The Gorki Token Distribution and Supply

Specification of the Gorki token distribution and inflation after launch and beyond.

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Changelog

v1.0	2023-01-07	Updated legal disclosure
v2.0	2023-07-30	Updated market valuation definition to align with coinmarketcap
v3.0	2024-02-15	updated TGE token number to align with new strategic offering.
v4.0	2024-08-01	new consensus protocol development - shifting to epoch reward model.
v5.0	2024-10-31	fair launch tokenomics - fixed supply for launch.

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1 Introduction

Gorki is a linearly scalable orchestration layer, designed from the ground up to support decentralization, on chain data storage, security, economics and the scaling needs of Web3. Further, our smart contracts can be formally verified in our programming language Rholang. Our language model allows us to have concurrent smart contracts, which makes composition possible. Based on the latest research from the reflective higher order calculus (Rhocalculus), our programming language solves a series of problems preventing blockchain platforms from realizing mainstream adoption. Its unique conflict detection algorithm will be accompanied by the newly developed proof- of-stake consensus algorithm currently named 'Weaver', that is being developed and finalised by the Gorki core dev team. We are aiming to make concurrent state transitions, which should enable execution scalability. Our consensus algorithm is currently being developed and finalized by our core devs to meet this goal. We are trying to distance ourselves from the paradigm of total ordering of blocks because that makes execution sequential. Instead, we first make execution concurrent and then match the consensus algorithm to enable concurrent execution. Once implemented, it will allow all nodes to produce and verify blocks concurrently, and by doing so achieve single-shard scalability. Our aim is also to minimise the amount of messages that are disseminating in the network. To achieve this, all consensus decisions are only computed on the local copy of our directed acyclic graph (DAG).

2 Highlights

- The Gorki token is a utility token used to secure the Gorki asset bridge
- Low token pre-mint to early supporters of the project, majority distributed as epoch rewards.
- During the first year of Testnet, incentives will be offered to participants
- The initial inflation (epoch rewards) will be set with a diminishing return over time, similar to Bitcoin.
- Asset bridge fees and epoch rewards will be shared with stakers of the asset bridge.
- All Gorki tokens rewarded to team members will be issued at based on milestones reached.

3 Initial token distribution

Gorki's token distribution model is designed to foster a secure, decentralized, and incentivized network from its inception. Embracing a true fair launch approach, Gorki ensures all participants have an equal opportunity to acquire tokens. Instead of traditional block rewards, Gorki introduces a unique fee-sharing mechanism derived from its bridging protocol, promoting network participation and security.

3.1 Key features of Gorki's tokenomics include

- **Fixed Supply** The total supply of Gorki tokens is fixed, ensuring scarcity and predictable token economics.
- **Bridging Fees as Rewards** Validators will share in the fees generated by the Gorki bridging protocol. This incentivizes active participation and network security by directly rewarding validators for their contributions.
- **Team and Investor Allocation** A small percentage of tokens is allocated to the team (8%) and existing investors (8%) to support ongoing development and growth. Team tokens are subject to a 4-year vesting schedule, aligning their interests with the long-term success of the network. Investor tokens are unlocked upon release.
- **Gorklet** The smallest unit of the Gorki token, offering 8 digits of precision for flexible transactions.

3.2 Mainnet Launch and Token Distribution

Gorki Mainnet is targeted for launch in Q4 2025. Adhering to a strict fair launch principle, all tokens will be distributed fairly with no pre-mine. The majority of tokens will be released gradually to the team, DAO, and investors. Validators will earn Gorki tokens by sharing in the fees generated by the Gorki bridging protocol.

This innovative approach ensures that validators are directly rewarded for their contributions to network security and transaction processing. By aligning tokenomics with its bridging functionality, Gorki aims to establish a strong foundation for long-term growth, security, and decentralization.

Gorki token key metrics

Table 1: Gorki token key metrics.

Metric	Value
Name	Gorki token
Token name	GORKI
Blockchain	Gorki Network
Token type	Utility
Emmission type	fixed supply - possible validator incentives at early stage.

4 Fixed Supply and Innovative Staking Mechanisms

Gorki employs a fixed token supply model, ensuring scarcity and predictable token economics. While there are no traditional epoch rewards, Gorki is actively researching innovative staking mechanisms to further incentivize network participation and security.

4.1 Bridging Fees and Staking

Validators on the Gorki network earn Gorki tokens by sharing in the fees generated by the Gorki bridging protocol. To further enhance this model, Gorki is exploring mechanisms that will allow users to stake Bitcoin or Ethereum directly on validator nodes. This staked collateral will act as an underwriter for bridging transactions, with stakers earning a portion of the bridging fees in Gorki tokens.

1. **Increased Network Security** By requiring staked collateral, the system becomes more robust and resistant to malicious activity.
2. **Enhanced Decentralization** Direct staking of major cryptocurrencies encourages broader participation in the Gorki network.
3. **Additional Revenue Streams** Stakers earn rewards for contributing to the security and efficiency of the bridging protocol.
4. **Improved Capital Efficiency** Users can earn rewards on their existing Bitcoin and Ethereum holdings while supporting the Gorki network.

4.2 Research and Development

Gorki is committed to ongoing research and development to ensure the successful implementation of these staking mechanisms. This includes:

- **Security Audits** Thorough security audits will be conducted to identify and mitigate potential vulnerabilities.
- **Economic Modeling** Careful economic modeling will ensure the sustainability and long-term viability of the staking rewards.
- **User Experience** The staking process will be designed to be user-friendly and accessible to a wide range of participants.

Gorki believes that these innovative staking mechanisms will further strengthen the network's security, decentralization, and overall value proposition. By empowering users to participate directly in the bridging ecosystem, Gorki aims to foster a thriving and sustainable community.

5 Gorki Bridge Protocol

5.1 Addressing the Weaknesses of Debridge and Stargate for Robust Cross-Chain Transfers

As the blockchain ecosystem expands, cross-chain token bridges have become essential for seamless asset transfers. However, existing protocols like Debridge and Stargate, while innovative, present limitations in terms of security, scalability, and decentralisation. The Gorki Bridge Protocol, through its unique design and innovative technology, effectively addresses these weaknesses, offering a more robust and reliable solution for cross-chain bridging.

5.2 Mitigating Centralization Risks

Unlike Stargate, which relies heavily on third-party oracles and relayers, introducing centralization risks, Gorki leverages a decentralised network of RNodes for validation. This eliminates the dependency on potentially compromised external entities, ensuring a more secure and trustless bridging process. Gorki's integration with Arweave further enhances decentralisation by anchoring state data to a distributed storage network, making the protocol resistant to censorship and manipulation.

5.3 Enhanced Security and Robustness

Debridge's threshold signature scheme, while innovative, is susceptible to validator collusion and coordination complexities. Gorki's POPAM consensus, on the other hand, combines Proof of Stake (PoS) with Arweave's Proof of Space-Time (PoST) to create a multi-layered security mechanism. PoS ensures fast consensus on recent transactions, while PoST provides long-term immutability and verifiable history. This combination not only makes the protocol more resilient against malicious attacks but also addresses the liveness issue often encountered in concurrent systems.

5.4 Scalability and Efficiency

Both Debridge and Stargate face potential scalability challenges as transaction volumes increase. Gorki tackles this issue by utilising Rholang's concurrent computation model, enabling parallel processing of transactions. This approach significantly enhances throughput and allows the network to scale seamlessly with demand, ensuring efficient cross-chain transfers even during peak periods.

5.5 Incentivized Participation and Economic Security

Gorki's unique tokenomics model, featuring participation-based token issuance, incentivizes validators to prioritise transaction completion and network reliability. By aligning the interests of validators with the overall health of the network, Gorki fosters a sustainable and economically secure ecosystem. This model ensures that the protocol remains robust and resilient over time, as validators are rewarded for their contributions to the network's security and efficiency.

5.6 Flexibility and Adaptability

Gorki's modular design allows for easy integration with different blockchain networks, making it a versatile solution for cross-chain asset transfers. The protocol's adaptability ensures that it can evolve alongside the ever-changing blockchain landscape, remaining relevant and effective in the face of new challenges and opportunities.

The Gorki Bridge Protocol, by addressing the limitations of existing solutions, represents a significant advancement in the field of cross-chain token bridging. By combining cutting-edge technology with a robust risk management approach, Gorki offers a secure, scalable, and decentralised platform that empowers users to seamlessly transfer assets across different blockchain networks.

Table 2: Gorki token distribution

Category	Early supporter	Team	Public sale	DAO
type	unlocked	vested	unlocked	locked
token %	8%	8%	69%	15%
Token number	80MM	80MM	690MM	150MM
vesting	none	48 month	none	locked

6 Funding rounds

Gorki's development has been supported by strategic investment from early investors, who have acquired approximately 8% of the total token supply. These funds have been instrumental in building the core technology and infrastructure for the Gorki network.

To further fuel development, ecosystem growth, and ensure a successful mainnet launch, Gorki will conduct a public token sale. This sale will offer the remaining tokens to the broader community, providing an opportunity to participate in the Gorki ecosystem and contribute to its long-term success.

*using coinmarket cap as a reference for how to calculate marketcap [1].

7 Roadmap

Here's a summary of a roadmap for the Gorki Bridge Protocol release:

- **Q3 2024** Testnet Launch: Deploy a testnet environment and encourage widespread participation through incentives. This will allow for rigorous testing and identification of any potential issues before the mainnet release. - **completed!**
- **Q4 2024** Public token sale.
- **2025** Mainnet Launch:** After successful testing and community feedback integration, launch the Gorki Bridge Protocol on the mainnet, enabling real-world cross-chain asset transfers.

Our roadmap outlines a phased approach, prioritizing thorough testing and community involvement before the full-scale mainnet launch. It ensures a secure and robust platform ready to address the challenges of cross-chain bridging.

8 Summary: A Fair Launch for a Thriving Ecosystem

Gorki is committed to fostering a truly decentralized and community-driven ecosystem. To achieve this, we are embracing a fair launch approach with a strong emphasis on community ownership and long-term sustainability.

Key Advantages of Gorki's Fair Launch:

- **Equal Opportunity:** A fair launch ensures that everyone has an equal chance to acquire Gorki tokens, fostering a level playing field and preventing early advantages for insiders.
- **Community Ownership:** By distributing tokens fairly, Gorki empowers the community to play a central role in the network's growth and governance.
- **Long-Term Sustainability:** Gorki's tokenomics model is designed to incentivize long-term participation and network security, ensuring a sustainable and thriving ecosystem.

DAO and Network Incentivization

A small portion of the token supply will be allocated to a Decentralized Autonomous Organization (DAO) to support network incentiviza-

tion in the early stages of development. This DAO will play a crucial role in:

- **Community Governance:** The DAO will empower the community to make key decisions regarding the future direction of the Gorki network.
- **Ecosystem Development:** Funds held by the DAO will be used to support initiatives that promote the growth and adoption of the Gorki ecosystem.
- **Network Security:** The DAO can incentivize validators and other network participants to ensure the security and stability of the Gorki bridge.

Gorki's fair launch approach, combined with the innovative POPAM consensus mechanism and the active involvement of the DAO, creates a strong foundation for a secure, decentralized, and community-driven cross-chain bridge protocol.

Reference List

[1] *Market Valuation Definition*. https://support.coinmarketcap.com/hc/en-us/articles/360043396252-Supply-Circulating-Total-Max-.. Accessed: 2024-02-05.