

# BlockDAG



The DAGpaper



# The history of financial evolution is rich with stories of technology disrupting norms and reshaping boundaries.

Amidst a spectrum of innovations, the emergence of cryptocurrencies stands out as the most profound shift. It represents not just a technological advance but a fundamental reimagining of what currency means in a digital age. Traditional financial infrastructures, once deemed unshakeable, now find themselves juxtaposed against a vibrant, ever-expanding crypto ecosystem. This new universe doesn't merely replicate; it innovates, bringing forward solutions that are decentralized, transparent, and transformative. More than anything, it symbolizes empowerment—an opportunity for every individual, regardless of their background, to have a stake in the global economy.

As crypto projects find acceptance and gain in popularity, when numerous tokens and projects have risen and fallen, the pioneer, Bitcoin stands strong. Bitcoin stands as a testament to the values of financial freedom, transparency, and decentralization. The values that Bitcoin established in 2009 still hold strong; however, as is the nature of technology and progress, no summit is the final peak. With the demands of smart contracts and DeFi, Bitcoin and its technology were slated to die a quick death.

However, Bitcoin's secure technology found a rebirth in Kaspa, a pioneer with the vision of taking secure cryptocurrency technology to the masses. Kaspa's powerful technology meant that the DeFi demands of today were met with speed and security. With every milestone reached, the horizon expands, revealing new challenges and untapped possibilities. Here, the BlockDAG project emerges not merely as another contender but as a visionary that sees beyond the present. Inspired deeply by the strides made by Kaspa, BlockDAG's ambitions are not limited to emulation. BlockDAG seeks to embody a similar spirit of groundbreaking exploration within the crypto domain.

BlockDAG's aspirations are clear and robust: to take the baton from where pioneers like Bitcoin and Kaspa left off and to surge forward with unmatched vigor. This involves both honoring and enhancing the legacy of platforms like Kaspa. It's a delicate balance of respect for the past and an unyielding drive for future innovation. In a hyperconnected, rapidly evolving world, mere participation isn't enough. To lead, entities must possess not just vision but the audacity to act swiftly and decisively. Speed, agility, forward-thinking innovation—these aren't just attributes but imperatives for success. With a commitment to these principles, the BlockDAG doesn't merely aim to carve a niche; it aspires to sculpt an era—writing a chapter in crypto history that future generations will look back upon as the moment the game truly changes.



#### A Homage to Bitcoin and Kaspa

The birth of Bitcoin in 2009 introduced the world to cryptocurrencies and the financial system they stand to represent. A financial system led by the values of inclusiveness, transparency and empowerment is what Satoshi Nakamoto envisioned when Bitcoin launched right after the global financial meltdown of 2008. From being an obscure piece of technology, Bitcoin has grown into a crucial financial asset that can lead the financial world and has transformed how people think about money and investments.

With the rapid growth of the crypto-centred financial system, Bitcoin's proof of work technology has signaled the need for innovation. Enter Kaspa, a proof-of-work cryptocurrency which uses the GHOSTDAG protocol for faster confirmation times compared to Bitcoin. The faster confirmation times on the Kaspa network doesn't come at the expense of the robust security users have come to expect of Bitcoin. Kaspa is thus the fusion of high-security, decentralization and speed that represents the future of cryptocurrencies. Even as Kaspa adds more capability to proof-of-work architecture, there remain bottlenecks in speed and decentralization and, as a result, in scalability. Addressing

#### The BlockDAG approach to Security, Scalability, and Decentralization

BlockDAG aims to be the fastest, most secure layer 1 in the world. Inspired by Kaspa, the blockchain aims to have scalability, security and decentralization that can accommodate the demands of decentralized finance and other DApps. BlockDAG builds on an improved proof-of-work architecture that will use the DAG or Directed Acyclic Graph structure to register transactions in its ledger.

BlockDAG's hybrid consensus mechanism enables multiple blocks to be added to its ledger and simultaneously include the added blocks into the ledger. Through the process of simultaneous addition of blocks, BlockDAG ensures very fast transaction times while maintaining the highest level of security. Like Kaspa and Bitcoin before it, BlockDAG is fully decentralized and permissionless. The network is open to anyone who wants to participate in mining BDAG and validate transactions on its blockchain.

The robust security on offer on the BlockDAG network relies on its next-generation hybrid consensus protocol to ensure that any attempts to gain hashing supremacy on the network become nearly impossible with encryption standards that are an improvement on Bitcoin's SHA-256 algorithm. BlockDAG's algorithms deliver high-grade security while not being resource intensive, with BDAG mining consuming very low power compared to those of KAS and BTC. This innovation in cryptography results in a network that offers the highest level of security among proof-of-work blockchains while being power efficient.

BlockDAG's attempt to solve the decentralization puzzle without compromising security and scalability involves using its highly efficient mining process to validate transactions. The network's use of its advanced consensus mechanism ensures that larger mining pools are not required for miners to validate transactions. A combination of high hash rate and low power requirements for mining adjusts difficulty based on the computational power of each miner, thus preventing the centralization of mining power in the hands of a few large-scale mining operations.

As BlockDAG gears up for launch, it envisions a blockchain that not only overcomes the throughput/security tradeoff but sets new benchmarks for efficiency, resilience, and inclusivity.



#### **Next-Generation Hybrid Consensus Mechanism**

Building on the robust DAG protocol of Kaspa, BlockDAG's next-generation hybrid consensus mechanism ensures quicker transaction validations without compromising on security. The mechanism enables BlockDAG to not have orphan blocks while confirming transactions to its ledger. The mechanism allows the simultaneous addition of blocks.

The consensus mechanism, a step up from the proof-of-work's secure but slow mechanism, can accommodate updates to deliver transaction confirmation speeds upwards of 10 confirmations per second and will target a higher range further down the project's roadmap. To future-proof the network, BlockDAG incorporates attack-resistant cryptographic algorithms. This ensures that the blockchain remains secure against emerging computational threats, even when there is a hashing rate majority in the network, a significant enhancement over the SHA-256-based security model.

#### **Tools and Integration**

BlockDAG's potential for deploying advanced smart contract capabilities, unique wallet technologies, and novel applications that can leverage its strong technical underpinnings. BlockDAG aspires to contribute to the evolution of DeFi into a new era.

BlockDAG aims to include lessons learned from the genesis of the Kaspa network. Kaspa's near-instant confirmation times make it the fastest layer-1 working on a proof-of-work architecture. The project's current confirmation speed of 1 transaction per second and fully confirming a transaction in 10 seconds is a big step up from Bitcoin's 10 minutes.

BlockDAG aims to carry further Bitcoin and Kaspa's vision of a truly secure and decentralized network that is also the fastest. BlockDAG will launch with improved confirmation times using its next-generation hybrid consensus mechanism. The network leverages the full extent of security of the proof of work architecture to deliver one of the most secure crypto platforms that can drive the growth of the crypto economy of the future.

#### **Smart Contract Prowess**

Harnessing DAG technology's scalability and advanced security, BlockDAG can be the home of the smart contracts that will lead the DeFi landscape of tomorrow. BlockDAG's fast confirmation times can support smart contracts that can power high-powered DeFi services that will lead the industry in security. Businesses and services that require instant confirmations and robust security can thus feel right at home on BlockDAG's network, which is built for the needs of today as well as the demands of the future.



#### **Scalability**

To manage increased transaction loads, BlockDAG implements the DAG technology, guaranteeing network efficiency. Having a fast ledger that can process transactions in industry-leading speed enables BlockDAG to be the best place to do business in the crypto world. Building upon the traditional DAG structure, BlockDAG incorporates a multi-layered approach. This innovative architecture allows for parallel processing of transactions, exponentially increasing the throughput compared to linear models.

From individuals transacting on BDAG to businesses using the network's smart contracts, the network can accommodate large throughput and as the network evolves, adding more capability, BlockDAG can be the fastest and most secure crypto network that seamlessly hosts large throughput amidst robust security.

#### **The Six-Month Commitment**

At the heart of BlockDAG's unique selling proposition lies an audacious and groundbreaking pledge: the launch of its mainnet within a mere six months. In a realm where development cycles often stretch into years, this promise underscores not just ambition but a profound shift in operational dynamism.

By launching within half a year, BlockDAG positions itself at the forefront of crypto innovation. This swift execution ensures that stakeholders, be they developers, investors, or everyday users, can tap into the platform's potential almost immediately. While others ideate and plan, BlockDAG delivers.

## **Mobile First, Enhanced**

While Kaspa gives secure blockchain technology a power-up, BlockDAG aims to expand the technology, taking it to mobile devices. BlockDAG's eco-conscious mining ensures that the power of crypto mining reaches smartphones without draining on-device resources. BlockDAG's next-generation hybrid consensus protocol enables crypto mining that is not resource intensive and has high hashing power per watt compared to other PoW algorithms like SHA-256.

The BlockDAG project's range of crypto miners aims to take the mission of eco-conscious mining to crypto users and enthusiasts worldwide. The range starts from mobile applications and scales up to include more powerful machines. The range also gives the BlockDAG community multiple income streams, including mining from BlockDAG's mining app and miners; further, down the project's evolution, users can resell the rigs for a premium on various e-commerce platforms.



## **Holistic Crypto Ecosystem**

BlockDAG doesn't merely aim to be a network; it aspires to be a holistic ecosystem. Drawing inspiration from Kaspa's user-centric approach, BlockDAG intends to introduce educational platforms, decentralized apps, and more, ensuring that even the layperson can be vital to the crypto ecosystem—all at a pace that sets industry records.

In essence, while Kaspa set the benchmark, BlockDAG is poised to elevate it. Through rapid innovations, strategic enhancements, and an unyielding commitment to speed, BlockDAG aims to take the best of Kaspa and amplify it for the modern crypto enthusiast.

#### **Redefining the Pace of Innovation**

The crypto landscape is no stranger to grand visions and ambitious projects. However, where many falter is in the realm of execution. BlockDAG's commitment to a six-month timeframe isn't merely about speed—it's a testament to the project's belief in the urgency of crypto evolution and its capability to drive it. In essence, we're not just joining the race; we're aiming to redefine it.

#### **Behind the Velocity**

Speed without substance is mere bluster. BlockDAG's rapid deployment strategy is backed by a meticulously designed framework that combines advanced technological infrastructure, agile development methodologies, and a team of experts working round-the-clock. This isn't reckless haste; it's precision engineering at warp speed.

## **Early Adopter Advantages**

BlockDAG's accelerated timeline provides early adopters with unprecedented advantages. By embracing BlockDAG's vision at this nascent stage, they're not merely participating in another crypto venture; they're getting a front-row seat to one of the fastest rollouts in blockchain history, granting them the potential for unparalleled growth and influence.

The BlockDAG presale slots into the project's accelerated timeline as a nod to the loyal BlockDAG community and its steadfast belief in the project. Going through its presale stages, the project holds within the potential for financial gain for its dedicated community.

#### A Benchmark for the Future

By setting such a brisk pace, BlockDAG isn't just establishing its own credentials—it's laying down the gauntlet for the entire crypto industry. The message is clear: in a world that's evolving at lightning speed, adaptability and rapid execution aren't just desired; they're imperative.

In a nutshell, while the six-month launch timeline is a testament to BlockDAG's distinctive approach, it's also emblematic of a broader philosophy: In the age of digital acceleration, the future belongs to those who don't just move but who sprint with purpose.





#### Introduction

The BlockDAG project's emphasis on transparency, trust, and a clear roadmap for all stakeholders is what drives the project forward. The project's founding team has carefully designed this structure to reward early supporters, maintain an active and thriving community. The tokenomics also focuses on pushing the project forward through marketing efforts.

1. Max Token Supply

Total: 150,000,000,000 (150 Billion)
Establishing a cap on the total token supply ensures a controlled environment, negating the risk of unchecked inflation, which can dilute value. It provides a predictable landscape for investors and users alike.

## 2. Presale Allocation (33% of Max Supply)

Total: 50,000,000,000 (50 Billion) **Presale - The Why and How** 

This phase is the initial offering of tokens before they are made publicly available. It's a chance for early believers in the BlockDAG vision to be part of the journey from the outset, often at a preferential rate. It's not just about raising initial funds but about building a core community of Supporters. BlockDAG has allocated a portion of presale funds for marketing that aims to expand and fortify the network. Through the implementation of carefully designed marketing strategies across diverse media and social networks, BlockDAG is transforming the blockchain space with its innovative features and cutting-edge technologies.

## 3. Community Allocation (66% of Max Supply) Total: 98,500,000,000 (98.5 Billion)

## **Purpose of the Community Pool**

The BlockDAG project believes in the power of a robust and active community. This vast allocation underscores the project's commitment to those who will use, promote, and believe in the network's potential.

#### **Detailed Breakdown**

Miners: 80% of Community Tokens: 78,800,000,000 (78.8 Billion).

Miners play a crucial role, validating and securing network transactions. This significant allocation rewards both past miners who have been with the project since the beginning and future miners who will join as the project grows.

#### Community Building & Ecosystem

15% of Community Tokens: 14,800,000,000 (14.8 Billion).

These funds will be channelled into initiatives that strengthen the BlockDAG community. This could encompass educational programs, partnerships, events, and any other endeavours that enrich the BlockDAG ecosystem.

## **Liquidity Pool**

5% of Community Tokens: 4,900,000,000 (4.9 Billion).

Liquidity is the lifeblood of any crypto project. This reserve ensures smooth trading of BlockDAG tokens, minimising price volatility and ensuring that buying/selling activities don't lead to drastic price shifts.



# 4. Team Allocation (1% of Max Supply)

(1% of Max Supply)

Total: 1,500,000,000 (1.5 Billion)

We've reserved 1.5 billion coins (1%) for our dedicated team, with these funds locked. This approach ensures our team's goals align with BlockDAG's long-term success and encourages their ongoing contribution to its growth and well-being. It reflects our commitment to fairness and transparency in our project.

#### Total: 1,500,000,000 (1.5 Billion)

BlockDAG Coin (BDAG) implements a halving mechanism designed to uphold scarcity and value. Halving events occur every 12 months post-mainnet launch, reducing block rewards and curbing inflation. This fosters scarcity, incentivizes miner participation, and ensures long-term sustainability. BDAG pioneers a value-centric approach, redefining digital scarcity for a resilient blockchain ecosystem.





Tokenomics is more than just numbers – it's a strategic blueprint that underscores the project's principles and future aspirations. At BlockDAG, tokenomics is shaped by foresight, a commitment to the community, and unwavering faith in the long-term vision. BlockDAG aims to further crypto adoption with an emphasis on security, scalability and decentralization.

The world of blockchain and cryptocurrency stands at an inflexion point. While the past decade has been rife with innovation, exploration, and growth, the next promises consolidation, maturity, and evolution at a scale hitherto unseen. Within this transformative phase, BlockDAG isn't just a fleeting participant—it's poised to be a major catalyst.

BlockDAG is more than just technology or a platform; it's a vision for the future. A vision that seeks to harmonize the learnings of the past with the possibilities of the future. By meticulously studying the achievements and challenges of pioneers like the Kaspa, BlockDAG is taking deliberate strides toward carving a path that others will aspire to follow.

The rapidity with which the BlockDAG promises to operate isn't just about technological superiority—it's about understanding the urgency of the moment. In an age where technology evolves in the blink of an eye, standing still or moving at a traditional pace can be tantamount to moving backwards. BlockDAG recognizes this dynamic, and its commitment to speed signifies a deeper understanding of the crypto zeitgeist. With high throughput and a hybrid consensus mechanism that maintains industry-leading security, BlockDAG aims to improve where Bitcoin and Kaspa have paused for innovation.

To every stakeholder, from the seasoned blockchain developer to the curious newcomer, BlockDAG extends more than just an invitation. It offers a promise. A promise of innovation, of growth, and of unwavering commitment to pushing the boundaries of what's possible in the crypto space. The project's consensus mechanism, an upgrade on the proof-of-work and DAG model, places it at the forefront of crypto innovation. As stakeholders embark on this accelerated journey with BlockDAG, they're not just witnessing history—they're actively shaping it.

The BlockDAG project's aim of bringing robust security and decentralization is an attempt that has the potential to change the crypto ecosystem. As proof-of-stake algorithms compromise on decentralization, BlockDAG's secure proof-of-work-based algorithm combines speed with high security to be the choice blockchain that will have multiple real-world use cases. Its audacious goals, backed by a dedicated team and a passionate community, signify more than ambition—they represent a blueprint for the next golden age in crypto evolution.

As the network stands on the cusp of greatness, BlockDAG aims to write history as the fastest, most secure layer-1 that can supercharge the global economy's transition into the blockchain.

