

The background features a vibrant space scene with a large, glowing nebula at the top center, a ringed planet on the left, and another planet on the right. A bright horizon line with a grid pattern leads the eye towards the center. The text is overlaid on this scene.

 **SPACECHAIN**
Year In Review 2024

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CEO's Message

Reflecting on 2024 and building a vision for 2025

As 2024 comes to a close, I'd like to take a moment to celebrate our achievements this year and outline our aspirations for SpaceChain in the year ahead. Our mission extends beyond technological progress — it's about reshaping the boundaries of possibility as humanity continues to explore the cosmos.

2024: A Year of Growth & Innovation

This year has been a testament to our commitment to pushing the boundaries of space innovation and blockchain technology. Among our key milestones:

- **Expanded Satellite Deployment**

SpaceChain secured a groundbreaking contract with SpaceBelt Telecom Services Co. KSA, a privately owned company in the Kingdom of Saudi Arabia. This partnership positions SpaceChain as the lead in developing, constructing, and managing the mission for SpaceBelt Telecom Services' patented technology platform. This innovative platform will power the world's first Low Earth Orbit (LEO) satellite capable of generating in-orbit encryption keys and securely distributing them to ground-based systems through existing LEO constellations.



CEO Cliff Beek

- **Strategic Partnerships**

Partnered with global technology and finance leaders to strengthen our ecosystem, introduce innovative payment gateways, and enable secure “off-planet” digital transactions that safeguard users’ financial sovereignty.

- **Blockchain Advancements**

Introduced groundbreaking updates to our smart contract framework, enabling faster, more secure transactions in space applications.

These achievements have not only marked our success but have also laid a strong foundation for an even brighter future.



In a pivotal moment for SpaceChain, Co-founder and CTO Jeff Garzik, CEO Cliff Beek, and Co-founder and Executive Chairman Zee Zheng met in New York City to align on strategic objectives, refine business strategies, and discuss future plans.

The in-person discussions underscored a unified vision for the organization, ensuring that the year’s momentum continues to drive innovation and progress. This collaborative effort set the stage for a strong and focused approach to achieving key milestones in the year ahead.

2025: Vision and Opportunities

In 2025, we will aggressively pursue our niche market position by developing secure payment platforms within uncharted territories and transforming challenges into opportunities. Here is what to expect:

1. **Accelerate Space Commercialization:** Expand payment applications across satellite networks and services to drive the adoption of decentralized fintech solutions.
2. **Innovate Beyond Boundaries:** Develop AI-powered applications for space data analysis, ensuring our clients stay ahead in decision-making.
3. **Empowering Communities:** Launch education and outreach programs to inspire the next generation of innovators in blockchain and space exploration.
4. **Scaling Sustainability:** Invest further in eco-friendly technologies, setting new standards for responsibility in the aerospace sector.

I'm proud of what we've achieved this year, thanks to the hard work and dedication of our team. As we enter the new year, let's embrace it with enthusiasm and a shared drive for even greater success.



SpaceChain's Director of Technology, Ziheng Xiang, visited Singapore in January to strengthen partnerships and engage investors. The trip opened up new opportunities for growth and innovation.

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

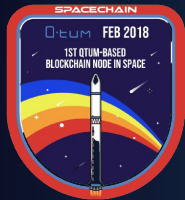


Cliff Beek
CEO

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

Milestones

7 launches, including 3 nodes on the International Space Station



2 Feb 2018

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



25 Oct 2018

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

Events & Happenings

We engaged through an AMA and key conferences, fostering growth and expanding our network.

Community Engagement

In March 2024, SpaceChain engaged with its community through an "Ask Me Anything" (AMA) session, inviting questions on key topics such as ongoing projects, future plans, and token utility. The team addressed the top 10 questions, providing in-depth insights into SpaceChain's current initiatives and long-term vision.

This interactive session reflected our commitment to transparency and collaboration, giving the community a closer look at how we're shaping the future of space-based technologies. For the full AMA, click [here](#).



Satellite & the Cloud Conference 2024

During the conference in February, CEO Cliff Beek spoke about "Opening New Avenues for Secure Data," and discussed the fusion of space and blockchain technologies, emphasizing secure data management and identity sovereignty.



Satellite 2024 Conference & Exhibition



CEO Cliff Beek with Sulaiman Al Ali and Jassem Nasser of Thuraya Telecom

CEO Cliff Beek attended the conference in March and fostered industry partnerships in Washington, DC, discussing secure transactions and precision analytics with Thuraya Telecom, paving the way for future collaboration.

Web3 Festival 2024

COO Hulk Fu attended the Web3 Festival in Hong Kong in April, networking with peers and potential partners to explore collaborations for SpaceChain's Q4 2024 space mission and innovative technologies.

SPC on Base Blockchain

In October, SPC was integrated into the Base blockchain, enhancing its accessibility and functionality.

Users can bridge SPC between Ethereum and Base using [SuperBridge](#) and manage SPC transactions on [Aerodrome](#) further expanding its applications within the decentralized ecosystem.

Advancing Innovation in Satellite Technology

The team has successfully concluded the DSI project

After 33 months of collaboration, SpaceChain, Addvalue, and Alba Orbital successfully completed the Innovate UK-sponsored Decentralized Satellite Infrastructure (DSI) project.

This groundbreaking initiative marked a significant milestone in space technology, introducing a decentralized standard poised to transform the Earth Observation industry. The achievement reflects the unwavering dedication and expertise of all participating teams, setting a new benchmark for innovation in the sector.



Innovate UK Monitoring Officer Mervyn Levin with SpaceChain Director of Technology Ziheng Xiang, and the team from Alba Orbital.

SpaceChain Awarded SpaceBelt KSA Contract

**SpaceBelt Telecom Services,
Kingdom of Saudi Arabia Company,
initiates groundbreaking low-earth
orbit satellite mission**

In September, SpaceChain was selected by SpaceBelt Telecom Services Co. KSA to develop and manage the world's first LEO satellite generating in-orbit encryption keys, supporting secure communications and data storage.

This mission is the first in a planned constellation, and aims to launch in June 2025. More importantly, the mission advances Saudi Arabia's space innovation and aligns with the Kingdom's 2030 vision.



In September, CEO Cliff Beek hosted Hooshang Kaen, Senior Advisor of Galactic Sat Ventures, in Washington, D.C., to celebrate the launch of SpaceChain's latest mission.

The meeting underscored the strong partnership and shared vision between the two organizations as they work together to advance space technology and innovation.

SpaceChain launches the **1st** small satellite with SpaceBelt Telecom Services in KSA



Leveraging its expertise, SpaceChain will lead the software design and end-to-end mission management, setting a new benchmark for space-based technologies.

The collaboration underscores Saudi Arabia's commitment to the global space economy, showcasing SpaceChain's leadership in satellite technology and groundbreaking secure data solutions. Read the full press release [here](#).

“ We are honored to partner with SpaceBelt Telecom Services in this transformative venture. This mission not only highlights the Kingdom's growing role in the space sector but also demonstrates the potential of space technologies to deliver secure, scalable solutions for enterprises and governments worldwide. ”

- SpaceChain CEO Cliff Beek



Click on the video to learn more

Redefining Trust in Space: SpaceChain's Secure Authentication Solution

SpaceChain pioneered an improved 2024 solution, using satellite technology to create secure, authenticated channels for digital transactions



Pioneering Security for Digital Transactions

As digital assets grow in prominence, secure communication and authentication have become paramount. Trust and accurate identity verification are fundamental, whether verifying a wallet address or accessing a secure website.

Traditional web security relies on Certificate Authorities (CAs), which validate and certify website legitimacy. While effective for standard online interactions, this system has limitations when applied to high-stakes digital asset transactions.

A Satellite-Based Security Revolution

In 2024, SpaceChain introduced an improved solution that uses Low Earth Orbit (LEO) satellites to enhance trust in digital transactions.

Core Components:

- LEO Satellite Constellation: Acts as a root of trust, akin to terrestrial Certificate Authorities.
- Handheld Terminals: Enable secure user interactions with a military-grade communication network.
- Satellite Network: Provides robust, global encrypted connectivity.

This architecture ensures enhanced security, leveraging the complexity and cost of satellite attacks to deter cyber threats.

HOW IT WORKS



Satellite Key Generation

Each satellite creates its own key pair, stored securely in orbit



Cross-Signing

Satellites authenticate each other to create a web of trust



Communication with Earth

The certified root certificates are transmitted to the ground, establishing a verified global communication channel

Protecting User Keys with SpaceChain Terminals

SpaceChain's handheld terminals safeguard user keys with two critical features:

Satellite Network Security

All business-related communication uses the satellite network, providing military-grade protection

Secure Element Chip

This financial-grade chip embedded in the handheld terminal handles keys securely, isolating them from the rest of the system to prevent vulnerabilities.

This combination ensures both communication and key management remain secure.

Applications Beyond Cryptocurrency

SpaceChain's technology simplifies secure communications across diverse use cases, including:

- Identity Verification
- Encrypted Communications
- Digital Asset Management
- Specialized Secure Networks

By integrating space technology, SpaceChain is leading a transformative shift in digital security, providing users with unparalleled trust and safety for critical transactions.

Unlocking the Potential of Space Nodes on the International Space Station

SpaceChain's light node launch services enable organizations to deploy technology to the ISS, unlocking new possibilities for enterprise solutions



SpaceChain continues to push the boundaries of innovation by enabling organizations to launch space nodes to the International Space Station (ISS).

These nodes provide a revolutionary platform for secure and advanced digital applications, leveraging the unique advantages of space technology.

Expanding Digital Horizons with Space Node Technology

Space nodes on the ISS empower businesses with a range of cutting-edge capabilities, including:

- **Multichain Support:** Seamlessly interact with multiple blockchain networks for decentralized applications, lending, yield farming, and NFT trading.
- **Custodial Services:** Manage digital assets with unparalleled security, backed by satellite-based encryption.
- **DeFi Transactions:** Conduct decentralized financial operations from a secure, space-based platform.
- **Smart Contract Deployment:** Execute smart contracts with enhanced security and efficiency.
- **NFT Minting:** Create and manage NFTs in a resilient, space-based environment.



[Click on the video to learn more](#)

Advanced Security with Zero-Knowledge Proofs

Space nodes integrate zero-knowledge proof algorithms, ensuring the highest level of data privacy and transaction security. This approach validates transactions without revealing sensitive details, establishing a robust and trustworthy digital ecosystem.

Contact us to explore how your business can leverage the infinite potential of space.

SPACECHAIN

Innovation, Trust & Intelligence

