



# Enterprise reboot perspectives

**Productivity, efficiency,  
and security require  
three-dimensional trust**

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**According to the 2020 KPMG Enterprise reboot report,<sup>1</sup> more than half of business and technology executives surveyed are investing in blockchain because of its ability to facilitate trust through transparency and traceability.**

Blockchain was introduced a little more than a decade ago as a decentralized database that informed decision-making with autonomy and consensus. All well and good, but from a practical perspective it remains a challenge to understand and determine where within the organization blockchain can be most effectively deployed. To really get inside the value of this enigmatic technology, think of it as the support structure of digital trust within an organization.

*The KPMG Enterprise reboot perspectives series digs deeper into insights captured from the global Enterprise reboot report. Leveraging insightful data from the two-phased global research effort, augmented with experienced guidance from KPMG leaders, we offer this pragmatic series to help our readers better understand how to leverage emerging technology to thrive in the new reality.*

*This Enterprise reboot perspectives piece was developed by Arun Ghosh, National Blockchain leader, KPMG in the US, and Tegan Keele, Blockchain Program leader, KPMG in the US.*

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<sup>1</sup> Enterprise reboot: Scale digital technologies to grow and thrive in the new reality, August 2020. HFS Research in conjunction with KPMG International.

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**Our approach focuses on blockchain's role in building a three-dimensional level of trust and starts with three critical questions:**

- Do you trust your transactions?
- Do you trust your data?
- Do you trust the internal and external identities associated with the first two questions?

**51%** of business and technology executives we spoke with said blockchain is an attractive solution.

We believe many blockchain projects fail at the proof of concept or pilot stage because too much emphasis is placed on what this technology specifically does. That is, too often the blockchain mission isn't viewed strategically. A better approach, in our view, is to identify where along the value chain the organization needs to solidify conviction. That is, where the operation needs to engender increased trust in how it functions within its partner ecosystem. And blockchain — a distributed digital record of who, what, when, where, and why, captured on a secure and transparent ledger — is the ideal engine for enabling trust and creating a highly transparent and auditable virtual paper trail.

Case in point, according to the 2020 KPMG Enterprise reboot report, 51 percent of business and technology executives we spoke with said blockchain is an attractive solution precisely because immutable transactions, which blockchain enables, drive auditability. From a security perspective, 48 percent of these executives are drawn to blockchain because they believe distributed data shared over a peer-to-peer network reduces single points of failure.

In considering these questions, leaders across corporate, government, and nonprofit settings alike, often tell us they have a cloud-based, "digital-first" agenda to encrypt their data, and maintain multiple databases for redundancy, which we applaud. But the real critical issue is whether organizations are establishing the conditions under which trust can flourish within and across their digital agendas.

What we hear from many clients is a resounding "I don't know." Indeed, when business leads, in particular, take a step back and assess their organizations' digital landscape, they realize that they don't fully trust the connections between inventory, suppliers, and invoices — not to mention the connections between their core front-, middle-, and back-office processes.

Digital trust is a framework to help organizations think about where they need to focus in regard to digital technology — and blockchain can serve as the fulcrum of that process.

# Key dimensions that enable digital trust in an organization

**Infrastructure.** This is the technology backbone, driven as appropriate by artificial intelligence (AI), advanced data analytics, the Internet of Things (IoT), cloud, automation, 5G, and blockchain. The goal is to build a solution that is flexible, scalable, and provides ongoing value while meeting day-to-day business objectives.

**Ecosystem.** This is the network of internal and external participants. It's about creating an environment for the maintenance of mission-based business and operating models, as well as sustainable value and supply chains. The key is to determine the most appropriate model — founder/c-suite-led, partner-driven, or industry/market-influenced — and align incentives and desired outcomes with the players.

**Governance.** This is the system through which strategic and operational decisions are made, and how they're managed specifically from a digital trust perspective. Here, leaders need to think about the legal structures that will best support digital operations, who will make the strategic and operational decisions at various points across the value chain, and how the relevant stakeholders operations will be impacted by technology, process, and, critically, the constraints posed by COVID-19.

What role does blockchain play within this dynamic? As we suggested earlier, many organizations already employ a growing suite of emerging technologies, such as cloud, AI/machine learning (AI/ML), IoT, smart analytics, and others. We view blockchain as the operational cornerstone of digital trust — a cloud-first, automated data view that can build trust across a single business line or multiple business lines.

Conceivably — or, perhaps more accurately, ideally — trust is inherent in the data that enterprises use every day to make projections, identify patterns, innovate, report results, communicate with customers and shareholders, and more. If an organization has a secure, automated view of everything, with no evidence of erroneous or incomplete data being transmitted or data tampering occurring over time, there's no need for a digital trust infrastructure to bolster your activities. But few organizations can make this claim with certainty.

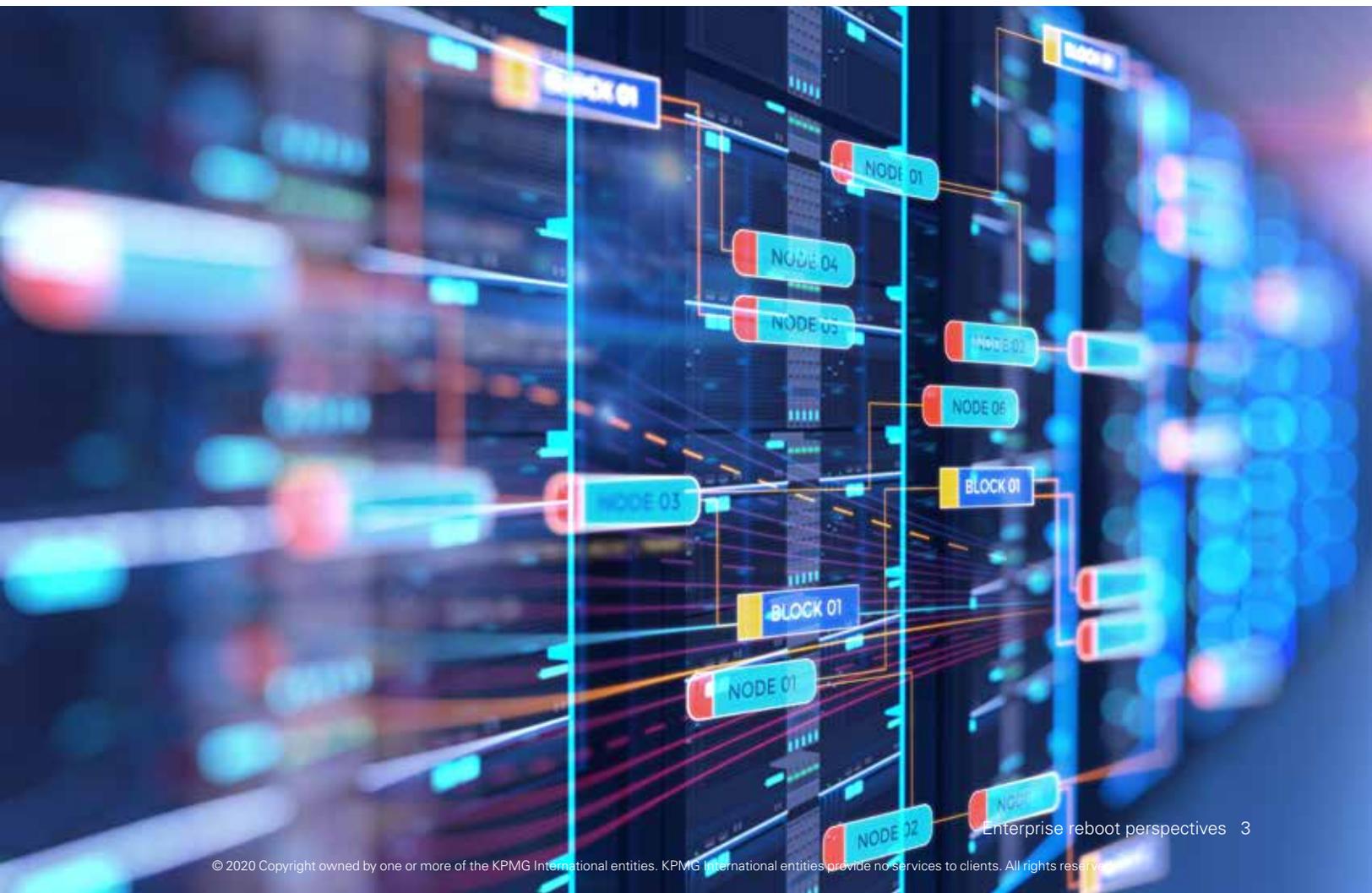
# The COVID-19 effect

The concept and principles of digital trust are inherent in how Web 3.0 will evolve, especially in a post-COVID-19 world, where the online environment will be more open, smarter and hyperconnected as companies reorganize their workforces and supply chains.

The current COVID-19 scenario illuminates, in some cases exacerbates, and in all cases accelerates, the challenges that already exist with many new technologies, including blockchain. Public and private organizations alike are finding that the more digitally native their operations and processes are, the better equipped they are to adapt to the way the virus has disrupted how, when, and where they share information and conduct business. In short, COVID-19 has fast-tracked the importance of a digitally flexible, efficiently connected, cost-effective operating model.

Blockchain, specifically, is gaining attention as companies seek to more effectively boost trust across supply chains in response to the COVID-19-related disruption.

When global trade networks break down, blockchain not only helps companies establish new relationships quickly based on data that is transparent, verifiable, and trustworthy, but can be the engine that powers business processes that are more digitally oriented, cloud based, and broadly connected.



# The trust enabler

In the new reality, organizations are reorienting their digital strategies to feature, where appropriate, technologies such as IoT, AI, cloud and others. As they engage in this exercise, focusing on blockchain's role in improving the level of trust across business lines can be an effective and powerful conversation starter.

Organizations across the private and public sectors are using blockchain, in conjunction with other emerging technologies, to elevate visibility and transparency of their products' provenance. This enables companies to translate positive developments around ethical sourcing, inventory and replenishment planning, and other supply chain details into motivational, personalized communications platforms, boosting customer confidence and engagement. In this regard, blockchain really can be the trust enabler.

For example, shortages of personal protective equipment — various medicines and medical devices, and biologics and blood, to name just a few critical items — have been widely reported. One aspect of this dynamic where there is keen interest is supply chain flexibility, building a level of trust in the partners with whom companies work. Many suppliers simply don't have the same ready access to critical items that they did in the past. As a result, many sectors, hospital systems for example, have been forced to work with unknown vendors who charge an exorbitant sums up front. In these cases, there's no way of confirming the legitimacy of the vendor's business practices or manufacturing standards. Blockchain, in concert with AI, can underpin the creation of a viable, secure digital network for these critical supplies that engenders trust.

Similarly, looking ahead to COVID-19 vaccine production, states and large hospital systems are going to want to trace the usage of those drugs all the way back to the manufacturer to ensure authenticity. This isn't anything new, but given the exceptionally rapid clinical trials new vaccines are undergoing, in the event of recalls or any adverse issues that threaten efficacy, companies will need to know — and trust — exactly where the vaccines originated (manufacturing), as well as where they went (consumption).

Outside of life sciences and supply chain, it's no surprise that organizations from virtually every industry are looking at how to optimize operations and reduce costs across all functions. Despite COVID-19, investment in environmental, social and governance (ESG)-related initiatives continues to flourish. Investor and consumer demand for sustainable practices, along with increasing emissions regulations both in the US and Europe, are leading companies to make carbon-negative commitments that require transparency of verifiable emissions, which blockchain helps provide in concert with IoT sensors. For organizations with large real estate footprints, verifiable emissions support significant near-term energy savings as consumption can be optimized through AI/ML models based on weather and occupancy patterns — this is especially critical with so many buildings sitting largely

unoccupied. In the energy sector, this same concept of verifiable emissions enables producers to certify their products as “cleaner,” and charge a premium. These are just the first steps toward facilitating better, more reliable accounting of an organization’s carbon footprint — something that’s long been a challenge across all sectors.

Blockchain is rapidly establishing itself as a go-to technology for solving business problems related to auditability, security, and trust — the three key blockchain features that are most attractive to executives who participated in the survey.

Although blockchain suffered one of the steepest COVID-19-related investment declines among emerging technologies (30 percent) — likely a result of the long lead time for realizing tangible results given the complexity of coordinating multiple entities — the survey found that business and technology executives believe spending will increase by a robust 34 percent over the next 12 months.

### **The incentive is mutual**

The critical element in this new reality is for the people who manage and share information to determine where they need to improve trust. If you realize that you don’t trust the data in your system, it stands to reason that the partners with whom you have to share that data likely don’t trust it either. That creates a mutual incentive to establish a mechanism to ensure that three-dimensional level of trust across the underlying infrastructure, the partner ecosystem, and the ongoing governance engine.

### **Drive innovation with blockchain**

In the new normal, organizations are reevaluating operations from front office to back and defining their digital strategies in an effort to drive sustainable, differentiating innovation. This is happening across the spectrum: auto makers are working to decarbonize in a sustainable, emissions-transparent way; oil companies are looking to diversify by offering “clean” natural gas; financial services institutions are searching for ways to increase revenue streams through secure crypto custody of digital assets. And blockchain can enable all of these applications. The key is to insert blockchain strategically in an effort to build trust across your data, core processes and network.

This presents a unique opportunity to rethink what operating digitally really means, from the ground up, and how and where those operations can be fundamentally restructured with a mindset focused on enabling trust.



To learn more about *Enterprise reboot*, our latest research report that explores the current and future state of emerging technologies, please visit: [home.kpmg/enterprisereboot](https://home.kpmg/enterprisereboot).

### Enterprise reboot survey methodology:

From March–June 2020, KPMG International and HFS Research conducted two global, cross-industry quantitative surveys of 900 business and technology executives about their enterprise’s investment in and adoption of emerging technology. All respondents held executive-level positions at Global 2000 enterprises with over US\$1B annual revenue. The study was conducted in two phases: March–April, when many countries were starting to see the impact of COVID-19, and May–June, when many economies and societies were shut down due to the virus. By conducting two phases of research, we sought to achieve a fuller picture of the impact of COVID-19 on enterprise approaches to emerging technology adoption and the sentiment toward the evolving emerging technology landscape. Research covered process automation, artificial intelligence, smart analytics, hybrid cloud, multicloud, blockchain, 5G, edge computing, IoT, augmented/virtual reality (AR/VR), cybersecurity, quantum computing, and trusted data backbone.

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