UNSW SYDNEY

BLOCKCHAIN ASSOCIATION SINGAPORE

Mapping the Enterprise Blockchain Landscape:

Use Cases across Asia Pacific

1 NOVEMBER 2022

FOREWORD

The potential of Blockchain can go beyond cryptocurrencies and investments. Its decentralised nature creates a new paradigm of trust which can reduce friction in business processes and increase overall efficiency. Blockchain technology created an opportunity for businesses to innovate on their processes and offerings. Enterprises have been attempting to incorporate blockchain technology in their business since 2014, with varying degrees of success. Common use cases include provenance, identity, supply chain, trade finance and international trade.

As more of these projects go into production and as blockchain technology matures, we see increasing interest from businesses in exploring the application of blockchain. These applications are also no longer confined to permissioned blockchains as new use cases emerge (such as those for certification). In line with this, BAS's membership is also growing in diversity as more members join from the traditional business sector rather than the crypto space.

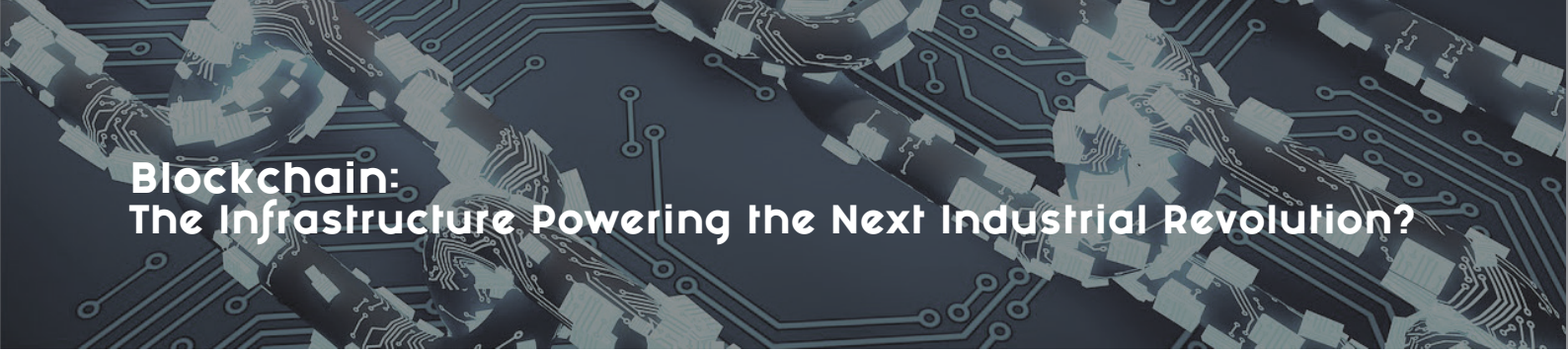
It is thus apt in 2022 for BAS to launch a study on how businesses are using blockchain, looking at various aspects such as business motivation and technology. This report is done in collaboration with the School of Information Systems and Technology Management in UNSW Business school, UNSW Sydney, with the university bringing their academic expertise in information systems to provide important insights from the participants of the study.

We are thankful to BAS members as well as key industry partners such as the Monetary Authority of Singapore, Enterprise Singapore and Govtech for taking part in the study and hope that the findings in this report will benefit others looking to apply blockchain for their own business.

ERNIE TEO

Co-Vice Chairman

Blockchain Association Singapore



Blockchain: The Infrastructure Powering the Next Industrial Revolution?

Many leaders in the industry have prognosticated how blockchain technology could revolutionize our economies, businesses, and societies. In an interview with The Straits Times, the CEO of DBS Bank, Piyush Gupta predicted that blockchain would power the world's back office in the next 5-10 years. Significantly, he explained that people often confuse blockchain with DeFi and cryptocurrencies (Tham, 2022).

Although these use cases are major constituents leveraging heavily on the blockchain technology, it is probable that blockchain technology holds a lot more utility than most individuals can imagine. The interview also makes one wonder what types of use cases Mr. Gupta envisioned.

In recent years, the term 'blockchain' has become synonymous with cryptocurrencies such as Bitcoin and Ethereum. True to the prognostications, blockchain offers vast potential for enterprises to create and alter business value. Blockchain is more than software or an app. It is an infrastructure (Iansiti & Lakhani, 2017).

It is an architecture with data sequenced as a list of ordered blocks based on three pillars: decentralisation, immutability, and auditability (Casino et al., 2019).

MYTH

Blockchains are the same as cryptocurrencies. Bitcoin and Ethereum are the only blockchains.

REALITY

Blockchain is more than just cryptocurrency or another new technology. It is a holistic decentralised infrastructure that has the potential to disrupt traditionally centralised entities.

In this report, we reveal current and potential use cases for enterprise blockchain technologies across multiple sectors and industries. Following a six-month study and adopting a qualitative case study research approach, we draw key insights and learning from practitioners and experts overseeing blockchain innovations and implementations.

The research team would like to thank our practitioners and participants for their invaluable time and contributions to this report. We hope that this preliminary research report will not just reveal key learnings and use cases of blockchain technology, but also identify areas of work and collaboration.

Based on the findings of our research, we organized the discovery of blockchain-based solutions and the discussion of their current and potential use cases within the enterprise context into:

SUPPLY CHAIN

Product tracking and distribution of goods is made more transparent at every stage of the supply chain

DIGITAL IDENTITY

Users' work experience, identity, and qualifications can be authenticated on an integrated platform

DIGITAL MEDIA & ENTERTAINMENT

revolutionising content creation, consumption, and recognition through the metaverse and non-fungible tokens (NFTs).

PAYMENT AND FINANCIAL SERVICES

In a highly regulatory environment, blockchain is emerging as a key player in facilitating global finance and in cross border financial flows.

For each use case category, its value propositions, features, and their business implications are examined and summarized below.

Supply Chains

Concurrent supply chains have been drowning in both persistent and unexpected disruptions due to information gaps, trust issues, and lengthy delivery delays. Blockchain has vast potential to substantially improve supply chains by enabling faster and more cost-efficient product delivery, as well as enhancing products' traceability, improving coordination between trade partners, and aiding their access to financial liquidity (Gaur & Gaiha, 2020).

Often imitated, never duplicated

Counterfeiting is on par to grow into an illegitimate business with a market value estimated to be $3 trillion in 2022 (Handfield, 2021).

For the average end-consumer, it is a challenge to differentiate between what is real and what is fake. Counterfeiting hinders legitimate business revenue and swindles customers who have accidentally spent their hard-earned cash on fake currency.

Could supply chains be digitally transformed to discourage counterfeits?

The answer is yes. Implementing blockchain effectively creates two-fold value propositions for customers by:

1. making legitimate products more accessible and
2. providing traceability for goods and services.

Zuellig Pharma is one of the largest digital healthcare providers in Asia that is capitalising on this digital phenomenon. By implementing the eZTracker chain, supply chain participants were equipped with an immutable (tamper-proof) ledger to authenticate medicines. Participants could also track supplier transactions, allowing for better processes for product recalls.

The blockchain can store data pertaining to medicine, including expiry dates, storage instructions, and so much more, in a database easily accessed by customers, with blockchain being interoperable with existing technologies to which customers have access.

By scanning QR codes or manually entering product data, customers can validate their medication and learn about the parties involved in its manufacture and delivery.

MYTH
Blockchain is an infrastructure which induces environmental degradation

REALITY
Several alternatives such as Proof-of-Stake (PoS) enable a more environmentally friendly solution

Not only does this demonstrate immense potential for the pharmaceutical industry, but rather any industry where goods are distributed between several parties.

> *As the vaccines move through various handover points in the supply chain, the products' data points are loaded into eZTracker's secure blockchain ledger, and this ensures it can't be tampered with. Users such as healthcare professionals and patients are able to verify the authenticity of the vaccine by scanning a unique data matrix code on the product pack.*
>
> *- Daniel Laverick, @ Zuellig Pharma*

The best things in life are actually really expensive

'The best things in life are free'. Not in blockchain. Many people think blockchain is an easy-to-access and cheap technology. Unfortunately, that is untrue—especially for those developing solutions for their own companies.

Haisheng Zhang, CTO at Zuellig Pharma, discovered this when he learned that a single node on the eZTracker network cost $2000–$3000 every month. Zhang reports that 80–90% of blockchain companies struggle to even generate revenue. Despite the immeasurable business value and transparency generated, companies venturing into this exciting space must maintain a pragmatic view of the business needs and costs surrounding the blockchain, especially when it comes to long-term strategy.

Zero-trust, not no trust

Product tracking in supply chains is expensive, but certain businesses can afford it to explore a whole new landscape of possibilities. It is not only costly, but also risky if there is lack of adoption by the stakeholders associated with the supply chain.

When considering Web3 and decentralisation, it is easy to drift into abstractions. Instead, companies need to be realistic about the costs and the risks involved. One of the risks is information security. Not every blockchain implemented by businesses is a public, permissionless system like Bitcoin or Ethereum. In fact, most businesses prefer private blockchains, which operate as a closed ledger to provide a layer of privacy and protection for their customers.

For example, eZTracker was built on Hyperledger Fabric–an open-source Linux foundation which has private channels only allowing select stakeholders with relevant permission to view a certain set of data.

> We cannot always use the latest tech. We chose Java over Go-Lang. One of the reasons it is very difficult to get Go developers. Another reason is that for a pharmaceutical company we would not trust Go-Lang very much. ... we cannot take this risk. This is key reason to develop our technical decisions. We cannot always try to follow the new tech. We need to balance the stability between mature tech and cutting-edge technologies.
>
> - Haisheng Zhang @ Zuellig Pharma

Connecting the dots

Acquiring capital for procurement has been a critical to empowering smooth supply chain operations.

Critically, an estimated $507 billion of liquidity was trapped in the global supply chains of S&P 1500 companies alone at year end 2020 (Cutlan, Sanghvi and Fahey, 2022). From high-tech and automotive, to aerospace, food, and textiles, this costly lock-up due to process inefficiencies is a common and shared pain across industries.

Consider the Accenture One Connected Supply Chain solution: This unique blockchain focused on moving from a linear supply chain to collaborative, many-to-many networks by leveraging blockchain and multiparty systems.

Wai Ying–Managing Director for Accenture Southeast Asia–noted blockchain has 'improved financing to the supply chain network', through removing manual processes and constraints by enabling buyers, suppliers and banks to share information in a transparent, secure and frictionless manner. Therefore, banks can more easily verify and accurately evaluate the asset and credit risk for SMEs—granting increased access to cheaper financial liquidity across the supply chain.

> In the supply chain, we always see the physical and data flow. However, we always forget about the third aspect: the financial flow. This is a full chain of documents and transactions from two parties, with the bank.
>
> - Wai Ying Tang @ Accenture Southeast Asia about Accenture.

Digital Identity

The traditional identity systems of today are siloed, insecure, and exclusive. Blockchain enables more secure management and storage of digital identities by providing unified, interoperable, and tamper-proof infrastructure with key benefits to enterprises, users, and IoT management systems (Blockchain for Digital Identity, 2021). It also shifts the control of an individual's identity to the individual from a central entity.

A force for good

Blockchain and cryptocurrencies have been painted with a broad brush as being part of an industry that has become associated with criminal activities such as money laundering. This should come as no surprise as 2021 was a peak year for illegal money transfers, with illicit addresses receiving up to $14 billion over the course of the year (Graver, Kueshner and Updegrave, 2022).

There are, however, always different sides to a story. Despite having such a reputation, blockchain can also behave as a much-needed superpower in deterring criminal activities.

As major governments such as those in United States, Australia, and China experiment with blockchain, they have capitalised on its features of auditability and immutability when designing their central bank digital currencies (CDBCs) and document verification.

MYTH
Every blockchain is a permissionless and public platform where every user is anonymous

REALITY
Private (centralised) blockchains are the most common preference when implementing the technology in business. Due to some level of identification, it is not possible to be completely anonymous on a private blockchain

GovTech Singapore has used blockchain at scale to enable verification of documents on its OpenCerts platform. By partnering with Singaporean educational institutes, the government utilises their digital platform to verify qualifications for individuals as well as for employers. Without the need to undergo the same tiresome account creation processes, the platform also enables the uploads of data to verify documents. This immensely reduces the onus on the end-user to having repeatedly verify documentation with each institution with which they interact.

GovTech Singapore has also experimented with HealthCerts, which has been continuously leveraged by both travellers and travel authorities to verify the vaccination status of the Singaporean population. Now the nation's economy can benefit from faster travel times. This has resulted in decentralising the trust from a single entity, therefore eradicating single point failures in the case of a cybersecurity breach.

Another benefit blockchain offers is scalability. Despite running on a limited number of nodes, transaction data, which is stored on-chain without requiring sign-in or verification of identity, can be viewed by anyone. Without raising any privacy concerns, this technology can also help establish accessibility through scalability and improved trust with the public. OpenAttestation developed by GovTech Singapore does not require for data to be published on the blockchain. Only proof of existence, which is hash of the document, is published on the blockchain, which cannot be reversed engineered to reveal its original information.

Blockchain will be for anyone and everyone, thus manifesting in a phenomenon to protect the authenticity of cities and countries of tomorrow.

> OpenAttestation makes data verification more efficient for the verifier. It is basically self-service, and any recipient of the data can upload a copy for verification. Users do not need a connection to any kind of centralised database to know if a certificate has been tampered with or not.
>
> - Barry Lim @ GovTech Singapore

Businesses need documents

Business needs for documents go beyond certifications. Dedoco serves the enterprise segment with document processes initiated by corporate entities on the blockchain. Using blockchain and smart contracts, Dedoco enables any business to record, update and share business processes via its documentations. This allows for non-fungible, trusted, and verifiable documents that can be used in different use cases, bridging Web2 enterprises into the Web3 era.

Dedoco does not store the actual business documents on the blockchain, but instead allows a range of options for users to bring their own document stores. This provides an alternative for users with sensitive documents which they prefer not to store with a third-party provider.

> It's all about giving choices to our customers and one where they can have full control over how their documents are handled and where they are stored. We would like to become the 'Next-Gen Enterprise Trust': one where you can own, trace and verify your important documents and records.
>
> - Daphne Ng @ Dedoco

Tell me about yourself

'Tell me about yourself' —an interview question we are all very familiar with during background screening. Any company hiring would not, however, just take the word of a potential prospect. It is common practice, across almost all professional industries, to hire a human resource consulting firm which specialises in background screening and data gathering, to avoid any conflicts of interest, or regulatory issues on a potential hire.

Blockchain technology will revolutionise the hiring processes by streamlining recruitment via secure digital identities. This will greatly increase the fluidity of the human resource market worldwide. The future of security and integrity checks relies on the collaboration between several entities.

Collecting all data and replicating the process individually for each potential candidate would take too much time and energy for one single entity within an HR department. By offering a service which delivers a single source of truth within a decentralized network, such a blockchain-enabled service can serve as the middleperson, and checks can efficiently take place across streams of data related to finance, criminal records, and credentials.

Avvanz ScreenChain blockchain eliminates many of the anxieties and concerns associated with checks by providing social media scans, credit history checks, and work experience authentication.

With all this information stored in one decentralised platform, a more accurate profile of the applicant can be viewed. This also eliminates several weeks of back-and-forth with several stakeholders.

'Can I see your ID'?

Regarding the gathering of sensitive data profiles of real people, it is critical to remember that many companies are not able or willing to bear the risk and cost of creating such capabilities or building the needed infrastructure.

For any endeavour involving the collection, storage, and dissemination of data of individuals, an extensive investment must be leveraged by any organisation that wants to offer such a service and build a high level of trust.

> The whole process can be laborious and cumbersome. So much documentation is involved. Then I thought why can't we use blockchain technology to automate a lot of this?
>
> - Kannan Chettiar @ Avvanz

For instance, Avvanz Screenchain and Dedoco store their data in Amazon Web Service data centres and eZTracker had to be implemented on Azure Kubernetes. This is no coincidence. Enterprise trust providers are those who have proven themselves, even if they are pricier than other smaller vendors. This enables a wide degree of scalability and security, which in-house solutions or small providers would struggle to create.

The future of blockchain in digital identity and security is not radical. Its entire infrastructure will be a blend of its unique features combined with the security of reputable Cloud providers who will act as formidable allies in this digital revolution.

Digital Media & Entertainment

Distributed ledger technology (DLT) has highlighted both digital asset tracking and lifecycle management capabilities during the NFT bull run. This utility can also be carried into the business arena to reduce intellectual property piracy, protect digital content, and facilitate the distribution of authentic digital collectibles.

The new business model

In the last decade, businesses have resorted to Software-as-a-Service (SaaS) as the 'pinnacle of innovation' for their revenue model. On the other hand, Morpheus Labs has successfully utilised their Blockchain-Platform-as-a-Service (BPaaS) ecosystem to become a one-stop platform to develop, deploy and run blockchain solutions.

> We provide customized blockchain solutions for business needs and these days we are seeing a lot of SMEs and traditional businesses tap into the Web3 ecosystem.
>
> - Aaron Foo @ Morpheus Labs

Behind the scenes, Enterprise Singapore, a statutory board in Singapore, has also been supporting the adoption of blockchain innovation among Small Medium Enterprises (SMEs) in Singapore, in the attempt to refresh and innovate their business models.

> For blockchain, we still haven't reached a stage of critical mass, or a wide adoption particularly amongst SMEs in Singapore.
>
> - Kit Ker @ Enterprise Singapore

This BPaaS ecosystem includes but is not limited to a/an:

1. Subscription-based model: analogous to SaaS, just reaping the benefits of the blockchain. Allows corporations of various sizes to access the core functionality of the Morpheus Labs BaaS features.
2. Application store: a platform allowing developers and vendors to list their decentralised applications (including upgrade costs and microtransactions). Morpheus Labs will establish a revenue stream based on a percentage commission on these purchases.
3. API Economy: allows customers to plug into these APIs and use them to facilitate interoperability among various tokens or decentralised applications. This revenue model is also the foundation for the Morpheus Labs tokenomics structure.

A whole new world

The time is now to think big, start small, and scale fast. The pre-existing idea of merging our digital and physical lives has proven elusive thus far— until now. The metaverse is creating the emergence of physical and virtual realities that will lead to the provision of never-before-seen innovations in new decentralized environments created by others.

Only last year, Rubix Network curated India's first NFT marketplace. The digital marketplace focused on music, film, and gaming—creating unique experiences for each user and enabling everyone to maximise their experiences in the metaverse (Jupiter Meta, 2022).

> We want people to control their own data and use it with responsibility in the Web3 world.
>
> - Manoj Vembu @ Rubix

MYTH
NFTs possess no value and are primarily used for gambling and money laundering

REALITY
NFTs are used for media/entertainment services as well as maintaining digital credentials

Furthermore, the company introduced the country's first-of-its-kind digital wall art to commemorate the idols and essence of Chennai. Being labelled the 'Icons of Singara Chennai', the project is a collection of digital art pieces consisting of monuments, locations, food, places of worship, beaches, and other symbolic representations.

These items reflect the city's past, present, and future. Each piece is a part of a larger art project and has a value associated with it, depending on the size and its representation.

This unleashes significant potential for community (as opposed to just customer) engagement, digital product experiences, and brand building within these locations. It revolutionises the way we interact with each other and consume content. The substantially higher social impact and value can increase tourism revenue and create job opportunities for locals, thereby aiding the local economy.

> The metaverse would be an evolution of the internet that enables a user to move beyond 'browsing' to 'inhabiting' in a persistent, shared experience that spans the spectrum of our real world to the fully virtual and in between.
>
> - Wai Ying Tang @ Accenture Southeast Asia

A game changer

In 2020, the global gaming industry generated USD 173.7 billion. None of this went to the players. Since the boom of NFTs in early 2021, these 'play-to-earn' games have stormed the gates of the blockchain world. During this time, ownership and trading of digital assets has sharply risen in popularity.

During the bull run, the value within NFT marketplaces and collections racheted up from USD 106 million in 2020 to USD 44.2 billion in 2021. As part of this, Rubix Network used their layer-one green blockchain to explore the growing NFT market. Rubix encouraged a decentralised creator economy for gaming through a trifecta approach:

1. In-game tokensiation: enables creation of value and tradable assets for the players.
2. Immutability: Restoring market transparency and immutability as part of the distributed ledger, meaning players have total asset custody.
3. Scalability: Rubix Network's 253.5 million transactions per second (TPS) allows gamers to experience instant worldwide transfers and exchanges.

Payments and Financial Services

Blockchain will help businesses streamline banking and lending services and decrease issuance and settlement times within the payments industry in the coming years. It has been and will continue to be a highly disruptive technology in a traditionally centralised financial environment.

Banking the unbanked

According to the Global Findex Database 2021 published by the World Bank, 1.4 billion people have no bank account. Banking products are often beyond reach due to high barriers of access. In a recent interview with Pundi X, CEO Zac Cheah stated that obstacles leading to being 'unbanked' relate to lack of documentation or provability of wealth.

To bridge this gap, Pundi X has innovatively harnessed the power of blockchain technology to facilitate financial inclusion using digital currencies. They initially focused on Indonesia, where less than 30% of the population is banked. They partnered with governments, payment companies, and retailers to collaboratively deploy blockchain-based point-of-sale (POS) solutions. As part of this, Pundi X leveraged their XWallet mobile app —with NPXS token as their currency —for users to make cryptocurrency transactions easier and more accessible.

Within China, in the Guangdong province, OneConnect has created and developed a financial platform that is anchored on the blockchain technology with the objective to connect small and medium-sized enterprises (SMEs) with commercial banks.

> Blockchain and crypto can be the solution instead of opening a bank account.
> - Zac Cheah @ Pundi X

Such a platform fills a gap in high velocity, high frequency, short-term loans that vastly improve the liquidity for these SMEs and increase the market shares for commercial banks. Specifically, leveraging on the blockchain's unique tamper-proof nature, OneConnect's platform increases the information transparency between SMEs and commercial bank to facilitate transactions between them.

> (In OneConnect) we experiment with different solutions using the blockchain. Some are useful. One of them is in the market for unsecured loan market in China for the SMEs. We onboard our clients through free usage of an ERP service to these SMEs who are our clients and extract data from the ERP to a blockchain that will serve as the basis of the unsecured loans that our clients will need periodically from us.
> - Bin Ru Tan. @ OneConnect

Automating asset management

Blockchain has the power to flip the asset management value chain on its head. It allows for quicker dispute resolution and vastly improves the time to solve data discrepancies.

The Monetary Authority for Singapore (MAS) launched Project Guardian to explore digital asset applications in wholesale funding markets. Led by DBS Bank, JP Morgan, and Marketnode, the first pilot involved creating a liquidity pool, comprising a collection of tokenised bonds and deposits locked in a series of smart contracts. The aim was to achieve seamless secured borrowing and lending of these tokenised bonds through the smart contracts.

The concept of tokenisation is to create digital assets that possess potential beyond that of finance products. First, it enables the monetisation of any tangible or intangible asset. Second, tokenisation makes it easier to fractionalize an asset (that is, split up the ownership of the asset, much as ownership of a company is split into shares of stock). Third, tokenization makes it easier to trade the assets securely and seamlessly without the need for intermediaries.

Assets that can be tokenised and traded include works of art, real estate, commodities, even livestock.

Not all tokenised assets make sense, but those that do could help unlock hitherto untapped economic value.

MYTH
All blockchains in business are built from scratch.

REALITY
Most blockchains are implemented on an existing platform via open-source libraries (e.g., Corda and Hyperledger Foundation).

> We are agnostic. We build infrastructure. Our clients can ask us to build a solution to tokenize an asset and we can do it. If one were to think about it, many traditional assets like a bond, while in paper form is really something intangible in the concept of an obligation counterparty to repay a debt held by a party. It is not more 'physical than a digital asset.'
>
> - Christopher Chien @ Marketnode

A digital asset ecosystem will need a tokenised medium of exchange to facilitate transactions. The following are four popular uses of digital assets:

1. Cryptocurrencies - digital currency used as a medium of exchange. This is not heavily favoured due to extreme volatility and the number of manipulations within cryptocurrency trading.
2. Stablecoins - tokens whose value is tied to another asset—usually fiat currencies, such as the US dollar. They possess good potential, provided they are well regulated and securely backed by high quality reserves.
3. Wholesale CBDCs - direct liability and payment instrument of a central bank. They have high potential to achieve atomic settlement, or the exchange of two linked assets in real-time.
4. Retail CBDCs - digital cash issued by a central bank to the general public. They provide a compelling option, given well-functioning payment systems and broad financial inclusion.

Pain point

Cryptocurrencies are actively traded and heavily speculated upon, with prices that have nothing to do with any underlying economic value related to their use on the distributed ledger.

- Ravi Menon @ Monetary Authority of Singapore

Breaking down borders

International trade and commerce are central to underpinning effective commerce globally. However, in trade finance, there are inherent problems of distrust and risk across the globe.

As estimated by the World Economic Forum, there will be a USD 2.5 trillion supply chain trade finance gap by 2025, which will primarily affect companies in developing regions.

Blockchain can bridge this gap by removing the payment and supply risk through an interconnected, distributed ledger platform, which traces transaction documents and the of shipped goods across borders.

Contour is a global network of banks, corporations, and trade partners working together to build a decentralized global trade finance network. Its goal is to revolutionize trade finance by giving partners a single platform in which to collaborate seamlessly and securely, in real time. It has proven to reduce end-to-end processing time for Letters of Credit by 90% or more, simplifying the process for all participants and enabling new business opportunities for banks, corporates, and trade ecosystem players.

Banks like Japan's Sumitomo Mitsui Banking Corporation (SMBC), Singapore's DBS, and HSBC are already making very serious inroads in this space, working with Contour.

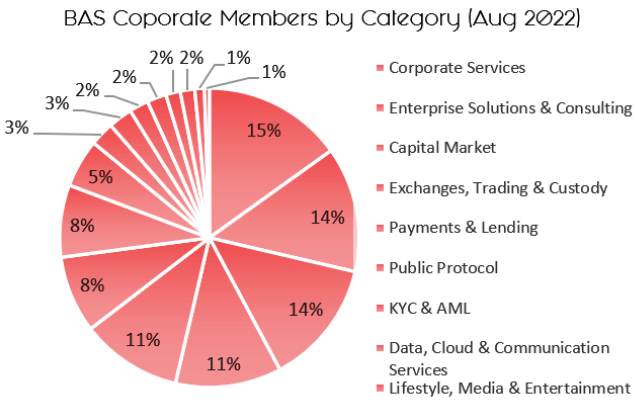
Contour's blockchain was built on the Corda consortium——an open-source blockchain platform for regulated industries. Corda's smart contracts functionality is specifically designed to meet necessary regulatory and compliance standards within the payments industry. It manages to weave together the regulatory inspections and information transfers with the transparent and decentralised characteristics of a traditional blockchain.

> There's a lot of hype around blockchain. People are trying to find uses for it. We think trade finance is the perfect use-case because you are planning to bring together multiple parties. Historically, many companies have tried and failed to digitise global trade finance for a number of reasons; either because it relied on trusting an unknown third party or because all data would reside in a centralised database, and which jurisdiction do you pick for that? We're still working with some central banks educate them between the differences between DLT and Crypto.
>
> - Aaron Seabrook @ Contour

Conclusion

In the past years, blockchain has left its mark on both business and technology. Users, enterprises, and governments have benefitted from auditability, immutability, and decentralisation provided by blockchain. Distributed ledger technology (DLT) has provided a platform for several industries, including but not limited to financial services, healthcare, logistics, legal enforcement, entertainment, and recruitment. Everyday more and more use cases arise out of blockchain technology, and with every use case, a misconception surrounding the technology is proven wrong.

This trend can be evidenced from Blockchain Association Singapore's membership. Since inception, BAS has seen corporate memberships grow at increasing pace, with 203 corporate members as of August 2022. Members from non-token related businesses form a large part of the association.



Blockchain is only getting started, and has the potential to not only provide a platform for enterprises, but also completely revolutionise how business is conducted across the Asia-Pacific. As more corporations start to explore the blockchain technology, we will see increasing mainstream adoptio nd the best use cases are the ones that solve the problems that are of core concern to the end users.

It will be interesting to see where blockchain technology is dominant in the future, and begs the question for businesses which have yet to venture into the space: Will you be a follower or a front-runner?

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About University of New South Wales Sydney (UNSW)

Since our foundation in 1949, UNSW Sydney has made an ongoing commitment to improve and transform lives in Australia and globally. UNSW Sydney improves lives locally and globally through innovative research, transformative education and commitment to a just and equitable society. UNSW's strategic priorities actively address the challenges we face today - from climate change and renewable energies to lifesaving medical treatments and breakthrough technologies. We aim to make an impact on people's lives around the world.

From being in the top 50 universities worldwide, to our research initiatives recognised as best in Australia for social impact, our passion for quality research and education is reflected in our accolades and contributions. Since its inception, UNSW has delivered outstanding educational outcomes, capitalising on our tradition of discovery, collaboration, entrepreneurship, technology, and our commitment to social justice. UNSW has an expanding array of collaborations and initiatives aimed at sparking the innovation that is needed most. We take a multi-disciplinary approach to collaboration. By connecting external organisations and community groups to academics, students and entrepreneurs, we advance and optimise the impact of our research and development.
Find out more at https://www.unsw.edu.au/

About Blockchain Association Singapore (BAS)

The Blockchain Association Singapore (BAS) seeks to empower its members and the community to leverage blockchain and scalable technologies for business growth and transformation. The Association is designed to be an effective platform for members to engage with multiple stakeholders – both regional and international – to discover solutions and promote best practices in a collaborative, open, and transparent manner. It aims to promote blockchain literacy and build a strong talent pipeline for the digital economy in Singapore.
For further information visit https://singaporeblockchain.org/