HYPERSURFACE

LEGAL INFRASTRUCTURE FOR THE DIGITAL AGE

1. Introduction

In the 21st century, digital systems cut across every aspect of organisational and commercial relationships. Computers and the internet have quickly become a mainstay in our modern world. Yet, from a historical perspective, they are still in their infancy. While our society has become increasingly digital and distributed, the legal processes that structure society's most important interactions have not followed the same trajectory.

As a result, even the simplest procedures can require voluminous paperwork; operations are dependent on a litany of intermediaries and counterparties; and at the most fundamental level, trust is still assured through the threat of punitive action. As information flows in real-time across continents and digital platforms, inefficiencies in the legal system ripple across both sectors and industries. Often, we view these processes as mere formalities, as obligations, rather than drivers of value. What escapes our notice is just how much of an impediment these processes can be and how much friction they introduce to the very interactions they were designed to support.

What if we viewed these processes, not merely as administrative formalities, but as social operating systems? Systems designed to structure interactions, guide decisions, and align incentives. With a digital backbone, such frameworks could transition from hindrances to efficient enablers in an interconnected world — not just operating systems by analogy, but as direct interfaces for dynamic, participatory stakeholder engagement. Instead of transcribing old pen and paper practices to a digital environment, such systems would seek to harness the true potential of digital architectures.

As we move further into the digital era, the potential for legal transformation becomes evident. The digitisation of legal processes would allow for the real-time execution of legal transactions, enabling users to operate with unparalleled clarity and immediacy. Like software, it would depart from the generic, offering solutions tailored to the distinct requirements of applications, contexts, and industries. A seamless integration of automation would dramatically reduce the administrative burdens, paperwork, and red tape that professionals grapple with today. Such advancements could lead to the development of dynamic legal frameworks. These frameworks, driven by constant feedback and iteration, would usher in a new era of agility, allowing modern enterprises to see their needs reflected for the first time at all levels of their entire organisational structure.

Hypersurface is reinventing the systems that underpin modern legal interactions. By reimagining legal processes as foundational social frameworks, Hypersurface hopes to establish a shared infrastructure for interactions across the digital landscape. With its plural approach and focus on the overarching challenges that lie in balancing tradition with innovation, Hypersurface revisits some of the fundamental design assumptions of the web to create an alternative information management architecture built from the legal system.

In the future, the combination of code and law will redefine how we work together and overcome challenges. Next-generation, digital-native organisations will allow us to engage in new ways, on scales we had never envisioned. Through such a transformation, we hope that transactions, organisations, and eventually entire ecosystems can be modelled as cybernetic circuits — sophisticated flows of control and communication that serve as the connective tissue of our global economy. We view this, not simply as an evolution of the legal system, but as the future of the internet itself. Hypersurface's mission is to transform the static, disconnected processes we are familiar with today into ones that are open, integrated, and designed for the age of the internet.

2. The Legal System

The legal system serves as the bedrock for creating trust and ensuring compliance. It operates as the primary mechanism through which businesses and the relationships that compose them are structured, offering a framework for understanding rights, duties, and the boundaries of permissible action. Through contracts, regulations, and laws, the legal system dictates how stakeholders are aligned and incentivised to common ends. While legal processes offer consistency, predictability, and the means for dispute resolution, they are limited in a number of important ways.

Adaptability

Modern organisations are often highly complex. Iteration of legal documents can be slow, making it difficult to adapt to the changes an organisation will face. Because of the disparate recording of legal documents, organisations can struggle to access, update, and distribute the necessary information when changes occur.

Low Auditability

When interactions and decisions aren't transparent or easily verifiable it becomes difficult to ensure accountability, leading to potential misuse and abuse of the system. This lack of clarity not only undermines trust but also complicates dispute resolution, as the absence of clear evidence or records hinders ascertaining the truth.

Cost and Time

Legal processes are time-consuming and expensive. Relying solely on legal enforcement can result in delays and high costs when resolving disputes or addressing non-compliance issues. Furthermore, the administrative burdens associated with legal processes impede organisations in their efforts to efficiently manage their affairs and maintain positive relationships with stakeholders.

Trust and Reputation

Organisations also depend on trust and reputation to function effectively. Without an established reputation, it can be hard to attract customers, clients, investors, and talented employees. While the legal system can provide a baseline for establishing contractual obligations and helping to ensure compliance, it often falls short in building the deeper levels of trust that are essential for sustained success, particularly across borders.

3. Smart Contracts

Smart contracts offer a radical new paradigm for society: for the first time in history, powerful non-legal mechanisms to regulate interactions have begun to emerge. Like a traditional legal contract, a smart contract establishes the terms of an agreement. Unlike a traditional agreement, however, a smart contract's terms are rendered and executed as code on the blockchain.

Whereas the burden of upholding a legal agreement falls solely on its participants, and enforcement or punitive action in the event of non-compliance is the responsibility of the state, a smart contract enables, enforces, and automates actions based on predetermined conditions. Smart contracts are compelled to act in a certain way, not by law or social norms, but by their predefined internal architecture.

To illustrate, let us consider a savings account held within a conventional bank. In a traditional framework, governmental regulations oversee banks to guarantee user safeguards. Similarly, banks regulate their employees to prevent misconduct. In both instances, there exist a set of legal agreements—regulatory authorisations, company policy, employment agreements—operating under the law. These agreements serve as the primary deterrent against the misappropriation of funds by the bank or an employee. Any action that violates such agreements is met with legal repercussions after the fact.

Smart contracts establish rights and obligations through the strict application of logic. If we were to create a smart contract to secure funds for a predetermined period, we can be sure that the boundaries of behaviour defined by the contract's code and input parameters will be enforced irrespective of stakeholder compliance.

The unique design of the blockchain ensures the tamper-resistance of the smart contracts, even to the contract deployers themselves. To do so, the blockchain makes use of a system state that is distributed across a network of computers or "nodes". These nodes reach consensus through cryptographic algorithms, ensuring that every transaction added to the blockchain is verified and agreed upon by a majority. This method of validation ensures the integrity and immutability of the data, making it resistant to tampering and fraud.

Whereas security in centralised financial infrastructure is created through a "defence-in-depth" approach, often relying on tens of millions of pounds of technical infrastructure, numerous layers of security, regulatory oversight, and authorisation, in many ways the blockchain can be considered a "defence-in-breadth"

approach. By spreading the system state across a network of nodes, a significant number of the nodes must be captured before the system can be compromised.

This design makes it extremely difficult to falsify transactions, meaning user uncertainty regarding security can be minimised. It does so while creating a public system that anyone can make use of. In this regard, the blockchain satisfies a need that very few people recognised before its advent: that of an independent digital execution platform, one that is open, accessible, and can be trusted by all participants.

4. Hypersurface

When the World Wide Web was created by Sir Tim Berners-Lee at CERN in the late 1980s, it was designed with the primary goal of facilitating access to research documents among scientists from across the globe. His intention was to create a system that would enable seamless sharing of information, regardless of the user's location.

Although the web has now evolved to focus heavily on media and applications, at the most basic level, the architecture of the web still reflects its original purpose: as a platform for the public dissemination of knowledge. The basic design assumptions of the web are so fundamental and implicit in the ways in which we interact online that we rarely recognise them as such. Within these basic assumptions, piecemeal solutions optimise for distinct stakeholder needs. They do so without addressing the underlying problem or recognising the basic fact: that the web was not designed for many of the processes they seek to support.

In lieu of using the web as a platform for information dissemination and discovery, Hypersurface enables the web to be leveraged in a near-native capacity as a shared infrastructure for legal and financial processes. By doing so, we seek to establish a standardised framework for efficient and secure interactions across the digital landscape.

Persistence

Computing power and storage capacity were a fraction of what they are today. As such, the web was designed as a tool to share and spread knowledge, not as a storehouse for data. This eliminates the web as a viable platform for uses where data integrity is required as there are no guarantees for the persistence of critical information.

Hypersurface uses blockchain technology, not just as a transaction platform but to create a trustless, transparent, and verifiable web server. This virtual, blockchain-based web server is known as **Hyperserver**. Hyperserver provides a backbone for data storage and retrieval for users. By leveraging the underlying security guarantees of the blockchain, every piece of data recorded by a Hyperserver is stored and rendered with full auditability. This specific focus addresses a long-standing gap in the digital space where data and actions often fall prey to loss, ambiguity, lack of verifiability, and potential tampering.

Provability

In traditional web infrastructure, transactions are fleeting. Transaction histories for individuals and organisations are siloed

across third-party databases where actions are executed. As a result, there's no definitive record or central repository of a user's digital interactions.

Because each user has their own Hyperserver running on a shared infrastructure, backend interactions between users are now possible. This means that, instead of interacting through the browser with an external server, users interact with their own Hyperservers, providing access to their internal records to the intended target as evidence of actions. This enables users to create a persistent record of every state-changing action they have taken part in. This may be used to prove that a particular agreement has been signed, enabling the user to take the next step in a series of actions, or to prove that a transaction has been authorised, thereby executing a fund transfer.

Context

Web pages were designed to present data, provide interfaces, and handle data transiently; they were not designed to capture data explicitly within an intended context. As a result, traditional Microsoft Word and PDF documents are still used widely. Hypersurface enables HTML to be used to capture agreements and actions explicitly in their intended context. This enables web pages to record legal documents in a secure and persistent manner. These agreements are legally enforceable and can be signed cryptographically. This provides an essential, real-world legal foundation for actions, allowing Hypersurface to create genuine digital legal agreements, and assets, rather than simply representing off-chain resources. Not only is HTML a secure, well-established technology that has been thoroughly tried and tested, but it also has inherent strengths that static document formats, such as Word, PDF, and Markdown, simply cannot offer:

- Native rendering in the browser ensures broad compatibility across devices and contexts. It also enables legal documents to be accessed directly via a URL. Because HTML is so well established, users can leverage design patterns to create more concise and interactive legal documents. For example, hyperlinks can be used to reference supporting resources, reducing the amount that must be explicitly recorded in an agreement; forms and inputs enable legal documents to act as direct interfaces for proposed actions.
- HTML enables hierarchical and deeply nested structures, which are crucial in legal documents to delineate sections, subsections, and nested data fields. This structured data format also allows documents to be parsed and indexed by external machine systems, enabling search, analysis, and integration by third parties.

Simplicity and Transparency

The original implementation of the web used basic HTML, which was crafted to present information in a simple and straightforward manner. While this is a boon in the legal space where clarity is key, due to the limitations of native HTML, front-end JavaScript frameworks have been developed and deployed ubiquitously. Whereas the early web was simple enough that everyone could participate in value creation, with the primary barrier being access, now the web is widely accessible, but users are only able to interact through patterns of behaviour defined by application developers.

Hypersurface seeks to democratise access and enable everyone to participate in value creation. Through a number of low-level custom HTML extensions, Hypersurface enables sophisticated blockchain functionality to be made accessible in a form that is extremely simple. This enables users to leverage the innate simplicity and functionality of HTML to craft and edit smart legal documents to suit their own purposes. We believe this will greatly enhance security and democratise access by transforming the primary interaction patterns of web3.

While web3 aspires to the principles of “don’t trust, verify”, front-end applications have proven to be a longstanding weakness. The technical complexity and “separation of concerns” that is commonplace in front-end web development make it extremely difficult for all but the most technical users to source and verify the behaviour of an application. The use of HTML for legal interfaces provides transparency and “locality of behaviour”, enabling users to directly verify the actions of an agreement.

Automation and Execution

The web was designed for the exchange of data, rather than the secure transfer of financial assets. As such, traditional transactions are reliant on third-party payment providers, such as Stripe, PayPal, and traditional banking infrastructure to ensure the integrity and authenticity of transactions.

Hypersurface uses blockchain technology to provide significant improvements to user experience. The blockchain's cryptographic techniques and decentralised nature make it exceptionally secure, enabling users to execute transactions with confidence. Users are also able to leverage the blockchain for their own needs and use cases in a way that traditional financial infrastructures cannot. Incredibly, this can all be done on a purely peer-to-peer basis. By leveraging the blockchain as a back-end transaction infrastructure, in support of front-end legal processes, users are able to execute financial transactions using their own servers. This eliminates the need for complex,

fragmented, and highly intermediated processes found in traditional finance.

By utilising the interactivity of HTML in combination with the blockchain as a transaction infrastructure, Hypersurface enables the creation of “smart legal contracts” where some or all of the obligations are recorded, enforced, and executed automatically by smart contracts, and others are rendered in plain text and enforced using the traditional legal system. In the Hypersurface ecosystem, these are referred to as “smart documents”, as although the majority will confer the user some form of legal right or obligation, many are simply used for context or as interfaces.

These agreements serve as both a record of rights and obligations and as interfaces for encapsulated smart contract functionality. This functionality can automatically execute certain actions and transactions when signed by participants, or grant the bearer certain permissions at the protocol level.

For example, processes that can often take weeks, such as the signing of a subscription agreement by an investor, the transfer and settlement of funds, the update of the cap table, and the issuance of shares, can be executed instantly with a single form submission. Once the transaction has been executed, shareholders can directly hold and trade digital shares, updating the underlying cap table to reflect transfers directly, based on the unique permissions granted by the asset.

Privacy

When the web was created, its intended purpose was information sharing. As a result, it prioritised access to information, sidelining any notions of privacy or native-level access management. To introduce access management is ultimately a question of custom logic introduced by third-party applications. Hypersurface seeks to introduce near-native level access management to the web. This access management is done on the basis of token ownership. When documents are tokenised, the token serves as a ledger providing an internal record of ownership. In essence, users create an allow list for documents and data hosted by their Hyperserver. Because requests are executed between servers on the blockchain, rather than from the browser, identities can be verified using the server's public key. This provides a universal identifier for access management without the need for usernames and passwords.

Using access tokens for authentication is common in software; what is not common is token transferability. Rather than being static or confined, within the Hypersurface ecosystem, tokenised functionality takes on the innate portability and transferability of the tokens themselves. Singular tokens are often used to represent non-fungible items (e.g. agreements, deeds, operator keys, etc.), however, token balances can be of arbitrary size.

In these instances, not only does the user have access to specific rights, functionalities, and data conferred by the token, but they are also the bearer of a balance associated with that asset, which can be redeemed, transferred, and even traded. Such flexibility not only reimagines software and data sharing but also introduces novel opportunities for the distribution and exchange of functionalities within the ecosystem.

5. Core Protocol

Ledger

At the core of a Hyperserver is an append-only ledger. An append-only ledger is a type of record-keeping system where new data or entries can only be added to the existing records. In this ledger, data is not altered or deleted once it is recorded; instead, new information is appended to the ledger in chronological order. This is accomplished using hashing to create a unique, fixed-length string of characters known as a “hash” for each entry in the ledger, based on its content and the hash of the preceding entry. This ensures the integrity and immutability of the historical data by creating a “hash chain,” making it extremely difficult to falsify data once entered into the ledger.

This ledger functions as an indelible record of all state-changing actions and transactions executed by a Hyperserver instance. It serves as the backbone of data storage and retrieval, in essence, providing a key-value database of actions. In many ways, the ledger can be thought of as a local, account-specific blockchain. In layman's terms, it means that all state-altering actions executed by the contract are securely recorded. This innovation ensures the integrity and accessibility of data within the Hypersurface ecosystem, providing a robust foundation for a wide range of interactions and applications.

Signing Keypairs

Signing keypairs are generated and held by Hyperserver instances. The public key is used to hold assets like a traditional EOA wallet. The private key is used to sign and authorise actions from this keypair. Whereas the public key is visible to users and accounts, the private key is held internally by the server. When an action is authorised, the data is signed into the ledger using the private key. The ledger entry is then shared with the intended target. The target uses the signature to calculate the public key of the signing keypair, which is used for verification and action.

This distinctive account abstraction model offers a unique set of benefits over traditional blockchain account designs. Firstly, a single Hyperserver provides a gateway to, and authorises actions from, a number of keypairs. These could be used for different wallets, users, teams, divisions, companies, funds, vehicles, etc. The ability to compartmentalise balances and permissions while still providing a single point of entry is invaluable. This separation of concerns also enables disparate entities to act under a single umbrella while still being able to partition assets and actions.

The second benefit of Hypersurface's unique account abstraction model is that it enables smart contract logical functionalities to be added to the signing process. The simplest

example of this is a hook. Because the private keys are held by the server, smart contracts can be used to automate the signing of an action by programmatically verifying a piece of data received by a server (e.g., a signed agreement). A more sophisticated example is a keypair representing a company's treasury. To authorise a fund transfer from the company treasury, a shareholder vote may be required whereby votes for a particular action are tallied. If the vote passes, the action is signed and executed.

The final benefit is that when a smart contract receives a piece of data, it can use the signature associated with that data to verify the public key. This ensures that the data hasn't been tampered with and truly originates from the expected source. As a result, signed actions can be relayed to the intended target at any arbitrary depth — so long as the signing key is authorised and the data is valid, any number of intermediate actors can handle a piece of data.

Tokens

Hypersurface utilises tokens as the primary mechanism for interacting with ledgers. These tokens streamline various operations, be it viewing ledger entries, executing actions, or even proposing new actions. Hypersurface tokens can be used to share access to ledger entries, enhancing the sharing and visibility of distinct patterns. In many ways, Hyperserver functions like an ERC1155 multi-token standard.

Instead of token data/metadata being recorded off-chain using JSON, the data that a token represents is a specific ledger entry. Through the tokenisation of ledger entries, Hypersurface transforms tokens from a simple unit of account to units of information exchange and privileged access, enabling the transfer of permissions, data, and functionalities.

Most importantly, Hypersurface's information architecture exposes tokens as the single, standardised unit of interaction for all actions within the ecosystem. Tokens are used to create a key-value database for entry lookup and retrieval; to record and verify access; and push data to other Hyperservers. This model offers the flexibility and simplicity to facilitate sophisticated chains of interactions that are both private, secure, and efficient.

Tokens are passed between ecosystem actors as messages; when one entity wishes to share a particular piece of data, request an action, or grant access to a document, it does so by sending the appropriate token to the desired recipient. Because ledger entries are signed, the entry data and signature can be used to calculate the public key of the signing key pair. This is then used for verification and action. For example, (1) verifying that the key holds funds and then (2) updating the balance associated with the key to reflect a fund transfer.

Libraries

Through the use of libraries, servers can be customised to suit a broad range of applications, from individual user accounts to organisation accounts to ecosystem primitives. Libraries are smart contract frameworks for specific actions and interactions, providing functionalities that are deployed once and shared amongst many users and use cases. Libraries enable the logic contained within a library to be 'borrowed' and executed within the context of the calling contract, effectively merging their state and functionality seamlessly.

In essence, libraries are used to add trustless backend functionality to front-end legal interfaces. Although the particular implementation of an agreement may vary, the underlying smart contract functionalities will be dictated by the standardised library.

Routes/Receivers

At the protocol level, all Hyperservers introduce **custom token receiver logic** (similar to IERC1155Receiver), ensuring effective recognition and interfacing between Hyperserver smart contract instances. The recipient then processes this token, interprets its entry data, and acts accordingly. Unlike traditional receiver logic, Hyperserver enables the creation of different routes to handle and automate specific actions.

All tokens received by a Hyperserver are logged. In essence, the log can be thought of as a token inbox. Although the ledger and the log are similar in design and purpose, the ledger records internal actions executed from the Hyperserver, and the log records all tokens received by an account from external sources. Logged actions are not signed into the central ledger by default but can be accepted and signed into the ledger manually by operators or automatically by certain smart contract functionalities.

The primary use of the log is to record that a token has been sent to a particular public key held by a contract. This enables users to record the tokens they have received. If an action is logged but not automatically signed, the user can then render the logged token in the browser and act upon it accordingly; for example, by loading and then signing a received NDA.

Libraries are used to create different automated functionalities for the handling of token receipts. Although this may seem complicated — sending a token to a library represented by a token — a better way to view it is as sending transaction data (recorded by an entry and gated by token ownership) to a particular piece of smart functionality (recorded by an entry and gated by token ownership).

6. Frontend

Legal considerations have played a foundational role in the shaping of the Hypersurface protocol. Smart contracts are neither capable nor appropriate for all situations. When dealing with humans "off-chain", traditional legal agreements are still the most effective format for such interactions.

Deploying smart documents in a web-based environment grants users a broad array of security and usability benefits. Key information such as the effective date can be recorded down to the second without needing to be included within the agreement itself. Likewise, the use of hyperlinks enables effective deduplication of information through the linking of resources. For example, instead of having to directly specify the details of the parties engaging in an agreement (e.g., name, jurisdiction, company number, etc.), users can simply choose to link to a supporting identity document as follows:

This Non-Disclosure Agreement is entered into by and between the “Disclosing Party” and the “Receiving Party”.

By referencing documents rather than manually including all relevant information in each agreement, Hypersurface streamlines the process of contract creation and management, enabling individuals to concentrate on the actual essence of their contracts while providing all the necessary context for robust legal agreements. This approach provides enhanced readability and separation of concerns, as large portions of an agreement is often dedicated to establishing and defining its various aspects to ensure clarity, certainty, and legal enforceability.

The second benefit of this approach is the automatic propagation of data. For example, if the company were to rebrand and change its trading name, registered office, and contact details, these changes would be reflected in any documents that link to this resource. This is done while still capturing the exact state of the underlying data at the time of signing.

These agreements serve not only as static records of rights and obligations but, through the use of forms and inputs, can serve as interfaces for encapsulated smart contract functionality. Legal agreements, when rendered as HTML, can function as dynamic interfaces, offering features such as form submissions with interactive input fields and validation mechanisms. This level of interactivity not only enhances the user experience but significantly improves the utility of legal agreements, enabling parties to engage with and modify the content in a way that goes beyond the static nature of traditional document formats.

By utilising the interactivity of HTML in combination with the blockchain as a transaction infrastructure, Hypersurface enables

the creation of legal agreements with embedded execution capabilities. These agreements can automatically execute certain actions and transactions when signed by participants, or grant the bearer certain permissions at the protocol level. This is achieved by using the submission route as the forms action, emulating the behaviour of a traditional URL but within the context of the blockchain.

Hypersurface provides compatibility through a simple layer of abstraction on top of basic HTML. Compare the following two HTML forms:

```
// Basic HTML
<form action="path/to/submit/data" method="POST">
    <input type="email" placeholder="janesmith@acme.com">
    <input type="password" placeholder="*****">
    <button type="submit">Submit</button>
</form>

// Hypersurface HTML
<legal-form hxh-action="server/shares/transfer" hxh-method="POST">
    <input hxh-type="address" placeholder="0x012...">
    <input hxh-type="uint256" placeholder="100">
    <button hxh-type="sign">Sign</button>
</legal-form>
```

Whereas the first form, rendered in basic HTML, represents a simple email and password input for something like a user signup or login field, the second form enables the user to submit a share transfer to an address for a particular amount. The data from the form submission is then added to the signer's own Hyperserver, whereupon the entry recording the data is then submitted to the route, in this case, via contract/shares/transfer. The specific library functionality of the route then handles the data, in this case, transfering the signer's shares.

6. User Experience

Blockchain technology today is much like the first generation of the web. While the technical infrastructure is established and capable of supporting use at scale, a relatively small number of key usability issues present a far greater barrier to adoption than the underlying technology. Even in 2023, blockchain applications make little provision for non-technical users. This design philosophy is perhaps best summarised as “by developers, for developers”.

It is our conclusion that for blockchain-based applications to achieve mainstream commercial success, the technical infrastructure must be all but invisible to users, in the same way as any traditional web application. Understanding the blockchain must be an option for those who wish to engage on a more sophisticated level, rather than a necessity.

Hypersurface is the first organisation to enable the blockchain to be explored like the web. To foster this familiarity and ease of use, Hypersurface introduces a user interface that evokes the look and feel of conventional web browsers. With design patterns borrowed from conventional interactions, the application offers a gentle learning curve that should be suitable for non-technical users. This design choice is predicated on the belief that the path to widespread user adoption is paved with recognisable and comfortable interactions.

Explorer

Navigating the blockchain ecosystem intuitively is at the forefront of Hypersurface's user-centric design. By reimagining the interaction paradigms of traditional web browsing and adapting them to the blockchain context, Hypersurface bridges the gap between complex blockchain operations and familiar daily web activities. This approach facilitates a smooth transition for users into the world of blockchain while infusing the security and verifiability inherent to blockchain technology.

Domains

For instance, akin to how one would access web pages via URLs, accounts and documents within Hypersurface can be retrieved using their unique entry IDs. For named entries, this is done through the application hashing the namespaced domain, allowing users to enter a domain as they normally would (e.g., hyp.acme/shares/common). Unnamed entries are identified by their 32-character bytes input. This means that every agreement, every transaction, and every interaction has its own web address, creating a coherent and easily navigable system for users.

Domain Security

If you look in most browsers, to the side of the search bar, you will typically see three icons: tracking protection, the website's SSL certificate, and cookies. In their place, Hypersurface introduces three new security verifications: signature verification, library verification, and token details; any blockchain entity that is not compliant with Hypersurface's security protocols will be blocked by default.

Signatures

Signatures serve as a digital assurance, certifying that a particular piece of data has indeed been issued by the claimed party and has remained unaltered. Within the Hypersurface protocol, the process of signature verification takes precedence, serving as a fundamental checkpoint for security. The robustness of this method lies in the fact that, much like a wax seal, it unambiguously authenticates the sender's identity and the integrity of the message content.

Signatures within the context of smart contracts are crucial, acting as more than just a static marker; they function as an active component that ensures trustworthiness at every transaction phase. When an agreement is loaded, the application verifies that the associated signature matches the declared public key, maintaining a consistent thread of trust. This level of verification is essential because it guarantees the data's authenticity, even as it moves through various intermediaries. As long as these intermediaries are recognised and the data remains unaltered, the system's integrity is upheld.

Libraries

Within the Hypersurface ecosystem, libraries are developed to the highest standards and used to create standardisation and security. Libraries can be thought of as security certificates. They enable users to be sure of the particular effect of an action without needing to manually verify the behaviour. By doing so, they instil confidence among users, reassuring them of the platform's reliability. Although specific legal implementations may vary, the agreement will always conform to the behaviour specified by its library.

Token Details

Hypersurface provides insights into the token used to issue or transfer a web document to the receiver. Users can extract key information, such as expiration, date of receipt, transferability, and other pertinent details, akin to viewing cookie data in a browser. Moreover, they can check the balance of tokens they hold, which is particularly relevant if the token has a value or usage limit associated with it. This transparency provides users

with the autonomy to understand the granular details of their interactions, ensuring they're always in control.

Token details also provide a simple shortcut to transfer tokens directly via the Hypersurface application, rather than through its underlying smart document. The token details act as a clear and accessible guide to the rules governing a document’s movement within the Hypersurface ecosystem. Users can easily ascertain if a document is bound to their account or if it can be freely shared with others.

Logged, Signed and Favourited

The Hypersurface application is designed for easy access to historical user actions. To this end, Hypersurface introduces three features: logged tokens, signed entries, and saved entries. These tools are crafted to provide users with a comprehensive overview and control over their transactions and agreements, streamlined in a manner reminiscent of familiar browser functionalities. Each feature is tailored to record and highlight different aspects of user activity, ensuring that every action taken within the ecosystem is transparent, traceable, and easily retrievable. Here's how each of these features functions to improve the user experience on the Hypersurface platform.

Logged

The 'Logged' feature in Hypersurface functions as a comprehensive digital ledger, meticulously recording each token that an address acquires. It mirrors the functionality of an inbox but is designed with the transparency and chronological structuring of a browser history log. This allows users to track their digital footprints across the Hypersurface ecosystem, providing a clear, time-stamped record of all incoming tokens. Each entry logs key information such as the sender's address, the timestamp of receipt, and any relevant notes or tags that might have been applied. The primary advantage here is twofold: it ensures accountability and ease of retrieval, giving users a powerful tool to audit their transactions and interactions over time.

Signed

The 'Signed' section acts as a historical archive of all the state-changing actions that an account has been involved in, such as the creation, modification, or cancellation of smart contracts. These actions are not merely listed but are also structured with the same user-friendly approach as browser history. Every entry in this log is a testament to an agreement or a transaction that the user's account has actively confirmed and consented to, providing an immutable record of consent and participation. This is particularly crucial for maintaining a clear trace of user authorisation and for ensuring non-repudiation.

Saved

The 'Saved' feature is akin to the bookmarking function found in web browsers, tailored for the blockchain environment. It allows users to mark and quickly navigate to particular smart documents they deem important or frequently access. This could include regular transactions, governance portals, or frequently consulted balances. By offering this function the application allows the efficient management of resources and reduces the time spent searching for frequently used documents. The saved items are readily accessible, providing a personalised and streamlined interface that caters to the individual user's preferences and needs.

Deploying Functionality

Hypersurface introduces a paradigm wherein deploying new functionalities is as user-friendly as applications such as Notion or Confluence. With a focus on simplicity and customisation, the deployment process is streamlined to support users in extending their Hyperservers. This is designed to eliminate the complexities of blockchain functionality, enabling users to tailor the technology to their specific needs.

Library

In the Hypersurface protocol, even the simplest front-end legal agreements will typically wrap some form of smart contract functionality. To deploy new functionality to a Hyperserver, users will start with a library selected from the application. Users can search for the functionalities they need based on categories and uses. For example, Asset → Fungible → Permissioned → Common Shares. Each library acts like a plug-in module, enhancing the Hyperserver with additional capabilities.

During the deployment of a new library, users encounter configuration options that tailor the smart contract to their specific requirements. For example, when dealing with permissioned common shares, they might enable settings such as non-transferability by default or specify attributes for potential recipients. This initial configuration defines the operational parameters of the library.

Agreement

The next step involves crafting the legal agreement. Leveraging a WYSIWYG block editor, individuals can forge agreements that are not only legally sound but also intricately tailored to the library's functions. The library will also typically require certain user fields and inputs from the recipient. Users may edit or update the front-end agreement implementation within the boundaries defined by the library. For something like a share library that includes a transfer method, the inputs required will be a recipient

address and an amount. Whereas the accompanying legal agreement can be customised or created, the required inputs must be included. By encapsulating smart contract functionality in legal interfaces, users are given the flexibility to craft their own agreements as they see fit.

This editor transforms the experience from one of coding to one of design, where users construct their legal frameworks with the same ease as drafting a document. The block system divides the agreement into manageable sections, allowing for the simple insertion and modification of clauses. This means that even those without legal expertise can assemble comprehensive and binding agreements, safe in the knowledge that the essential elements dictated by the underlying smart contract are seamlessly integrated.

Deployment

To add a smart document to a Hyperserver, the user will simply click "Review & Deploy". The user will then be taken to the review page, where they can check the actions of the proposed deployment before finalising the action.

7. Ecosystem

The collision between regulated activities and permissionless protocols presents a unique set of technical, ethical, and regulatory challenges. The blockchain has eliminated middlemen from financial transactions, provisioning solutions directly between buyers and sellers. Although this has created a more efficient and egalitarian ecosystem, it has done so at the cost of massive deregulation. As a result, fraud, hacks, and rug pulls are common throughout decentralised finance.

While regulators have sought to keep pace with the changes taking place in the blockchain ecosystem, they have largely failed, instead resorting to public sector conservatism and regulatory crackdowns in an attempt to protect users. Unfortunately, this knee-jerk reaction has fallen short due to the same deficiencies that have often plagued financial markets, many of which drove the development of blockchain technology. High-level controversies surrounding regulated firms such as Celsius and FTX show that authorisation and oversight cannot guarantee user safety alone.

Instead of reflexively returning to traditional approaches or attempting to downplay the importance of trust, we believe the key is to both acknowledge and integrate traditional regulatory controls in a way that is structured, intentional, and consistent with the objectives of Web3. Namely, in a way that introduces trust for operations that cannot be automated or performed on-chain, while leveraging the decentralisation, trustlessness, and privacy guarantees of the underlying blockchain to the greatest extent possible.

Token Curated Registries

In many ways, Hypersurface can be thought of as the world's first decentralised regulatory infrastructure. Not only does it provide a framework for secure and compliant interactions across the digital landscape, but an unopinionated infrastructure platform for an ecosystem of trusted third-party service providers. At the core of this ecosystem is the concept of a **Token Curated Registry** (“TCR”). The TCR aims to establish a more open, secure, and balanced curation process than traditional regulatory approvals.

TCRs offer a system to align stakeholders with the objective of curating high-quality lists of items. A TCR functions by implementing a set of rules at the protocol level to determine which items are allowed on the list and which are not. These rules are enforced through a voting system whereby token holders can vote on whether an item should be added or removed from the registry.

Crucially, to maintain decentralisation and preserve its status as an impartial infrastructure provider, Hypersurface will not have the final authority over who is admitted to a TCRs, removing Hypersurface as a bottleneck or single point of failure. Instead, Hypersurface will provide the means for its community to administer its own lists of trusted services and utilities. The TCR model creates a self-regulating marketplace where the value of the token and the quality of the items on the registry are determined by the community of token holders.

Our initial focus is on using TCRs to curate service providers, starting with credentialing providers (KYC, AML) for user and transaction verification. These providers are sourced from our TCR and rewarded per solicited transaction. We will expand the scope of TCRs further ecosystem services, community libraries and user-specific applications (e.g., the curation of deal-flow).

KYC

As a platform for regulated interactions, digital identities play a fundamental role in the Hypersurface protocol. Identity is crucial in allowing (1) users to engage with one another online with confidence, (2) the creation of binding legal agreements between parties and (3) enabling smart contracts to validate credentials, thereby automating the process of compliance.

Verifiable digital identities create a powerful resource that enables users to engage broadly across investment, ownership, and governance. Identities are persistent, meaning they may only need to be verified once to open an entire network of opportunities. In this sense, an identity account can be thought of as a digital ID card.

An account has no identity in and of itself. To build a meaningful picture of the underlying user or organisation, an account needs “claims”. Claims can be summarised as cryptographically signed digital attestations that an account has some property or properties. Claims can either be self-attested, signed by other users, or signed by a trusted third-party credentialing solution. Claims enable information to be verified near-instantly, allowing smart contracts to read and validate attributes of users on-chain.

With trust secured by a tamper-proof digital environment, compliant parties can participate with greatly reduced friction. Whereas previously issuers would manually verify attributes, claims enable users to specify the requisite attributes that eligible parties must have.

Curation Process

This is a general step-by-step process for a TCR:

1. Submission

An application is made to join the TCR. This application is accompanied by a number of tokens staked as collateral. The purpose of staking is to discourage spam or malicious submissions.

2. Review

Once an application is made it goes through an evaluation process to determine its eligibility for inclusion in the registry. There is a specified period during which anyone can challenge an application. Challenging provides an opportunity for participants to contest the eligibility of a submission.

3.a. Accepted

If the review period expires without the application being challenged the applicant is accepted and they are added to the registry. The staked collateral is held in reserve so that the listing can be challenged at any time if the need arises.

3.b. Challenged

If a curator finds a problem with a particular submission they can challenge its application. To challenge an application a user must stake collateral equal to that staked by the applicant.

4. Voting

Once an application has been challenged, participants in the TCR can vote on whether the item should be added to the registry or not. There is a specified period during which participants can cast their votes. During this participants review the submission, conduct research if needed, and make an informed decision. Each participant can allocate their voting tokens in support or opposition to the submission. The voting power of each participant is proportional to the number of voting tokens they hold.

5. Outcome

At the end of the voting period, the votes are counted and the submission is either accepted or rejected based on the outcome.

6. Redistribution

Once a verdict has been reached, the staked tokens of the losing side and losing voters may be redistributed. This incentivises honest voting and penalises those who voted against the majority. For example, winning voters may receive a reward or a portion of the losing voters' staked tokens.

In deploying a TCR to specific use-cases, its design is altered accordingly. In the case of the KYC TCR, this onboarding mechanism is applied to prospective KYC providers. In essence, the TCR maintains a list of authorised parties in the same way that traditional regulatory bodies do. When a positive outcome is reached and a KYC provider is accepted, a token is issued that grants the KYC provider the ability to curate list items.

Once authorised, these KYC providers can issue credentials from the KYC TCR as tokens. Each token represents an attribute or a set of attributes that can be verified by interacting parties. This is done on the basis of a token balance lookup, simply requiring the verifying party to check that an account has a balance greater than zero for the relevant claim token.

8. Applications

In our view, there has not been a single product or service that has realised the full potential of equity tokenisation. Equity tokenisation offers significant benefits compared to contemporary tools and practices. However, it is by no means a simple process. Token issuance is still dependent on an array of actors, such as advisors, law firms, broker-dealers, KYC/AML providers, custody agents, cap table management solutions, and more.

As the first step in its go-to-market strategy, Hypersurface will offer users a set of smart legal documents that allow startups to onboard investors, set compliance parameters, and automate investor subscription, register administration, and equity issuance. These documents harness automation and trustlessness to structure interactions between parties without the need for intermediary services.

One of the most important attributes of equity tokens, as compared to utility or exchange tokens, is that they are subject to existing securities laws. Any design for equity tokens must remain compliant with legal and statutory requirements. Accordingly, the Hypersurface shares provide issuers with several fine-grain controls and enforce compliance at the protocol level.

Unlike traditional permissionless tokens, such as the ERC-20, where token transfers only fail due to the user having inadequate funds, Hypershare transactions can fail for a variety of reasons. These include the receiver not having verified KYC information, assets having been locked or frozen, and economic and jurisdictional constraints such as shareholder, acquisition, and geographic limits. Somewhat counterintuitively, we believe that stronger transfer controls will increase asset transferability as without them (a) regulators will not permit large-scale tokenisation of regulated assets and (b) issuers will not support automatic on-chain transfer resolution.

Part of what makes Hypershare's value offering so compelling is that it is simple. Instead of manually sharing legal agreements in PDF form, signing them physically or with applications such as DocuSign, manually updating the shareholder register, and issuing share certificates, Hypersurface provides a single, integrated process for both issuers and investment professionals to streamline their legal, administrative, and transactional activities. Because tokens are used as the fundamental unit of interaction within the Hypersurface protocol, a broad array of use cases can be reduced to simple chains of token issuance, balance requirements, and manual or automatically signed actions.

In the following examples, all numbered steps are manual, all alphabetised actions are automated.

Investor Onboarding

1. An investor visits an entry page and requests access to Acme's investment offering via button click.

a. The signed request data is added to the investors ledger as an entry.

b. The request token is sent to the company via the route specified by the document: hyp.acme/investors/enter.

c. Acme's server logs the receipt.

d. The route confirms that the request is indeed an entry request by verifying its signature and, in the process, calculates the signer's public key.

e. The route confirms whether the signer possesses the requisite credentials. Specifically, it checks that the investor belongs to a particular jurisdiction, has undergone KYC verification, and is an accredited investor. The verification ensures that the signer has been granted the necessary claims by the credential Hyperserver.

f. If the investor has the necessary credentials the route issues an NDA to the investor.

g. The investor's Hyperserver logs the receipt.

2. The investor loads the NDA in the browser, reviews its contents and submits it via a button click.

a. The signed NDA is added as an entry to their ledger.

b. The token for the signed NDA is then sent to the company via the return route specified by the document: hyp.acme/investors/NDA.

c. Acme's server logs the receipt.

d. The route verifies that the data being signed is the NDA, calculating the signer's public key in the process.

e. The route then verifies the signer has been issued the NDA, with a balance requirement of greater than zero.

f. The route issues the investor data room.

g. The investor's server logs the receipt.

3. The investor loads the data room in the browser. The data room is structured as a multi-page website (e.g., overview, technology, market, team, financials, subscribe). The information is provided in a semi-legal format, whereby investors or the startup may wish to use the information as evidence in case of a dispute. The investor reviews it's contents, when they are happy to proceed they submit a request for the companies subscription documents via a button click.

a. The signed subscription document request is added as an entry to their ledger.

b. The token for the request is sent via the return route specified by the document: hyp.acme/investors/data-room/subscribe.

c. Acme's server logs the receipt.

d. The route verifies that the data being signed is a request for the subscription documents, calculating the signer's public key in the process.

e. The route then verifies the signer has been issued the data room, with a balance requirement of greater than zero.

f. The route issues the subscription documents.

g. The investor's server logs the receipt.

The use of Hypersurface results in a significant shift in user experience. In the traditional landscape, onboarding for investors is marred by extensive paperwork, manual verifications, and extended waiting periods. By leveraging Hypersurface, these historically time-consuming processes have been streamlined, allowing investors to engage with platforms in a manner they are familiar with from other digital interactions.

This efficiency translates directly into time saved. Whereas previously, parties might have waited days or even weeks for verifications and responses, the automated nature of this system means that actions are executed within moments. Such efficiency not only enhances the overall experience but also allows for quicker investment decisions and engagements.

Further bolstering this system's efficacy is the transparent and traceable nature of the ledger-based approach. Every action, be it a document request or the issuance of an NDA, is recorded in an immutable manner. This provides both parties – the startup and the investor – with a clear and transparent record of all interactions, which can be invaluable in establishing trust, reducing potential disputes, and simplifying any required audits or reviews. An added advantage of this automation is it further

reduces the potential for human error. By automating crucial steps such as verification and document issuance, the system ensures a consistent and accurate process. Such reliability not only protects both parties but also infuses a higher degree of professionalism into the entire procedure.

While automation lies at the heart of Hypersurface, its design consciously accommodates the subtleties and variations inherent to business relationships. For example, while further streamlining is possible by using the NDA to verify investor credentials right at the outset, the system also offers an alternative: an initial identity verification step. This feature proves beneficial when a startup chooses to expedite the onboarding process by directly sending an NDA to an investor, bypassing the automated credential checks. Such a provision comes into play especially when an investor's credentials are pre-verified or when a startup wishes to expedite the onboarding without relying on identity checks within the Hypersurface network. This design choice underscores Hypersurface's commitment to balancing efficiency with the flexibility to cater to unique business scenarios.

Investor Subscription

This process can be extended further for full subscription process:

4. The investor loads the subscription documents in the browser. The subscription documents are structured as a multi-page website (e.g., articles, investor rights, subscription agreement). They enter the amount they would like to invest, as well as any other details into the subscription agreement and submit with a button click.

a. Two signed entries are added to the ledger. The first is the signed subscription documents, thereby proving that the investor agrees to the terms contained therein. The second is an authorised fund transfer for the amount to invest.

b. The two entries are batch transferred to the route recorded by the documents: hyp.acme/investors/subscription/invest.

c. The route verifies the data being signed is the subscription documents, calculating the signer's public key in the process.

d. The route verifies that the signer has been issued the subscription documents, with a balance requirement of greater than zero.

e. The route transfers the fund transfer authorisation token to a Hyperserver recording user funds.

i. The fund server verifies that the data being signed is a transfer request, generating the signer's public key in the process.

ii. The fund server verifies that the signer has a balance exceeding the requested transfer.

iii. The fund server updates the balances, removing the transfer amount from investors and adding it to Acme's balance.

iii. The fund server issues a transaction receipt to the caller.

f. The route verifies the transaction receipt, extracting the data.

g. It then checks that the received amount exceeds the minimum investment.

h. The route calculates the amount of shares to be issued to the investor, and requires that this amount is less than the allocated share capital and maximum investment.

i. The route issues the shares to the investor updating the cap table.

j. The investor's server then logs the receipt.

Due to the atomic nature of blockchain transactions, if any part of the transaction were to fail, the entire process would revert. If the data signed is incorrect, the investor doesn't have any funds, the amount invested falls beyond the required range, the company has hit its share capital limit, or any of the conditions are not met, the entire transaction will roll back resulting in the blockchain state to remain completely unchanged. This means that when the agreement is signed, if any part of the transaction fails it will revert, unsigning the agreement.

Our hope is that by automating previously disconnected, labour intensive processes down to a single form submission, investors will be able to execute complex, often risky transactions with as much ease and confidence as sending an iMessage. Should the transaction fail for whatever reason, the entire transaction will revert as readily as a message that has failed to deliver.

Post Investment

With Hypersurface, the concept of shares evolves beyond certificates, detached documents, and static entries in cap tables. Instead, shares are reimagined as a suite of interactive web pages, each encapsulating the specific functionalities and rights inherent to the asset. Investors can review the rights offered by the asset, monitor their shareholdings in real time, and transfer shares to other accounts. Depending on the specific

implementation of the shares, investors may also access additional discretionary features, such as claiming dividends (recorded, calculated and distributed by the share library itself) or participate in on-chain governance activities.

This transformation from traditional methods to Hypersurface's blockchain-enabled system represents a fundamental shift. Unlike current equity management platforms such as Carta, which rely on disconnected private databases, Hypersurface makes use of the blockchain to create a synchronised, peer-to-peer record of ownership. With ownership and transactions secured by the blockchain, information is rendered available to read and write by anyone with appropriate permissions. This could be a shareholder transferring shares or a third-party protocol within the ecosystem.

This blockchain-based approach gives users direct control over their assets, offering greater privacy and a flexible infrastructure that third parties can extend and build upon. This enables a range of new possibilities, such as instant equity-backed loans or secondary market trading, adding value to assets that were previously illiquid and immobile. By unlocking previously illiquid assets, Hypersurface enhances their value and functional scope. For a process that could take as little as half an hour, we see this as potentially the easiest way for an issuer to increase the value of an asset and the appeal of an investment opportunity.

The immediate benefits are clear: assets that were once illiquid and cumbersome to trade can now move freely, unlocking their true potential value. This increased liquidity is expected to reduce the need for extensive legal protections and protracted negotiations that typically accompany illiquid investments. The rationale is straightforward: the easier it is to transfer and realise the value of an asset, the less need there is for complex terms to assure its worth and transferability.

Negotiation

Despite the substantial value added by increased liquidity, it is certain that both investors and issuing entities will still have specific prerequisites that require negotiation. The Hypersurface protocol acknowledges this reality and is built to accommodate the diverse and nuanced needs that come with digital equity management. Whether it is a question of governance, compliance, or bespoke terms of trade, the system provides the necessary flexibility to cater to these requirements without compromising on the efficacy and integrity of the transactional process. This ensures that all parties can engage with confidence, knowing their unique requirements can be integrated within the digital framework.

If an investor or stakeholder wishes to propose amendments to an agreement, they can simply copy the documents, make the

necessary adjustments, and return them for review. This eliminates the cumbersome processes traditionally associated with contract negotiation. When the opposing party is happy with the changes, they can simply copy the smart document into their ledger and reissue it to the prospective investor. Moreover, the Hypersurface protocol can accommodate the involvement of legal expertise in the negotiation phase. Should parties wish to consult with legal professionals to vet changes or refine the terms of an agreement, they need simply transfer the document copy to the law firm for proposed revisions before it is presented back to the issuer for final approval.

For sourcing legal counsel, Hypersurface provides options that ensure flexibility and choice. Users can engage lawyers independently, selecting professionals they trust and have experience with. Alternatively, they can tap into a curated selection within the ecosystem via a TCR. This feature of the Hypersurface ecosystem offers a vetted list of legal experts and firms that have been endorsed by the community, thereby simplifying the selection process and ensuring that the lawyers involved are familiar with the nuances of blockchain-based agreements.

9. Future and Conclusion

Hypersurface exists at the intersection of the traditional legal system, fundamental web technologies, and cutting-edge smart contract functionality. At this crossroads, there exists an entirely new information management architecture and the opportunity to rebuild some of our most important legal and financial processes using infrastructure built for the digital age.

Hypersurface offers a platform of unique potential: by leveraging the legal system to capture rights and responsibilities, and the web for disseminating agreements within a trusted environment, Hypersurface provides an unopinionated infrastructure through which all users can participate in value creation. Smart contracts bring to this platform a layer of security, automation, and robust transactional infrastructure, while tokens serve as the medium for encapsulating ownership, value, and portability. Together, they enable the creation of smart legal document systems tailored to the nuances of the digital era.

In the evolving landscape of digital interactions, Hypersurface is poised not only to transform the domain of equity fundraising but also to drive transformation across a multitude of sectors. While our current focus remains on creating a robust platform for secure and transparent equity issuance, management, and exchange, the implications of our technology stretch far beyond this initial application.

The underlying flexibility of the Hypersurface protocol hints at a future where the complexities of financial and legal exchanges are streamlined into a seamlessly embedded digital experience. A world where the tokenisation of assets, whether intellectual property, real estate, or equity, is as straightforward as sending an email. In this world, the value is not just in the asset itself but in the fluidity with which it can be governed, traded, and leveraged.

Adjacent to our core offering, the potential for on-chain governance could redefine organisational structures, offering a participatory model that is more inclusive and immediate. For entrepreneurs and investors, streamlining the formation of SPVs, funds and on-chain incorporation could enable entire organisations to be ‘deployed’ in the same way as a traditional server instance. Within this ecosystem comes the promise of greatly reduced barriers to entry, and a flexible framework for diverse, regulated stakeholder participation. This means that everyday investors could have direct access to early-stage investment opportunities, previously accessible to only a privileged few.

The integration of DeFi protocols with Hypersurface's infrastructure holds the promise of enhanced liquidity and new

financial paradigms. By integrating lending, trading, and market-making services, the protocol could revolutionise how investors and companies manage and mobilise assets. Secondary markets supported by Hypersurface may offer quicker and more efficient paths to liquidity, providing investors with greater flexibility and control over their holdings. This shift has the potential to streamline investment strategies and accelerate the flow of capital across the financial landscape.

As we consider the possibilities that Hypersurface lays the foundation for, it's clear that we are on the threshold of a significant technical evolution of the legal sector. For our users, this means that the investments they make today are not just financial decisions but steps towards a more interconnected, efficient, and equitable future. We hope that Hypersurface will be a signal as to the evolution of the market, where access, flexibility, and security become the standard, not the exception.

The trajectory we are on is ambitious. Although Hypersurface's development is geared towards offering practical, real-world benefits today, with each step forward, we are laying the groundwork for a system that can grow and evolve with the needs of its users. Hypersurface is not just building a platform or an application; we are building an infrastructure and ecosystem that we hope will come to redefine the way we think about ownership, value, and exchange for generations to come.