blockchain to power its global certification system to track valuable items through the supply chain, helping to protect suppliers, buyers, and shippers against theft, counterfeiting, and other forms of corruption.



Take the next step

Blockchain is helping reshape industries as varied as finance, healthcare, government, supply chain, and manufacturing. To learn more about IBM Blockchain and what it can do for your business, go to:

ibm.com/blockchain



Jerry Cuomo

IBM Fellow,
Vice President
Blockchain
Technologies

Jerry Cuomo is an IBM Fellow and newly appointed Vice President of Blockchain Technologies. In his new role, Jerry is leading the creation of an emerging business unit to define IBM's Blockchain strategy, offerings, and customer engagement approach. As of 2016, IBM Blockchain is open for business, with the creation and open source contributions to the new Linux Hyperledger Project, the introduction of IBM Blockchain Cloud Services, and the new Blockchain Garages to be

opened in NYC, London, Japan, and Singapore. Jerry is known as one of the fathers of the IBM WebSphere® software brand, where he served as Chief Technology Officer for 15 years. During this time, Jerry led efforts to establish key middleware initiatives including; IBM's API Management, Mobile, and Cloud Services offerings in IBM Bluemix®. Jerry also led acquisitions to accelerate delivery in emerging middle-ware areas including StrongLoop®, Worklight, and DataPower®.

Jerry continues to be a visible spokesperson for IBM in the emerging technology areas including Blockchain, API Economy, Digital Transformation, Cloud Services, and the lean start-up approach to continually address new business opportunities.

You may also find more information at: http://en.wikipedia.org/wiki/Jerry_Cuomo.