ONLYLAYER

Whitepaper

Chapter 1: Unveiling OnlyLayer - The Confluence of Optimistic and Zero-Knowledge Rollups

In the dynamic landscape of blockchain scalability, OnlyLayer emerges as a pioneering force, harnessing the combined power of optimistic and zero-knowledge rollups. As the blockchain realm grapples with scaling challenges, OnlyLayer sets out to redefine the narrative, offering a unique layer 2 solution that transcends the limitations of traditional approaches.

The Essence of Optimistic and Zero-Knowledge Rollups

Understanding the potential of OnlyLayer requires a deep dive into the realms of optimistic and zero-knowledge rollups. Optimistic rollups alleviate the strain on layer 1 chains with their off-chain computation prowess. This approach allows the main chain to concentrate on crucial

aspects like decentralization and security, ushering in a new era of streamlined transactions and reduced fees.

Zero-knowledge rollups, a sibling to optimistic counterparts, further elevate scalability by enhancing throughput. While reminiscent of optimistic rollups, zero-knowledge rollups distinguish themselves by providing validity proofs for transactions, introducing an additional layer of confidence and security to the process.

Perks Unveiled: Optimistic and Zero-Knowledge Harmony

The marriage of optimistic and zero-knowledge rollups within OnlyLayer unveils a symphony of advantages. Optimistic rollups relieve the main chain of computational burdens, compressing transaction data into efficient bundles posted to layer 1. This bundling enhances transaction speed and significantly curtails transaction fees, a testament to the economic efficiency OnlyLayer brings to the table.

Zero-knowledge rollups, with their unique approach to transaction data compression, bring a touch of elegance to the OnlyLayer ecosystem. The absence of delays in fund transfers sets OnlyLayer apart, courtesy of the validity proofs ensuring swift and secure transactions.

Navigating the Differences

While optimism and zero-knowledge rollups share common ground, nuances define their uniqueness. Zero-knowledge rollups stand out by providing explicit validity proofs for transactions, adding an extra layer of confirmation. Eliminating delays in fund transfers within zero-knowledge rollups, facilitated by validity proofs, further distinguishes it from the optimistic counterpart.

Chapter 2: Decoding Layer 2 Scaling

To grasp the significance of OnlyLayer's approach, one must delve into the intricacies of layer 2 scaling. In response to the challenges posed by exorbitant fees and sluggish transactions on the main chain, layer 2 scaling solutions offer a lifeline. By executing transactions off the main chain and subsequently posting data to the underlying chain, layer 2 scaling circumvents the drawbacks while preserving the strength of the main chain.

OnlyLayer's Unique Scaling Solutions

OnlyLayer emerges as a beacon in the layer 2 scaling realm, leveraging the synergistic potential of optimistic and zero-knowledge rollups. Designed to empower decentralized applications (dapps) without succumbing to the scaling woes plaguing the Ethereum network, OnlyLayer charts a course toward unparalleled efficiency.

The architecture of OnlyLayer, resembling a typical rollup, takes on a hybrid nature, fusing the strengths of both optimistic and zero-knowledge rollups. Off-chain contracts on the Ethereum network and an off-chain virtual machine (VM) mirror the Ethereum Virtual Machine (EVM) but exist outside the Ethereum network. This strategic architecture allows OnlyLayer to execute transactions swiftly with minimal fees.

Chapter 3: Unraveling the Hybrid Nature of OnlyLayer

In the labyrinth of layer 2 scaling, OnlyLayer stands as a hybrid marvel, merging the optimism of optimistic rollups and the sophistication of zero-knowledge rollups. This hybrid nature sets OnlyLayer apart, offering a nuanced solution that defies the conventional boundaries of layer 2 scaling.

Transactions on OnlyLayer transpire through its nodes, paving the way for rapid execution. Validity proofs, the heralds of transaction confirmation, and a seamless journey to the Ethereum Mainnet eliminate the delays associated with other layer 2 solutions. The aggregation of transactions into batches for submission to the Ethereum Network epitomizes the collaborative fee-sharing model, ensuring negligible transaction fees.

Chapter 4: OnlyLayer's Promise to Dapps

In the expansive realm of decentralized applications, OnlyLayer emerges as a game-changer. By amalgamating the strengths of optimistic and zero-knowledge rollups, OnlyLayer bestows dapps with a gateway to the Ethereum Network's most extensive layer 1 chain. This strategic positioning ensures full decentralization and battle-tested security, establishing OnlyLayer as a trustworthy ally in the decentralized frontier.

Zero-knowledge rollups within OnlyLayer introduce a unique data compression technique, offering a reprieve to decentralized applications burdened by massive transaction data. The ripple effect is reducing operating costs for on-chain applications, ushering in a new era of economic feasibility.

Chapter 5: Trusting OnlyLayer – Where Ethereum Network Meets Assurance

In the volatile landscape of blockchain solutions, trust becomes a rare commodity. OnlyLayer, as a layer 2 scaling solution, extends its roots into the Ethereum Network, anchoring itself in the bedrock of Ethereum's security. Transactions on OnlyLayer, reliant on optimistic and zero-knowledge rollups, inherit the correctness guarantee bestowed by the Ethereum Network, ensuring a seamless and trustworthy operational experience.

In conclusion, OnlyLayer isn't just a layer 2 scaling solution; it's a testament to the untapped potential of layer 2 scaling that has eluded recognition for too long. As Ethereum's inherent weaknesses create a fertile ground for layer 2 solutions, OnlyLayer emerges poised to redefine the narrative, promising a scaling revolution that transcends the ordinary.

Chapter 6: Background on Ethereum Rollups - Optimistic and Zero-Knowledge Rollups Explained

Before delving into the intricate details of OnlyLayer, it's crucial to grasp the foundation upon which it stands – Ethereum Rollups. These layer 2 scaling solutions, aiming to elevate the scalability and efficiency of the Ethereum blockchain, lay the groundwork for innovations like OnlyLayer.

Introducing Ethereum Rollups

Ethereum rollups, as the name suggests, roll up multiple transactions off-chain and submit a consolidated summary to the Ethereum mainnet. This approach tackles congestion on the mainnet, reducing transaction fees and enhancing transaction finality. Two primary types of rollups, Optimistic Rollups and zk-Rollups, emerge as the pillars of Ethereum's scaling endeavors.

Optimistic Rollup Unveiled

Optimistic Rollup, a layer 2 scaling solution, seeks to amplify transaction throughput while aligning with Ethereum's security model. Executing transactions off-chain and submitting a summarized version to the Ethereum mainnet, Optimistic Rollup strikes a balance between scalability and security. The "optimistic" label stems from the initial validation on the layer 2 chain, with a provision for fraud proofs to challenge invalid transactions on the mainnet.

Decoding ZK Rollup

ZK-Rollup, a distinct layer 2 solution, employs zero-knowledge proofs to bundle multiple transactions into a single proof, validated on-chain. This technique streamlines data processing on the mainnet, ensuring faster and more cost-effective transactions while upholding security and decentralization.

The Harmony of OP + ZK Implementation

OnlyLayer's ingenuity lies in its blend of optimistic and zero-knowledge rollups and its potential to implement a combined OP + ZK solution. By marrying the benefits of both approaches, OnlyLayer envisions a future where scalability and privacy converge to offer an unparalleled blockchain experience. The complexity of this implementation straddles the boundaries of conventional solutions but holds the promise of revolutionary advancements.

Chapter 7: Foundation Mission – OP Stack Zero Knowledge Proof

As OnlyLayer charts its course towards redefining layer 2 scaling, the Foundation Mission becomes a pivotal juncture in this journey. This mission, encapsulated in the Request for Proposal (RFP), outlines a quest for technical decentralization by implementing a zero-knowledge proof (ZKP) for OP Chains.

Unveiling the Foundation Mission

The Foundation Mission invites proposals to implement a ZKP that proves optimism's fault-proof program. The mission underscores the critical role of ZKP in enabling secure and low-latency cross-chain communication between layer 2 (L2) and layer 1 (L1) and directly between OP Chains.

The Prerequisite for Secure Scaling

Implementing a ZKP for OP Chains is not just a technical milestone; it's the cornerstone for secure and efficient cross-chain communication. By grounding the proof system in an instruction set architecture (ISA) supported by the Golang compiler, such as MIPS, RISC-V, or WASM, the mission establishes the foundation for a robust system capable of proving any OP Stack-based blockchain.

Beyond the Basics: Fault Proof Program

The intricacies of the fault-proof program introduce additional layers of complexity to the mission. Introducing a preimage oracle and utilizing special system calls to load external data into the program set challenging yet necessary benchmarks for the ZKP system. The fault-proof program's reliance on the preimage oracle, from hash placement to loading preimages, emphasizes the mission's commitment to meticulous security standards.

Foundation's Call for Innovation

In embracing the ambitious goal of this mission, the foundation opens its doors to up to three submissions, recognizing the vast design space and the need for diverse solutions. The competitive landscape fosters an innovation environment, ensuring that the selected ZKP system meets and exceeds the expectations set by the Solution Criteria.

Solution Criteria: Navigating the Complexity

The Solution Criteria, encompassing performance, latency, complexity, robustness, security, and OP Stack compatibility, serve as the compass for evaluating submissions. Each solution's unique tradeoffs and architectural choices are scrutinized, recognizing that the path to success is precisely addressing these criteria.

Chapter 8: Measuring Progress and Impact

As the Foundation Mission unfolds, measuring progress becomes integral to its success. The journey is marked by critical milestones that gauge the evolution of the ZKP system and its potential impact on the OP Stack ecosystem.

Milestone 1: Specification

The first milestone, the specification, lays the groundwork for the ZKP design. This comprehensive document outlines the design's intricacies and sets the criteria against which the implementation will be evaluated. The blueprint foretells the ZKP's potential impact on the OP Stack ecosystem.

Milestone 2: PoC Check-in

A Proof of Concept (PoC) check-in serves as a tangible demonstration of the ZKP in action. This milestone provides a glimpse into the concept's viability, showcasing its ability to prove the OP Stack state transition. The PoC check-in is a testament to the progress and feasibility of the proposed ZKP system.

Milestone 3: Executable Demo

The journey's culmination is marked by an executable demo proving the OP Stack state transition between two blocks. This tangible implementation, integrated with a live OP Stack chain, signifies realizing the ZKP system's potential. Detailed instructions accompanying the demo empower the broader community to test and validate the proving system themselves.

Final Milestone: Governance Adoption

The ultimate milestone transcends the technical realm – Optimism Governance's adoption of the ZKP. This pivotal moment, outside the scope of the initial proposal, exemplifies the immense impact these proofs may have on the OP Stack. It transforms the ZKP from an innovative proposal to a core component, solidifying its position in the OP Stack ecosystem.

Chapter 9: RetroPGF Badge Holders

RetroPGF Badgeholders, entrusted with the task of measuring impact, become the gatekeepers of progress in the post-mission landscape. Their role extends beyond traditional metrics, capturing the essence of the ZKP's influence on the OP Stack ecosystem.

Metrics of Impact

The impact assessment extends beyond conventional measures, encompassing the total number of token bridges utilizing the proof system, the sharing of open-source ZKP research, and the fees collected by provers for their services. These metrics unveil the far-reaching influence of the ZKP system on both technical and economic fronts.

A Framework for Progress

The RetroPGF Badge holders become custodians of progress, ensuring that the ZKP system's impact resonates across the OP Stack ecosystem. The community's collective effort, in collaboration with the foundation, propels the mission's success beyond its technical achievements.

Chapter 10: ONLY Token – Empowering Governance in the OnlyLayer Ecosystem

As OnlyLayer sets the stage for a revolutionary leap in layer 2 scaling, it introduces the ONLY token, a pivotal element in the fabric of the OnlyLayer ecosystem. The ONLY token, residing on its own blockchain with the ticker symbol ONLY, emerges as more than just a digital asset – it becomes the cornerstone of governance, innovation, and community empowerment within the OnlyLayer ecosystem.

The Genesis of ONLY Token

The ONLY token is not merely a transactional medium; it's a testament to the commitment of OnlyLayer to empower its community. Born from the intricate fusion of optimistic and zero-knowledge rollups, the ONLY token inherits the efficiency, speed, and security that define the OnlyLayer project.

ONLY Token as a Governance Instrument

At its core, the ONLY token functions as a governance instrument, embodying the democratic ideals of decentralization. ONLY token holders play a crucial role in shaping the future of OnlyLayer, participating in key decision-making processes that define the trajectory of the project. This decentralized governance model aligns with the overarching ethos of the blockchain – power to the community.

Benefits of the ONLY Token

Governance Power: ONLY token holders wield significant influence over protocol upgrades, strategic decisions, and the introduction of new features. This governance power ensures that the OnlyLayer ecosystem remains dynamic, responsive, and in tune with the evolving needs of its community.

1. **Staking Rewards:**

Staking ONLY tokens becomes an investment in the network's security and a pathway to earning additional rewards. By staking their tokens, community members actively contribute to the stability of the OnlyLayer ecosystem while being rewarded for their commitment.

2. Access to New Features:

The ONLY token serves as a key to unlock access to new features and innovations within the OnlyLayer ecosystem. This mechanism incentivizes token holders to engage with the platform actively, fostering a sense of community participation.

3. Protocol Upgrades and Proposals:

The governance power vested in ONLY token holders extends to proposing and voting on protocol upgrades. This inclusive approach ensures that the community actively contributes to the evolution of the OnlyLayer ecosystem, fostering a sense of ownership and shared responsibility.

Governance in Action

Proposal Submission and Voting:

ONLY token holders can submit proposals for system upgrades, changes, or new features. The community, in turn, engages in a transparent and democratic voting process where each token represents a voice.

Smart Contracts Deployment:

The deployment of smart contracts within the OnlyLayer ecosystem undergoes community scrutiny. ONLY token holders, as stewards of the network, ensure that these contracts align with the project's vision and meet the highest security and efficiency standards.

Network Parameters Adjustment:

Parameters critical to the network, such as block rewards and transaction fees, are subject to community governance. The ONLY token holders actively participate in decisions that impact the economic dynamics of the ecosystem.

The Synergy of ONLY Token and Layer 2 Scaling

OnlyLayer leverages the prowess of optimistic and zero-knowledge rollups, so the ONLY token harmonizes with this technological symphony. The layer 2 scaling solutions, embodied by OnlyLayer, find a governance counterpart in the ONLY token, creating a seamless integration of technological innovation and community-driven decision-making.

The Path Forward

In the realm of blockchain innovation, the ONLY token represents more than a cryptographic asset. It embodies the spirit of community collaboration, shared governance, and the empowerment of individuals within the OnlyLayer ecosystem. As the project unfolds, the ONLY token stands as a beacon, guiding the community towards a decentralized future where governance is not a privilege but a right exercised by every participant in the OnlyLayer journey.

Chapter 11: The OnlyLayer Blockchain - Pioneering the Next Wave of Decentralization

In the expansive landscape of blockchain innovation, the ONLY Blockchain emerges as a beacon of cutting-edge technology, seamlessly intertwined with the visionary principles that define the OnlyLayer project. Fueled by the transformative power of the ONLY token and built on the bedrock of optimistic and zero-knowledge rollups, the ONLY Blockchain represents a quantum leap toward a decentralized future.

The Technological Tapestry

Optimistic and Zero-Knowledge Rollups Integration: The ONLY Blockchain, much like its OnlyLayer counterpart, embraces the symbiotic integration of optimistic and zero-knowledge

rollups. This dual-layer approach catapults the blockchain into a realm of unparalleled scalability, speed, and security.

1. **Layer 2 Scaling Architecture:**

At the heart of the ONLY blockchain beats a layer 2 scaling architecture that inherits the efficiency of optimistic rollups and the privacy benefits of zero-knowledge rollups. This architectural fusion drives the ONLY Blockchain's ability to process transactions with lightning speed, significantly reducing the burden on the underlying layer 1 chain.

2. Hybrid Nature for Optimal Performance:

The ONLY blockchain, mirroring OnlyLayer's architecture, maintains a hybrid nature. This amalgamation of optimistic and zero-knowledge rollups ensures optimal performance, allowing for quick transaction execution with minimal fees. The hybrid approach is a testament to the project's commitment to pushing the boundaries of what's conventionally possible.

The Decentralized Nexus

1. **Community-Driven Governance:**

Governance on the ONLY Blockchain exemplifies the true spirit of decentralization. The decision-making power is distributed among the community of ONLY token holders, ensuring that no single entity dominates the trajectory of the blockchain. This democratic model aligns with the ethos of blockchain technology.

2. Transparent and Secure Smart Contracts:

Deploying smart contracts on the ONLY blockchain undergoes a rigorous governance-driven process. Community scrutiny ensures that smart contracts adhere to the highest transparency, security, and efficiency standards, fostering a trustworthy and resilient ecosystem.

3. Dynamic Network Parameters:

Network parameters, crucial to the efficiency of the ONLY blockchain, are subject to governance decisions. ONLY token holders actively participate in adjusting parameters such as block rewards and transaction fees, tailoring the blockchain to the evolving needs of its community.

The Synergy Unleashed

As the ONLY blockchain unfurls its technological prowess, the synergy with the ONLY token becomes a driving force propelling the entire OnlyLayer ecosystem forward. This dynamic interplay of technological innovation and community-driven governance paints a vivid picture of a decentralized future, where participants are not just stakeholders but active architects of the blockchain landscape.

Charting the Course Ahead

The ONLY blockchain, a testament to the relentless pursuit of innovation within the OnlyLayer project, charts a course toward a new era of decentralized ecosystems. As the blockchain landscape evolves, the ONLY Blockchain stands as a pioneering force, heralding a future where cutting-edge technology converges with community-driven governance to redefine the boundaries of what's possible in blockchain innovation.

Chapter 12: Tokenomics - Navigating the OnlyLayer Ecosystem

In the dynamic landscape of the OnlyLayer project, tokenomics plays a pivotal role in defining the ONLY token's distribution, utility, and overall economic dynamics. With a total supply of 10 billion tokens, carefully allocating these tokens ensures a balanced and sustainable ecosystem.

Token Utility and Governance

Beyond distribution, the ONLY token is not just a tradable asset; it's a multifaceted instrument driving utility within the OnlyLayer ecosystem.

Governance:

ONLY token holders wield governance power, actively participating in decisions related to protocol upgrades, feature implementations, and the overall trajectory of the project. This decentralized decision-making process ensures that the community has a direct say in the evolution of OnlyLayer.

Staking Rewards:

Staking ONLY tokens becomes a strategic move, contributing to the network's security and earning additional tokens as rewards. This incentivizes long-term token retention and active participation in the OnlyLayer staking ecosystem.

Future Growth and Sustainability

The reserve allocation of 40% underscores OnlyLayer's commitment to future growth and sustainability. This flexible pool provides the project with the resources needed to adapt to emerging trends, explore new partnerships, and invest in cutting-edge technologies that enhance the OnlyLayer ecosystem.

Chapter 13: Conclusion – The Unveiling of a New Era

In conclusion, the journey of OnlyLayer and the Foundation Mission converge to unveil a new era in blockchain scalability and security. OnlyLayer, with its pioneering blend of optimistic and zero-knowledge rollups, stands as a testament to innovation in layer 2 scaling solutions.

The Foundation Mission, encapsulated in the pursuit of a robust ZKP system, sets the stage for a secure and decentralized future. As the layers of complexity unfold and milestones are achieved, the impact reverberates within the technical corridors and across the broader blockchain community.

Together, OnlyLayer and the Foundation Mission transcend the ordinary, promising a future where layer 2 scalability and security converge to redefine the possibilities of blockchain technology. This isn't just a narrative of innovation; it's the unfolding saga of a revolution in the making, where layers of technology converge to shape the future of decentralized ecosystems.

Chapter 14 Disclosures - Navigating Financial Risks in Crypto Investments

Speculative Nature of Startups

OnlyLayer, like any new blockchain project, is inherently speculative. While the project's whitepaper outlines ambitious plans and potential features, it's essential to recognize that these proposals are subject to change based on various factors, including technological advancements, regulatory developments, and community feedback. Like any startup, the path to success may involve pivots, adjustments, and unforeseen challenges.

Market Volatility and Price Fluctuations

The crypto market is renowned for its volatility, and investing in OnlyLayer's native token, the ONLY token, carries inherent price risks. Market forces, external factors, and sentiment can influence token prices, and investors should be prepared for fluctuations. It's advisable to conduct thorough research and only invest what one can afford to lose.

Regulatory Uncertainty

The regulatory landscape for blockchain and cryptocurrencies is evolving. Regulation changes can significantly impact the ONLY token's operation, utility, and value and the OnlyLayer ecosystem. Investors should stay informed about regulatory developments and be aware of the potential for regulatory changes to affect their investments.

Technology and Development Risks

Blockchain technology is cutting-edge, and projects like OnlyLayer are pushing boundaries. However, the development of complex technologies involves inherent risks. Unforeseen technical challenges, security vulnerabilities, and obstacles in implementation may arise. OnlyLayer aims to address these challenges, but success is not guaranteed like any project.

Community and Adoption Risks

The success of OnlyLayer depends on community support, adoption, and engagement. Factors such as user adoption, developer participation, and market sentiment play critical roles. Investors should be mindful of the community-driven nature of blockchain projects and the impact it can have on the project's success.

Importance of Due Diligence

Potential investors should conduct thorough due diligence before committing to any investment. This includes understanding the project's goals, the team's expertise, the technology stack, and the market conditions. Assessing the whitepaper, engaging with the

community, and staying informed about project updates are essential to making informed investment decisions.

Conclusion

Investing in speculative crypto blockchain projects is an exciting opportunity but comes with financial risks. OnlyLayer is committed to transparency, and this chapter serves as a reminder of the potential challenges and uncertainties associated with investing in a startup project. Investors are encouraged to exercise caution, stay informed, and be prepared for the dynamic nature of the crypto market. By understanding and acknowledging these risks, investors can make well-informed decisions that align with their financial goals and risk tolerance.