DeStorage

Decentralized Cloud Storage Platform

White Paper V.0.0.3

This White Paper is a plan for the Decentralized Storage Project.
This White Paper is subject to change or update at any time according to changes in development, the progress of project, and sales status.

contents

1.1 Market Overview

Increasing Demand for Internet Services

The growth of IT is continuing to develop new Internet infrastructures every year, the provision of user convenience systems through the Cloud, and the demand for new IT products and markets.
In particular, the development of the Internet infrastructure is mass-producing a variety of faster and more convenient IT-based services, thus continuously increasing consumer demand for IT-based services.
Furthermore, the expansion of the cloud market is accelerating while absorbing both existing IDC usage and hosting and providing various services to help companies use SaaS, IaaS, and PaaS more conveniently.

Growing Demand for Data and Cloud Market Competition

With the explosion of the supplies and demands of these service, Internet-based services expanded greatly, and various data preservation and storage issues are increasing continuously.
Consequently, the cloud market is providing various storages to businesses, and competition regarding the storage market is intensifying among clouds.
Currently, large cloud service providers such as Amazon, Microsoft, and Oracle are competing vigorously to attract customers by providing low storage prices, high quality, user convenience, and various services.
However, existing storage products are facing the limitations of price competition and market expansion with no special momentum, and are ceaselessly researching on new innovative products and solutions.

Increasing Cyber Crimes and Data Hacking

With the explosive growth of the Internet infrastructure and the increase of service demands, data hacking crimes are sharply increasing. Data leakage incidents through data hacking can cause large damage to both businesses and customers, and it is difficult for the businesses to win back customers' trust in their services.
These cyber crimes are increasing in proportion to the expanding Internet services. IT companies are spending enormous budgets for security and the ratio of security budget is increasing each year.

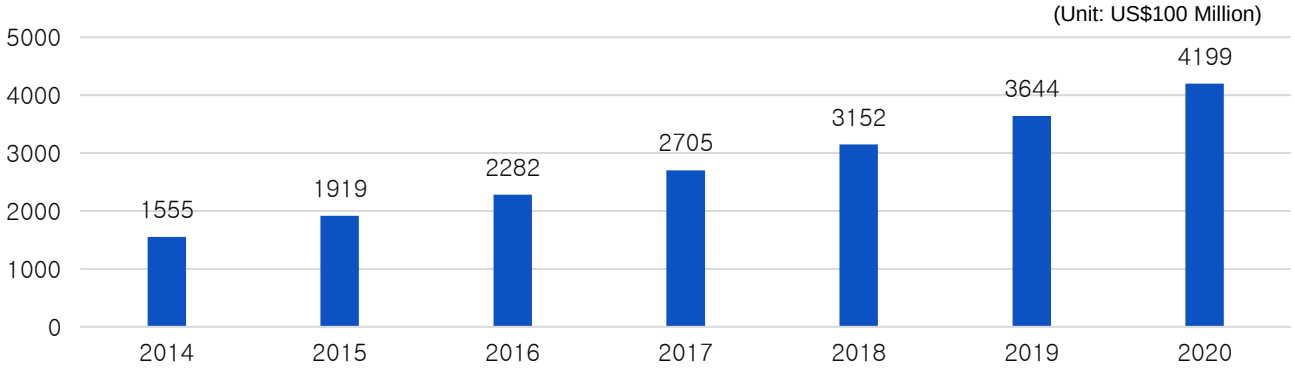
Suggestion for New Storage

Currently, every Internet-based service should store important and sensitive data of organizations and protect them safely through the operation of various storages.
To safely store various data including the secrets, contracts, and other documents as well as customer information, IT companies spend about 10% of their budget for security.
To achieve growth, they must safely protect the data of organizations and based on this, achieve more aggressive business success.
Otherwise, they could lose in a moment the image of their brand and their customers that they have built as a result of a serious incident such as cybercrime and data hacking.
Therefore, IT-based Internet service providers monitor and protect customer information and critical business data from hacking 24X7 throughout the year.

1.2 Global Cloud Market

Currently, most companies are using large clouds such as Amazon, MS, and Google. The usage of these clouds are accelerating due to the convenience and scalability of user-oriented UI and UX, and storage price competition.
The usage of IT service providers through clouds is growing rapidly because clouds are absorbing various user environments such as SaaS (Software as a Service), PaaS (Platform as a Service), and IaaS (Infrastructure as a Service).

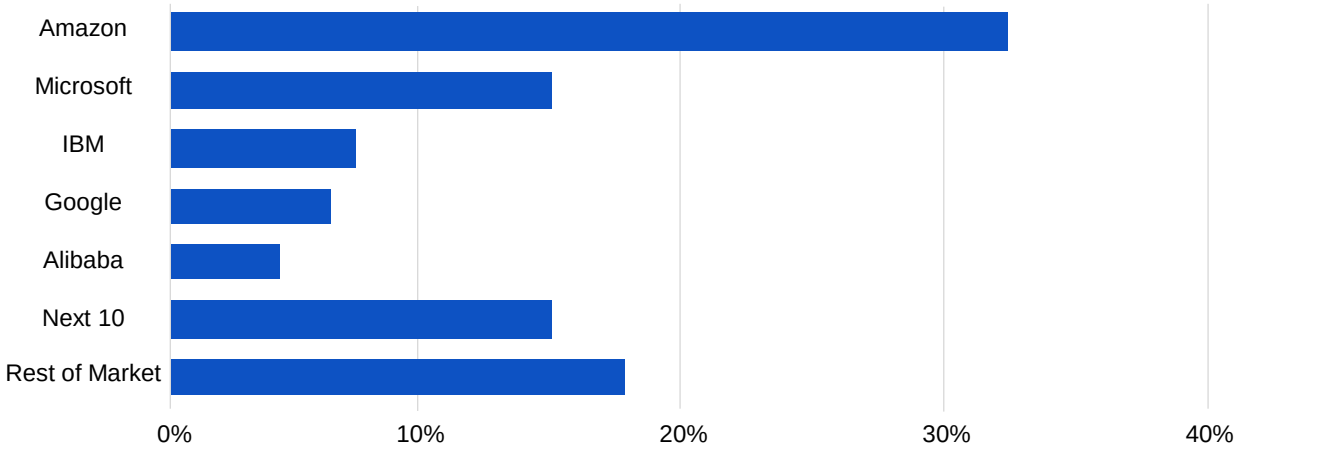
· Global Cloud Market Size ·



[Source : Gartner 2018]

① Global cloud market has grown to approximately US$ 419 billion.
② The market share of IaaS is approximately 40% (SaaS and PaaS are being combined to IaaS).
③ The global cloud market is growing at 23% CAGR.

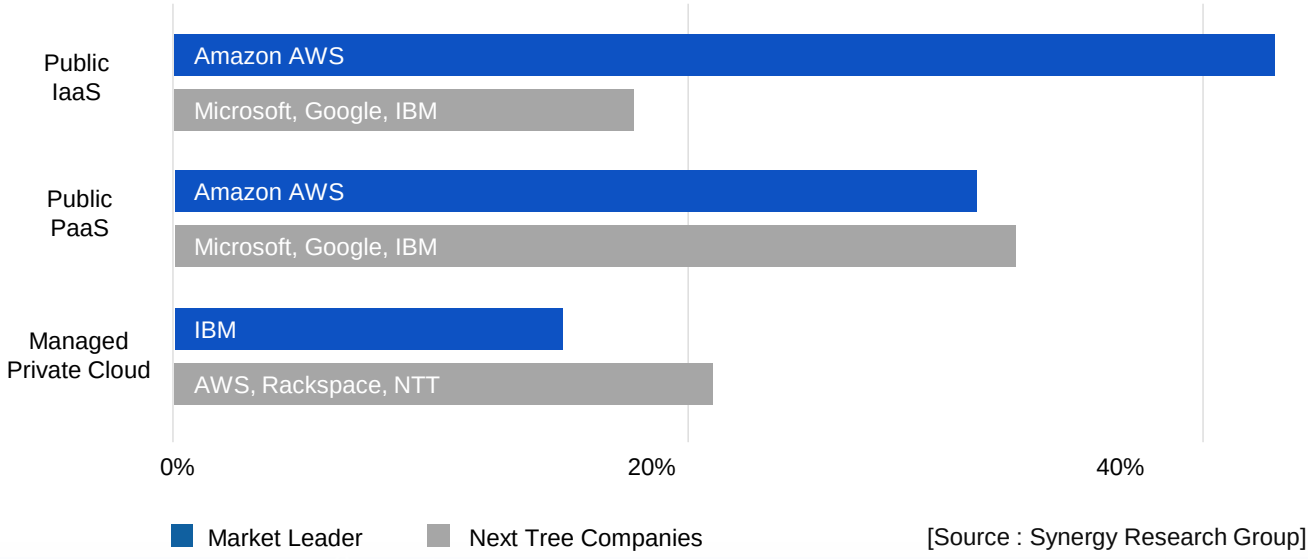
The infrastructure market is expected to keep growing around cloud. This is because cloud facilitates the expansion or contraction of infrastructure resources while satisfying the users' need for convenience and allows easy access and management of everything through the Web.



[Source : Synergy Research Group]

1.2 Global Cloud Market

The rapid growth of the Internet technology has led to the remarkable development of the Internet speed and the explosive growth of infrastructure. The data usage has expanded owing to the fast Internet speed and the global storage services are growing rapidly. Leading cloud service providers such as Amazon, MS, Oracle, Google, and Dropbox are dominating the global cloud market through personal and business services to satisfy these needs of the times.
Furthermore, plug-in services such as PaaS and SaaS are being used more actively to allow more convenient use of storages, and a variety of services are growing together through them.



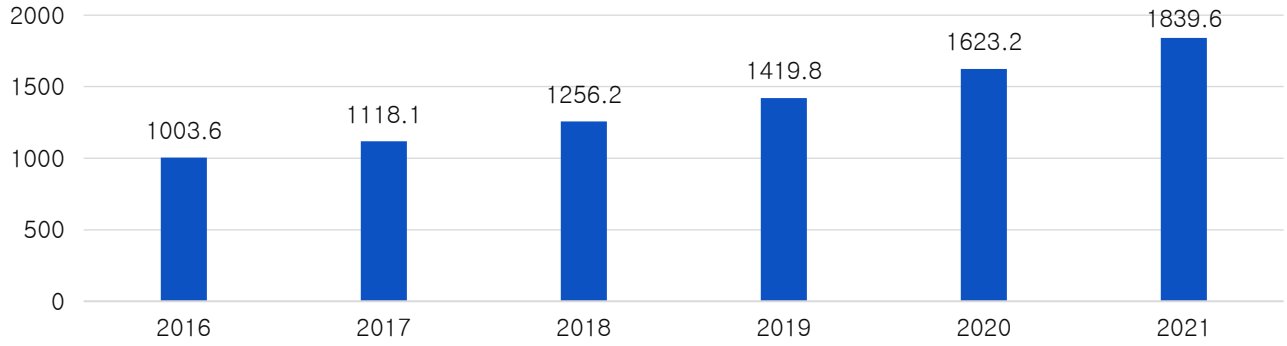
[Source : Synergy Research Group]

2.1 Cyber security Market Growth

Various storage services for individuals and organizations that store sensitive data are enjoying a new golden age now. However, various data leakage incidents from storage services are increasing rapidly worldwide, causing cybercrime damage and enormous losses of individuals and organizations.
Cybercrimes are so rampant that data leakage incidents are occurring frequently in almost all well-known global IT companies and various leaked data are easily distributed through the Dark Web. As a result, the cybersecurity market is growing sharply at 13% CAGR. The various data misused for crimes are characterized by the fact that the data is used without the victim's knowledge.

· Annual Growth of Cybersecurity Market ·

(Unit: US$100 Million)



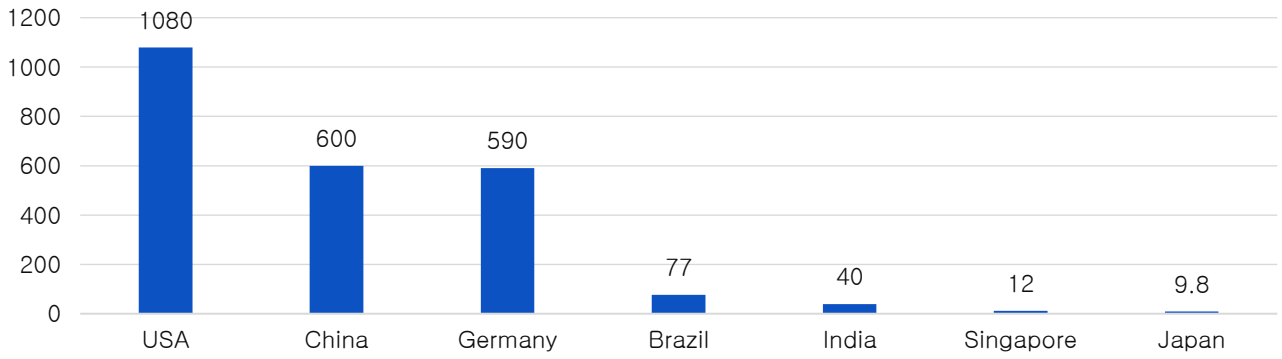
① The cyber security market is expected to reach US$183.9 billion by 2021.
② The access control and surveillance market size is US29 billion.
③ The average security cost per person is $157 / The number of personal information leakages for last 5 years is 3 billion.
④ The CAGR of the security market (GAGE) is 13%.

The global cybercrime damage amount in 2019 was approximately US$445 billion and cybercrimes are growing at approximately 20% CAGR. This amounts to about 10,000 cybercrimes and an increase rate of about 500%, and these numbers continue to increase with the rapid development of Internet of Things (IoT) and IT industry. About 90% of them involve leakage of customer information. This situation can lead to enormous corporate losses regarding the security and trust of centralized data. Thus, security accidents in companies can degrade customer trust and enormously affect the sales and profits of businesses.

2.1 Cyber security Market Growth

· Global Cybercrime Damage Amount ·

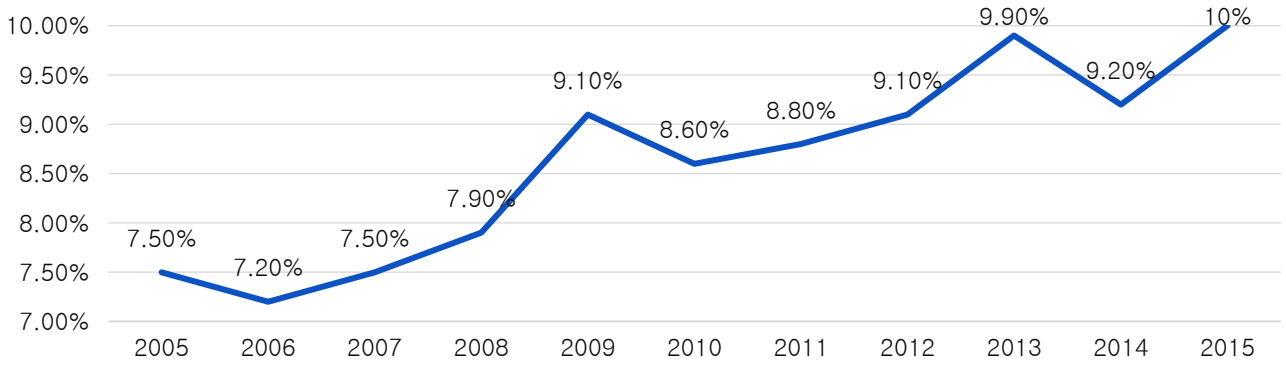
(Unit: US$100 Million)



① In 2019, the global cybercrime damage amount reached US$445 billion
② Cybercrimes are growing at 20% every year.
③ The damage due to customer information leakage accounts for 90% of total crime damage.
④ The damage amount has increased by 500% over the last decade.

2.2 Share of Security Cost in the Budget of U.S. IT Companies

(Unit: US$100 Million)



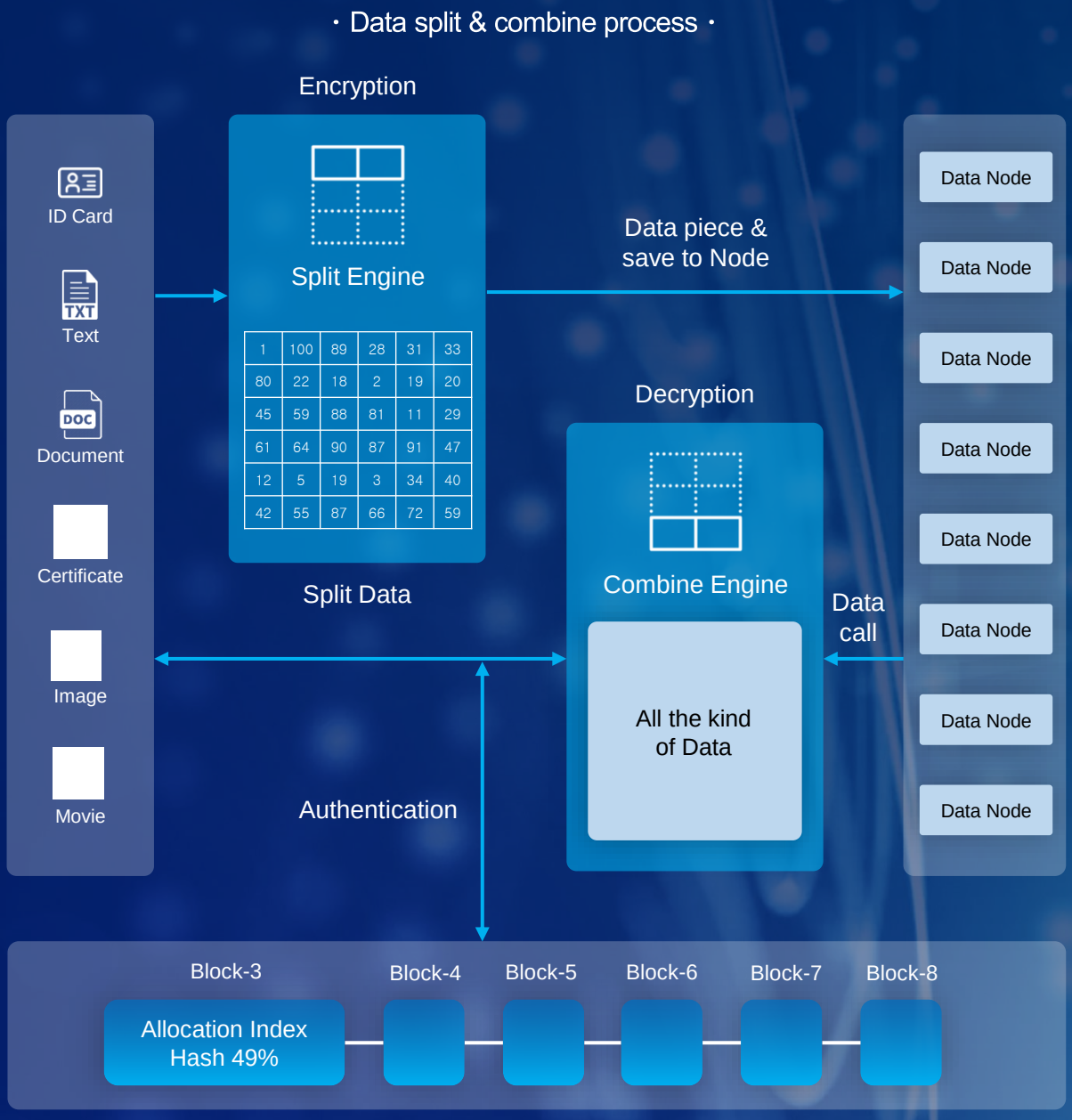
① The share of security cost in the budget of U.S. companies is 10%.
② The share of personal information security cost is 40%.

[Source : Ponemon Institute]

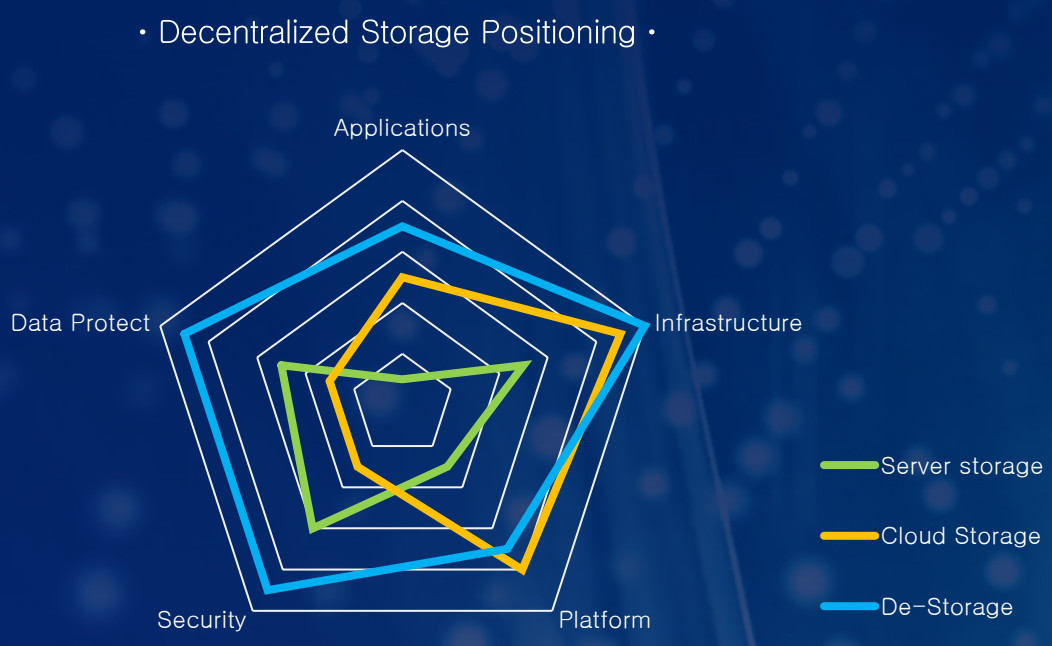
With the activation of various IT services including Internet banking, finances, digital assets, online signature, and IoT, the share of security cost in the budget of IT companies is growing continuously, accounting for over 10% since 2015.
Moreover, the share of security services for B2C personal services, B2B corporate services, ERP, and various data storages is growing continuously. Consequently, the usage of business storages and the global public cloud market are growing steadily as well.

3.1 Decentralized Storage

De Storage, which signifies "Decentralized Storage," is a decentralized storage service platform using the core technologies of "Split Engine," which splits, separates, and distributes data at the source, and "Combine Engine," which collects, combines, and authenticates the split pieces of data. The "Decentralized Storage" has an "end-to-end" security system designed for the security of the centralized storage as well as the user environment, and provides top-level safe security services through three-layered security technologies and procedures.



3.2 Decentralized storage Positioning



Data Security

Protect Data issue

The demand for security of sensitive personal and corporate data is growing.

Currently, customers are requiring simultaneous provision of data security, storage, and encryption due to the rapid increase of sensitive data leakage incidents such as personal information of individuals and organizations, documents, secrets, and contracts.
This means that the rapid growth of storage usage by individuals is leading to the occurrence of privacy infringements, and new threats of data security are increasing in proportion to the increasing use of storages by businesses.

Decentralized

Decentralized Storage

Security needs for data and data storages are growing rapidly.

Decentralized Storage is a new type of data storage method, different from the conventional centralized data storage and protection methods, and can build an effective data defense system together with data encryption. Unlike the defense system that operates data protection zones such as firewalls and IPS, Decentralized Storage can implement more safe data security by combining and authenticating data pieces whenever users want without preserving the data sources through data split and physically separated storages of data.

DeStorage

3.3 Decentralized Storage Positioning

De Storage has implemented decentralized storage by applying Split Engine, Combine Engine, and Sub Chain of BaaSid, and will develop various decentralized storage products.

1. Split Data

Split All data
End to end Security
Split & Combine Engine

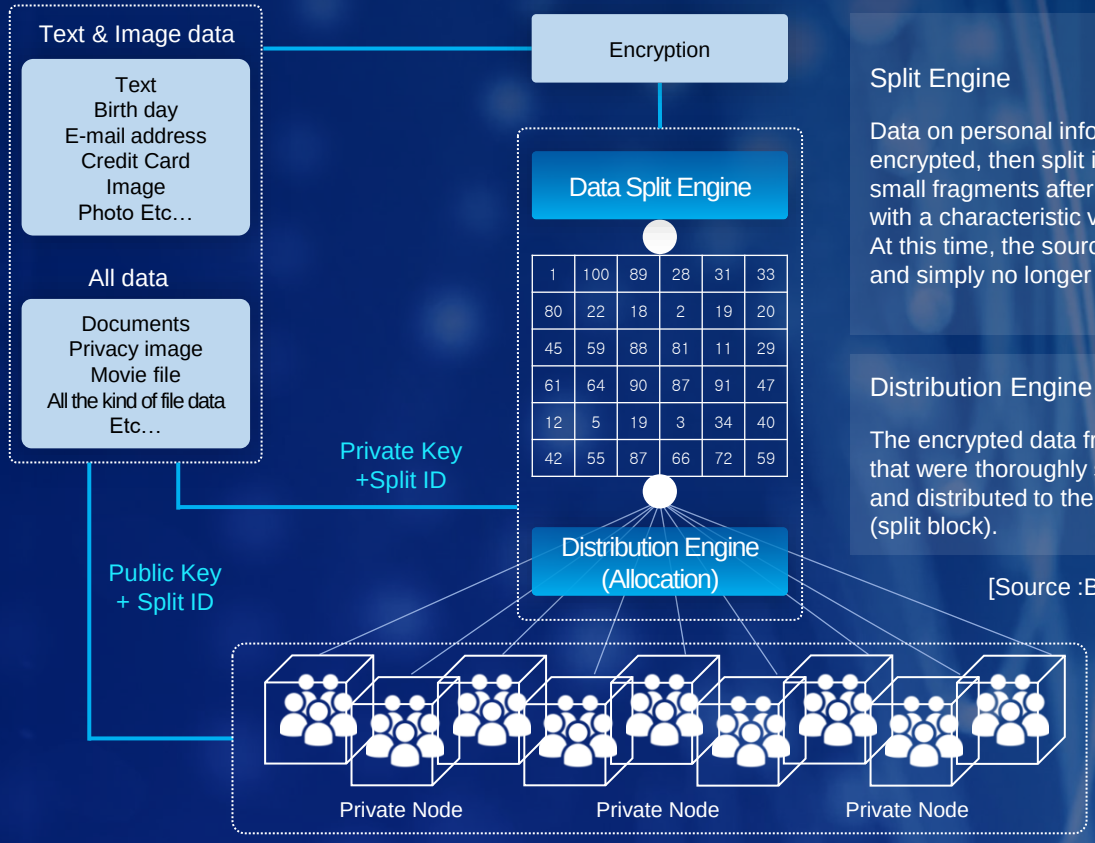
3. Authentication

Based on Blockchain
All the Data / All the Log in file
Instant Access

2. De-Storage

Cloud based on Blockchain
Decentralized Storage
Protect all data

· BaaSid's Split Engine & Combine Engine / Sub Chain ·



Split Engine

Data on personal information is encrypted, then split into thousands of small fragments after which a split ID with a characteristic value is created. At this time, the source is discarded and simply no longer exists anywhere.

Distribution Engine

The encrypted data fragments (Split ID) that were thoroughly split are then split and distributed to the fastest nodes (split block).

[Source :BaaSid White Paper]

3.4 Decentralized storage Target Market

· Physical Separation with No Source / Distributed and Decentralized Cloud Storage ·

Decentralized Cloud

DCS(Decentralized Cloud Storage)

Decentralization of the data storage and cloud storage services

New forms of decentralized storage services combined with cloud are implemented and serviced by building a user-oriented decentralized data storage that combines the existing cloud storage with a decentralized storage.

Backup and Restore

Highly safe
distributed backup solution

Accumulation of Big Data

Storage of accumulated data
used for big data analysis

Data Recovery (DR)

Protection of secret data,
applications, and IT systems .

Data Storage Paradigm

Dictionary and hash for data
search

Archive and Block Volume

Archive data can be safely
processed to comply with
personal data protection laws

Object Storage and Unused Data

Hierarchical separated/distributed
storage for large files

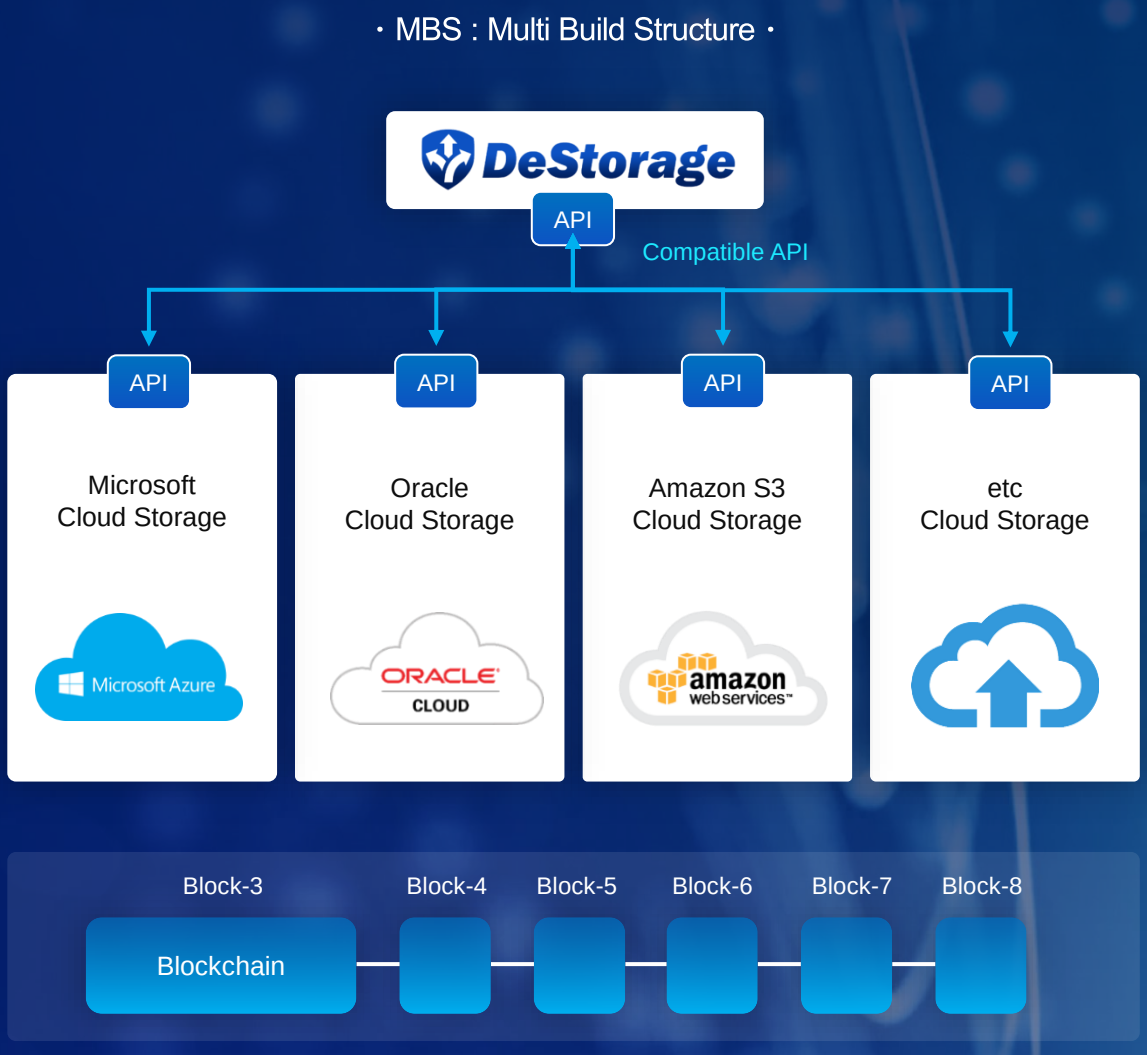
- ✓ The sources of sensitive contracts, medical data, and various certificates are fragmented and managed separately.
- ✓ Storages for backup and restore through the operation of large-capacity cold storages (data warehouse)
- ✓ Construction of and services for a smart work system cloud that allows safe external access
- ✓ Service infrastructure through self-sovereign identity information and know your client (KYC) data storage

3.5 MBS(Multi Build Structure) Strategy

De Storage has strategically adopted the compatible storage method which is compatible with existing cloud storages such as AWS, MS Azure, and Oracle, who are dominating the existing cloud market, thus allowing existing cloud customers to conveniently and stably access and use De Storage. This can enhance user convenience, accessibility, and work efficiency by using the powerful data fragmentation and physical distribution method of decentralized storage.

De Storage will continuously update its APIs to enhance compatibility with existing cloud storages and allow users to access and use its services as conveniently and easily as possible.

Sufficient time and solidarity are required to use the concept of decentralization in the existing centralized market. Therefore, De Storage needs to adopt a customization strategy to enable integration of its services on the existing architecture to enhance compatibility with the existing centralized IT infrastructures.



4.1 Strategic Goals of Development

De Storage has the following three goals for development.

The first goal is to actualize a new decentralized storage platform that overcomes the limitations of IPFS to enhance the separated and distributed structure and search efficiency. This is a new challenge to overcome the various limitations of the open source-based IPFS.
In particular, the IPFS has the characteristic of copying the file fragments by all nodes in the process of searching fragmented files. Since the separated file fragments are copied and owned by all nodes, the burden for node capacity can be increased.

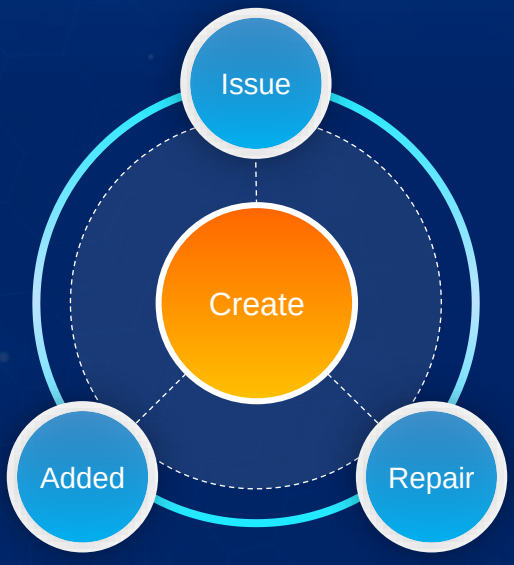
The second goal is to divide and manage the files into the desired number. This provides the convenience of managing the number of fragmented files.

The third goal is to assist the management and use of the new De Storage System more powerfully through the file split, encryption, storage, and search functions.

・New File distribute System for De Storage・

to solve IPFS's limit

Improved distributed structure, search efficiency, and performance



to be added feature

Function to divide and manage as many files as you want, and to handle large files

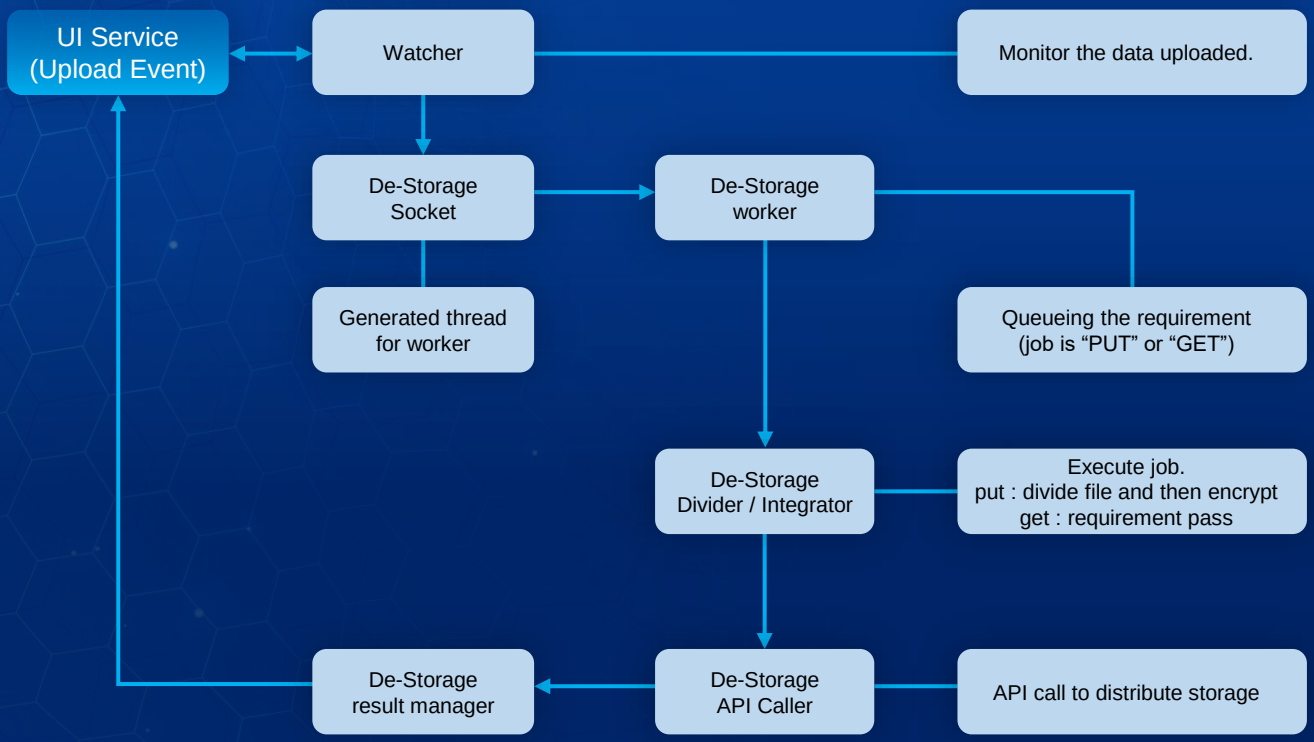
to be made robust

Divide data file, encryption and store and search furthermore support the new storage

4.2 De Storage Architecture

De Storage provides a variety of secure storage products that can be customized to the serviced companies. The largest vision of De Storage is data security at the source.

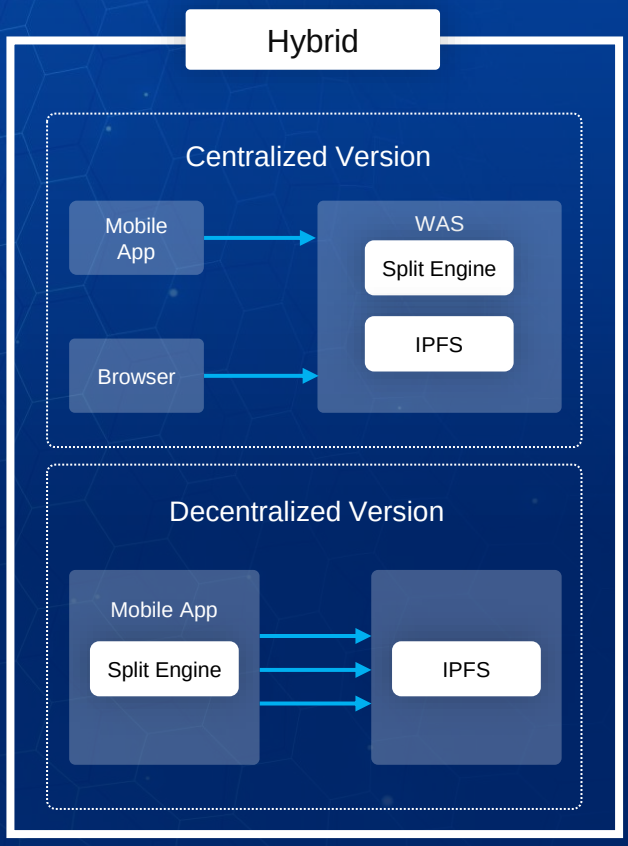
The existing hardware-based security systems such as IPS and firewall are just centralized monitoring tools for data protection. The data split, separation, distribution, combination, and authentication of De Storage are new encryption technology for the security of these source data and this means providing a new form of security.

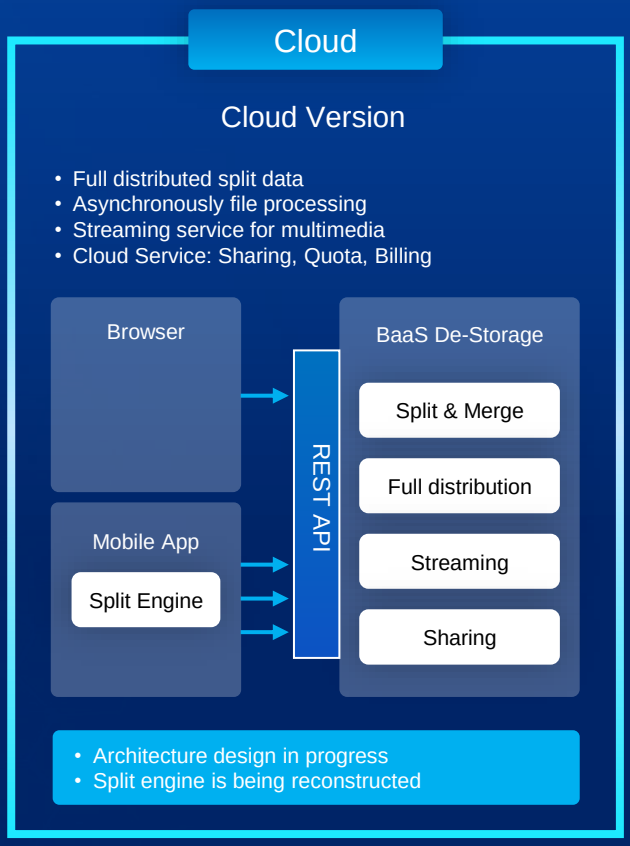


De Storage will provide existing users and businesses with the experience of using various solutions through the development of various business models, UI and UX, plug-in software, and in-app strategy.

4.3 De Storage Cloud

The purpose of De Storage is data security through data split and distribution systems.
In particular, it should enhance compatibility for the introduction of the decentralization systems of existing OSP companies and plug-ins.
This is because existing companies' rejection of decentralized system and burden for system integration are decisive obstacles to the introduction of decentralized systems.
De Storage should consider the convenience and stability as much as possible in terms of data management by organizations while splitting and decentralizing data itself.
To that end, we should predict and design understanding, compromise, and compatibility with existing systems as an important process of our business.



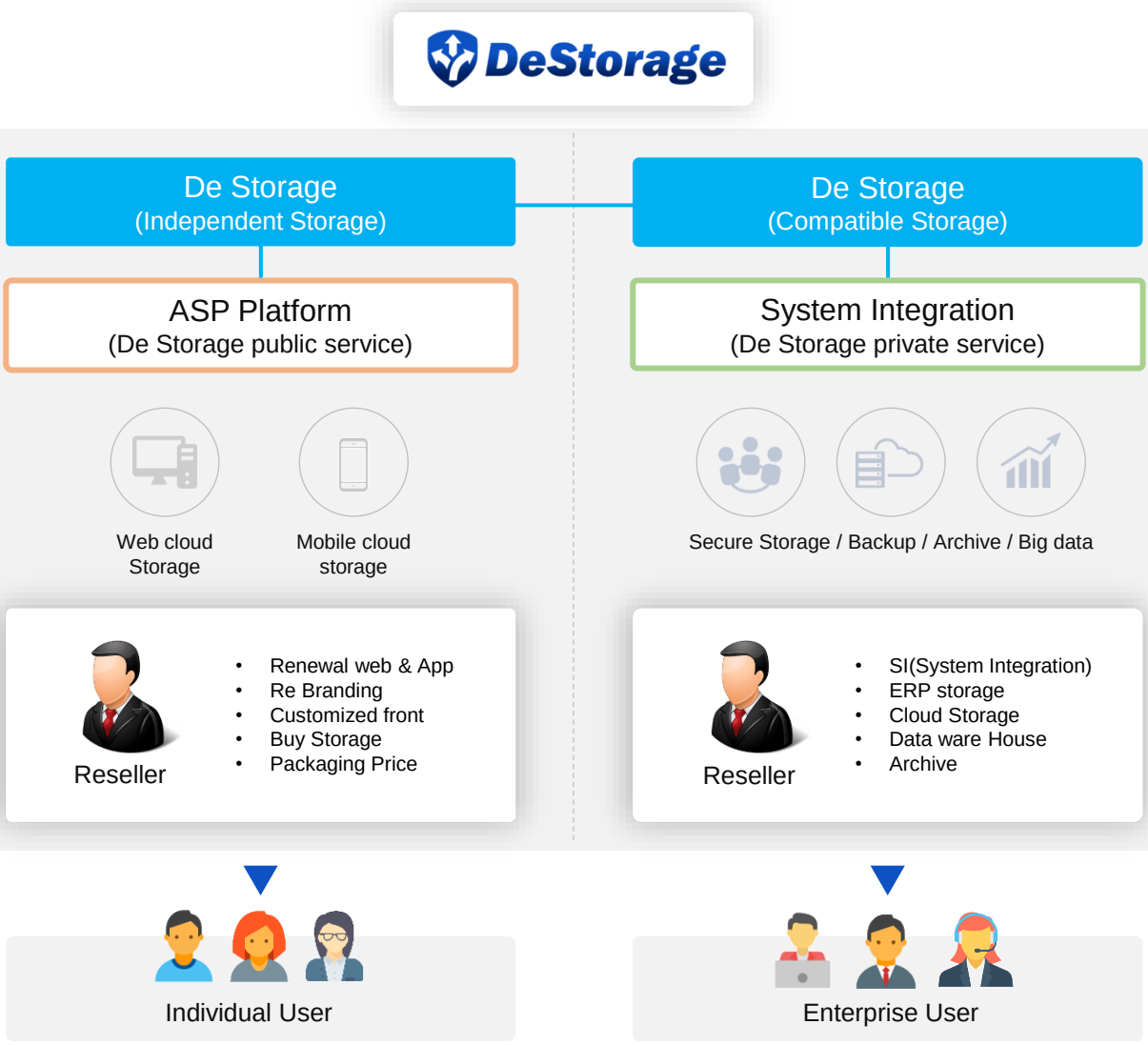


The cloud version of De Storage will heighten user convenience and accessibility of organizations. The clouds are currently integrating all infrastructures including SaaS, IaaS, and PaaS.
The De Storage Cloud will bring a new storage paradigm into the current storage market. This is because existing storage products do not have any momentum in the midst of infinite competition. As a result, the prices and profits of storage may decline, because no more new storage products can be expected in the short term.

The De Storage Cloud can attain competitiveness as a new product in this storage market and provide new concept and vision for data security.

5.1 DCS(Decentralized Cloud Storage) Reseller Program

Any individuals and companies can easily purchase the decentralized cloud storage, build apps or Web service pages using the cloud storage, and resell them to other individuals or organizations.
The DCS Reseller Program will support the quick development of application services of the decentralized storage by providing various APIs for these application providers.

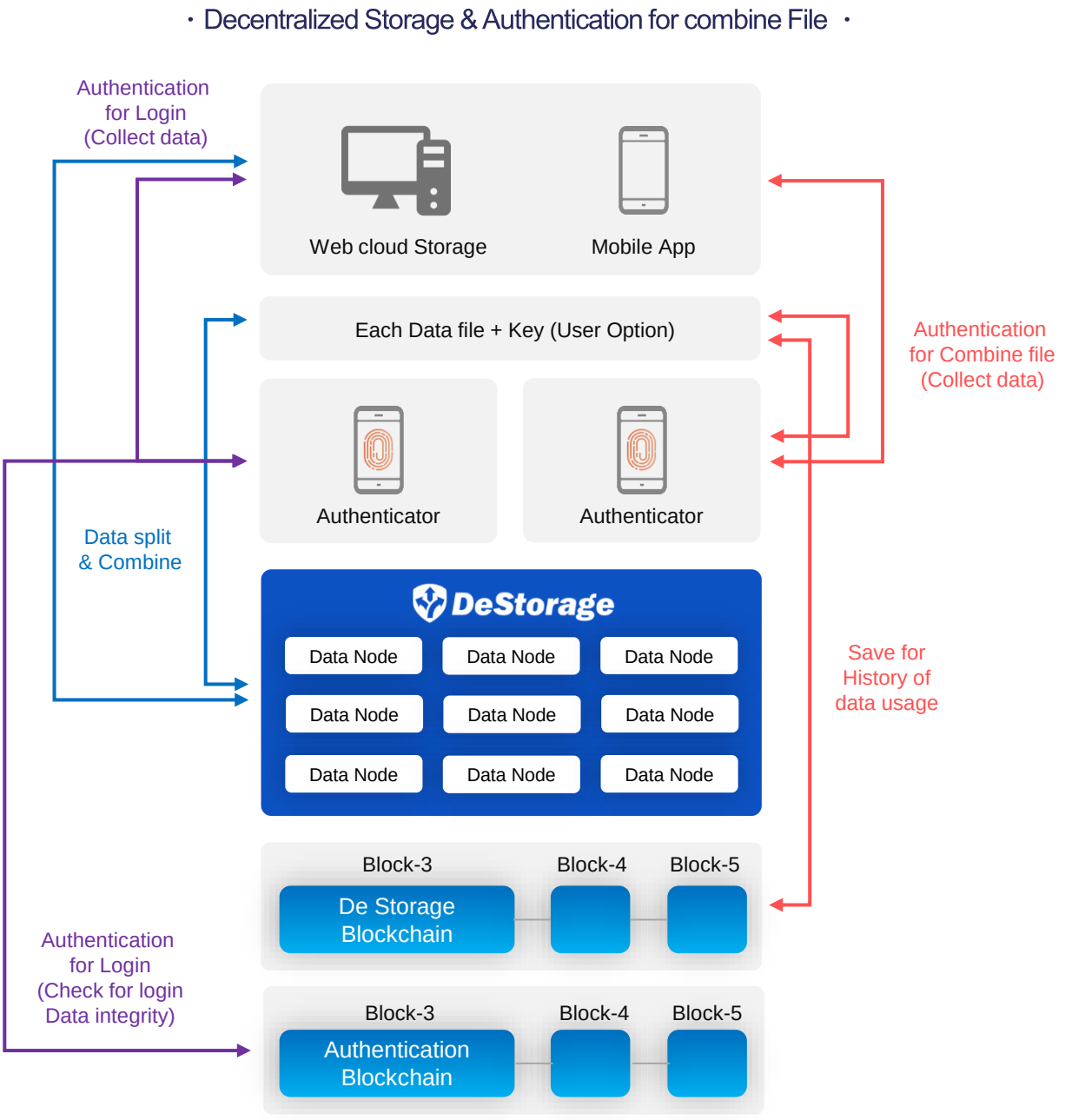


For active reseller recruitment and aggressive supply to the market, the Company will support various APIs, develop a practical ASP service model, and provide a DCS infrastructure participation model for individuals. This can increase the purchasing power of large cloud storages, thus creating higher profits.

5.2 De Storage ASP Service Platform

The independently constructed ASP platform of De Storage is the safest decentralized cloud storage service with excellent security that can be easily used by individuals and organizations.

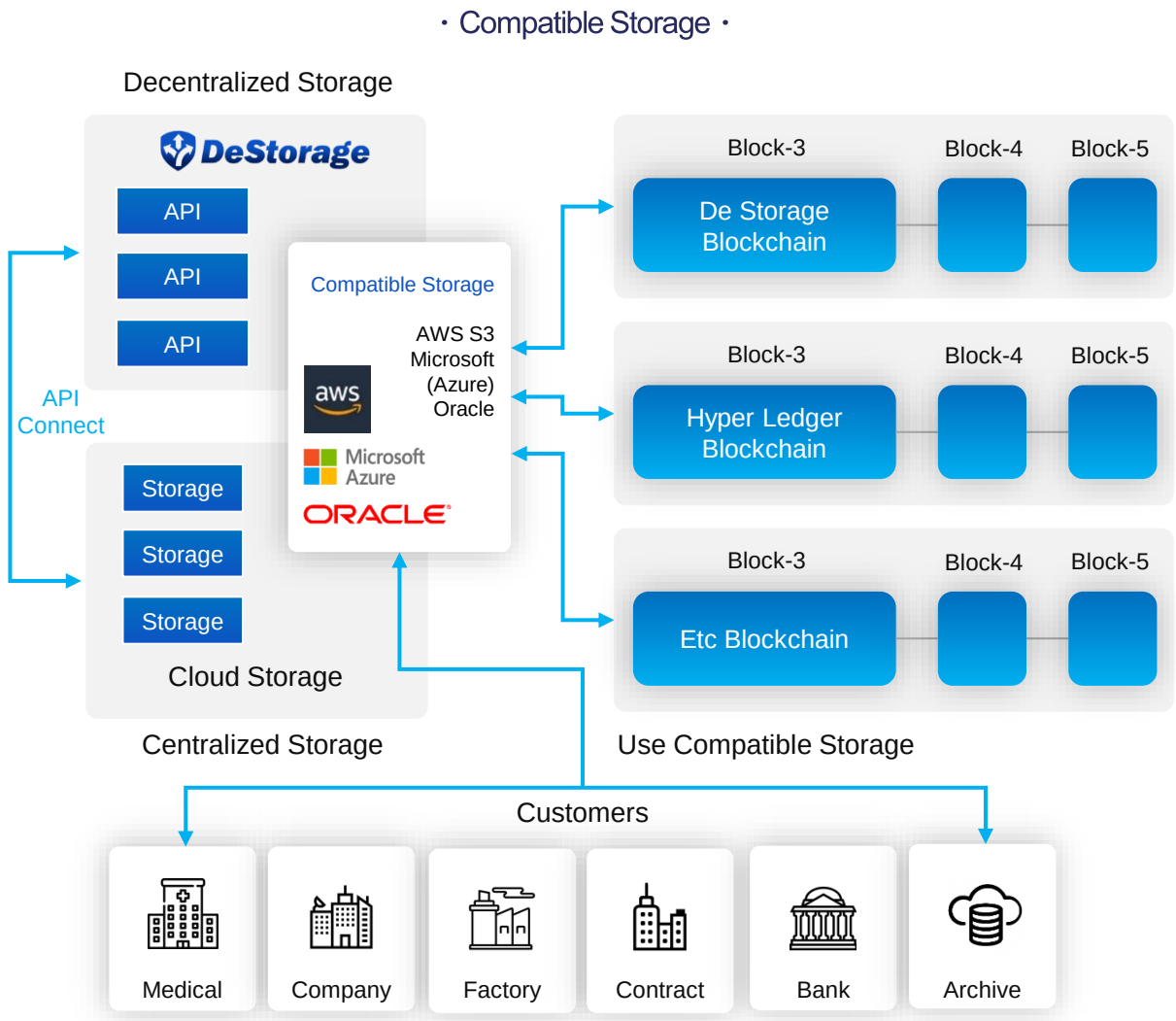
Personal or organizational users can log in to the service through the Authentication app of BaaSid. Furthermore, they can set powerful security authentication additionally for each file for the combination and decryption of all the decentralized data (texts, images, documents, etc.) provided by De Storage.



5.3 Compatible Storage for System integration

This means that the data split, separation, and distribution technologies of De Storage for data security are independent solutions and they aim to interface with various blockchains depending on the function and purpose of data storage.

De Storage is designed to provide maximum possible flexibility to enhance the user convenience of customers through compatibility with the storages of existing clouds (Amazon S3, Microsoft Azure, Oracle, etc.) and interface with blockchains.



De Storage is pursuing strategic partnerships to allow existing cloud customers to use De Storage more conveniently through API interface with existing loud storages.
One of our mid-term goals is to reduce rejection to decentralization while increasing the market share of De Storage.

6.1 Ecosystem of DS Token

DS Token is a utility token that has been published first based on ERC20. The blockchain and main net used in De Storage does not mean that they are swapped to new coins. The exiting published tokens based on ERC20 can be maintained or listed in a cryptocurrency exchange.
When DS Token is republished as a separate coin, we will prepare for and implement swaps through a separate announcement. This may be affected by the exchange's cooperation and applicable laws.

The services of De Storage are designed to improve security through private node and to provide safe decentralized storages for individuals as well as organizations.
De Storage will provide services to allow individuals and organizations to easily choose and manage decentralized storages through cooperation with existing cloud providers (Amazon, Microsoft Azure, Oracle, etc.) and API compatibility.

For some of the De Storage clouds, the holders can acquire resources through DS Token. The acquired resources of the De Storage Cloud can be provided to other third parties or can be serviced directly through API interface and contents building.

① Organizations or individuals can use DS Token as a price for the De Storage cloud services.
② The Company may use some of the net profits earned through the De Storage business (excluding the operating costs, infrastructure and other costs of the company) to recover DS Tokens.
③ The open resources of the De Storage Cloud can be acquired by DS Token and provided to third parties, or API interface and services can be developed and serviced.

6.2 DS Token allocation

The total published quantity of DS (De Storage) Tokens is 10,000,000,000, and the allocations of the tokens are as follows.

① 1. Reserve: 30% (Lock-up) (May 31 2025)
② 2. Founder: 20% (Lock-up) (May 31 2025)
③ 3. Team/Advisor: 10% (Lock-up) (May 31 2025)
④ 4. Reward Resrve: 20% – No lockup
⑤ 5. Marketing/Liquidity: 15% – No lockup
⑥ 6. Airdrop/Event: 5% (No lockup)

7. Road Map

Schedule	Category	Contents	Development progress
2022 / 1Q	NFT Market Place Design & Development	In the NFT Marketplace developed by BaaSid taiwan, the technology to store customer information in decentralized storage was appied	Completed
2022 / 2Q	Original storage according to the issuance of various certificate	When various certificate are issued, the 'Original certificate' is simultaneously stored in decentralized storage. This is for certificates issued by various industries in the future and for the blockchain based decentralized storage market.	Completed
2022 / 3Q	Decentralized Storage Update for issuance certificate	Implementing infrastructure efficiency and various functional improvements of decentralized storage / Various nodes and function upgrades	Completed
2022 / 4Q	Destorage 'Safe Box' Service (B2C Solutions)	"Safe Box" B2C Service Plan & Design (Service structure and planning)	Retract
	Destorage development	Development of Certification Destrorage storage system (Service Design & Development)	Completed
2023 / 1Q	Business Modeling (Plug in App)	'Safe Box' in app Service with Agendabook It will serve customers through Agenabook's in app servi	Retract
	Linked with BaaSid mainnet	Development of certificate service through linking BaaSid mainnet and destorage server	Completed
2023 / 2Q	Billing system by DS token	Linking DS for 'Safe Box' usage fee payment	Retract
	Destorage Storage update for issuance certificate	Implementing infrastructure efficiency and various functional improvements of Decentralized Storage	Completed
2023 / 3Q	Certification Management Design	Certificate system development	Completed
2023 / 4Q	Destorage Storage update for issuance certificate	Implementing infrastructure efficiency and various functional improvements of Decentralized Storage / Various nodes and function update	Completed
2024 / 1Q ~	Token ecosystem design	Preparing and design new plans and services to study the token ecosystem and commercial services	Proceeding

* We discontinued the development of our B2C business, 'Safe Box', and changed our roadmap accordingly. (2022 / 4Q ~2023 / 2Q)

This White Paper is a plans and guide that proposes and implements new-concept data security methods including data fragmentation at the source, physical split, distribution, and storage through the 'De Storage' project. This White Paper may be redistributed or replaced after partial revision of the content as needed.

All information in this White Paper is not complete and does not mean obligations to any contract or conditions. Furthermore, the purpose of this White Paper is to share detailed and important business information of the company with potential token owners and token users, and to assist the proper acquisition, dealing, and using of tokens.

This White Paper may not be interpreted as proposing investment distribution or investment of any kind. The DS Token mentioned in this White Paper may not be established for suggestion of sales in any form of security in any country.
The DS Token mentioned in this White Paper does not reflect or secure resource values of any type, and is based on the basic price of use by users of the De Storage System built as a utility token.
The DS Token in this White Paper shall not be mentioned or evaluated for its value.

We do not provide DS Tokens to citizens or businesses around the world who cannot purchase it due to the national law or who do not have sufficient legal capacity. DS Tokens are provided only within voluntary participation, legal capacity and standards.
Furthermore, any people who acquire or trade the DS tokens must be voluntary within these legal qualification and legal capacity, and they must agree to this. You should carefully read all acquisitions, trades, and uses related to DS Tokens and recognize the risks.

The Company considers anyone who has read this legal notice has accepted and understood all the acquisitions, trades, and uses of DS tokens.