SIMBA Chain's
SPACE DEBRIS
Solution

The Space Debris Problem

Space debris is widely recognized as a threat to humankind's continued use of orbital space. Each rocket launched into space contributes to orbital debris. This debris can collide with satellites or space stations, damaging them and perpetuating the problem.

This increasing congestion puts many services we depend on at risk. If left unsolved, the potential loss of satellite GPS services such as communications, weather and positioning, will have massive negative implications to wealth and quality of life.

> GPS technology has driven **$1.4 trillion in economic growth** since 1983, according to an RTI analysis.

The SIMBA Solution

SIMBA proposes to support the space economy by creating a means of funding accurate recording and cleanup of space debris. By tokenizing space debris, as non-fungible digital representations, we can experiment with different economic models to incentivize the reduction of risks posed by the debris, and maintain a stable space environment by private industry.

The tokenization of space debris using blockchain technology offers novel methods of fostering active debris removal programs. This initiative also provides a way for people to benefit from the potentially massive growth of the space economy.

Project Highlights

On Chain Active Debris Removal (ADR) Funds – SIMBA intends to explore binding "recovery funds" to NFTs, payable upon verification of debris recovery. SIMBA will also consider the feasibility of creating a "bounty fund" that authorized entities could contribute to and incentivize the private sector.

Rentable Non-Fungible Tokens (NFTs) – "Rentable NFTs" are another option that SIMBA will consider, since it would be beneficial to temporarily assign an NFT to a recovery company as part of the lifecycle.

Verification of Debris Removal – SIMBA will first solidify what constitutes acceptable outcomes for a given piece of debris, then determine what constitutes sufficient proof of completion. Finally, independent verification will be established to determine if an object has been removed from orbit or meets the acceptable outcome from the first requirement.

Why SIMBA?

Blockchain technology is the foundation of all decentralized applications. These Web3-ready solutions facilitate digital transformation while bolstering transparency and data provenance.

However, governments face unique challenges when implementing Web3 solutions. Most often, decentralized applications must interact seamlessly with legacy systems across public and private domains. In addition, these government-grade solutions require exceptional network performance, future flexibility, and robust security features.

With a proven track record of government project success, SIMBA helps streamline the development process. Our dedicated Government Team has a broad understanding of government markets and agencies with vast experience implementing, certifying, and accrediting emerging technologies.

Awards

SBIR·STTR
America's Seed Fund™
POWERED BY SBA
TIBBETTS AWARD WINNER

MANUFACTURING
LEADERSHIP AWARDS
NATIONAL ASSOCIATION OF MANUFACTURERS

AMO
ADVANCED MANUFACTURING OLYMPICS
GOLD MEDAL WINNER

TECHPOINT MIRA AWARDS
BEST OF TECH
WINNER 2019

TC DISRUPT
TOP PICK

SIMBA'S Key Benefits

Dynamic APIs

SIMBA Blocks auto-generates virtual REST APIs that connect to smart contracts on multiple protocols. These chain-agnostic APIs simplify application integrations, reducing deployment times by weeks or months, saving up to $1.3M per implementation.

High Availability

SIMBA Blocks delivers high availability by auto-scaling in response to your software throughput requirements. This resilient infrastructure rebalances the system to prevent network failure, ensuring the success and speed of each transaction.

Full Chain Freedom

SIMBA Blocks allows you to choose between multiple supported blockchain protocols. If your needs change, it's easy to migrate to another chain. Beyond future-proofing your investment, this functionality optimizes interoperability, allowing you to build and deploy public, private, or hybrid solutions.

Development Acceleration Tooling

SIMBA Blocks prioritizes the developer experience, offering a robust suite of tools that streamline the path to production and bolster scalability. Our low code tool supports out-of-the-box data integrations, storage solutions, and Web3 plugins.

Structured Data

SIMBA's unique structured data approach annotates smart contracts at design, generating powerful business intelligence insights. Specifically, SIMBA Blocks indexes blockchain data, supporting lightning-fast searches and event-driven architecture.

Enterprise Ready

SIMBA Blocks is an enterprise-proven platform delivering speed, flexibility, scalability, and cost-effectiveness. In addition to offering enterprise blockchain protocols, Blocks allows you to integrate your preferred compliance-ready tools like wallet, storage, and identity management solutions.

About SIMBA

Incubated at the University of Notre Dame in 2017, SIMBA Chain (short for Simple Blockchain Applications) provides a scalable enterprise platform that simplifies blockchain development. With fewer barriers to entry, companies can build secure, scalable, enterprise-grade solutions that integrate seamlessly with existing data systems. SIMBA implementations generate value for major government organizations, enterprises, and blockchain companies as a production-grade platform that enables public, private, or hybrid deployments.

SIMBA.