XTblock™

Track, trace and transact more. With intelligence.

1. High-performance Blockchain
2. World's First Distributed AI Platform

Use one – or both – to your advantage

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JAN 2021

IMPORTANT AND CONFIDENTIAL:

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Our startup is part of Singapore Management University (SMU) Institute of Innovation & Entrepreneurship (IIE)'s incubation programme – Business Innovations Generator

Gamechanger #1:

A high-performance, easily adoptable blockchain platform to revolutionise every business and industry

For those who primarily operate in any of these industries or sectors...

- Banking, Financial Services & Insurance
- Energy & Utilities
- Government
- Healthcare and Life Sciences
- Manufacturing
- Telecom
- Media & Entertainment
- Retail & Consumer Goods
- Travel and Transportation... (etc.)

These are some of the biggest data and computing challenges:

- **Data Security – Average cost of a data breach in 2020 is $3.86 million***, with several breaches costing over $50 million
- **Data Processing and Storage – Very significant CapEx and OpEx** amounting to billions of dollars is spent each year
- **Data Traceability and Transparency – Centralised IT systems are not immutable,** so records can be altered or falsified
- **Scalability – Centralised systems are hard to scale (up or down),** and require considerable investments and technical resources

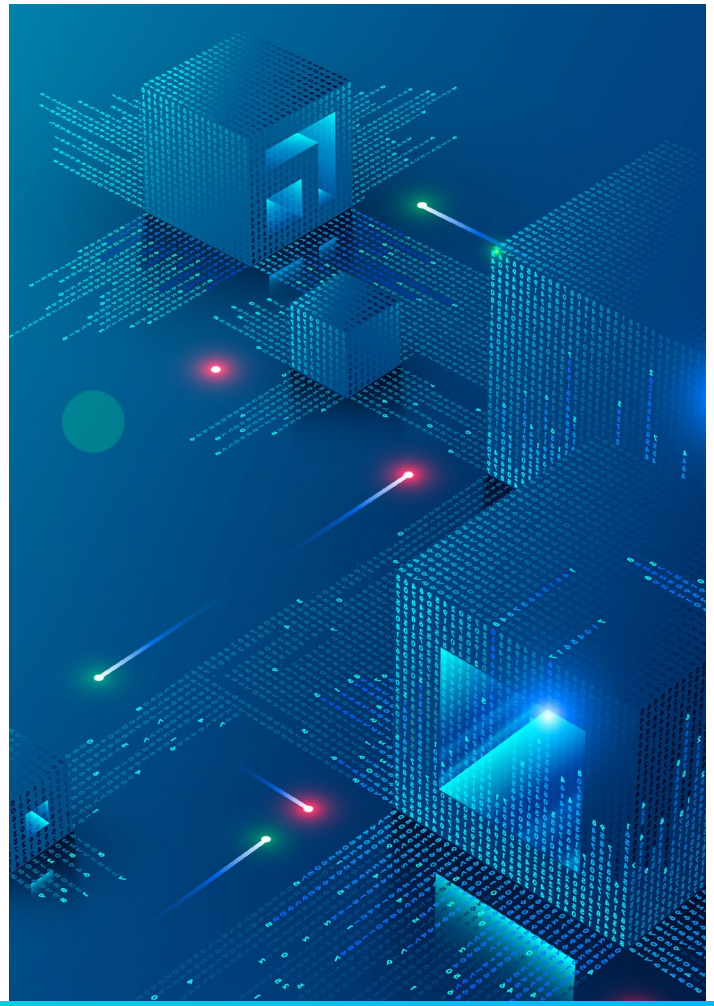
Source: *IBM and the Ponemon Institute

Blockchain is a far superior way to address many of these issues.

Blockchain makes it difficult or impossible to change, hack, or cheat the system

Cannot keep data hostage for a ransom

Blockchain also effectively addresses issues related to network disasters, human error, and software bugs



So what is stopping many industries from adopting blockchain?

BMW, Credit Suisse, De Beers, Honeywell, HSBC, Nestlé, Samsungand others have already adopted blockchain, based on its current capabilities.

However, current blockchain platforms have certain limitations

Cannot handle high transaction volumes

Cannot scale effectively with an enterprise's needs

High costs to develop, deploy and maintain blockchain applications

Platforms such as **IBM's Hyperledger** (max 13,000 transactions per second), **Ethereum** (max 15 transactions per second) and others are all trying to solve the problem.

XTblock already has the answer

In addition to the standard benefits of blockchain, XTblock can deliver:

Low cost

Because of our subscription model, there will be **no CapEx** that our clients need to commit to. **Subscriptions** will allow several times lower costs than when using other blockchains. On-premise networks are also possible for large corporations at competitive pricing. Our Integrated Development Environment (IDE) App will help to reduce DevOps costs.

Performance

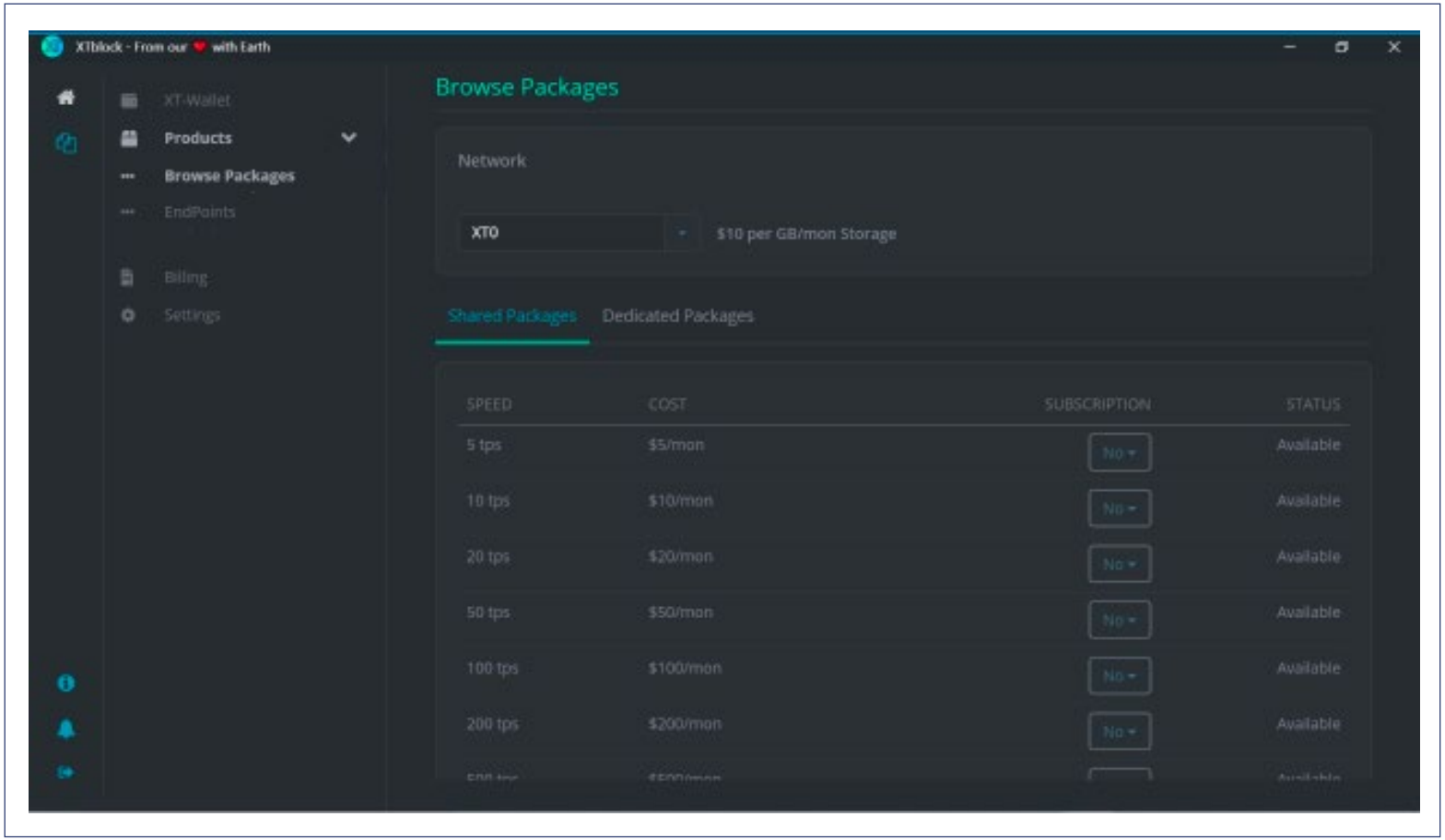
Unlike other platforms, **XTblock's architecture is fully scalable** to deliver exactly the computing performance our clients need, thanks to our supercomputer architecture – simply subscribe for higher TPS speeds, or drop to lower speeds through a few clicks in the IDE App without the need to configure the entire network again (save time and cost).

Quick and simple

Using the IDE App means there is **no need for complex network configuration** as seen with other platforms. Developers will want to (and love to) use the IDE App, because it makes DevOps easier, simpler and faster – a big difference from other platforms.

Integrated Development Environment (IDE) App

Flexibly define Data Structures and Business Flows with the Smart Contract programming function on our platform



Disrupting the Competition

Competitors (BaaS):
IBM, Microsoft, Alibaba etc.

- Sell Blockchain Nodes – Cloud Hosting
- Limited Scalability

Complex DevOps Steps:

1. Purchase nodes (expensive)
2. Configure network
3. Build blockchain application
4. Deploy application to network
5. Maintain network with sys-admin
6. Reconfiguration required to scale up/down

XTblock (BSP - Blockchain Service Provider)

- Sell Blockchain Speeds like ISP
- Scalable

Simpler DevOps Steps:

1. Purchase speed packages (affordable)
2. Build blockchain application
3. Publish application
4. Scale up/down as per business needs (no reconfig)

90% possibility of lowering costs

Various Speed Packages

Business Model

STARTER PACKAGES

- $5 for 5tps/mo
- $10 for 10tps/mo
- $20 for 20tps/mo
- $50 for 50tps/mo

SHARED PACKAGES

- $100 for 100tps/mo
- $200 for 200tps/mo
- $500 for 500tps/mo
- $1k for 1k tps/mo
- $2k for 2k tps/mo
- $3k for 3k tps/mo
- $4k for 4k tps/mo
- $5k for 5k tps/mo
- ...
- $20k for 20k tps/mo

DEDICATED PACKAGES

- $1k for 100tps/mo
- $2k for 200tps/mo
- $5k for 500tps/mo
- $10k for 1k tps/mo
- $20k for 2k tps/mo
- $30k for 3k tps/mo
- $40k for 4k tps/mo
- $50k for 5k tps/mo
- ...
- $1M for 100k tps/mo

1. Packages are dynamic and limited by the state of every network.
2. While the above shows subscription rates for shared services, a private blockchain network can also be set up for a client's enterprises.

Example: Use of XTblock blockchain platform for large enterprises

While XTblock's blockchain platform can be used by developers, small business and global corporations alike, this example illustrates its ability to solve some of the toughest technological challenges of multinational corporations.

Organisation: International Food & Beverage Giant, employs 250,000 people worldwide

Uses blockchain for: Food supply chain management

How the organisation is leveraging the benefits of blockchain

One product the F&B giant uses blockchain technology for is a premium coffee brand. Through blockchain-recorded data, buyers of the coffee will now be able to trace the coffee back to its different origins. Importantly, this transparency, traceability and trackability also enhance supply chain efficiencies, while helping to ensure freshness, sustainability, reduction of waste and prevention of food fraud.

Continued...

Continued...

How it works

To use the solution to trace food products, data on food products needs to be uploaded to the network by participants. Additionally, data sources can be added to extract custom details. For instance, cold chain data and analyses can be pulled from temperature and humidity sensors, IoT devices, RFID, and more.

At any given point in time, the number of 'transactions' (an event that updates the data store) could number in the thousands, depending on how many entries are being uploaded to the network and how much data is being fed into the network by IoT devices, RFID etc. And this is for just one product. Several products on the blockchain would require, potentially, tens or hundreds of thousands of transactions per second.

What it costs

If 128 nodes are being used to deliver the performance required @ approx USD 2700 per node per month (based on our calculations), the cost would amount to USD 345,000 per month*.

To go beyond the this performance, multiple similar networks would have to be configured, deployed and managed, i.e. potentially millions of dollars spent for those transaction volumes, as well as for people, computer hardware infrastructure and other costs.

Continued...

For the same performance, XTblock would need only about 30 nodes @ USD 1300 per node per month (e.g. AWS services + XTblock licence per node) = USD 39,000 per month*.

But the fact that XTblock has developed, very importantly, a scalable architecture, means that the volume of transactions desired can scale dramatically to tens or or even hundreds of thousands of tps, depending on the requirement. All without requiring to configure, deploy and manage new networks – and with only a single endpoint to manage.

*This does not include costs related to software solutions and hardware required to implement and manage the solution, for the blockchain platform used as an example or for XTblock-based solutions.

Gamechanger #2:

The World's 1st Distributed Artificial Intelligence Platform powered by our Blockchain Platform

Distributed Artificial Intelligence (dAI) is the most powerful, surpassing centalised AI

Distributed Artificial Intelligence (dAI) aims to eliminate the present-day limitations of AI technology by leveraging decentralised architecture that can exponentially increase its intelligence.

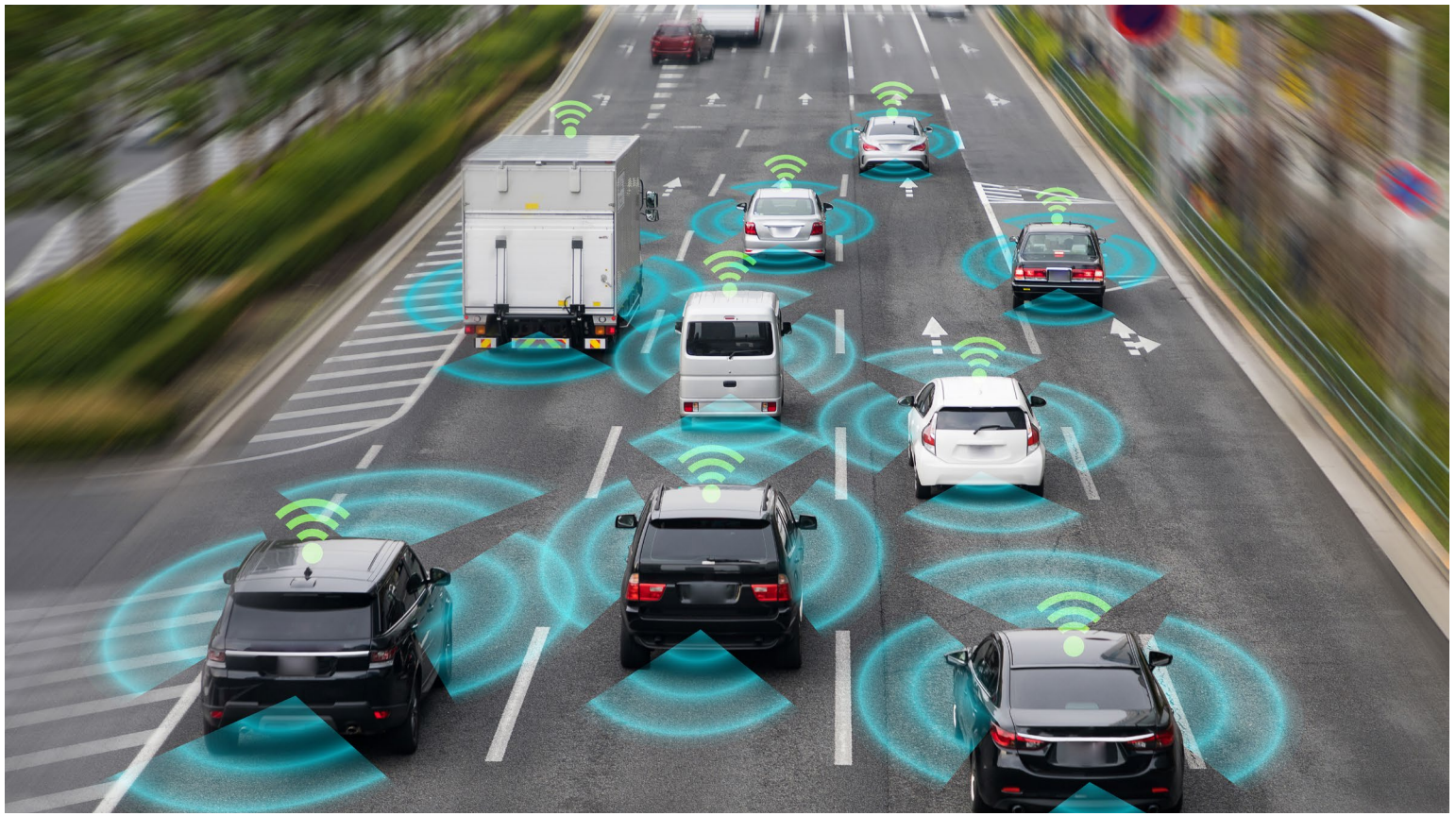
Artificial Intelligence (AI) technology in its present state is centralised, which means it is limited by the power, mobility and connectivity of its host network.

We have developed cutting-edge possibilities in AI through the creation of a new type of distributed architecture that runs on our blockchain network.

It is the intersection of two technologies that are individually revolutionary, but which can change the course of business, industry and the world at large.

Our clients can choose to use just our blockchain platform for higher performance, security and scalability for their business, or in combination with our dAI platform's ability to take their centralised AI to the next level, and we can help them implement, deploy and manage these solutions effectively.

Example: Use of XTblock Distributed AI and Blockchain (Traffic Management in Smart City)

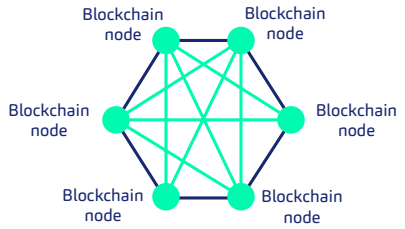


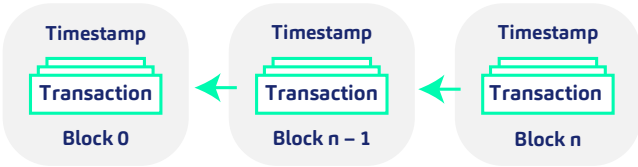
The power of collecting, processing and relaying live data back securely and completely

Collecting data on Routes, Speeds, GPS, Fuel, Turns, Changes, Internal Incidents, Traffic Context Capture, Parts' Problems… + decisions taken by AI agent, i.e. vehicles (response to emergency and other actions taken). Decisions taken by the AI agent on the micro level guide the decisions taken by network AI on the macro level.

Commit

Blockchain network

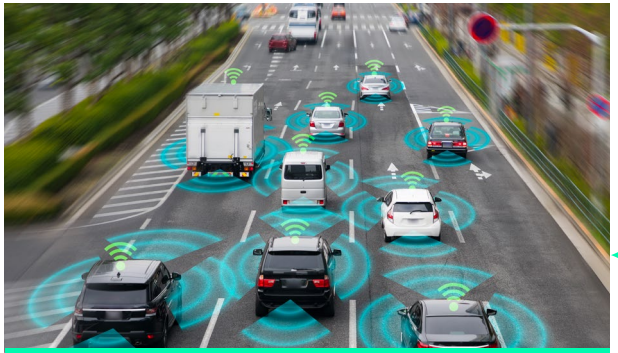




Blockchain database

Data being collected

Constant interaction loop



Calculations made at the local (vehicle) level

Processed data and suggestions relayed back to every agent (vehicles)

Example: Use of XTblock Distributed AI and Blockchain (Traffic Management in Smart City)

Organisation: Department of Transport / Division of Traffic Engineering and Operations (Public Sector)

Can use blockchain for: Vehicle tracking, live vehicle behaviour monitoring, fuel consumption analysis etc.

Are other blockchain and AI solutions being used currently? With other blockchain platforms, this is in exploratory stages only, due to their inability to manage such functions (other platforms cannot manage high transaction volumes, are not scalable, and suffer from high latency). At best, such platforms can only use blockchain to record transaction data. However, XTblock's high-performance blockchain, coupled with its Decentralised Artificial Intelligence (dAI) capabilities, can enable highly advanced functionality.

What XTblock is working to provide in terms of high-performance traffic monitoring and management
With the right software, network, and hardware infrastructure, XTblock's high performance blockchain can help with near-real-time collection of data for millions of vehicles as well as other benefits, including:

• Vehicle route tracking • Live behaviour monitoring • Fuel consumption • 100% network uptime

• Enhanced cybersecurity, traffic monitoring and management system (e.g. preventing Denial of Service attacks)

Continued...

In addition, our Decentralised Artificial Intelligence could be used to allow vehicles to communicate with each other to:

• Avoid traffic congestion • Prevent accidents and collisions

How it works

Due to its high-performance and scalability, XTblock can operate at 100,000 tps (scaling up to 1 million tps) to gather data from traffic systems, IoT devices, vehicles, traffic signal networks and other such sources. Coupled with our Decentralised Artificial Intelligence (the first deployable dAI of its kind), it delivers solutions perfectly suited to the requirements of Smart Cities or even existing traffic networks.

What it could cost

With another prominent blockchain platform, if 128 nodes are being used @ approx USD 2700 per node per month (based on our calculations), the cost would be USD 345,000 per month*. Traffic management and monitoring would require hundreds of thousands, if not millions, of transactions to be processed per second. Therefore, multiple similar networks would have to be configured, deployed and managed (several multiples of USD 345,000 per month) . The cost would be prohibitive.

Continued...

At USD 1300 per node per month (e.g. AWS services + XTblock licence per node), and far fewer nodes being required to deliver the same transaction volumes as the other blockchain platform, XTblock would be able to deliver the same or greater performance at a fraction of the cost*.

Further enhancing this transformational proposition is our XTblock's Decentralised Artificial Intelligence, with truly makes it an enabler of governments' vision for Smart Cities. Doubtless, apart from the various benefits of deploying a system such as this, there would be very significant cost savings overall, when compared with the use of centralised IT solutions.

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Demonstrating our Distributed AI capabilities via Gomoku

To demonstrate the powerful capabilities of our dAI, our team has developed an AI algorithm for the popular Japanese board game, Gomoku, which will run on our blockchain network. Gomoku is one of the world's greatest strategy board games, which is over 4000 years old, and features a high level of complexity.

In summary, XTblock offers:

- A low-cost, high-performance **Blockchain Platform** with very significant advantages over both, centralised networks (commonly used by most enterprises today) and other blockchain platforms
- On-demand performance: Scalable up or down on-the-go, as per your needs
- A simple subscription model for shared blockchain services, with enterprises being able to opt for private blockchain networks as well
- An easy-to-use Integrated Development Environment App (IDE App) for simple adoption
- The world's first **Distributed Artificial Intelligence Platform**
- Consulting services to help our clients implement our solutions easily

We assist you all the way

Apart from providing a robust, secure, high-performance platform, XTblock is also able to provide clients with **end-to-end consulting services**, and can work closely with their team to deploy our Blockchain and/or Distributed AI services.

For organisations that operate their own AI, it is possible to port it to our blockchain platform (all AI on centralised systems can be ported to our platform).

Contact us

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Thank you!

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