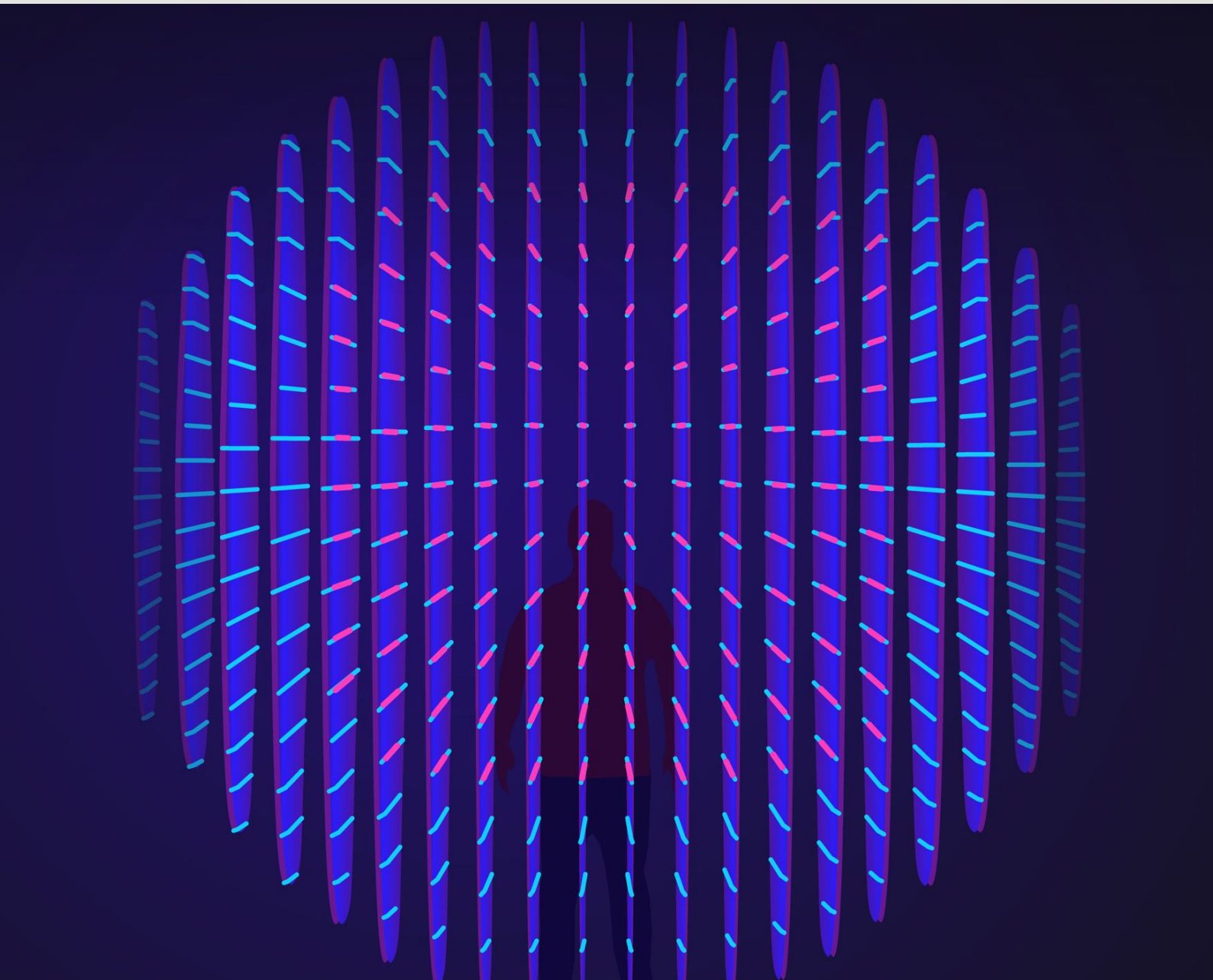
INVICTUS

HYPERION

02 JULY 2018

LIGHT STREAMS

LIGHTSTREAMS SUMMARY



LIGHTSTREAMS SUMMARY

COMPANY NAME	HYPERION FUND INVESTMENT
Lightstreams	ETH 1,650
STAGE PARTICIPATED	**DATES**
Private	**Public Sale** Q3 2018
STAGE OF PROJECT DEVELOPMENT	
MVP	

ABOUT THE COMPANY

FOUNDED April 2017	**WEB DOMAIN** https://lightstreams.network/

FOUNDERS

NAME	POSITION	EXPERIENCE
Michael Smolenski	CEO	MotionWerk blockchain engineer. Has development experience in traditional financial space, ex. Goldman Sachs.

KEY TEAM MEMBERS

Nick Brown	Business Development	MotionWerk CTO
Annika Soom	Legal Council	Attela (Lightstreams Legal Partner)
Marina Petrichenko	Digital Marketing Strategy	Diverse digital marketing experience
Lukas Lukac	Blockchain Engineer	Technical developer lead at Trivago
Aleix Suau	Frontend Engineer	HotelBeds & Startup founder
Steve Keane	Digital Design Lead	Award winning Thomson Reuters UX design lead

ADVISORS

NAME	ADVISORY AREA	EXPERIENCE
John Bettiol	Development of large scale software	Trivago
Andrew Masanto	Business development	Cornerstone Capital
Dimitri De Jonghe	Blockchain development	Ocean Protocol
George Samman	Blockchain and cryptocurrency advisor	Sammantics
Chris Moore	Startup	Private

THE TOKEN

TOKEN TYPE: Photon (PHT) - Native utility token issued on mainnet launch.

THE PROBLEM LIGHTSTREAMS SOLVES

One of the most significant barriers plaguing blockchain infrastructure at the moment is scalability. The issue of scalability is placing a dampener on platforms such as Ethereum as they fail to provide a solution to matters relating to growing network congestion. The Proof of Work (PoW) Consensus mechanism for the transaction verification process is tremendously slow. As witnessed on numerous occasions this year, processing times can reach 6-8 hours during periods of high network congestion, this coupled with higher associated costs results in crippling scalability issues.

Current platforms like Ethereum achieve a high degree of decentralization (in terms of the number of nodes) and PoW consensus, but due to throughput performance issues, they struggle to accommodate a multitude of decentralized applications (dApps). While existing protocols are mostly used for token/asset transfers platforms, the fundamental goal of accommodating dApps is currently not practical given available resources and architecture.

These platforms are not built to store any reasonable size of data on the blockchain securely. Storing 1MB on the Ethereum blockchain would take roughly 18 minutes to upload and cost several ETH. Data privacy has also become an important issue, for example, the General Data Protection Regulation (GDPR) is a newly formed EU legal framework that regulates the collection and processing of personal data. It would prohibit the storage of personal data on a public blockchain given the data would be viewable to all.

WHAT IS LIGHTSTREAMS?

Lightstreams is a peer-to-peer network enabling transactions and content distribution by means of blockchain technology. It is a decentralized network that is being developed to run decentralized applications, specifically the ones that require high throughput and information privacy. The project originated as a fork (modified copy) of the Ethereum blockchain. It is developed to stay true to its origins by being compatible with developer tools and libraries from the Ethereum ecosystem.

Lightstreams aims to solve the ubiquitous blockchain issues of throughput, storage and privacy by utilizing an alternative consensus mechanism (Proof of Authority), adaptive versions of the InterPlanetary File System (IPFS) and privacy by utilizing technologies such as zk-SNARKS (a type of zero-knowledge proof).

Proof of Authority (PoA) derives its security from requiring nodes to continuously earn the right to validate transactions while being incentivized to do so. Fewer nodes (than proof of work, for example) are expected to be available given the difficulty of establishing a validating node, which results in a trade off of decentralization for throughput. PoA is, however, a theoretically credible solution to the scalability issues encountered by more decentralized blockchains. Though these 'more decentralized' blockchains have their own issues when it comes to concentration of mining power.

Lightstreams's unique utilization of IPFS aims to bring the blockchain benefits of decentralization, security and privacy to storage solutions, thus improving on the established benefits of peer to peer file storage.

INVICTUS ANALYSIS

PROCESS

Invictus's analysts first made contact with Lightstreams in late May 2018, via Telegram. This led to a round of introductions and the establishment of a private channel on which Lightstreams and Invictus Capital could keep in regular contact. With this direct access, as well as calls when necessary, agreement on a strategic partnership was effectively reached.

A SAFT agreement finalizing the investment by the Invictus Hyperion fund was signed on 12 June 2018 after legal due diligence was carried out by Invictus's legal counsel, the Decentra Group.

TECHNOLOGY

The Lightstreams network distinguishes itself with their 'Permissioned block technology' that increases its utility by means of securing stored data. Permissioned block technology is simply defined as access control to peer-to-peer distributed storage technology.

Permissioned blocks technology is built utilizing two different network layers.

- A Distributed Secure Storage Network (DSSN) based on IPFS where specifically protected content is only shared with authorized nodes.
- A layer for cryptocurrency and smart contract capabilities. These smart contracts are used to manage permissions to protected content.

Smart contracts, generally, are transparent in their current implementations. Any dApp that is built on Ethereum will have its compiled code available to be viewed by any person. This is not acceptable for applications that may include personal and protected information. Permissioned block technology solves these issues. Lightstreams also plans to develop more privacy features in the future by utilizing either Ring signature or zk-SNARKS technology.

New blocks on Lightstreams are created using a Proof-of-Authority consensus mechanism (Tendermint) to substantially increase the throughput, enough to deliver a viable platform for dApps. Blocktimes of 1-3 seconds are expected with the ability to shard to scale as necessary.

The infrastructure aims to stay true to its origins and retain compatibility with Ethereum developer tools and libraries. This is important as it preserves ties to Ethereum's developer community, which is the strongest in the blockchain space.

Invictus Hyperion is aware that multiple online reviews have made the statement that code development has ceased for Lightstreams as their activity has been halted on GitHub. The team has addressed these concerns via official statements and direct responses stating that the code will no longer be open source during the initial stages of development. This is simply and reasonably because Lightstreams, as an early stage project, wishes to decide at a later date which components they would like the community to contribute to.

PRODUCT AND TOKEN

Utilizing their unique technology, Lightstreams are able to create an ecosystem where dApps do not have to act in an unnecessarily transparent manner which would compromise privacy and security.

The native token of the Lightstreams blockchain, Photon (PHT), is analogous to Ether (ETH). It will be used for:

- Transaction fees
- Purchasing digital content
- Participation in the governance of the system

PHT is therefore linked to the core value proposition of the network and will gain in value with increased adoption by projects building dApps on Lighstreams and users that use them.

The token allocations are sufficiently distributed. With 55% going to the token sales (other credible projects dip to 30%), the risk of downward price pressure due to an influx of tokens into the market is low.

The team commands 20% of the token allocation which is high. This is however acceptable as they have already invested effort, and the two-year token vesting schedule is appropriate.

There is a 10% allocation for future offerings, which gives Lightstreams the flexibility to cater to the pace of the environment. Advisors and development partners receive 8%, while dApp incentives and bug bounties receive 5% and 2% respectively. These are positive, and it is good to see incentivization for dApps to drive adoption of the platform.

The hardcap is USD 20M which is appropriate compared with other projects in the same sector. This level of hardcap is associated with excess demand and bodes well for the token price after exchange listing.

COMMUNITY

Given that Lightstreams have spent very little on marketing thus far, it is comforting to see that the project has gained significant traction within the crypto community since inception. This purely organic growth in followers is a testament to the potential that Lightstreams and their team have. The project is featured positively on multiple ICO review websites and has developed a relatively strong presence on Telegram with over 13k followers. This community support will likely increase once the team deploy raised capital and focus efforts on their marketing strategy.

Lightstreams has taken on several strategic partners, including Invictus, to help them achieve the optimal launch of their vision.

MARKET

The sector of the market that Lightstreams aims to penetrate is significantly competitive. Blockchain infrastructure has serious players such as Ethereum, EOS and Stellar which control a significant portion of the current market capitalization and certainly benefit with regards to first mover advantages. The Lightstreams platform however offers clear differentiating characteristics that address scalability issues as well as privacy and storage that most dApps certainly require for the functioning of their services. If Lightstreams can aim to capture just a fraction of the multi-billion dollar market cap that this sector controls, the returns for investors can be significant, especially considering the relatively low implied token valuation of $36m that they aim to raise in their ICO. Lightstreams is fully compatible with Ethereum allowing for easy migration of dApps onto the platform. This, coupled with the significant growth in new dApp development being witnessed globally, allows for the sector to progress effectively.

TEAM

Lightstreams currently has a small team composed of highly skilled individuals. The project is headed by CEO Michael Smolenski who has highly relevant experience in software and blockchain engineering from credible institutions and projects. Michael is supported by Nick Brown, a graduate in Law from Cambridge University and former CTO at MotionWerk. The current developers are also highly competent, and Lightstreams are in the process of increasing their development team.

The advisors provide a strong combination of business and technical expertise, including the likes of John Bettiol, Head of Organisational Solutions at Trivago, and Dimitri De Jonghe, Co-Founder of Ocean Protocol.

With the initial PoC delivered at Consensus 2017, the team has demonstrated commitment by investing their time and effort over an extended period in advance of any token sale.

DUE DILIGENCE

Invictus Hyperion employs a rigorous due diligence process to ensure that all aspects of the company, its team, and their business proposal are legitimate. Invictus Hyperion has had legal consultants review all documentation provided by Lightstreams and sought their council for aspects believed to be of utmost importance with regards to aligning stakeholder interests. We would like to thank Lightstreams for their cooperation in this regard. The Due Diligence process was highly comprehensive.

A few of the risk categories covered are mentioned below:

- Risks to Leadership
- Risks to Business Continuity
- Risks to Intellectual Property
- Risks to Financial Standing
- Regulatory Risk
- Risks to Feasibility