



# Blockchain's for real – but is it for you?

Here's a new way to decide



# Executive summary

The momentum behind blockchain is building but so is the skepticism.



The same caution accompanied cloud computing in its early days. Now the firms that hesitated to join that revolution are facing similar questions and decisions. Do we wait? Do we leap? How can any organization identify the most advantageous uses for a technology that frequently demands radical changes to standard business practices? Is it possible to quickly and effectively exclude those scenarios that are not a good fit for blockchain?

To help address this uncertainty, we created the Avanade Blockchain Evaluation Framework. It's a simple way to guide you through the process of deciding whether – and how – blockchain could be right for your company.

# The momentum is real

Many questions continue to swirl around blockchain, a decade after it first surfaced in connection with bitcoin. How broadly will it be adopted? How quickly will it get there? How will it gain a foothold beyond cryptocurrencies? How can my company benefit from it?

One point, at least, seems settled: Blockchain is big and getting bigger. International Data Corp. (IDC) expects annual worldwide spending on blockchain to double to \$1.5 billion in 2018 compared to just one year earlier. And with a forecast five-year compound annual growth rate of 73%, IDC expects blockchain spending to hit \$11.7 billion by 2022.<sup>1</sup>

Investors are betting big on blockchain too. The amount of venture capital flowing to enterprise blockchain startups is doubling, with worldwide venture investment in enterprise blockchain and blockchain adjacent startups (excluding initial coin offerings) reaching almost \$1 billion in 2017, with 2018 set to surpass it.<sup>2</sup>

It's not just the startups that are turning to enterprise blockchain applications or planning to. Microsoft, Chase Bank, legal giant Perkins Coie, Walmart, Unilever, top shipping firm Maersk and more are all using the technology and adding blockchain expertise to their ranks.

## Blockchain use case

### *New rules for car sales*

In the AUTOMOTIVE industry, blockchain could rewrite the rules of vehicle sales, giving everyone from manufacturers to insurance companies to consumers an unprecedented ability to track the provenance and wear and tear of a particular automobile or a single component, such as tires.

<sup>1</sup> ["Worldwide Spending on Blockchain Forecast to Reach \\$11.7 Billion in 2022, According to New IDC Spending Guide,"](#) IDC, July 19, 2018

<sup>2</sup> ["2018 VC investment into crypto startups set to surpass 2017,"](#) Jason Rowley, TechCrunch, March 3, 2018

## On the other hand ...

In Avanade research, 83% of C-suite executives and IT decision-makers said that blockchain will ultimately be more of a fad than a revolutionary technology. Yet, although 80% of those executives said they fully understood the technology, a shocking 91% couldn't identify a single example of its use.<sup>3</sup>

This is all too familiar. In the early days of cloud computing, the adoption challenges caused increased skepticism, and rightly so. Blockchain faces a similarly steep curve. But daily advances in the technology, architecture and platforms indicate a cloud-like evolution that points to a wider, mainstream adoption to come.

As the MIT Center for Information Systems Research (CISR) notes, standards are inconsistent, some component technologies are immature, the regulatory environment is uncertain and most internal transaction processing systems don't yet connect seamlessly to

blockchain applications.<sup>4</sup> But these issues aren't deal breakers. They'll be resolved and blockchain use will accelerate, just as early cloud concerns, such as security, were resolved.

When they are, will your company be prepared to exploit blockchain? Even if blockchain is right for many companies, you need to know if it's right for you. You need to understand if you have compelling use cases for the technology that the market will support. You've never had to evaluate this technology and make these decisions before – so how do you do so now?

80%

of global executives say they fully understand blockchain

91%

of those executives can't identify an example of blockchain

<sup>3</sup> "Avanade Hot Topics Survey," QuickRead Report, Wakefield Research, December 2017

<sup>4</sup> "Blockchain: How to Position Your Company for the Inevitable," MIT CISR Research Briefing, Vol. XVIII, No. 3, March 2018

### Blockchain use case

## *Full transparency for java junkies*

Coffee lovers could rejoice as RETAILERS using blockchain give them full transparency into every aspect of the coffee-making process, from growers and roasters to the retail counter and shelf. For the first time, blockchain could allow java junkies to directly tip the specific coffee grower half a world away with full transparency and confidence.

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# Much more than bitcoin

The first step in answering those questions is understanding what blockchain isn't and what it is.

It seems unnecessary to say this now, 10 years in, but blockchain *isn't* bitcoin. Rather, blockchain is the underlying technology that enables cryptocurrencies like bitcoin.

Blockchain *is* a way to help ensure the security and trustworthiness of digital information – financial transactions of course, but also real estate titles, personal identities, the location and transfer of inventory, and more. Any digital asset or digital proxy for a physical asset can be transacted and protected by blockchain.

Briefly, blockchain works by maintaining redundant, encrypted databases across the internet. If data is corrupted or altered on any one of those ledgers, the information is safely and reliably maintained by the others.

The immutable nature of blockchain is ideal for auditing and record-keeping, whether for operational needs or regulatory reporting. Its decentralized nature means that data is not tied to any one data owner or authority – it belongs to participants on the network. And its distributed, replicated nature delivers unprecedented data security at a time when that's needed more than ever.

Bottom line: Using blockchain can save time, boost transparency and give participants to a transaction more direct control.

Blockchain use case

## *Product recalls made faster*

MANUFACTURERS could use blockchain to save lives by making product recalls faster and more accurate. Instead of relying on recall notices passed from manufacturer to distributor to retailer to consumer, manufacturers could make a blockchain entry that immediately stops point-of-sale purchases and directly notifies affected consumers.

# Efficiency gains, new business models and more

Early enterprise adopters are testing and proving the technology in their existing businesses.

This will deliver smaller incremental gains in efficiency – pennies on the dollar – while opening the door for disruptive change in business processes, such as disintermediating a complex, multiparty transaction.

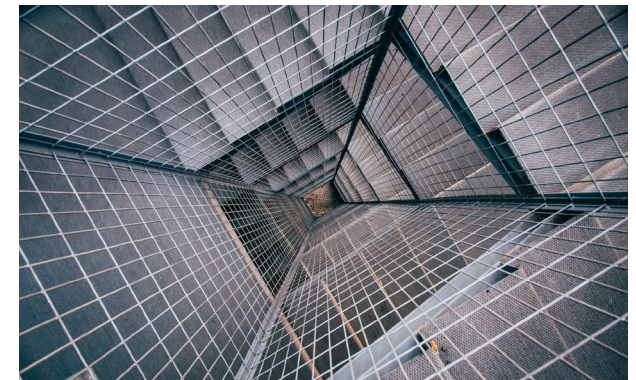
In the long term, blockchain-native startups in sectors other than cryptocurrencies will be the true drivers of blockchain technology, just as born-in-the-cloud startups have driven the cloud-computing revolution. These born-to-blockchain companies won't have to incrementally retrofit blockchain onto traditional processes. They'll build their business models and processes from the ground up around blockchain, creating new economies that will destroy traditional industries.

As you evaluate blockchain's value to your organization, keep in mind that there are distinct use cases for the technology and each has its own risk/reward profile, as MIT CISR points out.<sup>5</sup>

**Efficiency improvements/innovations.** Some major companies see blockchain as a way to reduce bottlenecks or customer hassles, making the delivery of their products and services more efficient. In these cases, companies are pivoting to engage directly with their own customers, not with clearinghouses or other business partners, so they have more control over developing and deploying innovations.

**New value propositions.** Any industry that uses middlemen to clear transactions can use blockchain to create peer-to-peer alternatives that reduce cost and latency. This can lead to new business models that are disruptive to a company's business, so it entails more risk – but also more potential reward.

**Consortium-led platforms.** Trading partners can use blockchain to work together in entirely new ways to their mutual benefit, such as tracking inventory through a large, complex supply chain. In addition to speeding processes and reducing costs, participants can use these solutions to meet emerging regulations and other systemic requirements.



# Disrupting one industry at a time

The early movers on blockchain tend to be those companies that have a sphere of influence on their supply chains and can convene the necessary participants. They recognize the fundamental shift that blockchain makes possible – just as early adopters of cloud understood the tectonic change that cloud heralded.

Other companies quick to adopt blockchain are those that understand the need to disrupt their own legacy business models before their competitors do it for them. They know that cannibalizing their legacy businesses may be necessary to remain relevant and in the forefront of their markets. Think of it as preferring to bite the bullet rather than be a target for one.

Based on our work with clients, here are some of the key industries we see as early movers on blockchain:

**Financial services firms** benefit by using blockchain to eliminate clearinghouses and brokers and create new business models. The result is improved liquidity and the freeing up of capital for higher return on investment. Execution and settlement times improve, security is greater and regulatory requirements are more easily met.

**Consumer goods manufacturers and retailers** use blockchain to increase efficiency and speed. It simplifies their transactions and enables immediate settlement. The result is tighter supply chain management, tracking and logistics. The use of blockchain in manufacturing/retail also revolutionizes a host of user-experience technologies, including payments, loyalty, rights management, smart contracts and peer-to-peer selling.

**Energy companies** use blockchain to create new value propositions. Energy startups help homeowners in a community to buy and sell excess capacity from each other to reduce their costs. Larger companies can use blockchain to create new synergies among their business segments and new business relationships with other firms.

**Pharma and life sciences companies** benefit from blockchain's security and transparency, which makes it nearly impossible to change historical records. These companies can use blockchain to fight counterfeit pharmaceuticals and to meet regulatory requirements to track drug shipments down to the smallest units as they travel the globe from manufacturing to retail pharmacy.

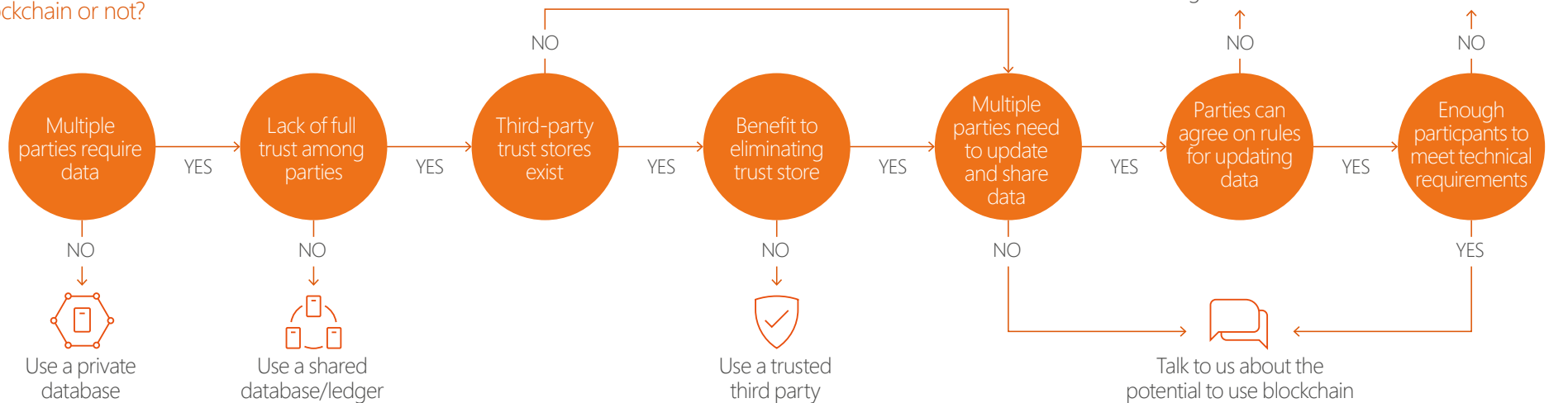
# Is blockchain right for your business?

Blockchain is not a technological paradigm; in fact, its implementation can be rather rudimentary. Complexity comes with the business process you seek to transform and the business environment in which you wish to use it.

To help you through this complexity, we created the Avanade Blockchain Evaluation Framework. It provides a step-by-step process for considering not only if blockchain is right for you, but how to think about capitalizing on the opportunities it presents.

Instead of jumping straight to technology issues, the framework asks you to rethink or reimagine your business processes. Once you've started that envisioning process, you can then layer in technology considerations. As you think through your scenarios, the decision matrix will help you focus on the potential to leverage blockchain technology.

## Avanade Blockchain Evaluation Framework: To blockchain or not?





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# Ready to consider blockchain for your business?

Blockchain advisers are out there. Your focus should be on advisory services and a tried-and-tested process for determining the most effective strategy, identifying the right targets and delivering business value.

An Avanade Blockchain Bootcamp is an excellent starting point. It combines education about the technology and introduces our framework for envisioning successful pilots. Our advisers work alongside your technologists and business owners to help you put your resources where they can bring the greatest value.

For more on Avanade's approach to blockchain and other hot topics, visit us [here](#).

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