SPACECHAIN

The World's Leading Integrator of Space, Security & Blockchain

Year In Review 2022

Content

CEO's Message

2022 Reflections, Achievements, Challenges, and Goals Ahead

Over the past year at SpaceChain, accomplishments have been profound across all of our business sectors — and we even created a new one.

Seizing the momentum

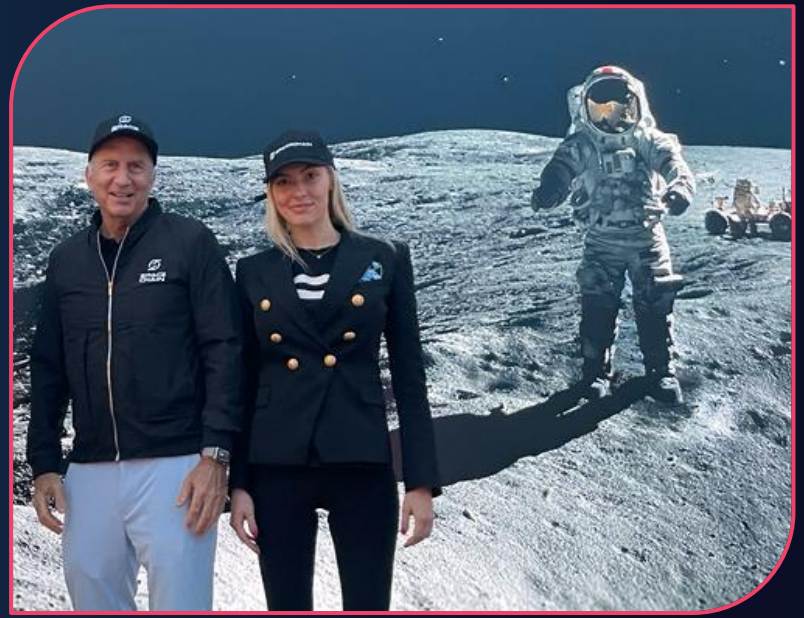
2022 has been anything but ordinary. Starting in January, we successfully launched a blockchain node into orbit from the Kennedy Space Center onboard a SpaceX Falcon 9 rocket. That mission was the first of two for our customer Velas Network AG, and marked our sixth successful blockchain payload launch into space.

The significance of which is that the node was designed with an AI-powered capability for improved scalability, high security and interoperability with our customer's Ethereum Virtual Machine blockchain. This unique capability was installed on the latest technology for resource processing on board a satellite operated by Spire Global, Inc.

Before 2022 came to a close — and on the heels of our previous launch with Velas — SpaceChain successfully completed Mission 2. November 26, 2022 marked our seventh successful blockchain payload launch to space, but more significantly, this one also installed at NASA's International Space Station (ISS), making SpaceChain the only company in the world to now have three successful operating blockchain servers at the ISS.

The potential of this mission is notable, as it reaffirmed our commitment to empowering blockchain companies to access and demonstrate scientific functionalities for space-as-a-service platforms.

As a result, there can be no denying the value SpaceChain brings, along with its partners, e.g. Nanoracks, to the further the potential of blockchain technology in space — confidently, securely, and transparently.



SpaceChain CEO Cliff Beek with Velas COO Shirly Valge attending the rocket launch at Kennedy Space Centre in November 2022

Industry alarms were set off

"Trust" being the operative word, alarms rang underscoring the risk reality associated with crypto hacks. In parallel, concern rose further by the aggressive un-checked business practices of a few, resulting in the unfortunate cascading failings of notable crypto exchanges.

According to market data, hackers made off with approximately $4.3 billion of cryptocurrency, up 37% in 2022. And in reference the chaotic collapse of FTX, which seemed to materialize out of nowhere, the exchange lost more than $8 billion of its customers' currency.

Control your key — Multisignature wallets

We have observed the main characteristics that make our industry especially vulnerable to contemporary cyberthreats.

First is the increased number of threats and actors that target a growing crypto surface. Second is the sector's interdependencies on the vulnerabilities of public connectivity and terrestrial infrastructure. Security of access to data and digital wallets is a pressing issue within both Web 2.0 and Web 3.0 infrastructure.

Click on the image to learn more about our space-based multisignature wallet technology.

To address threats from unauthorized users, SpaceChain developed a solution to keep the key more secure, adapting blockchain innovations such as multisignature wallets and physical detachment, thus placing nodes into orbit.

The idea of being physically detached from terrestrial infrastructure has become an essential part of securing sensitive data using Low Earth Orbit assets. This notion of separation is at the core of SpaceChain's strategy for product development in 2023.

Goals for 2023 — focus on recognizable trends

Last year's achievements centered around deployment of space nodes and the significance of Multisignature wallets. For 2023 we have identified an industry trend — integrating satellite access protocols into user's mobile devices. Because of the vast array of possible combinations, mixing Web 3 protocols — open standards for space applications can now be in the hands of the majority of consumers.

Consider the outcome of blockchain platforms that enable trust environments through personal devices and having the potential to make a powerful impact on the market and overall global economy. It will be essential for SpaceChain to navigate this opportunity for 2023.

Beyond our space nodes

SpaceChain's 2023 goal is to deliver vertically integrated, decentralized satellite infrastructure from the ground up. Our current development of a portable handheld device to enable digital asset transactions via direct satellite communication is a key part of this. This device is being designed to enable quick, secure transactions from anywhere on earth.

Our continued appreciation — Thank You

Last year's excitement around our successful space missions is likely to give way to an even more promising 2023, and we would like to take this opportunity to recognize and extend our deepest gratitude to our customers, vendors, the SpaceChain Team and our supporters; who have worked together making 2022 a meaningful experience.

It is with this appreciation that we enter 2023 aiming to meet the big challenges and resolve opportunities ahead of us. Thank you.

SpaceChain UK team: Full-stack Developer Beifei Zhou, Director of Technology Ziheng Xiang & Director of Business Development Evan Slattery

SpaceChain CEO Cliff Beek with Nanoracks Amela Wilson & Jacob Scoccimerra.

Image by pikisuperstar on Freepik

Executive Team

Zee Zheng
CO-FOUNDER & EXECUTIVE CHAIRMAN

- Serial entrepreneur
- M.A. Psychology – Columbia University, Draper University Alumni
- Lee Kuan Yew Senior Fellow at the Lee Kuan Yew School of Public Policy
- Honoree of the Forbes 30 under 30 Asia List of 2022

Jeff Garzik
CO-FOUNDER & CTO

- Key Bitcoin core developer
- Key Linux kernel engineer
- Leader of Ethernet networking subsystem
- Designed and built Amazon cloud computing clone (Project Hail)
- Co-founder of Bloq

Cliff Beek
CEO

- President & CEO of Cloud Constellation Corporation — pSaceBelt
- Member of Board of Directors at Etheric Networks and CMC-Asia
- Co-founder of Star Asia Technologies
- MBA from Wharton School, University of Pennsylvania

Advisors

Don Tapscott

- Ranked the 2nd most influential management thinker in the world by Thinkers50
- Co-founder of the Blockchain Research Institute
- Co-author of the book Blockchain Revolution: How the Technology Underlying Bitcoin is Changing Business, Money and the World

Eric Anderson

- Chairman & CEO of Planetary Holdings
- Chairman & Co-founder of Space Adventures
- Chairman of the board of Booster Fuels
- Director of X Prize Foundation
- Well-known aerospace engineer & entrepreneur
- Pioneered the development of the space tourism industry

Jeffrey Manber

- Chairman of Nanoracks
- President International and Space Stations of Voyager Space
- Board member at StarLab Oasis

Matthew Roszak

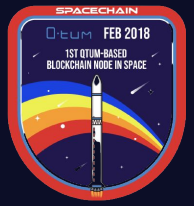
- Chairman of Chamber of Digital Commerce
- Managing partner at Tally Capital
- Chairman & Co-founder of Bloq
- Co-founder of Vesper
- Board member of BitGive
- Producer of the documentary The Rise & Rise of Bitcoin

Tim Draper

- Renowned VC capitalist from Silicon Valley
- Co-founder of DFJ Venture Capital
- Headmaster at Draper University
- Founding partner of Draper Associates

Milestones

7 launches, including 3 nodes on the International Space Station



2 Feb 2018

Launched a full-node program on the Qtum blockchain that can process existing blockchain data.

25 Oct 2018

Embedded with SpaceChain OS & can perform blockchain related functions like smart contracts on the Qtum blockchain.

5 Dec 2019

Launched a testbed for Bitcoin multisignature authentication service to the International Space Station (ISS).

3 June 2021

Launched into space the first commercial Ethereum blockchain integrated satellite payload to the ISS.

30 June 2021

Launched a blockchain-enabled payload incorporated with space nodes created for customers.

13 Jan 2022

Launched a space node to support on-orbit Velas transactions and minting of an ERC-721 standard NFT.

26 Nov 2022

Launched a 2nd Velas blockchain payload integrated to the ISS.

Awards

SpaceChain has been recognised by several organizations for its innovation & mission.

Forbes 30 under 30 Asia List

Co-founder Zee Zheng was named by Forbes as a notable honoree of the Forbes 30 Under 30 Asia Class of 2022 under the Enterprise Technology category.

Best Blockchain Technology Integrator

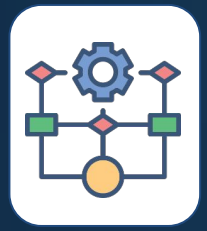
SpaceChain won the Best Blockchain Technology Integrator in the FinTech Awards 2022 by Wealth & Finance Magazine.

Open Source Award

SpaceChain was presented the Open Source Award by Alibaba Cloud, under its AsiaStar 10x10 campaign which acknowledges companies, communities and projects that have affected meaningful change in the region.

Products and Services

We redefined & streamlined our offerings



Space-based multisignature wallet technology

A technological innovation that enables ultra-secure cryptocurrency transactions with a third key stored in space.

Blockchain space mission design & management

Mission management services for other product providers based on SpaceChain's experience.

Decentralized Satellite Infrastructure (DSI)

A mesh network of heterogeneous spacecraft owned and operated in Low Earth Orbit by multiple parties in multiple jurisdictions.

Decentralized Satellite Applications (DSA)

A blockchain-based Earth-observation data and service marketplace that is built upon the Decentralized Satellite Infrastructure.

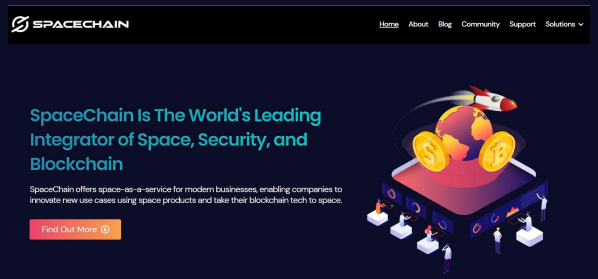
Highlights of 2022

From rocket launches to partnerships, SpaceChain accomplished a lot in 2022. Here are the highlights!

Bringing blockchain to space with Spire

We are working with Spire to accelerate the Decentralized Satellite Infrastructure project and scale our application coverage in space. We will leverage Spire's constellation of over 100 satellites as well as its software capabilities to help us achieve our goal. Read more here.

Click on the image to learn how SpaceChain is leveraging Spire's technology to put secure blockchain networks in space.



A new website

We revamped our website and refreshed our brand colours, design and style. We also updated the website with fresh content, videos and graphics.

Join our Discord channel

Our Discord platform is active and alive! Come join in on the chatter about all things relating to SpaceChain.

Global Space & Technology Convention

Co-founder Zee Zheng participated in a panel: “Expanding to Earth: Next Gen LEO-MEO Markets and Opportunities” at GSTC 2022 in Singapore. Held in February, the annual conference is organised by Singapore Space and Technology Limited, and is Asia’s Premier Space & Technology event.

Apsara Startup Day: Singapore

In November, Co-founder Zee Zheng attended the Apsara Conference and was part of the panel: Web3, Blockchain and a Decentralized World.

Taking Web3 to Outer Space

Director of Business Development Evan Slattery spoke at “Taking Web3 to Outer Space”. Held at DLT Lounge in London during September, the event was organized by Copernic Space and supported by Disruption Banking.

Click on the image to watch Evan speak about opportunities with Web3 in Outer Space at the DLT Lounge in London.

EU Space Week

Director of Business Development Evan Slattery attended EU Space Week in Prague, Czech Republic, in October. He was part of the panel “Space and metaverse in action: examples from innovative start-ups” where he shared his insights about the integration of space and blockchain, and how blockchain nodes in space relates to the metaverse.

SUPPORTING STUDENTS

Sponsoring UKSEDS

To support up-and-coming space professionals in the UK, SpaceChain was one of the sponsors for the UKSEDS Satellite Design Competition 2022.

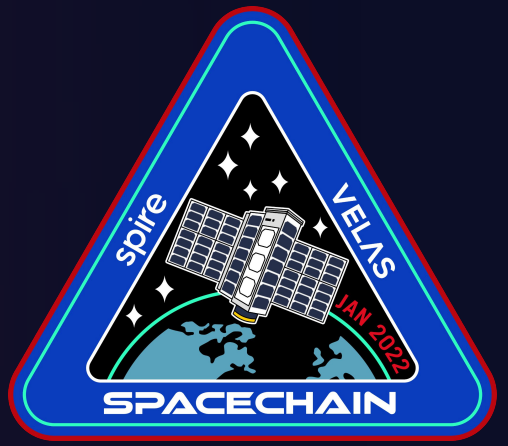
Collaborating with TUMO Labs

SpaceChain worked on a partnership project with TUMO Labs to train its students on using machine learning for image processing, land use and land cover classification.

Click on the image to hear what the students have to say about the project

Velas joins the space race, thanks to SpaceChain

SpaceChain sent the world's fastest EVM blockchain and decentralized ecosystem into orbit in January 2022



- The mission marks SpaceChain's 6th blockchain payload launch into space and the successful integration of Velas, the world's fastest Ethereum Virtual Machine (EVM) blockchain and open-source platform for decentralized applications, with its payload.
- The space node created for Velas enables highly secure on-orbit services for Velas transactions sent and received from the ground, and the minting and distribution of VRC-20 (fungible) as well as VRC-721 (non-fungible, NFT) tokens.
- The main mission for Velas is to provide a fast and cost-effective, multi-feature blockchain network.
- Velas includes the Ethereum Virtual Machine to allow developers to deploy any type of Ethereum-based dApps on the Velas blockchain premises based on the best parts of the Solana code.

- Velas will leverage the enhanced security and immutability of space-grade infrastructure designed and deployed by SpaceChain for advancing its decentralized projects and applications.
- The payload was installed onto a satellite designed and manufactured by Spire Global, which also managed the launch mission.
- Spire is utilizing its space-based AI-embedded supercomputing module “SABERTOOTH” to complement SpaceChain’s decentralized satellite infrastructure to help Velas sharpen its competitive edge and overcome land-based centralized infrastructure challenges.

> *“The new epoch in the development of blockchain technology is right upon us, with the space economy opening up new horizons for both the technology and its users.*
>
> *Velas is one of the first blockchain networks to engage into this space race and aims to put its payload on the International Space Station (ISS) ultimately. Having a node on the ISS is a challenging task as NASA goes through a rigorous evaluation and approval process. We are confident that both Velas and SpaceChain possess the required technical expertise and resources to achieve this vision.”*
>
> ***FARHAD SHAGULYAMOV***
> *Co-founder & CEO*
> *Velas*

In July, SpaceChain completed the EVM blockchain testing in space, and expanded space applications for blockchain customers

- The space node is now capable of delivering the full functionalities designed for Velas, including transaction signatures, smart contract deployment, decentralized finance (Defi) activities and non-fungible token (NFT) minting with the seamless transaction of the Velas Token (VLX).

- The space node also supports and enables Velas to advance the development and deployment of its blockchain platform, which aims to be one of the most secure and fastest platforms in the industry.

With its independence, physical security in space & as a trusted third party in blockchain applications, the space node provides impartial third-party reviews, security protection and other functions to further develop blockchain technology.

Zee Zheng
SpaceChain executive chairman & co-founder

- SpaceChain continues to invest in research and development to help reduce the time required for space node testing, expand application scenarios, and enable more blockchain companies to harness space as a platform for business innovation.

Later in November, SpaceChain launched the second Velas payload to the International Space Station (ISS)

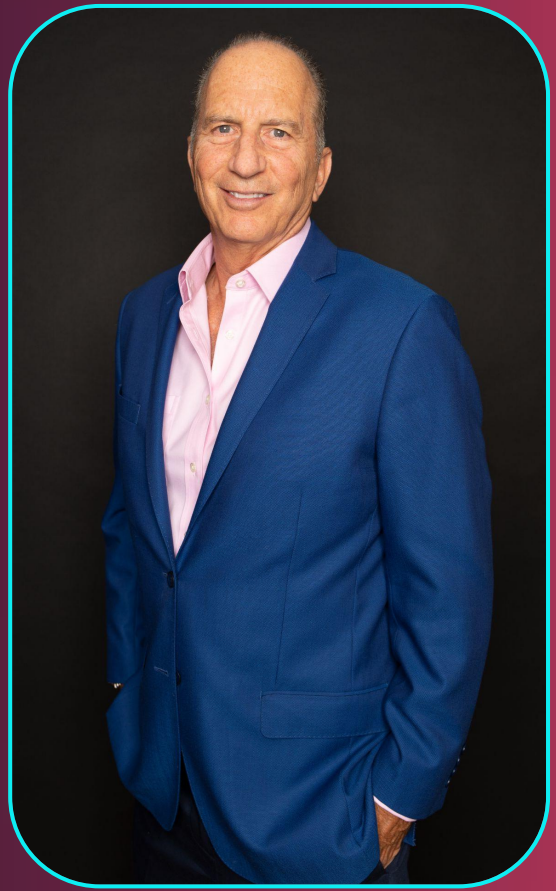
- The node was installed on the ISS in December and testing is in progress.
- When testing is complete, the space node will be capable of processing Velas blockchain on the ISS and sending Velas digital assets from space, such as VLX, tokens and NFTs. It will also be able to perform complete high-speed transaction services across the Velas platform, including smart contract deployment and coin minting.

- The mission reaffirms SpaceChain's commitment in empowering blockchain companies to harness space as a platform for business innovation, and the high customizability of blockchain-enabled space nodes in meeting diverse industry needs.
- It also validates the possibility and feasibility of performing high-speed blockchain processing in space, and serves as a successful scientific demonstration of SpaceChain's highly integrative space-as-a-service solutions with EVM compatible blockchain technology.

Click on the image to watch SpaceChain's 7th blockchain payload launched into space.

SpaceChain welcomes a new CEO

In August, SpaceChain named Cliff Beek to lead global and U.S. expansion as CEO



- Cliff is an accomplished executive with over 25 years of professional experience in providing leadership and strategic direction to progressive technology companies, with expertise across managing equity-backed enterprises, particularly those in the aerospace, cybersecurity, defense intelligence and cloud infrastructure sectors.

- He is responsible for charting the company's long-term growth and extending its global footprint through leveraging its first-mover leadership position in the integration of space and blockchain technologies, and proven capabilities in its decentralized infrastructure and in-orbit platform.

- Priorities for SpaceChain include building on the company's success and industry-leading position in integrating software-defined payloads to advance blockchain applications in orbit.

- Cliff also aims to raise awareness and capital in the United States (U.S.) through targeting private equity investors and strategic vendors that have an affinity to space, blockchain and fintech.

- He plans to expand SpaceChain's product line and unique offerings, through reinforcing the company's proven capabilities in customizing space nodes for secure custody, smart contract and digital asset transactions; and working closely with manufacturers and developers to design and integrate blockchain-enabled payloads onto satellite constellations.

SpaceBelt teams up with SpaceChain

The partnership aims at developing uniquely combined space-based services that will broaden customer base and address the market need for ultra-secure digital asset storage and payment services

- The two companies will collaborate to enable services that combine SpaceBelt's patented space-based cloud data storage capabilities with SpaceChain's blockchain-integrated satellite infrastructure and open source standard.

- SpaceBelt will offer SpaceBelt™ Data Security as a Service (DSaaS), a space-based service that incorporates multi-tenant, secure cloud storage with global managed network services, to support SpaceChain's vision for developing space-based digital asset management with data storage capacity and ultra-secure global managed network services.

- Both companies will collaborate to integrate, launch and operate constellations of satellites embedded with SpaceChain Operating System (SpaceChain OS) to enable a multi-tenant platform-as-a-service (PaaS) for supporting mobile and enterprise applications developed by third parties.

- The partnership is aimed at developing uniquely combined space-based services that will broaden the customer base and address the market need for ultra-secure digital asset storage and payment services.

Evan Slattery
SpaceChain Director of Business Development

The collaboration between SpaceChain and SpaceBelt is a best-of-breed partnership that will propel both companies to the next chapter of growth and excellence. We look forward to accelerating our joint services and formulating go-to-market strategies to help democratize access to space and shape a global environment of innovation and connectivity.

SPACECHAIN

The Next Disruptor in Space

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