0KN & OASIS Comparison

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Summary

Oasis Protocol and 0KN employ distinct approaches to address similar challenges within decentralized privacy. However they have fundamental differences with different goals such that each could serve as a complimentary consumer for specific aspects of the other. 0KN's architecture is focused on metadata privacy at a network level whereas Oasis is focused on private smart contract executions for Defi applications on their blockchain. OKN and Oasis are not direct competitors but within the overlap of similar solution space for private smart contracts, **0KN is poised to stand out above all competing solutions by delivering the industry's first metadata-private smart contract platform**.

Similarities

- focused on enhancing privacy and security in decentralized networks
- provide scalable and efficient solutions for decentralized applications (dApps)
- support interoperability with existing blockchain platforms

Differences

- **Architecture**: Oasis is a Layer 1 Proof of Stake (PoS) smart contract platform. 0KN is a Layer 0 decentralized metadata-private network and Layer 2 ZK Application Chain smart contract platform.
- **Solution Focus**: Oasis is focused on responsible data practices and secure smart contract execution. 0KN is creating a metadata-private internet layer with hardware and decentralized privacy applications.
- **Ecosytem Age**: Based on token launch date, Oasis is about 3 years older than 0KN. Oasis has a well-established and growing ecosystem with support from venture capital firms and partnerships with top universities, while 0KN's ecosystem is still in its early stages of development.
- **Unique Features**: Oasis Network emphasizes parallel runtimes and confidential smart contract execution. 0KN provides a fully decentralized network with metadata privacy, post-quantum encryption, and a modular framework for diverse decentralized privacy applications.

Comparison

1. Platform Overview:

- Oasis Network is a Layer 1 Proof of Stake (PoS) smart contract platform with a focus on scalability, extensibility, and privacy. It aims to be the first privacy-enabled blockchain for open finance and a responsible data economy, featuring modular design, parallel

runtimes, and a separation of consensus from computing. The platform supports under-collateralized loans, private DeFi, and responsible data practices, backed by VC firms and a thriving ecosystem.

- 0KN is a Layer 0 decentralized metadata-private network and Layer 2 ZK Application Chain smart contract platform. The network is composed of providers incentivized by an innovative ZKProof of Staked Work (ZK-PoSW) while the ZK Application Chain provides scalability, extensibility, and privacy; uniquely including metadata privacy by cryptographic proof. 0KN is revolutionizing digital anonymity and safeguarding user identities and online activities. It serves as a foundational secured communications infrastructure with broad applicability for many other applications and protocols. 0KN ensures privacy in chat, social media, email, IoT, DePIN, and cryptocurrency transactions. It incentivizes participation through tokens, staked servers, and bandwidth rewards, offering network-level metadata privacy.

2. Privacy and Security:

- Oasis Network prioritizes privacy and security as a Layer 1 Proof of Stake (PoS) smart contract platform. The platform separates consensus from Compute, allowing for efficient processing of transactions with parallel runtimes. This unique design facilitates responsible data practices and offers features like under-collateralized loans, private DeFi, and secure data sharing. Oasis Network is backed by VC firms, emphasizing its commitment to privacy in the decentralized financial landscape.

- The 0 Knowledge Network is designed to evolve as a living system to sustain relevance within an ever-changing atmosphere of new security threats and technological capabilities. To support effective upgrading of secured and private communication infrastructure for both human and machine, 0KN facilitates sustained operations and usage of mix networks to continually expand their capabilities as well as the applications that run within them.

3. Use Cases:

- Oasis Network: focuses on open finance by enabling under-collateralized loans and supporting private DeFi applications. It engages in secure data-sharing initiatives, ensuring confidentiality in projects like the Binance CryptoSafe Alliance. Collaboration with industries, such as healthcare, highlights its commitment to secure and confidential data usage.

- The 0 Knowledge Network unlocks new technical capabilities within the realms of decentralized privacy at scale. A number of premier use-cases are targeted as initial applications while many more use-cases are supported from a combination of one or more aspects of the 0KN Technology stack including mix-net access, secured hardware, and an application layer. Top-level use cases include Traffic analysis resistant secured messaging, crypto transactions, secure communications for IoT and DePIN for building smart cities, and decentralized metadata-private ZK-powered Smart Contract Applications. 0KN Facilitates anonymous communication and protects the confidentiality of digital transactions of all types, making it a comprehensive choice for safeguarding networked activities and building a fully private and secured infrastructure.

4. Unique Features:

- Oasis Network distinguishes itself through a combination of features tailored to enhance smart contract execution and privacy. The platform places a significant emphasis on the execution of confidential smart contracts, ensuring that sensitive information remains private within decentralized applications. Its modular design stands out, allowing for easy modifications to the consensus layer and the simultaneous accommodation of multiple smart contract runtimes. This modular approach enables the platform to stay adaptable and benefit from the latest advancements in the blockchain space. Additionally, Oasis Network introduces the concept of parallel runtimes, known as ParaTimes, providing the flexibility for independent runtimes to use diverse verifiable and confidential computing techniques concurrently. This design choice contributes to the platform's scalability, extensibility, and commitment to privacy.

- 0KN's unique features are geared towards revolutionizing digital privacy as a chain agnostic platform for broad relevance across decentralized ecosystems. One of its key distinctions lies in being a fully decentralized network, eliminating the need for trusted parties or single points of failure. While other private network technologies including VPNs, Tor, or I2P fail against powerful network adversaries, 0KN's mix networks remain secure and are future-proofed with post-quantum encryption. Furthermore, 0KN is a modular mix network facilitator for a multitude of privacy networks of different tiers, revisions, and threat models. Unlike other privacy applications, 0KN's Application Layer uniquely ensures metadata privacy by cryptographic proof. The combination of metadata privacy within a ZK application chain for decentralied cross-chain privacy-preserving smart contracts sets 0KN apart in the realm of digital privacy.

5. Competition:

- Oasis Network: In the competitive landscape, Oasis Network distinguishes itself by providing a Layer 1 Proof of Stake (PoS) smart contract platform with a unique emphasis on privacy and scalability. Its primary competitor is the conventional web, as Oasis Network aims to offer primitives like data ownership, immutability, and confidentiality that the current web lacks. By focusing on responsible data practices and confidential smart contract execution, Oasis Network positions itself as a preferred solution for the next generation of digital applications and services that prioritize user privacy. The platform's commitment to a responsible data society sets it apart from other competitors.

- 0KN: In the realm of privacy-focused initiatives, 0KN's main competition includes other privacy network providers like NYM, HOPR, and MASQ. 0KN sets itself apart by providing the unique cross-section of quantum-resistant network-level metadata privacy, physical hardware with secured operating system, and an application layer for deploying decentralized privacy applications. It eliminates data leaks, hacks, privacy breaches, and compromised identities by offering a unique metadata-private internet layer. Additionally, 0KN's main competitor is $NYM, a project that launched with a considerably higher market capitalization, highlighting 0KN's value proposition in terms of services provided and price valuations.

6. Token and Incentives:

- Oasis Network: Oasis Network utilizes the ROSE token to power its ecosystem and incentivize various participants. The ROSE token serves multiple purposes, including covering transaction fees, staking for network security, and delegation at the Consensus Layer. With a capped supply, the circulating and total supply of ROSE tokens is set, providing transparency and predictability. Staking rewards, comprising approximately 2.3 billion tokens, are automatically distributed to stakers and delegators over time, fostering network security and participation. The tokenomics of ROSE aim to balance usage incentives and network sustainability.

- 0KN employs a token-based incentive model to drive participation and ensure the integrity of its network. The staked 0KN servers form the foundation of the network, upholding the integrity of the anonymous mix networks. With 0KN's innovative ZK-Proof of Staked Useful Work, node operators activate nodes by staking $0KN tokens through private on-chain registration, and receive rewards for performing useful work that supports the network. Decentralized bandwidth monitoring influences rewards, with superior bandwidth categorization leading to additional rewards. The slashing mechanism, where honest servers identify and eliminate malicious peers, reinforces network integrity through consequences for misbehavior.

7. Ecosystem:

- Oasis Network boasts a robust and rapidly growing ecosystem, supported by various stakeholders. The platform is backed by respected venture capital firms and investors, including Andreessen Horowitz, Accel, Binance, and others. The Oasis team comprises researchers, security experts, and privacy advocates from diverse backgrounds, including Apple, Google, Amazon, Goldman Sachs, and esteemed academic institutions. The ecosystem extends to include a thriving community of app developers, blockchain infrastructure teams, node operators, and partnerships with over 25 top university departments globally. The platform's wide-reaching University Program fosters collaboration and innovation across continents.

- 0KN is a new project and thus it's ecosystem is in very early stage development. The ecosystem is centered around its decentralized privacy initiative and the innovative features it brings to the digital privacy landscape. The community is incentivized by tokens, with staked 0KN servers forming the foundation of the network. The ecosystem includes collaborations with partners such as CWD Systems, Katzenpost, and CryptoLink, reflecting a commitment to top-tier security and the development of secure network primitives while leveraging the Mina ecosystem of privacy apps and developers. The platform's presence is marked by its participation in events like HCPP 2023, the introduction of the ØKN Hardware Node, and partnerships with organizations advancing privacy in various domains to bring a focus to protecting private data both on- and off-chain in an evolving digital age.

Conclusion

In conclusion, 0KN and Oasis have more technical differences than similarities and even present an opportunity for partnership exploration. In terms of growth potential, 0KN emerges as the clear winner offering a broader surface for industry adoption, utility, and application

relevance. As an early-stage project, 0KN unlocks new technical capabilities within decentralized privacy at scale, including in emerging sectors like DePIN; an industry vertical set to gain further traction in 2024 with revenues, anchored in utility rather than speculation, having shown to be the most resilient in the last market cycle. [1]

0KN Documentation: https://0kn.io/docs/0KN/intro

[1] https://messari.io/report/state-of-depin-2023

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