SUMOTEX
RWA Hybrid Blockchain Network

1.0 Introduction

SUMOTEX introduces a groundbreaking hybrid blockchain protocol designed to address the dual needs of enterprise-grade security and public transparency for Real World Assets (RWAs). By integrating private and public chains in parallel, Sumotex ensures data privacy for sensitive transactions while enabling trustless interactions across diverse parties. This whitepaper provides an exploration of Sumotex's technical implementation, consensus mechanisms, transaction models, account structures, and fee schedules. Additionally, it highlights the innovative features and potential applications of Sumotex in various industries through its key differentiator, the hybrid, bridge, Proof of Treasury (PoT) and oracle network.

2.0 Limitations of Traditional Finance

Institutional finance, Venture Capital, private equity, Family Offices (FOs) and real estate investment firms operate in a centralised and opaque system, which is prone to inefficiencies, corruption, and fraud. The lack of transparency and accountability in the financial system has resulted in several crises, such as the 2008 financial crisis, which have had far-reaching consequences for the global economy. In addition, the financial system is highly intermediated, with intermediaries such as banks and brokers taking a significant cut of the profits, resulting in high fees and costs for investors.

Investment firms, in particular, have been criticised for their lack of transparency and accountability. These firms are not required to disclose their investments, performance, or fees to the public, which makes it difficult for investors to evaluate their performance. This lack of transparency has led to concerns about conflicts of interest and potential mismanagement of funds. Real estate investment firms, on the other hand, face significant challenges in terms of efficiency and accessibility. Real estate investment is a complex and highly localised market, which makes it difficult for investors to access and evaluate opportunities. In addition, the process of buying and selling real estate involves a significant amount of paperwork and intermediaries, which increases the cost and time required to complete transactions especially in MMF (Money Market Fund).

Financial institutions like banks are plagued with inefficiencies in the traditional way of conducting business. They operate in Silo, high cost and slow processes due to multiple internal compliance checks. All these are solved through blockchain technology, especially with the Hybrid blockchain solution. Another challenge that banks face is the need for them to setup/store data within their domain due to sensitive data. Hence it presents a high barrier of entry for these institutions due to the need for knowledge transfer, team setup and building the technology from scratch.

3.0 Blockchain as the Solution to Finance

As time goes, digital assets and Distributed Ledger technology (DLT) based networks are merging as alternative financial infrastructures supporting financial transactions such as the clearing and settlements of payments, assets and securities. They offer the possibility of peer-to-peer transactions without the need for centralised intermediaries. Using smart contracts to automate borrowing,lending and trading activities. The digitization of real world assets enhances the efficiency, accessibility and affordability of financial services. Once these assets are on-chain, it can be easily transacted across the entire value chain. Asset tokenization also unlocks liquidity, catalyst growth and lowers the barrier of entry for many investors. Only a fraction of the tokenized assets are being traded in the market, which presents a tremendous opportunity to tap on as reported by the Boston Consulting group that the tokenization market will be worth US 16 Trillion by 2030.

3.1 Private Blockchains for Consumer Data and Privacy Protection

Firms in the market recognize the paramount importance of safeguarding consumer data and privacy. With the current landscape of cybersecurity and data protection of consumers and regulations of data sovereignty being enforced by countries'. It presents a challenge for firms to adopt the traditional blockchain like Ethereum, Polygon, Solana etc. This is because the nodes are decentralised and data are stored across the globe, which presents a barrier to institutions which are governed in their respective regulatory purview.

However, most of them face an issue where these existing blockchain solutions like polygon,ethereum are classified as a public chain. Due to data sovereignty concerns, institutions are turning to private blockchains within their control, privacy settings and within the regulated area. Blockchain like Onyx by JP. Morgan Chase bank transacted $1 Billion daily. Hence the development of a Hybrid blockchain like Sumotex is essential towards global adoption and scaling with institutions.

The RWA L1 presents a comprehensive solution that adheres to data sovereignty, protection, and privacy requirements. Its hybrid blockchain architecture uniquely combines security, transparency, scalability, and interoperability across private networks. This architecture allows for the flexible bridging of specific data and assets onto the public network, making it an ideal choice for firms aiming to retain control over their data while ensuring its security and tamper-proof nature.

4.0 Sumotex Blockchain Technology

A crucial aspect of tokenized assets is their ability to move seamlessly across both public and private blockchains. Many banks, applications, and asset issuers also desire their own blockchains. Institutions, however, should not be forced to choose a single blockchain or re-architect their existing systems to interact with tokenized assets. For a robust and liquid market for tokenized assets, they must be accessible to buyers and sellers across various blockchains. This requires secure cross-chain interoperability infrastructure, which can act as a unified abstraction layer, allowing institutions to use existing interfaces and messaging standards to interact with tokenized assets across all blockchains.

4.1 Sumotex Hybrid Chain Technology

The SumotexHybrid Chain incorporates several key features and considerations in its design. Financial institutions and companies typically desire complete governance and ownership control over their data. To address this, we started from the foundational layer, allowing the operation of your own infrastructure node. However, this approach alone sacrifices the transparency benefits inherent to blockchain technology. Thus, we have introduced a hybrid solution to balance these needs.

In the Sumotex Chain, data masking is employed to ensure privacy and control while maintaining transparency. Sensitive data is encrypted or anonymized before being recorded on the blockchain. This ensures that while the data is publicly verifiable and contributes to the overall transparency of the system, the specifics remain confidential. Only authorised parties can decrypt and access the full details of the data. These authorised parties are people who have been given permission(permission is given by creation of wallet in the private chain) to access the private chain.

When data needs to be written onto the public chain, a hashed representation proof of the data is used. This allows the public chain to verify the integrity and authenticity of the data without revealing the actual content. By doing so, the Sumotex Hybrid Chain ensures that institutions can benefit from the transparency and security of blockchain technology while maintaining full control and confidentiality over their sensitive information.

5.0 Sumotex Traverse Chain Mesh Bridge
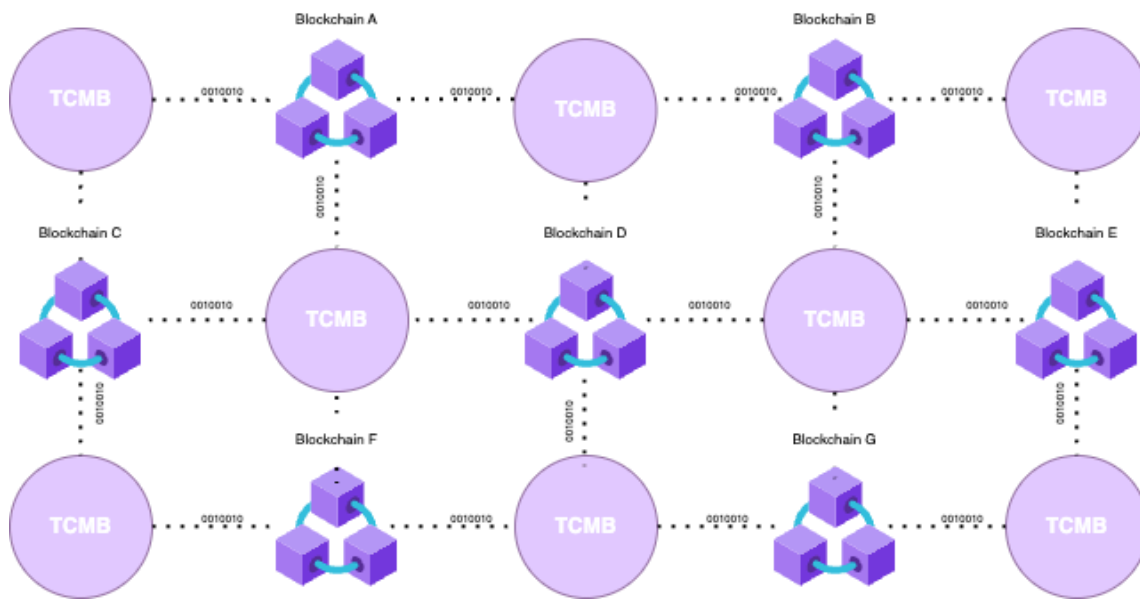
The SUMOTEX Traverse-chain Mesh Bridge (TCMB) is a blockchain interoperability protocol that enables tokenized assets to move across SUMOTEX private blockchains directly from an existing backend system via a single middleware integration. It functions as a bridge messaging protocol, transferring data and tokens across the SUMOTEX public and all running private chains. Additionally, TCMB ensures enterprise-grade cross-chain security through multiple decentralised private networks that secure the TCMB bridge. It features monitoring and access level management to detect and prevent malicious behaviour. The TCMB operates independently from the cross-chain transactions of the SUMOTEX private network layer.

With these capabilities, SUMOTEX allows institutions to enforce controls over various activities, including data governance policies, AML/KYC compliance, legal requirements, and organisational restrictions. The SUMOTEX TCMB also enables smart contract triggers to operate across different private networks simultaneously.
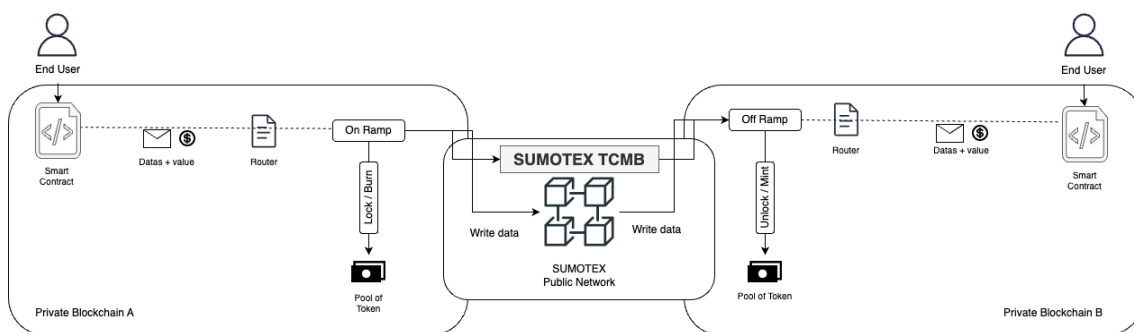
The example above illustrates the robust functionality of our bridge, seamlessly relaying information across different private **Sumotex** chains. This enables a variety of critical use-cases, including bank A refinancing with bank B, and bank A conducting settlements with bank B, and more.

6.0 Sumotex Oracle, Proof of Treasury (PoT)

Since tokenized assets represent on-chain values backed by off-chain assets or a basket of assets, purchasers need information about the off-chain or cross-chain reserves to make informed decisions about buying or selling these assets. Therefore, the ability to verify the value of a specific on-chain asset is crucial, especially when automated on-chain asset management strategies are implemented.

6.1 Key considerations when building this specific Proof of Treasury include:

- **Security of the Proof of Value Mechanism:** Ensuring a secure mechanism is in place to prevent infinite mint attacks.
- **Transparency of the Proof of Asset Mechanism:** Establishing transparent governance to maintain confidence in the asset.
- **Automated Risk Management Mechanism:** Implementing an automated mechanism to halt minting to prevent bad debt caused by under-collateralization.

Apart from the considerations above, tokenized assets typically consist of the following risk that is essential.

- **Minting Risk:** The potential for underwriters to mint new tokens freely without a secure mechanism in place to prevent over-minting.
- **Liquidity Risk:** The market's ability to absorb large redemptions from the underwriter without causing significant price fluctuations.
- **Liability Risk:** The risk associated with specific positions pledged as collateral or multi-collateralized with different institutions.
- **Market Value Risk:** The risk related to the value of collateral held by the issuers in one or multiple trustee accounts.

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6.2 Off-chain validity

The **Sumotex Proof of Treasury (PoT)** facilitates autonomous and timely verification of off-chain data and cross-chain reserves of tokenized assets. This ensures a reliable on-chain audit trail for consumers, underwriters, and other users of tokenized assets. Our oracle seamlessly integrates off-chain data from various sources, including trustee APIs and independent third-party auditors.
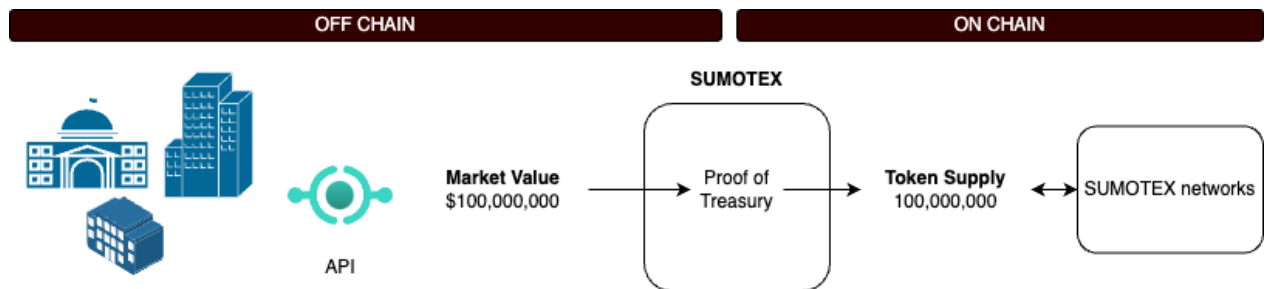
Sumotex's PoT significantly reduces risk of tokenized assets, enabling automatic data supply through our oracle. Outline and providing transparency to risks prior to purchase. Besides, PoT **goes beyond value, we are required to prove additional information of a particular asset**. Such as below:

- **Exchange rates and valuation data:** This encompasses property prices, last transacted prices, ownership details and CBDC/Digital reserves.

- **Compliance data:** This includes KYC/AML data, counterparty restrictions, and account or asset restrictions to ensure adherence to regulatory rules and organisational practices.

- **Other data**: Settlement instructions, status updates to ensure all on-chain data is always current, geographic details, and more.

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The power of the Sumotex oracle lies in its ability to bring all off-chain data related to real-world assets onto the blockchain, enabling seamless integration into smart contract automation. This capability allows for a wide range of automated processes, including:

- **Portfolio Management**: Automated adjustments and optimizations of investment portfolios based on real-time data and predefined strategies, ensuring that the management of real-world assets is efficient and responsive to market changes.

- **Secondary Market Purchases**: Streamlined and automated buying and selling of tokenized real-world assets in secondary markets, enhancing liquidity and transparency.

- **Regulatory Compliance**: Automated tracking and reporting to ensure that transactions involving real-world assets comply with regulatory requirements, reducing manual compliance efforts.

- **Asset Tokenization**: Securely bringing real-world assets onto the blockchain, enabling fractional ownership and easier trading. Also, Streamlined and automated buying and selling of tokenized real-world assets in secondary markets, enhancing liquidity and transparency.

By leveraging these capabilities, the SUMOTEX Oracle greatly improves the efficiency, security, and transparency of managing and trading real-world assets. It provides a solid foundation for smart contract automation across various industries.

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7.0 SUMOTEX Tokenomics

The SUMOTEX ecosystem is powered by a native utility token, SMTX, designed to facilitate transactions, incentivize participation, and ensure the smooth operation of our blockchain platform. This section outlines the key aspects of SMTX tokenomics, including supply distribution, utility, and economic incentives.

7.1 Token Supply

The total supply of SMTX tokens is capped at 1,000,000,000 (1 billion) tokens. The distribution of tokens is designed to ensure the long-term sustainability of the SUMOTEX ecosystem and to reward early adopters and contributors.

7.2 Distribution Breakdown:

Type	Token
Founders and Team (Vested 5 years)	20% (200,000,000 SMTX)
Advisors and Partners (Vested 5 years)	5% (50,000,000 SMTX)
Community and Ecosystem Development	15% (150,000,000 SMTX)
Staking Rewards	20% (200,000,000 SMTX)
Liquidity and Tradings	25% (250,000,000 SMTX)
Treasury	15% (150,000,000 SMTX)

*SMTX Token is divisible by ^18

8.0 Conclusion

SUMOTEX addresses the critical need for privacy in sensitive transactions while ensuring trustless interactions across diverse parties. This innovative approach offers a comprehensive solution for tokenizing Real World Assets (RWAs), providing the confidentiality required by institutions within their regulatory purview while harnessing the transparency and efficiency of blockchain technology. Central to Sumotex's architecture is the Proof of Treasury (PoT) oracle, ensuring real-time access to off-chain data and fostering a robust ecosystem of trust.

With a forecasted market worth of USD 16 trillion by 2030, Sumotex will helm progress, unlocking unprecedented opportunities for global financial inclusion and innovation by providing the infrastructure layer for the global RWA ecosystem. In partnership with regulators and financial institutions, Sumotex is paving the way for a more interconnected, efficient, and equitable financial landscape. As we continue to evolve and adapt to the digital age, Sumotex remains steadfast in its mission to revolutionise finance and empower individuals and institutions alike. The future belongs to those who dare to innovate, and with Sumotex leading the way, the possibilities are limitless.