



**ALTER**  
SHARE ANYTHING PRIVATELY

# **ALTER WHITE PAPER V2.0**

*JANUARY 2022*

Contact:  
ALTER ID: *htretv4qd4*  
[corporate@altermail.co](mailto:corporate@altermail.co)

*ALTER © 2022*

*[altermail.live](https://altermail.live)*

# TABLE OF CONTENTS

<b>DISCLAIMER</b> .....	3
<b>ABSTRACT</b> .....	4
<b>INTRODUCTION</b> .....	4
<b>PHILOSOPHY</b> .....	4
<b>SECRET NETWORK</b> .....	5
<b>ALTER: PRIVACY-CENTRIC WEB 3.0 COMMUNICATIONS PLATFORM</b> .....	6
<b>Privacy and Encryption Approach</b> .....	6
<b>Features and Use Cases</b> .....	7
<b>Roadmap</b> .....	8
<b>GOVERNANCE AND TOKENOMICS</b> .....	8
<b>Token Details</b> .....	8
<b>Token Use Cases</b> .....	9
<b>SNIP-20 Token Standard</b> .....	9
<b>MARKET COMPARISON</b> .....	9

# Disclaimer

NOTICE AND DISCLAIMER PLEASE READ THE ENTIRETY OF THIS "NOTICE AND DISCLAIMER" SECTION CAREFULLY. NOTHING HEREIN CONSTITUTES LEGAL, FINANCIAL, BUSINESS OR TAX ADVICE AND YOU SHOULD CONSULT YOUR OWN LEGAL, FINANCIAL, TAX OR OTHER PROFESSIONAL ADVISOR(S) BEFORE ENGAGING IN ANY ACTIVITY IN CONNECTION HEREWITH. NEITHER OF THE PROJECT CONTRIBUTORS WHO HAVE CONTRIBUTED TO ALTER OR WILL CONTRIBUTE TO DEVELOP ALTER IN ANY WAY WHATSOEVER, ANY DISTRIBUTOR OF ALTER TOKENS (THE DISTRIBUTOR), NOR ANY SERVICE PROVIDER SHALL BE LIABLE FOR ANY KIND OF DIRECT OR INDIRECT DAMAGE OR LOSS WHATSOEVER WHICH YOU MAY SUFFER IN CONNECTION WITH ACCESSING THIS WHITE PAPER, THE WEBSITE AT <https://altermail.live/> OR ANY OTHER IP PUBLISHED BY THE PROJECT.

**Nature of the White Paper:** The White Paper and the Website are intended for general informational purposes only and do not constitute a prospectus, an offer document, an offer of securities, a solicitation for investment, or any offer to sell any product, item, or asset (whether digital or otherwise). The information herein may not be exhaustive and does not imply any element of a contractual relationship. There is no assurance as to the accuracy or completeness of such information and no representation, warranty or undertaking is or purported to be provided as to the accuracy or completeness of such information. Where the White Paper or the Website includes information that has been obtained from third party sources, the ALTER company, their respective affiliates and/or the Secret Network contributor teams have not independently verified the accuracy or completeness of such information. Further, you acknowledge that circumstances may change and that the White Paper or the Website may become outdated as a result; and ALTER is under any obligation to update or correct this document in connection therewith.

**Token Documentation:** Nothing in the White Paper or the Website constitutes any offer by ALTER to sell any ALTER token nor shall it or any part of it nor the fact of its presentation form the basis of, or be relied upon in connection with, any contract or investment decision. Nothing contained in the White Paper, or the Website is or may be relied upon as a promise, representation or undertaking as to the future performance of the ALTER company or product. The information set out in the White Paper and the Website is for community discussion only and is not legally binding. No person is bound to enter into any contract or binding legal commitment in relation to the acquisition of ALTER, and no digital asset or other form of payment is to be accepted on the basis of the White Paper or the Website. The agreement for distribution of ALTER and/or continued holding of ALTER shall be governed by a separate set of Terms and Conditions or Token Distribution Agreement (as the case may be) setting out the terms of such distribution and/or continued holding of ALTER (the Terms and Conditions), which shall be separately provided to you or made available on the Website. The Terms and Conditions must be read together with the White Paper. In the event of any inconsistencies between the Terms and Conditions and the White Paper or the Website, the Terms and Conditions shall prevail.

**Informational Purposes Only:** The information set out herein is only conceptual and describes the future development goals for the ALTER product to be developed. In particular, the project roadmap in the White Paper is being shared in order to outline some of the plans of the ALTER team and is provided solely for INFORMATIONAL PURPOSES and does not constitute any binding commitment. Please do not rely on this information in deciding whether to participate in the token distribution or holding because ultimately, the development, release, and timing of any products, features or functionality remains at the sole discretion of the token holders via the ALTER governance and the ALTER team and is subject to change. Further, the White Paper or the Website may be amended or replaced from time to time. There are no obligations to update the White Paper or the Website, or to provide recipients with access to any information beyond what is provided herein. Regulatory approval: No regulatory authority has examined or approved, whether formally or informally, any of the information set out in the White Paper or the Website. No such action or assurance has been or will be taken under the laws, regulatory requirements, or rules of any jurisdiction. The publication, distribution or dissemination of the White Paper or the Website does not imply that the applicable laws, regulatory requirements, or rules have been complied with.

**English language:** The White Paper and the Website may be translated into a language other than English for reference purpose only and in the event of conflict or ambiguity between the English language version and translated versions of the White Paper or the Website, the English language versions shall prevail. You acknowledge that you have read and understood the English language version of the White Paper and the Website.

**No Distribution:** No part of the White Paper or the Website is to be copied, reproduced, distributed, or disseminated in any way without the prior written consent of the ALTER company. By attending any presentation on this White Paper or by accepting any hard or soft copy of the White Paper, you agree to be bound by the foregoing limitations.

# Abstract

Since the advent of the internet, companies have introduced online digital tools and applications that have become an integral part of our everyday lives. However, these easy-to-use digital solutions have come with a hidden cost - your personal user data. Roughly six out of ten U.S. adults now believe that it's not possible to go through daily life without their private data being collected by companies or the government. There has never been a greater need for online solutions that are designed to offer users accessible alternatives that protect their data privacy and ensure the rights to open communication and free speech.

ALTER is the next generation "Web 3.0" communication platform that empowers users to share messages and files privately by granting them full ownership and control over their personal data. To accomplish this feat, ALTER leverages private key management and smart contracts on Secret Network's blockchain protocol to transfer messages and files securely and privately across a decentralized network of nodes around the world. By giving users ownership over the private keys to their data, ALTER has developed a unique solution to store messages and files in a way that is censorship-resistant and reinstates users with their fundamental right to privacy.

## Introduction

Communication has evolved to rely on centralized services and companies that are vulnerable to hacking and data breaches that expose its users' personal data. In 2020, the average person generates about 1.7MB of data per second from their use of technology with a large part coming from the modern methods of communications. Since the invention of email, messaging apps, and VOIP calls; the use of the data collected from these platforms has also generated billions in profit for big tech companies while invading the fundamental human right to privacy. Unfortunately, it is becoming more common to see communication platforms remove users for their views and opinions, track their locations, and bypass due process of the law regarding their users' messages. People from around the world are lacking a simple way of communicating privately, ensuring that they are the only ones who have the power and control over their own data. ALTER aims to address this core issue.

ALTER aims to be the new standard of Web 3.0 communications. At its core, the ALTER product will provide users with an easy way to communicate privately, sharing a similar intuitive user experience that matches more traditional Web 2.0 communication platforms like email services, chats, and file management. However, evolving from Web 2.0, ALTER leverages the immutability of blockchain technology to provide users with a decentralized way to communicate privately, knowing that their data is safe. ALTER uses Elliptic Curve-based encryption, which uses a combination of public and private keys for data encryption, to ensure that users own their data and know who has access to their messages at all times. ALTER will introduce new features that will enable group chats, video conferencing, and team collaboration tools that will allow users and other projects to build their communities directly on ALTER while preserving their interactions - unlike messaging services on public blockchains and messaging platforms that traditionally require an email or phone number to join. The ALTER community will have a direct say in the direction of the project development via the native utility and governance token \$ALTER, a concept that is quickly becoming the standard of Web 3.0 communications. This way, the privacy-centric ALTER community can continuously guide the project to adapt to the ever-changing needs of Web 3.0.

## Philosophy

The ALTER community is united under the common philosophy that privacy is a fundamental human right and should be protected at all costs. Users should maintain ownership of their own data and have full visibility and control over who has access to their data. The next generation of Internet users should not have to worry about how their data is being used, which company is selling their data, and who has vested hidden interests in taking advantage of this personal information. By building conscious solutions that protect user data privacy by default, developers of Web 3.0 technology can build a new foundation that removes the "middleman" from the equation altogether - users will now own their data from the start and maintain control of their personal information as the de facto standard.

Freedom of speech and open communication is equally as important as data privacy. Communication is the fundamental human right that reinforces all other human rights, allowing society to develop and progress. The sharing of opinions and information is how society adapts to new ideas and is essential to bring about change in society. Therefore, open, and free communications should be protected around the world, regardless of physical location or geopolitical ordinances.

ALTER is building a new framework for how the next generation of users will communicate with one another. As our community continues to shape our solution to reflect their needs and values, we ask that our users be equally wary of how their data is being used daily and be aware of which limits may be imposed on their personal freedoms. For Web 3.0 developers to bring upon a new digital age where data privacy and open communications are the new standards, users will need to take time to consciously select and adopt applications that have their best interests at heart - even if growing pains may make traditional solutions more desirable.

## Secret Network

ALTER is a decentralized communications platform built on the Secret Network blockchain protocol. In order to understand how ALTER secures and protects user messages and files, one must first understand the fundamentals of Secret Network blockchain technology.

Secret Network is a layer one solution built with the Cosmos SDK, leveraging proof-of-stake (PoS) using Tendermint's Byzantine fault-tolerant consensus algorithms. Computations are performed by each node on the network for verifiability, security, and consensus purposes. This means that any data passing through the Secret Network blockchain cannot be altered or censored without significant effort, achieving one of the core benefits of blockchain technology. (2)

However, unique to Secret Network protocol is the ability to allow for programmable privacy in their "secret" smart contracts. Secret Network improves upon traditional smart contracts by supporting encrypted inputs, encrypted outputs, and encrypted state for smart contracts – data privacy for sensitive information stored on the blockchain. This allows developers to customize and configure smart contracts that allow sensitive user information to be protected, even while the smart contract execution states are still visible and transparent on the blockchain.

To support this "secret" smart contract functionality, Secret Network utilizes trusted execution environments (TEEs) to enable secure, private computation over encrypted data. TEEs function like a "black box" for data processing and are utilized in all types of everyday platforms, such as smartphones and video game consoles. Since data is encrypted and private by default, Secret Network users have access to private "viewing keys" to view their sensitive data. Viewing keys can be shared with third parties like auditors, wallets, and explorers. They allow users to maintain control over their data and decide what is shared – and with who.

The choice to align with Secret Network was a deliberate decision. ALTER has selected Secret Network as the blockchain of choice for developing the privacy-centric communications platform, as it empowers our developers with the tools needed to build the solution that supports encrypted messages through private key management and smart contract functionality. More importantly, the Secret Network community shares the same ethos and philosophy as ALTER to protect data privacy as a human right.

# ALTER: Privacy-Centric Web 3.0 Communications Platform

ALTER is a decentralized communications application that enables users to share encrypted messages and files across the decentralized web. Built on the Secret Network blockchain, ALTER leveraging Secret Network's smart contract technology to encrypt message data. Users have full access to their own private "viewing keys" that allow them to view their own messages and determine who has access to view their messages. ALTER is using [Stori.io](https://stori.io) as a file storage partner that runs close to 12,000 active nodes across 87 countries holding encrypted information of each ALTER user's files. User messages and files are viewed on the ALTER communications platform, but the platform simply acts as user-friendly interface to interact with the smart contracts that send the information in a peer-to-peer manner. Therefore, ALTER does not have the ability to view or share these messages or files with any other third party or user, guaranteeing that the user's data is protected, even from the ALTER company itself.

## **ALTER Today**

- World's first blockchain-based communication platform offering messaging, file sharing, and calendar in total privacy.
- One of the fastest-growing comms dApps on the Secret Network, and in the web3.0 environment.
- Alter received the validation of the market with the speed of light - after having launched in October 2021, Alter finalized its seed funding round of USD 1 million in November 2021 and is about to have its native utility and governance token - \$ALTER - Public sale on January 20, 2022.

## **ALTER Future**

- A platform of choice for data privacy enthusiasts from crypto, blockchain, and web3.0 environments across the world.
- The dApp provides an ever-expanding scope of services, continuously improving its product.
- ALTER connects other Secret Network based, unique service providers to its platform and integrates them with its product to provide an exceptional user experience.
- ALTER has a highly engaged community, largely thanks to \$ALTER which provides the possibility for its users to impact the development of the product.
- ALTER is known outside the crypto/blockchain communities thanks to the viability of its product and the credibility of its brand.

ALTER will continue to iterate on the core features of its product and service. Our ultimate vision is that ALTER can enable true privacy for its users. We want to ensure that ALTER users do not have to worry who else, besides themselves, have access to their data.

## **Privacy and Encryption Approach**

ALTER provides an easy-to-use platform for encrypted object exchange that can be shared with pre-determined users using strong Elliptic Curve-based encryption. ALTER services do not participate in the encryption or decryption process, everything that services are transmitting is already pre-encrypted at the users-side. In case the encryption keys are lost all access to the current information stored in the user account is also lost, ALTER cannot assist with remembering the key. ALTER is not transmitting or receiving any non-operational data like cookies, tracking information, or any similar privacy-disrupting information - all interaction with ALTER services can be freely examined since it is not obfuscated and kept to the bare minimum. Encryption and data privacy approach are detailed below:

## Encryption Model

- **Strong Cryptography** - ALTER uses Elliptic Curve Asymmetric (using public and private keys) encryption using *secp256k1* (same as Bitcoin uses)
- **Key Scoping** - private key never leaves user-owned device or browser
- **Key Protection** - the private key is stored in volatile browser memory and is exclusive to a particular browser tab for the duration of the session (while a user is logged in)
- **Encryption Process Delegation** - messages are encrypted and decrypted directly at rest in the user's browsers; only already encrypted data is transmitted via ALTER service

## Data Gathering and Privacy

- The only identifier that is used to distinguish a user is User ID (random alphanumeric 10-character string).
- The real name of the user is optional, and its length is not checked.
- All data sent and transmitted to ALTER services is in obfuscated manner.
- ALTER is not using any remote 3rd-party libraries or files, everything including fonts is stored and / or delivered directly from ALTER servers.
- ALTER does not store any user activity information - only internal service interoperability is logged.
- ALTER does not use cookies at all, the session ID is stored in the browser's volatile session store and is lost after the current tab is closed.
- ALTER stores user preferences (like light/dark theme selection) in the browser's local storage in an obfuscated way.

## Features and Use Cases

ALTER offers a suite of features that support the overall vision to bring private communications to our users. These features include, but are not limited to, the following:

- **Direct Messaging** - ALTER core direct messaging feature allows users to send messages to their peers in a completely private manner. Messages are encrypted with the user's private keys and can only be opened by recipients and users with access to view the messages
- **File Storage and Management** - ALTER features limited file-sharing capabilities through attachments on direct messages. In V2.0, users will have the ability to store files on ALTER and reference them in messages as opposed to storing files locally on a device and attaching them to a message. Keeping these files organized with a file management tool will continue to add productivity. Additional file storage solutions will be added, and customers will be able to select where they store their files.
- **Private Chat / Group Chat / Channels** - ALTER will allow users to connect to small or large group chats that are like other communication platforms that can be used by collaborative teams to build professional and community platforms.
- **API Development** - As interoperability between networks continues to rapidly expand, other decentralized applications will be able to integrate ALTER into theirs to create unique ways to bring communication to their projects.
- **Email Privacy Bridge** - ALTER email privacy bridge will allow users to send messages to others who only use external email services. Messages that are sent via the email bridge will send a link to a view and reply to a temporary message that is only visible using a PIN code.
- **Video Calls & Conferencing** - ALTER will integrate Jitsi service into its platform, an encrypted video conferencing program. ALTER will support small or large group video calls that allow users to communicate face-to-face. This feature can be used by individuals as well as collaborative teams to organize conference calls and remote workplace communication.
- **Intuitive User Interface** - ALTER user interface is constantly evolving to ensure the best user experience. The first upgrade to V2.0 will be the new front end and UI that will maintain a comfortable and friendly environment to fix some of previous bugs. This new UI will allow for a mobile browser version of ALTER as well as native iOS & Android applications to be released in the future.

- **Integrated dVPN service** - using a decentralized virtual private network app laid into ALTER that encrypts a user's data on the go while interacting with ALTER platform.
- **Users are enabled to generate their own public/private key pair** – ALTER users will be enabled to generate their own set of keys using "eccrypto-js": "^5.4.0" public/private key library (1).

## Roadmap

Q4 - 2021	Q1 - 2022	Q2 - 2022	Q3 - 2022	Q4 - 2022
<ul style="list-style-type: none"> <li>• Improved UI + Dark mode</li> <li>• Decentralized File Sharing &amp; Storage</li> <li>• Private Sales of \$ALTER</li> <li>• \$ALTER token development and launch</li> </ul>	<ul style="list-style-type: none"> <li>• Private Chat &amp; Channels (up to 200 users) (BE)</li> <li>• Service decoupling (BE)</li> <li>• Public API set up for any application (BE)</li> <li>• Android application and demo of iOS application               <ul style="list-style-type: none"> <li>◦ Android - Web view app by the end of Q1</li> <li>◦ iOS (Starting 17.01.2022) - CBT by the end of Q1</li> </ul> </li> <li>• Token (ALTER) rewards revenue sharing model launch</li> <li>• Keplr Wallet authorization set up/login</li> <li>• Bridge with e-mail protocol (BE)</li> <li>• Wrapped \$ALTER for ERC20 network</li> </ul>	<ul style="list-style-type: none"> <li>• Referral program demo launch: ALTER EGO (BE)</li> <li>• Product Freemium model for B2C (BE)</li> <li>• Free-trial for B2B (BE)</li> <li>• Closed Network feature Integrated (BE)</li> <li>• Secret Payments between users</li> <li>• Token (ALTER) open public funding for Devs for ALTER Network growth</li> <li>• Basic File Management like G-drive               <ul style="list-style-type: none"> <li>◦ Only basic functionality (like upload, download, folders management) - NO integration with chat &amp; mail. (BE)</li> </ul> </li> <li>• Native Android application</li> <li>• Desktop Application (beta)</li> </ul>	<ul style="list-style-type: none"> <li>• Ledger Collaboration</li> <li>• Community groups (larger private channels) (BE)</li> <li>• Closed Network Offering</li> <li>• Decentralized ID set up</li> <li>• Global Blockchain network on the platform (ALTER Connect) with Cosmos Ecosystem</li> <li>• Complete-Feature Native application for iOS / Android</li> <li>• Advanced File Management               <ul style="list-style-type: none"> <li>◦ Integration with mail &amp; chat</li> </ul> </li> <li>• Full Desktop Application release</li> </ul>	<ul style="list-style-type: none"> <li>• Upgrades</li> <li>• Hardware Security Module based on ALTER encryption on Ledger Hardware Wallet</li> <li>• Releasing new \$ALTER token utilities</li> <li>• Adding all decentralized storage service providers on Web 3.0</li> </ul>

## Governance and Tokenomics

### Token Details



- **Symbol:** \$ALTER
- **Decimals:** 6
- **Contract Address:** secret12rcvz0umvk875kd6a803txhtlu7y0pnd73kcej
- **Type:** SNIP-20
- **Network:** Secret Network
- **Total (Fully Vested) Supply:** 40 million
- **Initial Circulating Supply:** 3.2 million ALTER tokens on the day of the launch, then vesting according to the token vesting schedule that increases the circulating supply.

ALTER is a transferable representation of attributed governance functions specified in the protocol/code of the ALTER project communications product and is designed to be used solely as an interoperable Governance token with Governance rights for token holders. ALTER is a governance token that enjoys a dual function in the ecosystem, acting as the governance token of the ALTER communicate and the incentivization mechanism to encourage positive behavior from users, so they are each incentivized to contribute to and maintain the ALTER ecosystem via governance. ALTER is an integral and indispensable part of the ALTER ecosystem, because without ALTER, there would be no incentive for users to expend resources to participate in activities or provide services for the benefit of the entire ecosystem. ALTER does not in any way represent any shareholding, participation, right, title, or interest in the ALTER company, the Distributor, their respective affiliates, or any other contributing company, enterprise or undertaking, nor will Sienna Network entitle token holders to any promise of fees, dividends, revenue, profits, or investment returns, and are not intended to constitute securities in Singapore, USA or any other relevant jurisdiction. Holding of ALTER carries no rights, express or implied, other than the right to use ALTER to enable usage of and interaction within the ALTER ecosystem e.g., for voting on governance proposals. The initial private sale of ALTER governance tokens was done exclusively to an accredited investor base, who completed full KYC/KYB and onboarding via a reputable law firm.

## Token Use Cases

- **Product payment method** - The \$ALTER token is used to access additional features, increase of storage and pay for the subscription.
- **Governance** - The \$ALTER token will act as the governance token for the ALTER community. The token will provide the Alter community with choices on improving the privacy of the ALTER application. This will also give them options on the partnerships and add-ons that the application will take. In addition, the user would be able to hold the token in the application's wallet and would be able to submit it to a voting committee.
- **Revenue Sharing** - \$ALTER will offer token holders with unique financial incentives based on the collective success of the ALTER product. Token holders will earn a portion of subscription earned revenue and will take part in financial incentives for providing liquidity for \$ALTER liquidity pools and community initiatives.
- **Community Rewards** - The \$ALTER token aims to provide ALTER supporters with a means to benefit mutually from the growth and success of ALTER. As we grow, our engaged supporters and participants will equally be rewarded for their continued community support through rewards distributed for referrals, engaged participation in ALTER community initiatives, and marketing campaigns.

## SNIP-20 Token Standard

The \$ALTER token is based on Secret Network's SNIP-20 token standard, a wrapped token that is wrapped into their private and fungible equivalent using the Secret Network "secret" smart contract. Similar to ERC-20 on Ethereum, SNIP-20 tokens are named after Secret Network Improvement Proposal #20. SNIP-20s are privacy-preserving, fungible Secret Tokens that are secured by the Secret Network. \$ALTER is therefore a fungible, privacy-preserving asset. Any transaction and all rolling balances are forever kept encrypted, ensuring both anonymity and confidentiality. Each person can still query their own (and only their own) balance, as well as send tokens to others, privately.

## Market Comparison

The messaging market is very broad, but ALTER is developing in a class of its own. Web 3.0 has various messaging dApps that are limited in feature but work well for their intended purposes. What separates ALTER in Web 3.0 is the addition of productivity which includes file management and a calendar. There are various Web 3.0 file storage solutions but using these platforms are not very user friendly in the way you will be able to access these services on ALTER.

	ALTER	nMobile	Sylo	Status	Dust
<b>Ease of Use</b>	B	A	C	C	A
<b>Network</b>	Secret	NKN	Ethereum, off-chain	Ethereum	GMT
<b>Identity</b>	Randomly-generated ALTER ID	Public Wallet linked to an ID	Public Wallet, invite links	Public Wallet, chat key, ENS	Public Wallet/Phone Number
<b>Decentralized</b>	Yes	Yes	Yes	Yes	Yes
<b>Productivity</b>	Yes	No	No	No	No
<b>Payments</b>	Yes	Yes	Yes	Yes	Yes
<b>Network Anonymity</b>	A	C	B	B	B
<b>Public broadcast to the blockchain</b>	No	Yes	No, Sylo works as a L2 offline	Yes	Yes
<b>Platforms</b>	Browser, mobile, desktop app	Mobile App	Mobile App	Mobile App	Mobile App

Web 2.0 has a lot of messaging applications that are either stand alone or included with an email service. Popular messaging apps like Facebook and WhatsApp generate revenue by selling user data. Privacy based messaging apps have gained popularity in the past few years but still make up a small percentage of the overall usage. (3)

	Sessions	Signal	Telegram	Threema
Ease of Use	C	A	A	B
Security / Forward Security	A	A	C	B
Identity	Local Keypair	Phone Number	Phone Number	Email
Open Source	Yes	Yes	Open source but not server	Yes
Decentralized / Federation	Yes	No	No	Yes
Trust less Security	Yes	No	No	No
Metadata privacy	A	C	C	C
Network Anonymity	A	F	F	F
Multiple Devices	Yes	Yes	Yes	Yes
End-to-End Encryption Protocol	Session	Signal	Customized	Variation of Signal
Encryption Algorithms	X25519, AES-GCM, ED25519	Curve25519, HMAC-SHA256	Customized	Curve25519, AES-GCM and SHA256
Open Standards / libraries	No	No	No	No

Companies like Google and Proton offer solutions that include file storage and productivity features. These are premium features that can be accessed through a paywall. These two companies offer a similar solution to what ALTER will resemble in the future through the ALTER product and strategic partnerships.

## References

1. **Public/Private key library:** <https://www.npmjs.com/package/eccrypto-js>
2. **Secret Network Greypaper:** <https://scret.network/graypaper>
3. **Building A Decentralized Messaging with End-to-End Encryption using Open Standards:** <https://weblog.plexobject.com/?p=2381>