Polaris Share 2.0 White Paper (ENG)

Chapter1. Summarize

1.1 Problem (inefficiency of unutilized knowledge, unnecessary surplus work)

(a) A vast number of documents containing important information are sitting unutilized in the cloud or on hard disk drives. Many knowledge producers find it difficult to find or access the knowledge they need, resulting in unnecessary repetition of work on the same topic.

(b) Knowledge producers are missing out on countless opportunities to share and sell their knowledge.

1.2 Vision (Provide a decentralized incentivized knowledge exchange service)

Similar to SlideShare, but,

(a) POLARIS SHARE returns the value of knowledge in documents and networks to knowledge producers and other adopters.

(b) Knowledge producers are rewarded by sharing or selling documents acquired from POLARIS SHARE for free.

(c) The content is curated by the adopters, who are token holders, not by a centralized entity.

(d) Adopters benefit from diverse and high-quality content shared by knowledge producers.

1.3 Strategy (Adopter Recruitment / Document Acquisition / Content Organization)

(a) Recruitment

We plan to recruit adopters for the POLARIS SHARE service by targeting the approximately 5 billion documents and 110 million global users on the POLARIS OFFICE service platform. For this purpose, we will pay 4% of the total supply as a reward.

(b) Document Acquisition

In the initial phase of the system, adopters will be able to earn rewards from token inflation, which will decrease by 50% every year. As the system grows by attracting more adopters and quality content, the value of the token will increase, and adopters will also be rewarded through relevant advertising. (For reference, SlideShare currently has 76.8 million monthly unique visitors, based on SimilarWeb traffic).

(c) Content Organization

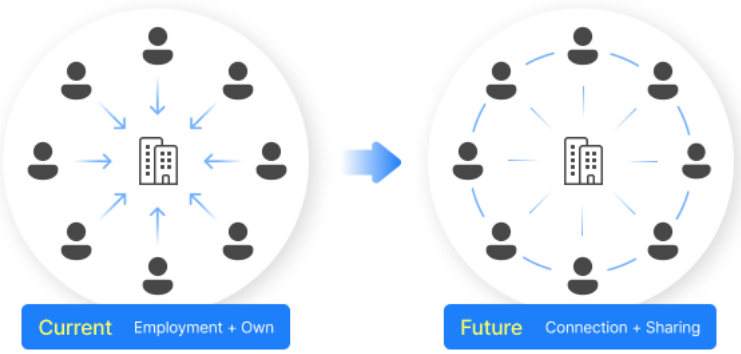
As more and more documents are shared, identifying the best ones is a key factor in the success of the POLARIS SHARE service. Curators use tokens to vote on articles, and articles with a large number of votes are considered excellent. The tokens used to vote are locked for four weeks and cannot be used. During this voting period, curators also receive larger rewards if the articles they voted for become popular with a large number of views and sales, which motivates curators to find better articles.

1.4 Differences from POLARIS SHARE 1.0 (Introduction of NFT Governance)

POLARIS SHARE 2.0 extends and reorganizes some of the previously defined roles of validators, qualified knowledge producers, and foundations to NFT governance. NFT holders will be assigned some of the roles and responsibilities of validators, qualified knowledge producers, and foundations, with corresponding token economy incentives.

Chapter 2. Overview

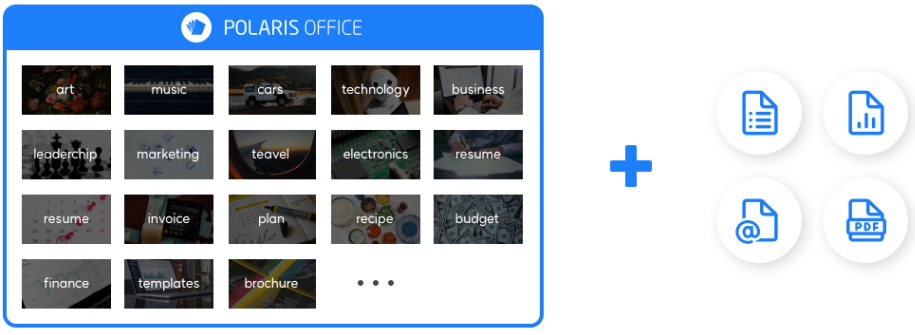
2.1 POLARIS SHARE Vision



In the past, organizations directly "hired" employees and "owned" assets to provide services and solve problems. However, with the development of information technology, diversification of employment structures, and the pursuit of higher productivity, companies today are "connecting" and "sharing" resources instead of directly hiring employees and owning assets. This enables companies to grow rapidly by providing more advanced services and solving problems seamlessly. For example, Uber and AirBnB use the sharing economy to provide passenger transportation and accommodation, respectively, on a global scale. To provide their services, they don't hire drivers or own properties, but instead utilize existing and underutilized taxis or real estate.
They solve these problems by connecting people with previously underutilized taxis and real estate through an incentive system.

POLARIS SHARE services aim to decentralize businesses through 'connectivity': we want to enable businesses to work with people who have the right skills and knowledge they need, without having to hire them directly, and to enable individuals to earn appropriate compensation without being tied to any particular place, and without being constrained by space or time. Most importantly, we realized that knowledge producers and the knowledge they produce are currently underutilized, and we plan to develop POLARIS SHARE, a decentralized incentivized knowledge trading service, as a first step in solving this problem.

2.2 Problems



We provide a cloud office service called POLARIS OFFICE, and since its launch in May 2011, a total of 250 million documents have been created or uploaded, and about 100,000 documents are currently being created and uploaded every day. The documents created or uploaded cover a wide range of topics, from general and easy-to-understand to

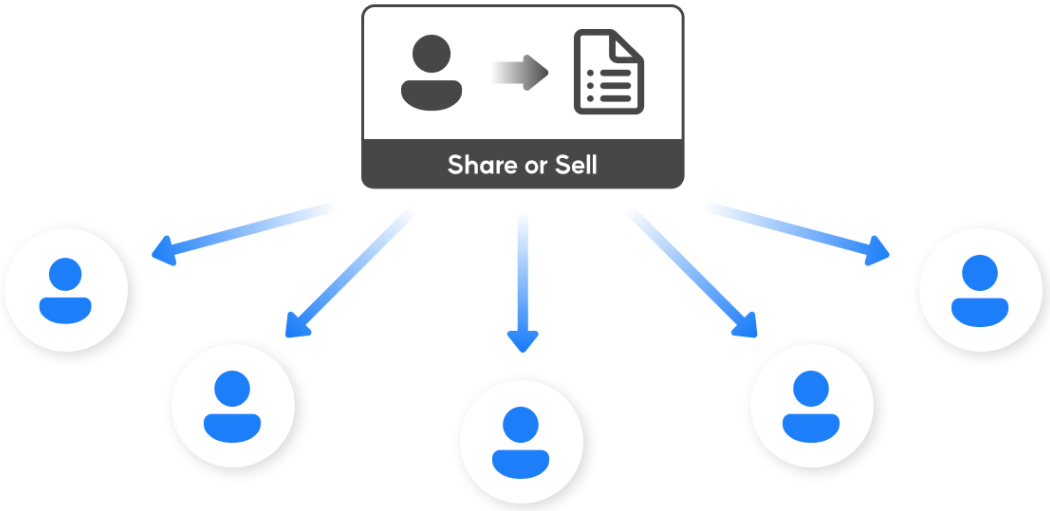
complex and difficult to understand. Despite the vast number of documents created and stored, less than 2% (one month after creation) are actually utilized, meaning that most of them are only used briefly at the time they are created, and then they just take up storage space.

It's more than just the fact that documents are sitting unutilized and wasting storage space. Because the documentation or knowledge is not being utilized, the people who need it have to spend their own time to create the same documentation. If the author's knowledge of the subject matter is mediocre, the result is likely to be a low-quality document with inaccurate information, despite the time spent creating it. This is a waste of time and resources and highly inefficient for the ecosystem as a whole.

Notes. PolarisOffice

POLARIS OFFICE service, which is the foundation of POLARIS SHARE service, is a cloud office service compatible with MS Office and Adobe PDF. It can run on various platforms including Windows, MAC, iOS, and Android, and supports various document formats such as Word, Excel, PowerPoint, PDF, and TXT. It has about 110 million subscribers in 230 countries around the world, with 30,000 new people signing up every day. They are mainly from South Korea, the United States, Japan, India, Mexico, and Russia.

2.3 Solution



We want to solve problems by bridging the gap between knowledge producers and receivers. In other words, we want to solve the problem by building/providing a service that allows experts in a specific topic to produce, share, or sell documents. In particular, we plan to implement a service with a blockchain-based token economy, where knowledge producers can earn rewards for sharing documents. Through this service, experts in related topics can earn rewards by creating, sharing, and selling their own documents. This service is similar to SlideShare, but it differs in that it provides a decentralized knowledge trading service and, most importantly, rewards ecosystem contributors.

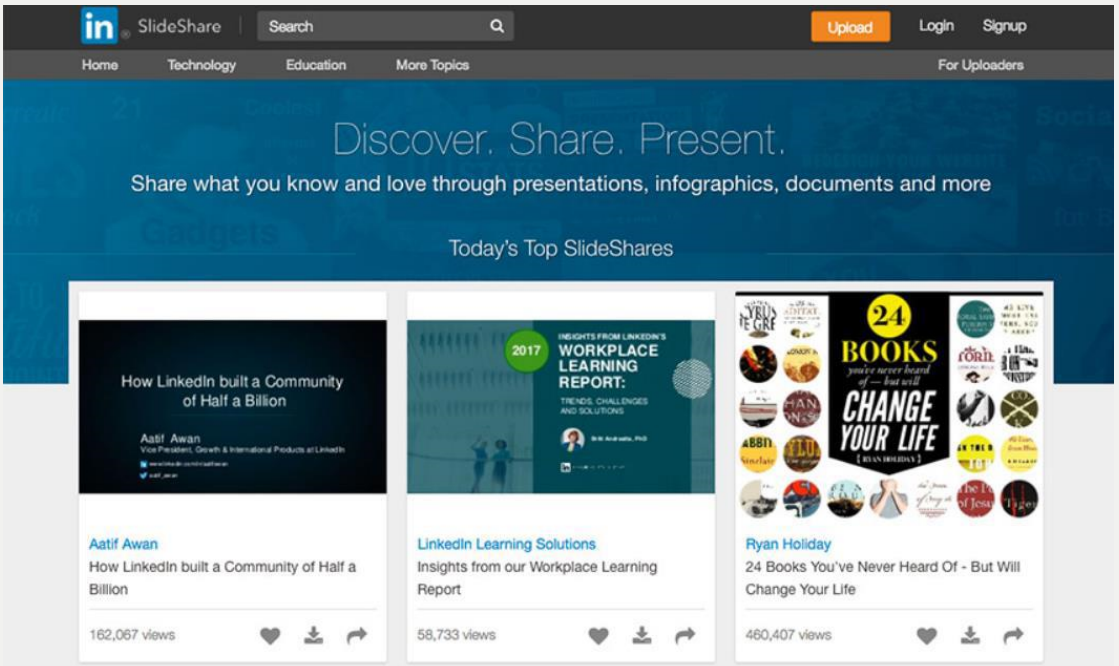
Distinctions	Slide Share	Polaris Share
Supported formats	PowerPoint	Word, Excel, Powerpoint, PDF
Business model	Free	Paid/Free
Knowledge Producer Rewards	O	X
Curating Entity	Companies	Recipients

Many of the documents shared on Slide Share are created and uploaded for the purpose of promoting and marketing a brand, product, or service. Some of the documents that are viewed for free by the recipients may contain information that is centered on the private interests of the authors. Therefore, POLARIS SHARE motivates knowledge contributors to share informative and valuable articles by rewarding them with tokens.

Slide Share's curation, including search rankings and determining which articles are featured on the main page, is driven by algorithms created by companies and corporations. This means that the exposure of knowledge is prone to being determined by centralized groups, especially corporations. However, POLARIS SHARE puts the power of curation in the hands of the audience, allowing them to make their own curation based on document quality.

Notes. Slide Share

Eighty million professionals trust SlideShare to help them quickly learn about any topic from experts who know what they're talking about. Founded in 2006 with the goal of making knowledge sharing easy, SlideShare has grown to become the premier destination for professional content. With more than 18 million documents uploaded in 40 content categories, SlideShare has become one of the top 100 most visited websites in the world today.

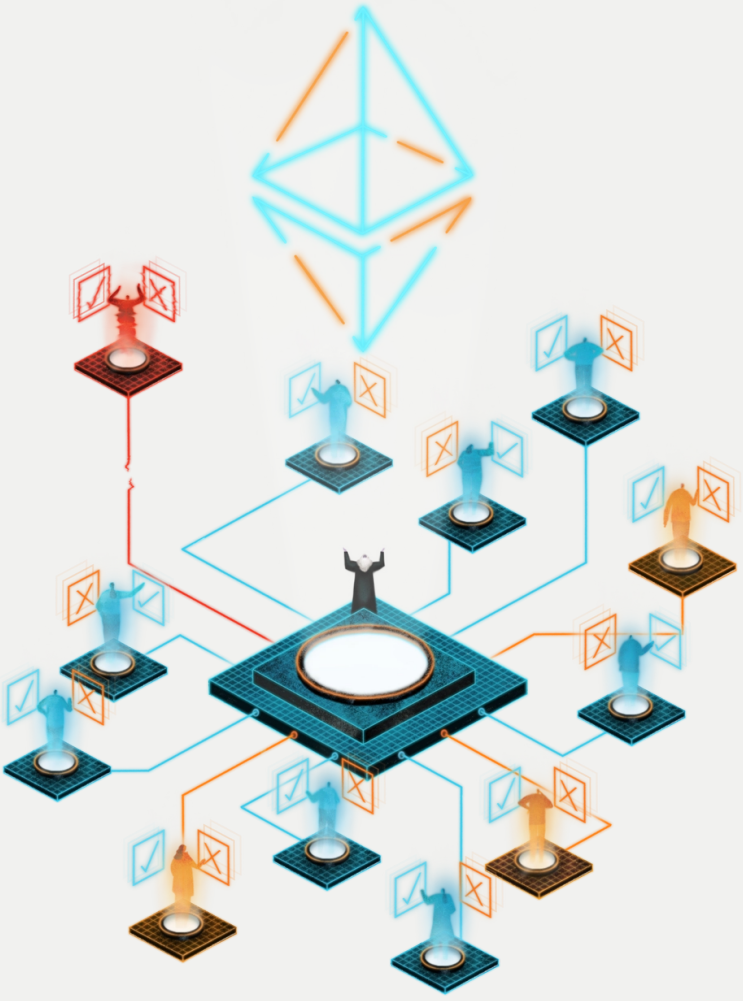


2.4 NFT Governance

POLARIS SHARE 1.0, published in 2018, introduced concepts such as validators and qualified knowledge producers that simply utilized incentives from the token economy, as the concept of NFT-based DAOs was not active at that time. This was done to prevent centralized service operators from having too much power to edit knowledge and decide which knowledge to expose to the top, while also preventing illegal or inappropriate knowledge from circulating. However, with the use of NFTs as proof of participation in DAOs and the use of smart contracts to define the role that NFT holders can play in the governance of the service and the various incentives that come with it, POLARIS SHARE 2.0 introduces NFT governance. In addition to the roles and token incentives of Validators and Qualified Knowledge Producers defined in 1.0, NFT holders will become key participants in the POLARIS SHARE ecosystem, providing various rewards such as utilization as PFP profiles and income through staking.

Decentralized autonomous organizations (DAOs)

DAOs are a secure and effective way for like-minded people around the world to work together. By using blockchain smart contracts to set rules and rewards for each other's work, and to make decisions, such as voting on major agendas, everyone can work in a completely horizontal and democratic way, rather than a hierarchical system that relies on a specific person.



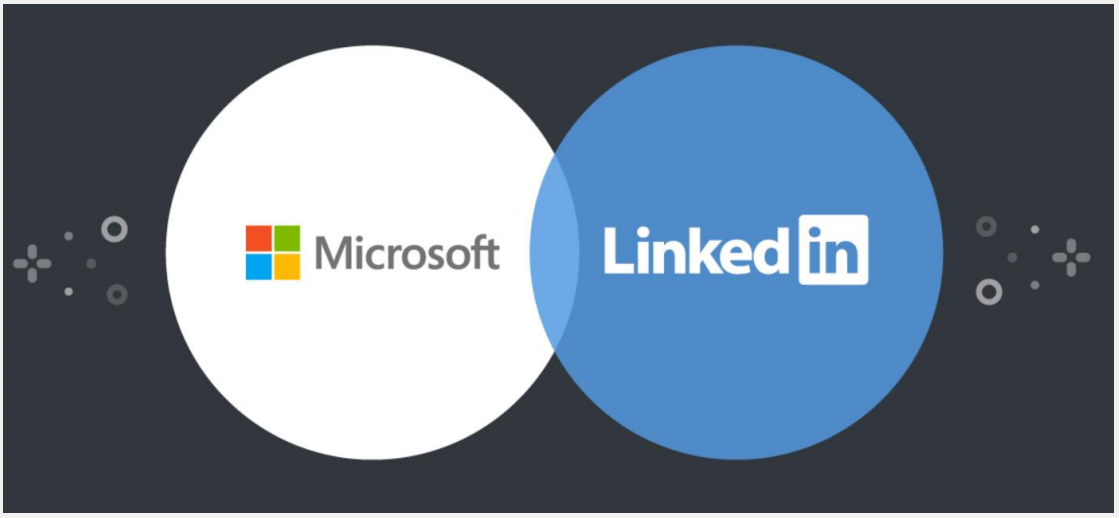
2.5 Beyond POLARIS SHARE

Knowledge, which is the core of the information that makes up a document, can be shared and disseminated in an online environment through instant messaging, video conferencing, collaborative editing tools, social networking sites such as LinkedIn, etc. The POLARIS SHARE service will be developed to provide users, especially companies or organizations, with relevant collaboration tools so that useful and valuable knowledge can be shared and disseminated efficiently. For example, a company can connect a video conferencing service or a collaborative editing tool to the POLARIS SHARE service for collaboration with third-party teams or individuals. The person sharing the 'knowledge' receives a certain amount of remuneration in tokens from the requesting company or organization.

In conclusion, companies can solve problems by collaborating with experts through 'connecting' without 'hiring', and experts can be fairly compensated for their work. Furthermore, companies can increase their network of contacts, and individuals can gradually build trust and establish themselves as experts in a particular field.

Notes. Microsoft's acquisition of Linked and the growth of Slide Share

In 2016, Microsoft Corp. made headlines when it acquired LinkedIn Corp. for more than $26 billion. It was the largest acquisition in Microsoft Corp. history. "I think the two companies are worth more on their own than the sum of their parts," Microsoft co-founder Bill Gates said in a television interview with Bloomberg News after the acquisition was announced. There was some negative publicity that Microsoft Corp. overpaid for the acquisition, but three years later, metrics dispelled that notion. LinkedIn's user base grew nearly 50 percent after the deal was announced, from about 433 million users to more than 774 million in the third quarter of 2021, and its revenue grew from about $3.7 billion to about $8 billion in 2020.



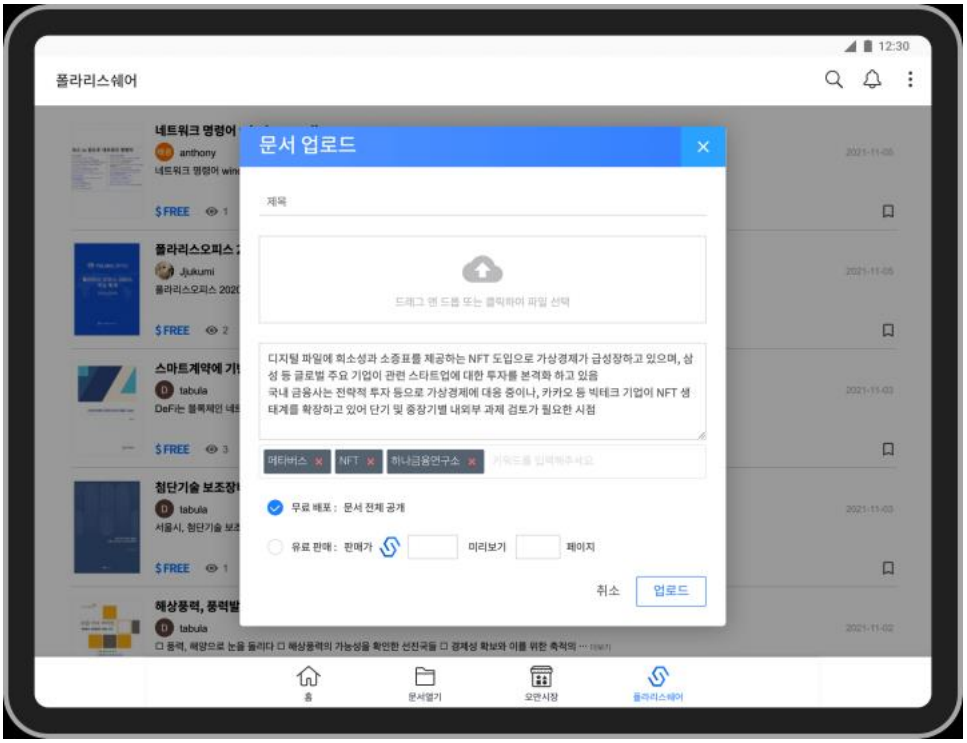
Chapter 3. POLARIS SHARE Services

3.1 Overview

POLARIS SHARE is a series of decentralized incentivized knowledge exchange services that connect knowledge producers and receivers. The project aims to ensure that documents are not just shared, but traded for their fair value. On the service, knowledge producers can earn rewards for sharing their documents, and recipients can get high-quality knowledge at a low cost.

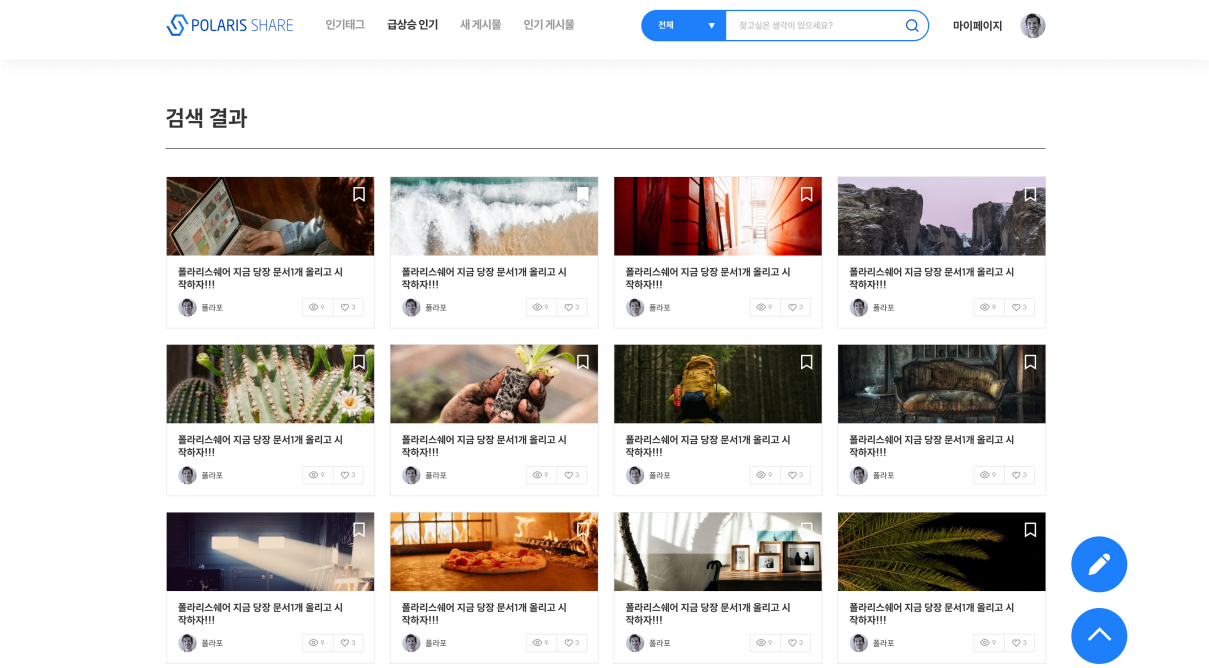
3.2 Service scenarios

3.2.1 Sharing and selling documents



Knowledge producers can use document creation software such as POLARIS OFFICE service to create documents in Word, Excel, PowerPoint, and PDF formats and upload them to the POLARIS SHARE service. Uploaded documents can be anything from easy to understand to specialized knowledge to formulas that solve specific problems. The document format is usually determined by the nature of the document or the knowledge producer's preference. Knowledge creators can choose to sell their uploaded articles at a pre-determined price or share them for free.

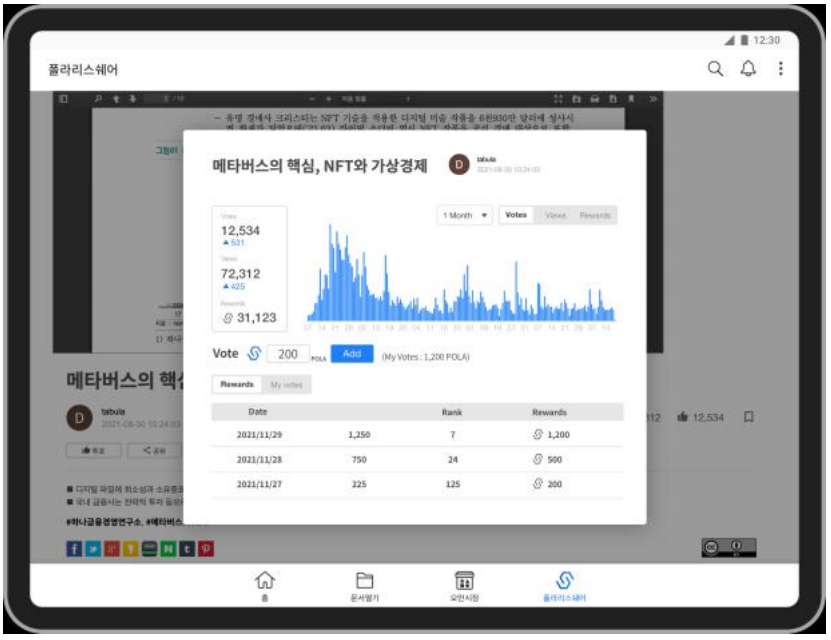
3.2.2 Searching for documents



Detainees can access the documents uploaded to POLARIS SHARE through various routes, including accessing the POLARIS SHARE website, navigating to categories within the website, searching within the website, external search, referring links, and embedding from other websites. When you access the website, the main page displays the latest and most popular articles, as well as the ranking of popular search terms in real time. You can also enter a specific keyword at the top and click the search button to find the desired knowledge or related articles.

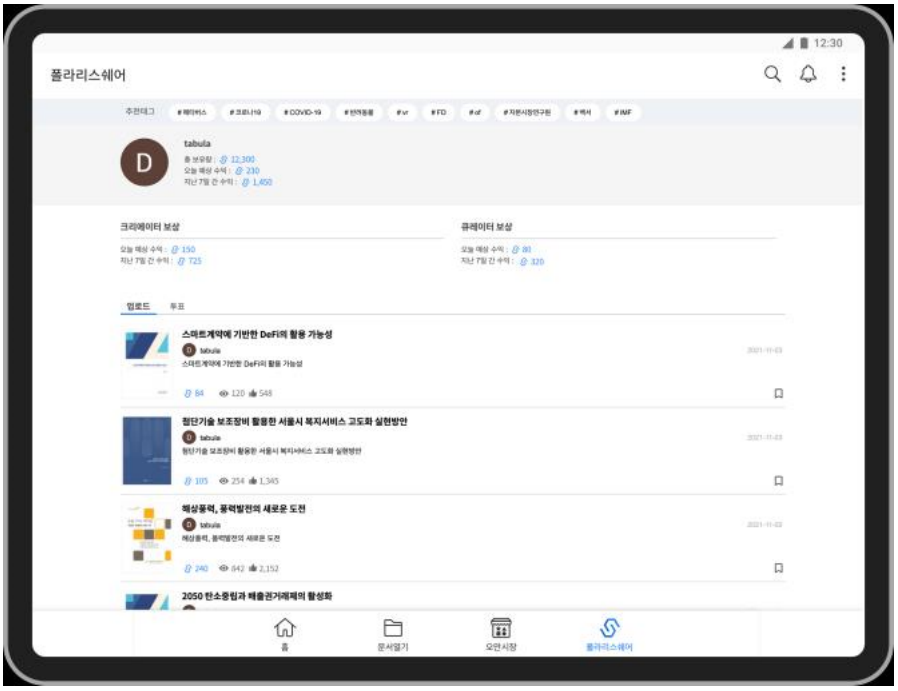
Documents uploaded to the service are optimized for external search engine visibility, so learners can easily access them through major search engines such as Google and Naver. This means that more users can be attracted to the POLARIS SHARE service from the outside, and you can expect a gradual activation of the service.

3.2.3. Viewing and voting on articles



Audiences can rate the value of an article being shared or sold by reading it, leaving comments, or voting on it. This affects the main page display order, search result sorting order, and the probability of exposure to related knowledge or documents. The better the rating, the more people in the POLARIS SHARE service will see it, and the worse the rating, the less people will see it. For more information, please refer to the following table.

3.2.4. Rewarding knowledge producers



Knowledge producers and other contributors are rewarded based on their contributions. See the following table for a list of contributable activities and the logic behind rewards based on contributions.

3.3. Token Economy

3.3.1. Participants

(a) Knowledge Producer

A knowledge producer is a person who produces knowledge and discloses or sells documented knowledge for free on the POLARIS SHARE project's platform. Knowledge producers are rewarded for the knowledge they publish, and the knowledge is evaluated by curators (collective intelligence).

(b) Adopter

A user is a person who visits POLARIS SHARE and uses the service, mainly searching for, viewing, and purchasing documents for free.

(C) Curators

Curators are people who use their tokens to express opinions and earn rewards for their activities as part of the collective intelligence. When multiple knowledge producers publish multiple articles on a service, it is very likely that there are many articles covering the same topic. If it's difficult to identify which documents are more useful and superior, you're faced with information overload and the inability to find the information you need. The POLARIS SHARE project plans to introduce a collective intelligence system backed by monetary incentives to establish a mechanism to identify the better document among similar documents.

(d) Validators

The content of this section has been deleted with the introduction of NFT governance.

(e) Foundation

The Foundation shall consist of the Founders of the POLARIS SHARE Project and, if necessary, reputable personnel appointed by the Founders. The Foundation is responsible for establishing and approving various policies in POLARIS SHARE.

3.3.2. Reward Pool

Rewards will be used primarily to attract adopters, the core of the POLARIS SHARE service, and to encourage them to share valuable and useful documents.

A reward pool will be organized within POLARIS SHARE to reward ecosystem contributors with a certain amount of tokens. The reward pool is composed of transaction fees, advertising revenue, and operating costs, in addition to the ecosystem allocated 21% of the total supply. Below is a description of each account item that makes up the reward pool.

$$Rewardpool = ecosystem + transactionfees + adrevenue - operatingexpenses$$

(a) Ecosystem

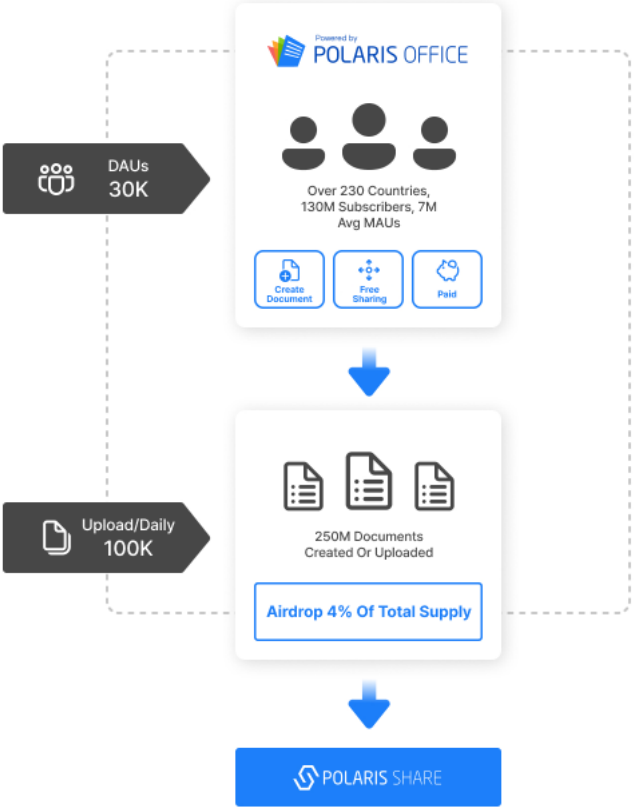
$$Rewardshareforyear N\% = 21\%(ecosystem) * (1/2)n$$

$$TotalRewardRation\% = 10.5(Year1) * \frac{1}{(1 - \frac{1}{2})} = 21\%$$

The ecosystem refers to the rewards that will be paid to those who contribute to the POLRIS SHARE ecosystem. We expect that over time, the value of tokens will naturally increase as more tokens are used within POLARIS SHARE. In this case, a smaller number of tokens will be sufficient to reward. For this reason, the number of rewards allocated each year is designed to be distributed in a structure that decreases by 50% each year. For example, 10.5% of the rewards will be distributed in the first year of the service's launch, followed by 5.25%, 2.625%, 1.3125%, (...) in the following years. The first expression above formalizes that the token rewards to be distributed each year will be halved, and the second expression proves that the sum of the reward quantities distributed in these n years is equal to the quantity allocated to the ecosystem.

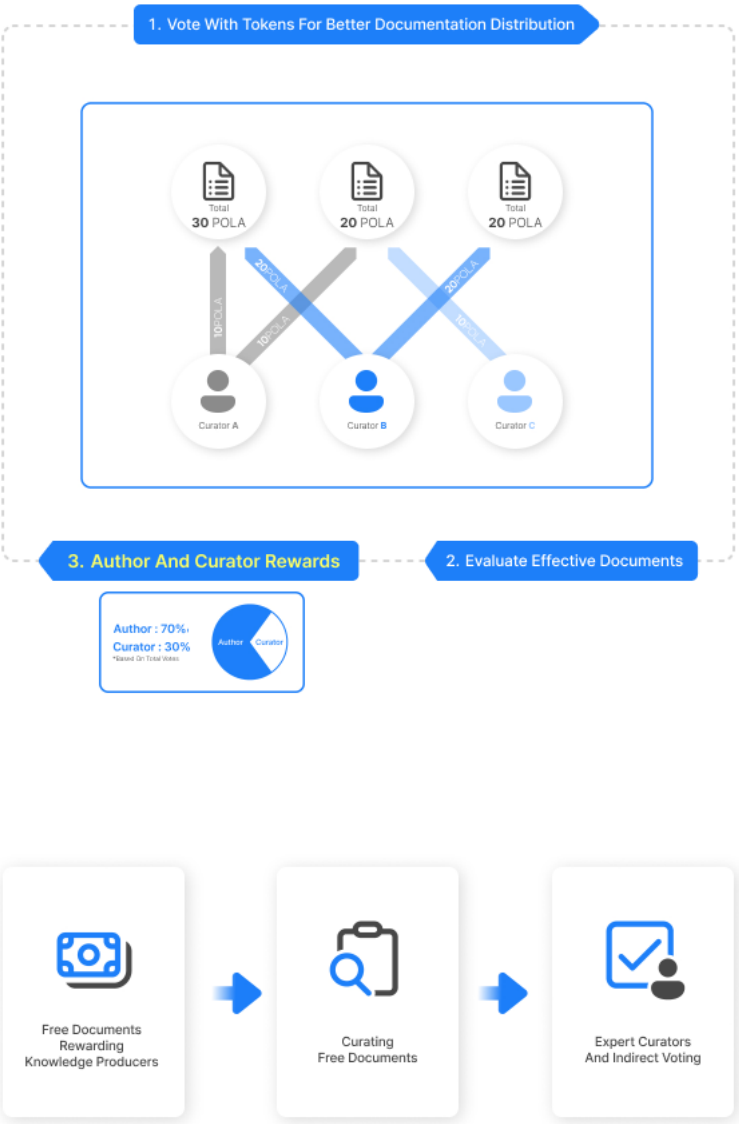
(b) Transaction Fee
Transaction fees are fees generated from documents sold within POLARIS SHARE.
(C) Advertising Revenue
Advertising revenue refers to advertising related to knowledge keywords and related advertising products in POLARIS SHARE.
(d) Operating Expenses
Operating expenses consist of basic operating expenses such as POLARIS SHARE server usage fees and blockchain network usage fees, and other operating expenses such as service management operating expenses.

3.3.3. Recruit early adopters with an airdrop



To build a vibrant knowledge ecosystem within POLARIS SHARE, we need to secure a sufficient number of adopters and documents. We plan to actively utilize the resources of POLARIS OFFICE, a global service, to secure the adopters and documents necessary for the success of the project. POLARIS OFFICE has approximately 118 million subscribers as of Q2 2022, with an average of approximately 7 million MAUs (Monthly Active Users). As a very active service platform, POLARIS OFFICE has been generating and uploading around 100,000 documents per day, with a steady influx of around 30,000 users, without any special marketing activities.

3.3.4. Free article sharing and curation rewards



(a) Reward knowledge producers for sharing free articles

$$DocumentReward = \frac{Numberofdocumentviews}{Totaldocumenthits} * RewardPool * 60\%$$

We plan to use 60% of the reward pool for knowledge contributors who share articles for free. Knowledge contributors who share articles will receive an allocated share of rewards based on the total number of valid views of the articles they share. This provides an incentive for knowledge producers to share high-quality articles in order to achieve valid views.

In this section, the reward for knowledge producers has been modified from 70% to 60%. This is to ensure a reward pool for NFT governance, and by rewarding NFT governance, we expect them to lead the POLARIS SHARE ecosystem in a healthier and more effective manner, which will ultimately increase the total amount of rewards earned by knowledge producers.

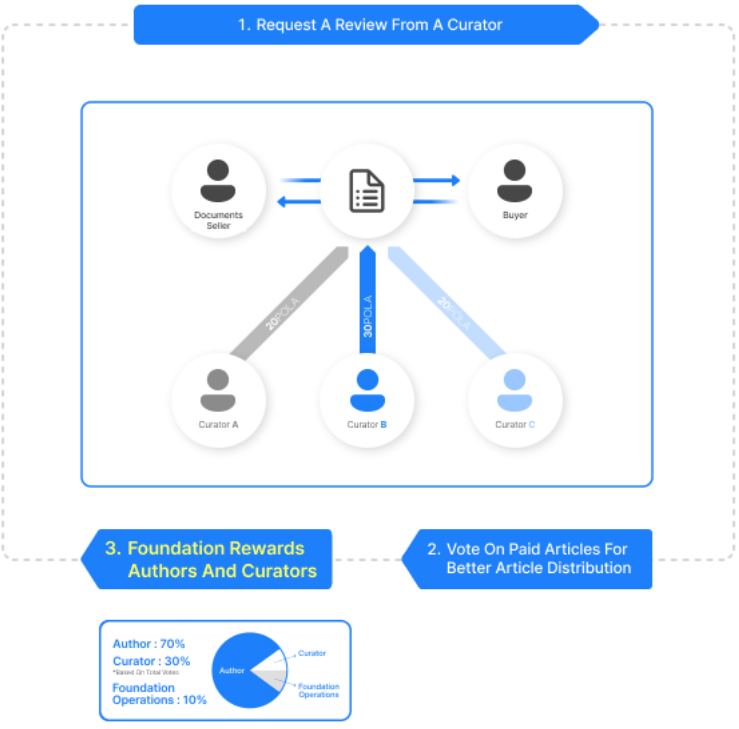
(b) Curating free articles

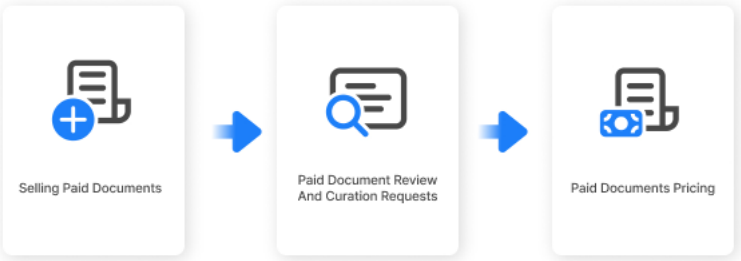
$$AdocumentCuratorRewards = \frac{Adocument'seffectiveviews}{Numberofvalidofalldocuments} * \frac{Curator'svotesfordocumentA^2}{(\sum Eachcurator'svotesfordocumentA)^2}$$

The remaining 30% of the reward pool will be used to reward the curators who voted on the article. Among the documents uploaded to POLARIS SHARE, there may be documents with the same or similar content, and some documents may be difficult or even confusing for the recipient to utilize as an expert. The sharing of multiple duplicate or similar documents, or documents containing inaccurate or misleading information, will damage the reputation and value of the POLARIS SHARE service.
Therefore, POLARIS SHARE aims to solve this problem by introducing a curation system that allows curators to earn rewards by voting on documents. Curators can use some or all of their tokens to vote on documents. Tokens used to vote are locked up and unavailable for four weeks. During this time, rewards will be paid out based on 30% of the reward pool, plus a percentage of the article's views and the curator's voting percentage. This system is groundbreaking in that it motivates curators to stay active, as the more people vote on an article, the more rewards they receive, and it also helps to identify high quality articles.
The above curator reward formula is designed to encourage curators to vote on a variety of articles to create a virtuous cycle of a vibrant ecosystem on POLARIS SHARE. In this regard, please refer to section 3.3.6 (a) below.
In this section, the curator reward has also been modified from 30% to 25%. Again, this is to ensure a reward pool for NFT governance.

(c) Curation with trusted curators and indirect voting
Adopters who do not have the ability to identify good articles can also participate in the reward pool by delegating tokens to other curators. Tokens delegated to a curator are reallocated based on the percentage of tokens that curator voted for each document. For example, if a curator votes 30 tokens for article A, 20 tokens for article B, and 10 tokens for article C, and an acceptor votes 6 tokens, the 6 tokens are automatically allocated in a ratio of 3:2:1. 20% of the reward earned in this way goes to the curator. In other words, curators who have proven themselves to be good at identifying good articles can become trusted curators by getting votes from a large number of people, and can monetize their voted articles in addition to the tokens they already have.

3.3.5 Selling Paid Articles





(a) Paid article sales

Knowledge producers can sell articles for money, with the knowledge producer earning 75% of the total sale amount. The remaining 10% goes to the Foundation as a transaction fee, and the Foundation will include the remaining amount in the reward pool after limiting operating expenses. Of the remaining 15%, 5% goes to the NFT governance and the rest to the curators who voted for the article.

$$KnowledgeProduction = ActualSales * 75\%$$

$$FoundationTransactionFee = ActualSales * 10\%$$

$$NFTGovernanceReward = ActualSales * 5\%$$

$$CuratorRewards = ActualSales * \frac{Curatorvotes}{Totalvotesforthearticle} * 10\%$$

(b) Paid document review and curation requests

In general, document curation and voting should be done by reading documents to assess their quality. However, in the case of paid documents, curators, who are not actual consumers, may not want to pay to read them, which can make it difficult for curation to take place. To encourage curation, knowledge producers can "request a specific curator to review" and curators can "request to review a specific document". It's up to the knowledge producer to decide whether to make the entire document available or just a portion of it. Once the knowledge producer has decided whether to make a document fully or partially available, they can request a specific curator to review it. Once a knowledge producer receives a request from a curator to review a specific document, the knowledge producer must decide whether to accept the request and the extent to which the document will be made available.

3.3.6. Preventing fraud and abuse

The contents of this section shall be deleted except for parts (a) and (c) due to the introduction of NFT Governance, and the contents shall be redefined as the resolution of NFT Governance.

(a) Abusing the Curator for Financial Gain

Consider a case where a curator abuses the curation system to gain more revenue. For example, a curator with a large amount of tokens votes a large number of additional tokens on an article that has already received a certain number of votes. They're trying to monopolize the reward by increasing their share of the vote. Of course, you can constantly vote in huge quantities to constantly increase your vote share, but this is quite inefficient in terms of opportunity cost. On POLARIS SHARE, a curator's reward is exponentially, not arithmetically, proportional to the number of votes, because the expected reward for voting the same amount of votes on an article that has already received a certain percentage of votes is relatively higher than for voting the same amount of votes on an article that has not yet received a large number of votes. This means that curators are more rewarded by finding other good articles than by voting a large amount of tokens on one article.

(b) Abusing Curators and Validators for Non-Monetary Reasons

The content of this section has been removed with the introduction of NFT governance.

(c) Promotion of free documents

Since voting is an indicator of the quality of a document, it is strictly prohibited to abuse the voting system to undermine the intent of the project. Nevertheless, knowledge producers or adopters can use a certain amount of

tokens to promote certain documents. To solve this problem, the Foundation needs to create and manage a "Promoted Articles" category on the main page and category pages, and a "Promoted Results" category on the search results page. This separate promotion system will provide an incentive to prevent abuse through voting.

(d) Eligible Knowledge Producers

This section has been removed with the introduction of NFT governance.

Chapter 4 NFT Governance

4.1. NFT Governance Overview

POLARIS SHARE 2.0's NFTs are Picture For Profile (PFP) NFTs, which means that if you own an NFT, you can use it as your profile image on POLARIS SHARE, as well as various token economy incentives. Token economy incentives are awarded when NFT holders perform traditional validator or other governance actions.

4.2. Howlin’ Pola Wolf

4.2.1. Background

POLARIS SHARE 2.0's NFT is based on a howling wolf. Howling is an act that wolves do to communicate dangers, hunting locations, etc. to their companions and allows them to survive through more organized activities. POLARIS SHARE believes that the dissemination of such information can bring more value, so we decided to issue an NFT based on this motif.

Howlin' Pola Wolf backstory

The wolves of the North Star, once the envy of mankind,
have evolved to become what they are today.
As the full moon fills and the moon's shadow changes, their individual stats rise.
The Wolves of the North Star are united and unstoppable warriors.
Not one, but all are kings of the forest.
/
The foothills of Alaska in 2032,
a mother wolf gives birth to a wolf pup named Paula.
Time passes and Paula comes of age.
Mother Wolf hands Paula a crown-shaped necklace and says,
"I'm going to give you a crown.
/
"Pola, you must keep this for the future."
"Mother, what is this?"
"It is an important object passed down from generation to generation
from the spirits of the Ten Forests. It contains the source of all things, and with it,
you can connect with all the wolves in the world."
/
"How is that supposed to connect us?"
"The howls of all our wolves will be connected through the necklace."
"With this necklace... I'm not sure I'll be able to keep it."
"Don't worry, Pola, the forest spirits will always be with you."
/
"There's one more thing to remember.
The day the 'Sky Wolf,' a forest spirit, swallows the sun and causes an eclipse.
Our power to protect the world will be shared with the entire universe.
For that day, you must travel a long journey."
/
"Pola, let no one miss this opportunity!
Set out now for the place where the forest spirits gather."
"Now?"
"Yes. What are you waiting for, don't look back!"

4.2.2. Classes

The Howlin' Pola Wolf project consists of 9,140 NFTs, each of which has a different appearance and parts. In particular, the class is one of the most important attributes that distinguishes each wolf. The class borrows from the Dewey Decimal Class, which means that the wolves represent all the knowledge in the world.

💡 **Dewey Decimal Classification**

The Dewey Decimal Classification (DDC) is a classification system created by Melvil Dewey in the United States in 1876 that was designed to categorize all information in the world using the decimal system. It is mainly used in libraries to categorize books, and has been updated several times since its first publication in 1876, and its 23rd edition was published in 2012.

It is basically categorized using 1000 numbers, with each digit acting as a major or minor classification, so that similar information can be placed nearby. The major categories are as follows

- 000 – Computer science, information and general works
- 100 – Philosophy and psychology
- 200 – Religion
- 300 – Social sciences
- 400 – Language
- 500 – Pure Science
- 600 – Technology
- 700 – Arts and recreation
- 800 – Literature
- 900 – History and geography

4.2.3. Total Supply and Rarity

RARITY TABLE

Rarity	9,140	100%	Note	Color
Common	5,418	59.3	Color Matching + Parts Not Matching Class Properties	
Uncommon	2,709	29.6	Color Matching + Parts Not Matching Class Properties	
Rare	903	9.9	Color Matching + Two Parts With Matching Class Properties	
Epic	100	1.1	Color Matching + Two Parts With Matching Class Properties	
Legendary	10	0.1	Legendary Items Separate From Class Attributes	

Above is the rarity table for the Howlin' Pola Wolf. By default, there are 10 wolves for each class of the DDC introduced in Section 4.3.2, of which 6 are categorized as Common, 3 as Uncommon, and 1 as Rare. Epics are issued 10 per major class, regardless of subclassification. There will also be 10 Legendary, which are completely unrelated to class attributes, totaling 9,140 NFTs.

4.2.4. Attributes

As mentioned earlier, the most important attribute of Howlin' Pola Wolf is the class, which is determined by the necklaces from the story introduced in Section 4.2.1. Each of the 10 broad classes has a different necklace shape, and the subclasses are stored in the metadata. The class will be a factor in the incentives for future POLARIS SHARE 2.0 services to cover the knowledge, especially for Rare and above, where the class on the necklace and the background

class match. Epic, which exists by tier, has incentives from all lore within that tier, while Legendary, which consists of the rarest tier and a completely separate shape of wolf, has additional incentives from all tiers of lore.

4.3. Token Incentives

The existing incentives for validators and qualified knowledge producers will be abolished, and the incentives will be reallocated to NFT holders.

4.3.1. Feeding and Staking Rewards

By default, the wolves are hungry. Feeding them with coins will satisfy their hunger and give them between 50 and 300 energy. When staking, wolves with energy will airdrop a certain amount of POLA coins every day instead of spending 1 energy. The total amount they airdrop depends on their rarity, but they will airdrop more coins than the value of the coins they use to feed again, and the staking period to receive them all depends on their rarity. Once you've charged up your energy and used it all up, you'll need to rest for a while, and the amount of time you need to rest varies from wolf to wolf. Generally speaking, lower rarity wolves need to stake for a longer period of time to use up all their energy, and the amount of energy they receive per day is also relatively small. The amount of coins required for feeding may fluctuate depending on the price of the main coin of the chain where POLA and NFTs exist. However, once the reward amount is determined through feeding, the amount will not change until it is mined through staking.

Attributes	Description
Maximum Energy and Energy	This is the amount of energy that is replenished in a single feeding and can be between 50 and 300. Staking consumes 1 energy per day and gives POLA coins, meaning that wolves with a higher number will airdrop POLA coins for a longer period of time after a single feed. Max Energy is a unique stat that is specific to each wolf, and once fed, it is filled to the maximum amount of energy and only consumes energy when staking. If they are not staked, they will not consume energy and will not airdrop.
Mined	The amount of POLA coins you will receive for spending 1 energy when staking. It has a value between 0 and 100. This number is determined at the time of feeding and is based on the KLAY and POLA price, the rarity of the wolf, and the maximum energy of the wolf.
Required and remaining breaks	The required rest period is the amount of time needed to fully expend energy before feeding can resume. Once energy is fully expended, the remaining rest period is equal to the required rest period and decreases by 1 for each additional day that passes. This period is also reduced by not staking.

4.3.2. Validator roles and compensation

Unlike traditional verifiers, which are selected by a separate foundation, NFTs can play the role of a verifier by holding NFTs. A claims system is provided to prevent uneconomic abusing or inappropriate knowledge sharing, such as illegal or unhealthy knowledge sharing, such as when a curator votes with a large number of tokens to expose a low-quality document he uploaded to a large number of people.

NFT holders can re-claim a specific article or a specific curator's vote, in which case the article and vote will be excluded from the algorithm that determines main page or category page visibility and search result order. However, they will be included in the process for determining curator rewards, meaning that they will not be removed immediately, but will only limit the visibility of additional articles and votes during that time.

Once a claim is filed, NFT holders other than the claimant will have five business days to vote on the issue as either 'no problem', 'no judgment', or 'problematic'. In the case of 'No Issue' or 'Undetermined', the document and vote will be reinstated in full force and effect. If the verdict is 'Problematic', the article will be deleted through the recall process, the vote will be canceled, and the token will be returned to the curator. Any rewards earned will be canceled and distributed to other curators who voted for the article. If there are no other curators, the rewards will be returned to the foundation or distributed to the NFT holders who participated in the claim.

4.3.3. Roles and Compensation of Qualified Knowledge Producers

To prevent abusers from repeatedly sharing tons of meaningless knowledge, POLARIS SHARE only allows one knowledge post per week. However, this may be too restrictive for those with no intention of abusing, and may limit the growth of POLARIS SHARE. Therefore, NFT holders have an additional number of uploads per week, as shown below. The more uploads you make, the higher your chances of earning more incentives.

Rating	Number of uploads added per week
Common	1
Uncommon	2
Rare	4
Epic	8
Legendary	Unlimited

If you have multiple NFTs, you can upload as many NFTs as the sum of their numbers. For example, if you have 2 Common and 1 Rare, you can upload "1 Basic + 2 Common + 2 Rare + 4 Rare" for a total of 9 documents per week.

4.4. Community

The introduction of PFP NFT projects on POLARIS SHARE is not just for NFT holders to act as validators and qualified knowledge producers and receive token incentives. These are just some of the benefits of being an early and key member of the Polaris Share service, and we will plan and execute various events and rewards for NFT holders. By utilizing class attributes within NFTs, events can be organized for specific class holders, or for holders of multiple classes. Through these various events, we will create elements to collect a large number of NFTs and build a community that creates a decentralized knowledge ecosystem beyond mere economic benefits.

Chapter 5 POLARIS SHARE Technology

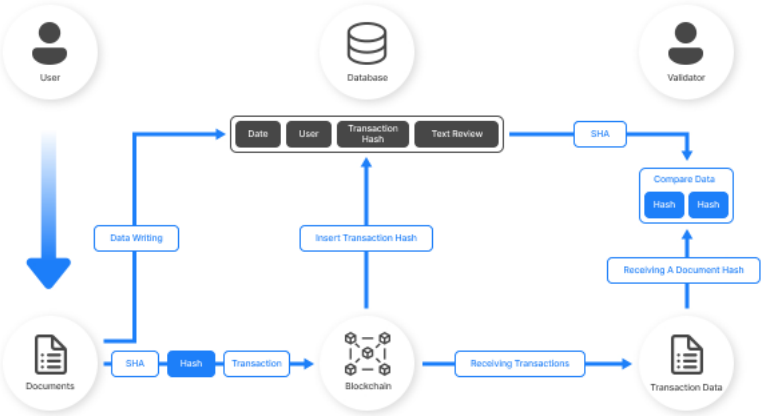
5.1. POLARIS SHARE and the Blockchain

The POLARIS SHARE project is built as a DApp on a blockchain platform, and DApps can generate tokens that form its economy. Being built as a DApp on the blockchain means that transactions are made in a decentralized manner based on trust.

In a blockchain-based decentralized environment, important data and transactions are recorded in real-time on the blockchain, making it virtually impossible for third parties to manipulate them. However, due to the performance and cost of the blockchain platform, the service will be provided in a hybrid method that blends blockchain and current cloud technology in the initial stage.

> 💡 **Notes. Ethereum's performance and cost**
>
> Ethereum is the first blockchain to use smart contracts, allowing anyone to develop and deploy DApps on it. Since its launch in 2015, many projects have used Ethereum as a standard for conducting ICOs, i.e., issuing tokens with multiple options for initial funding. Especially in recent years, Ethereum's importance as a public blockchain has been growing as users' knowledge of blockchain has increased, and there have been numerous projects applying smart contracts (Defi/NFTs). However, despite providing a resilient and reliable development environment, it has a low transaction processing speed of 25 TPS due to its Proof-of-Work (POW) base, which can cause all or part of the network to crash if the network exceeds a certain level. This can be a major obstacle for DApps that need to provide a pleasant user experience. In addition, users are required to pay a certain amount of gas as a fee for processing transactions, which can be a significant cost burden for users.

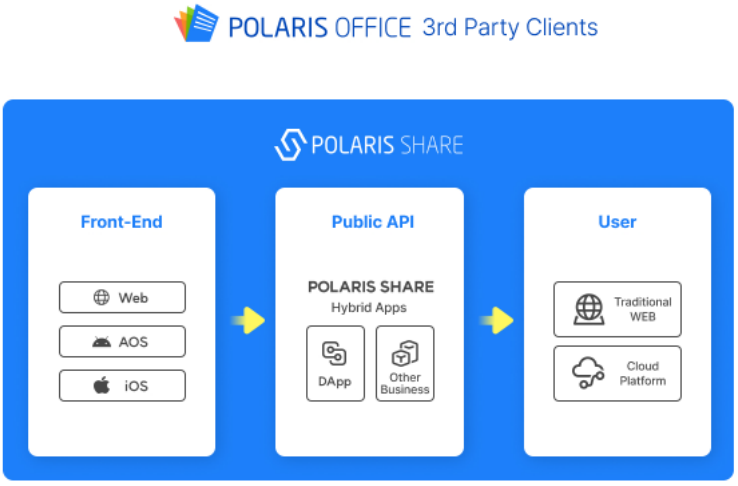
Although the project will be offered as a hybrid type, it will be designed in such a way that decentralization, independence, and reliability are guaranteed. And since blockchain technology will only get better in the future, many parts of the project will be implemented on top of it. The choice of items to be stored on the blockchain will be determined by data volume, required processing speed, and reliability requirements.



For example, document-related data can be divided into the document itself, the document's metadata, and document activity data such as comments and views. The document itself is difficult to record on the current blockchain due to its large size, but the verification of the document's originality becomes an important issue later, considering the issue of document copyright. Therefore, by storing the data itself off-chain, while storing the hash value on-chain, the system is built in such a way that the creation time and original identification of the document can be reliably verified.

In addition, although it is built through the cloud, it will be possible to connect and use not only POLARIS OFFICE but also various office software and collaboration tools through open APIs. This will allow the front-end to be implemented and the POLARIS SHARE team to view data at the same level. In the future, POLARIS SHARE is considering migrating the existing Ethereum-based POLARIS SHARE DApp to Ethereum 2.0 in time for the release of Ethereum 2.0. The Ethereum 2.0 migration will secure the scalability of eWASM and the service performance of DApps through the shard network. At the same time, we believe that we can reduce the cost of gas consumed by the service through Opcode activation and sharding through eWASM.

5.2. System Architecture



POLARIS SHARE consists of the following components

- Front-end: A receiver application to use the knowledge exchange service
- Hybrid apps: Business logic for knowledge exchange services on blockchain and cloud
- Public APIs: Provide common functionality based on business logic
- Blockchain platform: Planning to use Ethereum as the underlying blockchain platform

- Traditional web & cloud platforms: Plans for using Amazon Web Service (AWS) and privately hosted servers

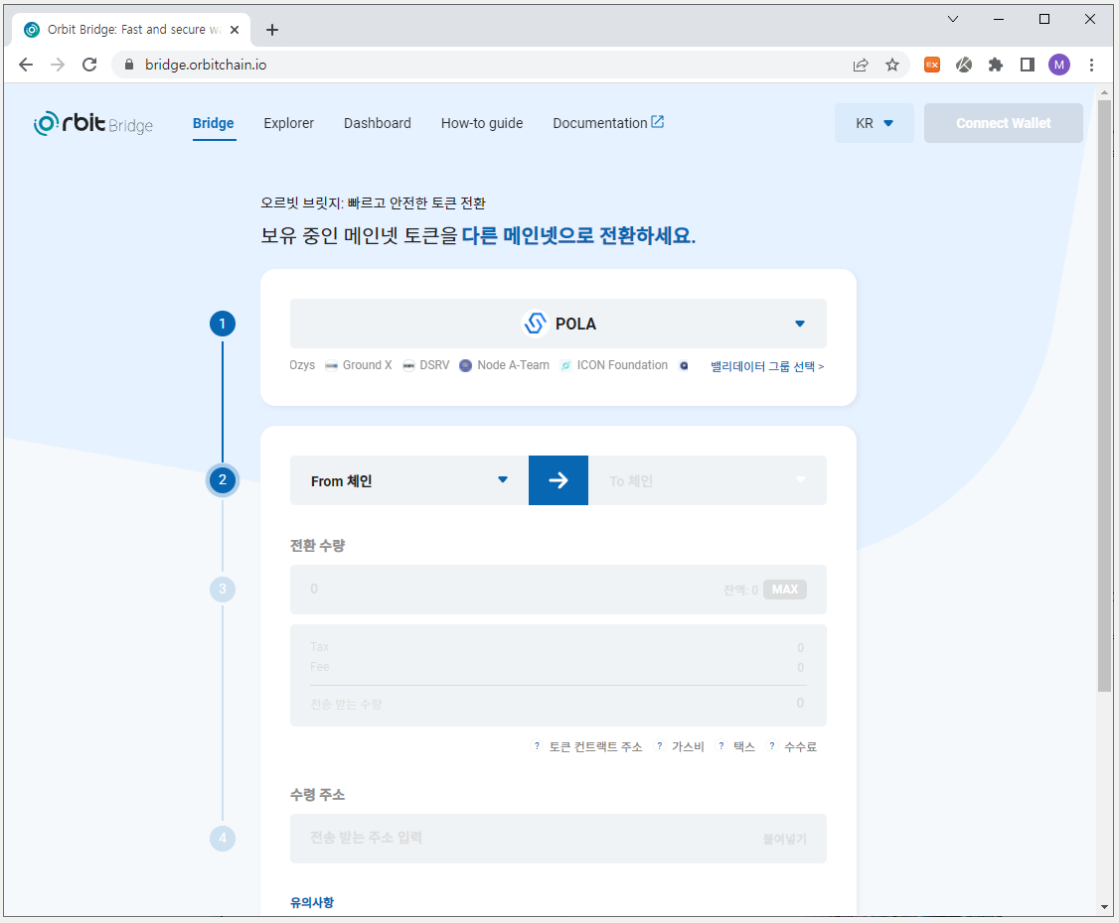
5.2. Multi-Chain Architecture

5.2.1. Klaytn and Orbit Bridge

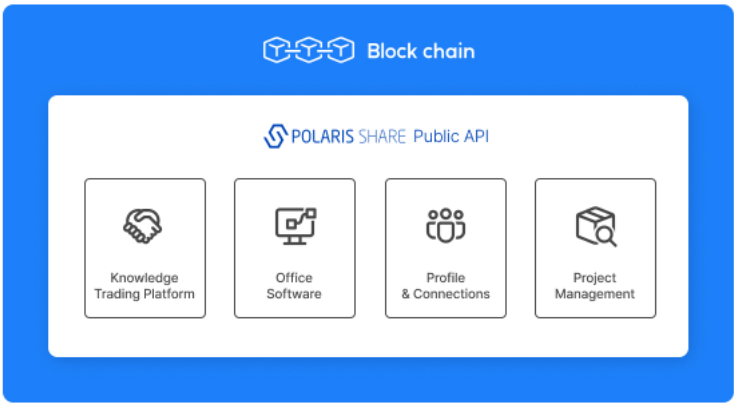
Initially, POLARIS SHARE's POLA coin was issued on the Ethereum network. Ethereum is the most widely used blockchain platform in the world and is highly scalable. However, it is expensive compared to other networks, and other networks are still more accessible in some countries. (Klaytn in South Korea, Binance in China, etc.) Therefore, we will adopt a technology that allows POLA Coin to exist on various networks instead of only on the Ethereum network and move it through bridges. We started supporting the Klaytn network as the first network, and adopted Orbit Bridge as the bridge for this.

Orbit Bridge란?

Orbit Bridge is a bridge platform developed by South Korean company ozys that enables fast and secure token conversion between networks.



5.3. Scaling Architecture

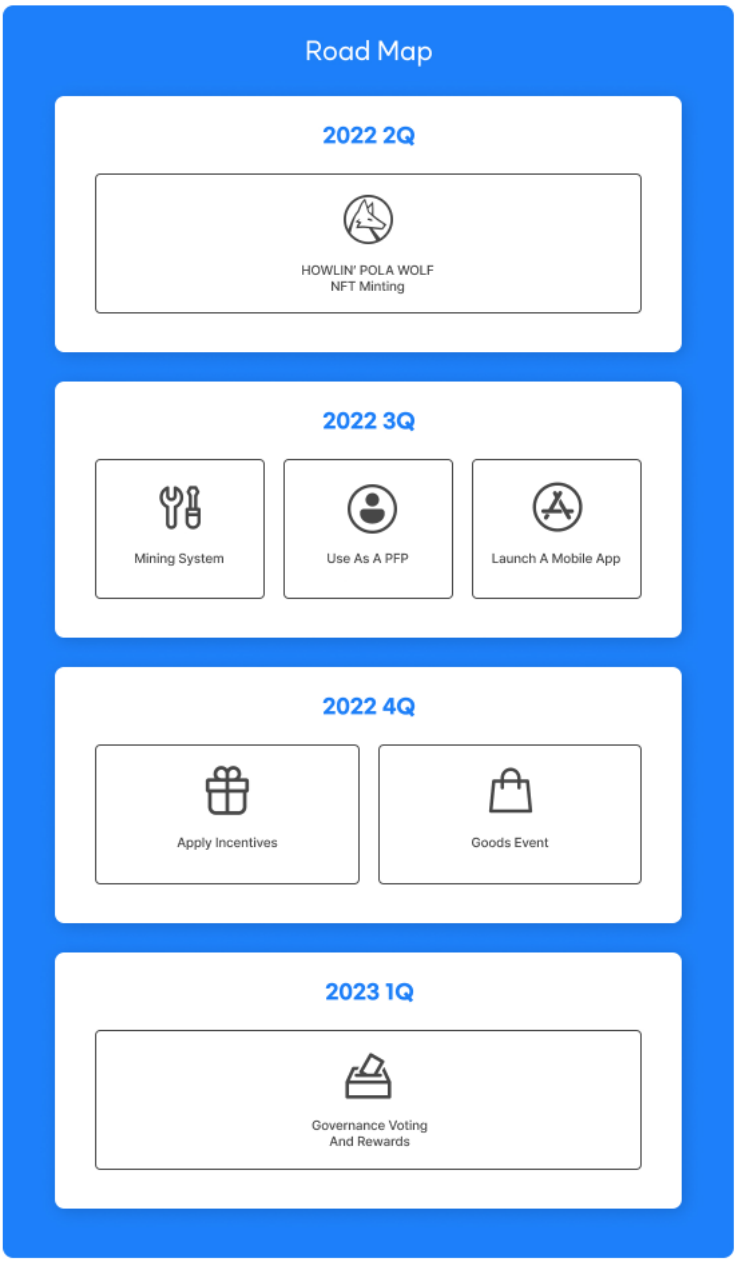


While the POALRIS SHARE project currently only proposes a decentralized expertise trading service with rewards, it aims to become a platform that provides a professional network-oriented distributed work environment beyond knowledge trading. Initially, we plan to start with knowledge exchange and partner app office software, and expand to profile & networking services, project management services, business messenger, and collaborative services such as video and chat. POLARIS SHARE will provide an open API that will allow projects to expand into service platforms, allowing these services to run on a common foundation stored on the blockchain.

5.5. $POLA to POLARIS SHARE

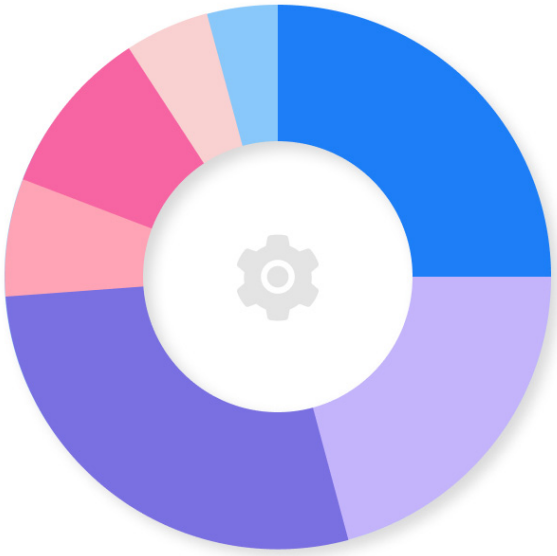
POLA is a commodity that can be used to access various knowledge exchange services. The standard token with ERC-20 specification can be traded on cryptocurrency exchanges by adding specific functions. The POALRIS SHARE platform can be used for collecting, rewarding, exchanging, or other purposes of receptors and document content.

Chapter 6. Roadmap



Chapter 7. Distributing and using tokens

7.1. Token Distribution



Token Distribution

Color	100%	Distribution
	28	Teams, Advisors, Partners
	25	Sales
	21	Ecosystem
	10	Foundation
	7	Reserve
	5	Marketing
	4	Airdrop

- Token Symbol / Type: $POLA / ERC-20
- Total Supply 5,000,000,000 (5 Billion / 100%)

(a) Token sale 1,250,000,000 tokens (1.25 billion / 25%)

The amount of tokens sold is 25% of the total issuance, and the funds raised through the token sale will be used for development costs.

(b) Ecosystem 1,050,000,000 (1.05 billion / 21%)

21% of the reward pool will be set aside to attract adopters and documentation as quickly as possible.

(c) Teams, strategic partners, and advisors 1,400,000,000 (1.4 billion / 28%)

Will be used to reward teams, members, strategic partners, and advisors for their participation in the project and for the success of the project.

(d) Reserve 350,000,000 (3.5 billion / 7%)

Initially owned by the company (Foundation) and will not be sold unless for special purposes such as service expansion or unforeseen circumstances beyond the POLARIS SHARE concept.

(e) Foundation 500,000,000 (500 million / 10%)

(f) Marketing 250,000,000 (250 million / 5%)

(g) Airdrops 200,000,000 (200 million / 4%)

Chapter 8. Core Team

[CEO / Hae-Seok Lee]

- CEO of Polaris ShareTech
- COO of Polaris Office (KOSDAQ)
- Former CFO of Selvas Healthcare (KOSDAQ)
- Former Head of Strategic Planning at Polaris Office
- Former Lead Engineer, Mobile Browser Development, Polaris Office
- Former Head of Browser Sales at Polaris Office
- B.S. in Computer Science, Yonsei University

Chapter 9. Strategic Partners

9.1. Polaris Office

Polaris Office, a KOSDAQ-listed company, is a leading Korean software developer founded in 1997. Over the past 20 years, it has demonstrated its ability to create growth momentum based on its unique challenging spirit whenever there is a paradigm shift in IT. In particular, the experience and know-how accumulated through the planning, development, launch, and operation of POLARIS SHARE and POLARIS OFFICE, which will serve as a gateway to the network, are expected to provide a solid foundation for the success of the project. As of Q4 2021, the company has more than 200 employees, of which nearly 80% are software engineers. Polaris Office has solid development capabilities, know-how, and service operation capabilities, and is expanding its business from its main business, office software, to mobile games and blockchain.

9.2. Consensus Ventures

Consensus Ventures is the external investment arm of Consensus. POLARIS SHARE was selected as one of the projects in the first cohort of Consensus Ventures' Tachyon Project.

Appendix : Limitation of Liability

This whitepaper is intended to provide general information about the PolarisShare project only, and the information contained in this whitepaper is current as of the date stated on the cover. The content of this whitepaper is a work in progress and is subject to review and revision. We reserve the right to update this white paper at any time.

The objectives set forth in this white paper may not necessarily be achieved or completed with the intended results. Any future plans, goals, etc. outlined in this whitepaper for the PolarisShares project should not be taken as absolute facts.

The activity of participating in the token sale may involve a high degree of speculation and, in connection therewith, the risk of complete loss of principal. Prospective recipients should thoroughly review the terms and conditions of the token sale and carefully consider all risks associated with it. This whitepaper does not, in and of itself, guarantee security. In many jurisdictions, token sales are subject to scrutiny and the relevant regulations are not fully developed. In addition, some organizations consider that a token sale itself may qualify as an investment sales contract.

This whitepaper does not constitute a recommendation to purchase PolarisShares tokens in any way. Regulations relating to cryptocurrencies are constantly changing around the world, so any activity involving the purchase of PolarisShares tokens may involve significant risk and prospective recipients should consult with their own legal and tax advisors in advance.

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