

The background features a dark grey grid of dots that forms a large, curved, funnel-like shape. The dots are arranged in concentric, slightly overlapping lines that curve from the top left towards the bottom right, creating a sense of depth and movement.

BLOCKS

Lite Paper

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Building a global blockchain-based, Web 3 network architecture

Abstract

BLOCKS proposes a blockchain-based, web 3.0 network that improves upon previous generation blockchains, by working to solve for the "blockchain trilemma" tradeoffs of speed, scalability and security.

BLOCKS uses an improved asset tokenization standard called ERC-777 on the Ethereum blockchain, which is reverse compatible with ERC-20 standards and offers cross-chain use cases for events like oracle functionalities, trading, rebalancing, payments and settlements, where speed increases or gas and fee reductions can be improved upon. [1]

The BLOCKS Network provides simple mobile app, web client and enterprise toolkits for customers, corporations and governments to use, and build upon, blockchain technology at a more globally advanced scale in the mainstream mid-market.

BLOCKS –Network Applications

- **Consumers** - Trade, track, record and pay for assets on blockchain. Reducing fees, middlemen and personal data control compromises.
- **Corporations** - Deliver more decentralized, blockchain-based Web 3 solutions that allow for shared customer data controls, product authentication and inventory and services tracking.
- **Governments** - Developing improved records keeping, cataloging and transparency in government systems design.

BLOCKS - An Improved Asset Tokenization Standard

The BLOCKS Network uses new blockchain technologies like tokenization, smart contracts and hooks to allow for customer transaction data to be better catalogued onto both public and private registries.

BLOCKS is an ERC-777 framework, with reverse compatibility into ERC-20, that allows for improved asset tokenization for customers, corporations and governments in this manner. [2]

Personal and entity-based asset tokenization holds promising opportunities for the development and tracking of peer-to-peer trade, financial products, services and records keeping.

- Improved commerce between peers, in the absence of brokers and middlemen

- Improved corporate decentralization around web search, financial products and services
- Improved governance design around transparent record keeping and registries

The ability for assets and transactional data to migrate onto blockchain allows for a: improved, trustless contract systems, b) improved data storage and safety, c) shared systems design that allows for more transparency and shared controls between consumers and entities.

Market Research Shows Blockchain Must Simplify Packaging, Protocols

Market research by companies like Deloitte [3], reveals that over 41% of global, mid-market consumers and corporations find blockchain interesting as a developing technology, but that they have not yet adopted or invested in the technology, or joined consortia, because they find adoption and governance to be “inadequate or poorly defined,” and that decentralized blockchains have been made “unnecessarily complex” by the initial wave of developers and in the space.

An additional 61% of corporations note that their exploration of blockchain is now being done on corporate-controlled or centralized chains, due to a lack of contact, toolkits and trust within decentralized projects and their governance models, or lack thereof. [3] The purpose of the BLOCKS Network is to simplify blockchain tools, points of contacts and governance, to ensure that decentralized blockchain is further explored by customers, corporations and governments as a more visible and transparent way forward for the future of a data-driven web.

BLOCKS Network – Consumers

In the same way that historical networks like Netscape Navigator simplified internet search for customers in the 1990’s, the BLOCKS Network simplifies a new, blockchain-based Web 3 into simple mobile app and web tools, so that customers can begin using this powerful new technology in the palm of their hand.

BLOCKS Mobile App

BLOCKS Network has designed free tools for customers to begin using blockchain.

- Tokenize and trade assets on BLOCK Token Engine
- Register and manage personal assets on BLOCK Registry
- Organize, store and guard personal data on BLOCK Data Center
- Establish contracts between themselves and others on BLOCK Contract Engine

These BLOCKS Network tools allow customers to better a) manage and control of their data, b) improve their technology backups and records keeping and c) perform contractual or financial tasks that rely heavily on intermediaries such as attorneys, brokers, bankers and other processing middlemen who may add additional corporate fees or government bureaucratic layers to transactions.

BLOCKS – Blockchain Navigator

BLOCKS has designed a web navigator client that allows customers to use the web on mobile, desktop and tablets.

- Search blockchain web on BLOCKS Navigator
- Tokenize and trade assets on BLOCK Token Engine
- Register and manage personal assets on BLOCK Registry
- Organize, store and guard personal data on BLOCK Data Center
- Establish contracts between themselves and others on BLOCK Contract Engine

BLOCKS proposes the development of a blockchain-based search engine registry that better verifies data on the blockchain for improved transparency between consumer, corporation and governments.

BLOCKS Enterprise Toolkits

In the same way that the Verizon Network serves mobile consumers, as well as SMBs and Fortune 500 enterprises with mobile wireless services, the BLOCKS Network has designed similar capability sets for enterprises and governments.

BLOCKS has made available SDK's and toolkits for enterprises and governments to create improved systems that allow for greater customer visibility, data controls and privacy settings, as well as improved data storage and security.

The BLOCKS Network allows SMBs and Fortune 500 Corporations:

- Design and track financial products on the BLOCKS Fund Manager
- Verify, track and authenticate supply chain and goods on BLOCKS Origin Assurance
- Verify, track and share registration and ownership data on BLOCKS Title Assurance
- Create improved customer <> corporate (B2C) data controls on BLOCKS Registry

As new legislation emerges in countries like the United States to begin limiting the data usage and competitive actions of Web 2 - Mega Tech firms like Apple, Facebook, Microsoft and Google, the opportunities for more decentralized blockchain solutions may be a way forward.

BLOCKS proposes shared controls between customer and entity to ensure data is safely stored, managed and attributed between users and corporations or governments so that a system of checks and balances is established.

BLOCKS For Government

BLOCKS Network can also be used immediately for improved transparency of administration and bureaucracy reduction in governance systems design.

In emerging markets, land and home titles are at only around 30% penetration of the consumer markets, making this a high priority issue for UN 2030 Agenda to ensure population-based economic stability and government censorship resistance. [4]

The tokenization of assets into BLOCKS allows for a) trustless smart contracts between citizen and governments, b) registry of assets into search clients that are visible to public or permissioned databases to ensure safe data storage and improved records keeping.

This would be in the form of shared customer↔government (G2P) portals on BLOCKS Registry, which is a decentralized and immutable “sandbox” for the safer storage of data and mutual agreements between citizen and government.

An example of this is the United States Patent and Trademark Office – TESS System, which today is a heavily dated and disorganized search browser client that is used to look up trademarks and patent filings in the United States. [5]

What is a disaggregated assembly links, could be re-assembled on The BLOCKS Network, into a verified USPTO blockchain registry with improved visibility, verified search results, hierarchical marketplace categorizations of available trademarks and time-locked smart contracts between consumers, corporations and government.

This would not only a) reduce bureaucracy and administration costs, b) sync and improve the administration of public filings and private markets and c) improve government revenues through a more efficient bid-buy marketplace with more automated settings, similar to what has occurred in the domain names marketplaces.

References

- [1] Jacques Dafflon, Jordi Baylina, Thomas Shababi, "EIP-777: ERC777 Token Standard," Ethereum Improvement Proposals, no. 777, November 2017. [Online serial]. Available: <https://eips.ethereum.org/EIPS/eip-777>.
- [2] OpenZeppelin documentation, URL: <https://docs.openzeppelin.com/contracts/2.x/api/token/erc777>
- [3] Breaking blockchain open Deloitte’s 2018 global blockchain survey, URL: <https://www2.deloitte.com/content/dam/Deloitte/cz/Documents/financial-services/cz-2018-deloitte-global-blockchain-survey.pdf>
- [4] Laura Tuck and Wael Zakout “7 reasons for land and property rights to be at the top of the global agenda”, March 25, 2019, URL: <https://blogs.worldbank.org/voices/7-reasons-land-and-property-rights-be-top-global-agenda>
- [5] USPTO United States Patent and Trademark Office, URL: <https://www.uspto.gov/trademarks-application-process/search-trademark-database>