POLARIS SHARE

Decentralized and Incentivized Knowledge Trading System

Version 1.2

Disclaimer

This White Paper states the current views of the team to launch the polaris share 1.2 project (hereinafter “the Team”). The Team may from time to time revise this White Paper in any respect without notice. The information presented in this White Paper is indicative only and is not legally binding on the Team or any other party. Please note that this White Paper has not been reviewed by a legal advisor.

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CHAPTER 01 EXECUTIVE SUMMARY

1.1. Problem (Unutilized Knowledge Incurs Inefficient and Redundant Works)

(a) A wide range of documents with the important information have been left unused in the cloud server and/or hard disk drive. For many content creators, looking for the necessary information or accessing such information is NOT so easier than thought that unnecessary works could be repeated; and

(b) Most knowledge creators have missed countless opportunities in which they result from sharing and selling their knowledge.

1.2. Vision (Decentralized and Incentivized Knowledge Trading Platform Provision)

Similar to Slideshare but,

(a) The value of knowledge in the document and network can give back to knowledge creators and others;

(b) The rewards can be earned by the knowledge creators who share documents with no charge or sell;

(c) The content is curated not by the centralized entities, but the token holders in person as the voters; and

(d) The user can enjoy nice benefits from the various and quality content shared by the content creators.

1.3. Strategy (User Acquisition / Document Acquisition / Content Organization)

(a) User Acquisition

The user acquisition plan needs to be prepared for the future POLARIS SHARE service and it aims for achieving as many users as possible from the Polaris Office service first where around 110 million subscribers take advantage of about 5 billion documents. 4% tokens to be issued will be distributed to the participant in the POLARIS SHARE service as a reward.

(b) Document Acquisition

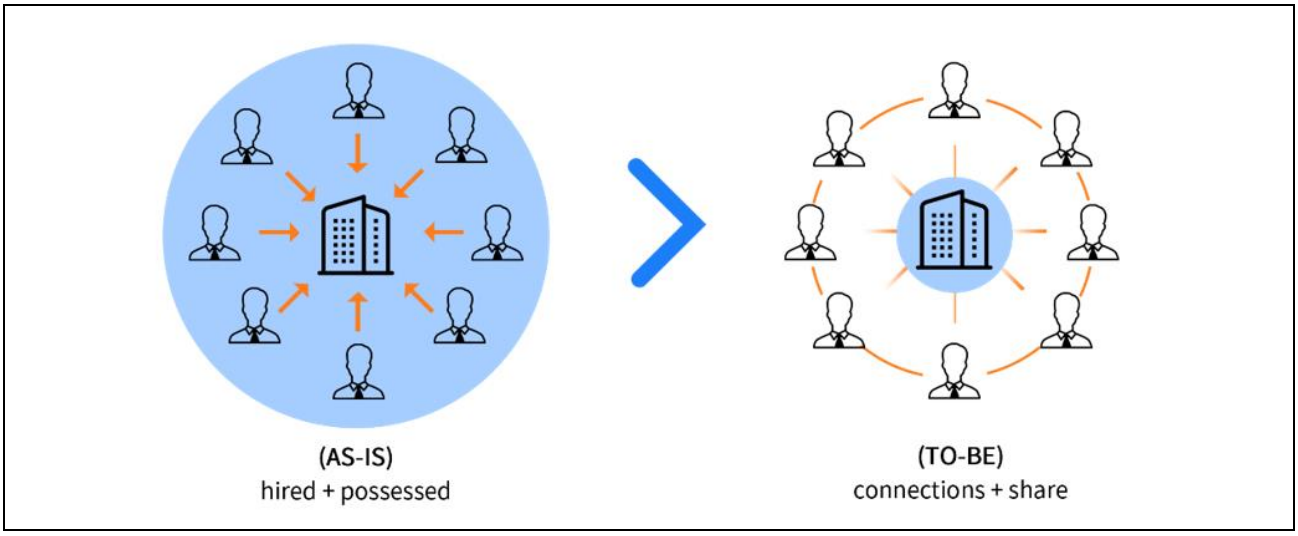
Users can get rewards form the token inflationary structure in which the number of rewards would decrease by 50% every year. The token value could grow with more many users and quality and competitive content. S/he will be able to receive the rewards from the relevant advertising activities accordingly. (FYI, SlideShare ranks the 159th in the world by Alexa.).

(c) Content Organization

Finding out the quality and competitive documents among others is the key to success in the POLARISH SHARE service. The voting for the shared document assessment lasts for 4 weeks and documents with more votes acquired might be considered as the quality and competitive documents. In addition, curators could receive more rewards if the document s/he voted achieves more views and sales, which would make curators motivated to try to look for better content.

CHAPTER 02 OVERVIEW

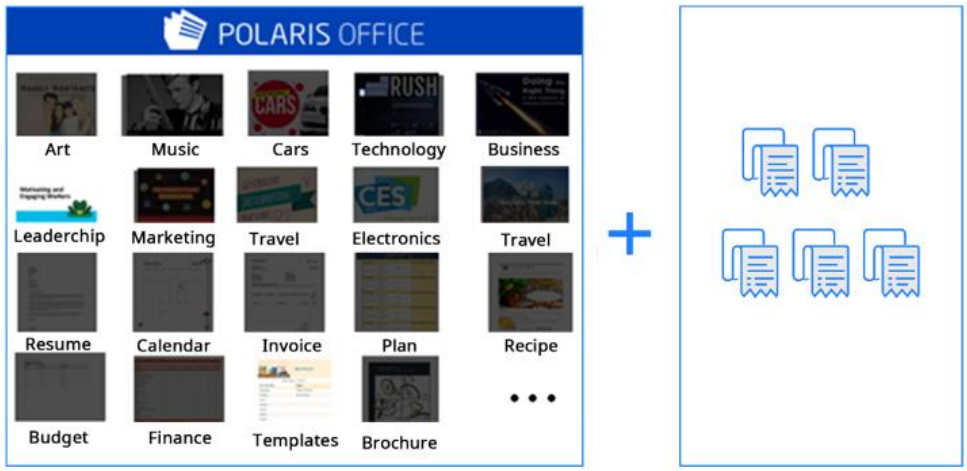
2.1. POLARIS SHARE Vision



Most companies in the past provided the service and in case of emergency, they personally hired employees and owned assets. However, business sector has changed a lot compared to the past because of the facts that information technology has been developed, employment structure has been diversified, and higher productivity has been prioritized, which has pushed companies do the different things as the part of the innovative business strategy. In other words, some companies take advantage of external factors for their services by connecting and share them. For example, global conglomerates Uber and AirBNB provide the transportation service and the accommodation service in the world respectively. They do not have any single staff and asset of their own – a taxi driver, a service staff, a taxi, and an accommodation facility. Uber and AirBNB provide the platform with an incentive system and an idea to connect and share different resources and assets ineffectively used in the different area. That's the case of sharing economy and the one the existing inefficiency is solved.

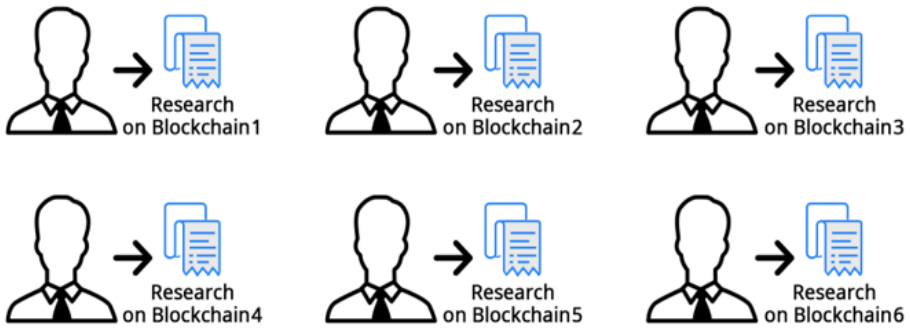
Basically, the POLARIS SHARE service is going towards the decentralization through the connections between entities. Anyone can work together with those with appropriate knowledge and technology without belonging to the organization and considering where and when s/he is so that they can get rewarded accordingly. Most importantly, we get to know the facts that the knowledge created and shared by content creators can NOT be enough to be utilized in an appropriate space, which needs the POLARIS SHARE service to be created to solve. As an initial step, we make up our minds to develop the decentralized knowledge trading system with an incentive system.

2.2. Problem



< 250 million documents created in total / 100K documents produced daily >

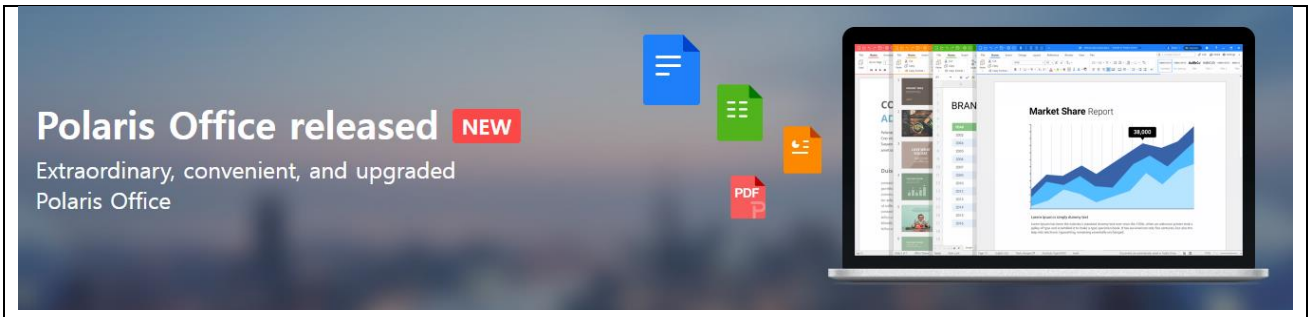
Our cloud-based office service, Polaris Office is currently widely used and it has about 5 billion documents in total since its inception, and over 100K new documents produced and uploaded there every day. Such documents deal with the knowledge about various subjects ranging from the low to the high level of the one for people to understand. But less than 2% documents after their creation are used for the appropriate purpose only although lots of documents are left unused. It means most documents are utilized for a short time only right after they are generated, and they just occupy the space ineffectively.



It is not just a matter of wasting the storage capacity. Many people work repetitively to create documents of the same subject, and in most cases, people have insufficient experiences and capabilities on the subject, resulting in creating documents containing low-quality information or even wrong information after spending even much time. It is certainly a big waste.

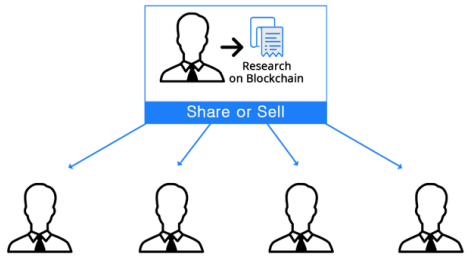
The problem is not as simple as thought. It will go beyond wasting the capacity of storage. Many people who really need the appropriate documents can't help but repeatedly produce the same documents as the one already stored but not publicly shared. For instance, there's possibility that documents with lower quality and more inappropriate information would be created even though the creator makes an effort by spending most of his time if s/he has a low level of knowledge or skills in the specific field. It is wats of time and resource for the whole ecosystem and most importantly very inefficient.

Note: Polaris Office service (https://polarisoffice.com)



Polaris Office, the basic software for the POLARIS SHARE service, is the cloud office one compatible with the MS Office and Adobe PDF. It can be widely used on different kinds of platforms such as Windows, Mac, iOS, and Android, and it also supports a variety of document formats such as Word, Excel, PowerPoint, PDF, and TXT. Additionally, there's over 110 million subscribers in the world, and roughly 30K new users start to use every day. The users come from over 230 countries in the world including USA, Japan, India, Mexico, and Russia.

2.3. Solution

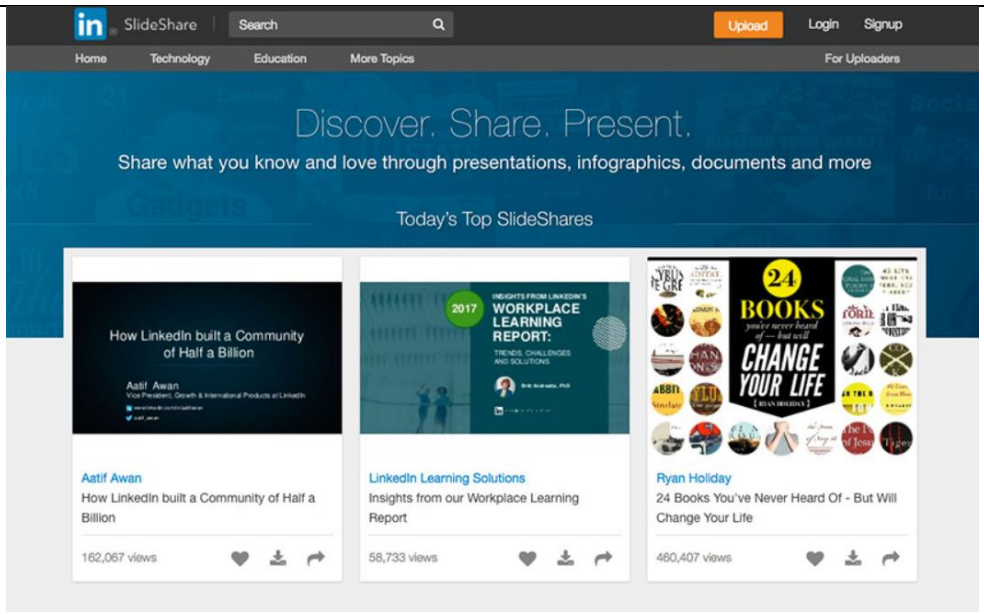


We hope to bridge the gap between the knowledge creator and the user by connecting them. We intend to improve the inefficiency that the typical document sharing ecosystem has. The POLARISHA SHARE service makes an expert handling a series of certain subject, for example, be able to crate and share the document to sell. We eventually aim to provide the service that comes with the efficient token economy based on the blockchain technology so that anyone who contributes to this service can get compensated through creating and selling his/her own documents. Seemingly, POLARIS SHARE looks very similar to SlideShare but there's the big different thing between them in the macro perspective. They are the facts that the service is the decentralized incentive system.

Item	SlideShare	POLARIS SHARE
Format Supported	PowerPoint	Word, Excel, PowerPoint
Business Model	Free	Free, Charged
Creator Rewards	No	Yes
Curation	By Company	By User

In order to promote brands, goods, and services, considerable number of documents shared in SlideShare would be uploaded for the marketing purposes mostly by the company, which means some out of the information provided may be biased. In other words, the creator would put the information or the content highlighting and focusing on sales points and advertising on the document to be shared. POLARIS SHARE motivates the knowledge creators to provide sincere and valuable information by giving them compensation in token. The decision of search ranking and being shown on the main page is likely to be decided by the centralized entity like the company or the specific algorithm by it. However, POLARIS SHARE seeks to the quality-based curating authority by giving it back to the users.

Note: SlideShare (https://www.slideshare.net/)



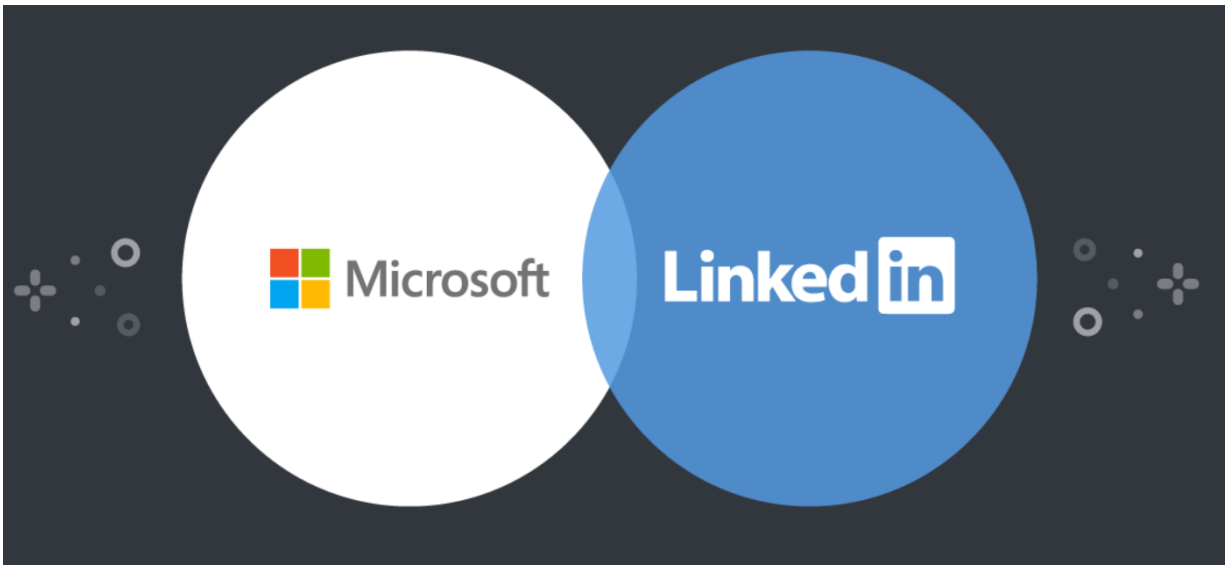
80 million professionals trust SlideShare to learn about any topic quickly from subject matter experts. Founded in 2006 with the goal of making knowledge sharing easy, SlideShare has since grown into a top destination for professional content. With over 18 million uploads in 40 content categories, it is today one of the top 100 most-visited websites in the world.

2.4. Beyond POLARIS SHARE

The knowledge, key to information consisting of documents, could be easily peppered throughout via instant message, conference call, tool for co-edit, and professional networking like LinkedIn. In order to efficiently share and spread the quality and valuable knowledge among people in the world, POLARIS SHARE intends to be developed especially in the way where the co-edit tool is available to the company or the organization. For example, one company will be able to use conference call service or the co-edit tool by connecting it to POLARIS SHARE to work together with 3rd party team or any individual, which through anyone who share the knowledge get compensation in token from the entity who provides proposals.

In conclusion, the company will be able to expect to see the problem solved with the help of professionals through the connection, not with the direct employment. Furthermore, the company would make more professional connections while at the same time, the individual would be known as a professional in the specific field by establishing trust.

Note: LinkedIn and SlideShare acquired by Microsoft



In 2016, Microsoft Corp. made headlines when it acquired LinkedIn Corp. for more than US$26 billion. It was the largest acquisition in company history. "I certainly think that the value of the two companies, combined, is greater than the two by themselves," Microsoft co-founder Bill Gates told Bloomberg News in a television interview after the deal was announced. There was also a negative public opinion because of the facts that Microsoft Corp. acquired it at a high price, but 3 years later, indicators cleared all suspicions about that acquisition. LinkedIn's user base has grown by nearly 50% since the deal was announced — from roughly 433 million users to more than 774 million in Q3 2021. Revenue has also been on the rise – from around US$3.7 billion to approximately US$8 billion in 2020.

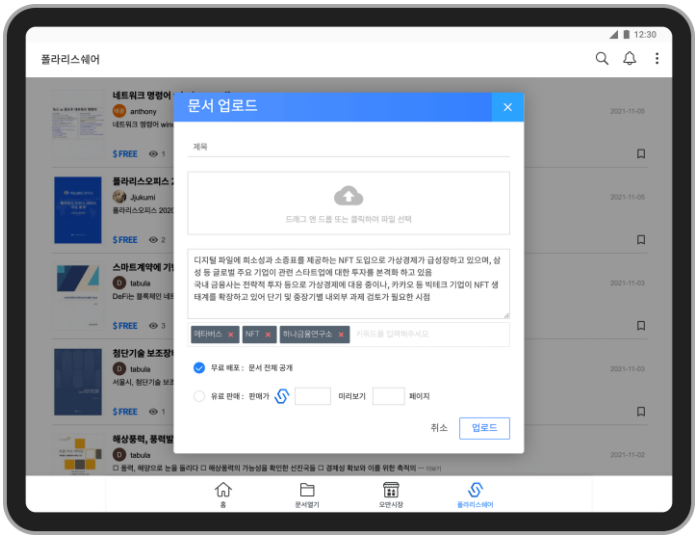
CHAPTER 03 POLARIS SHARE SERVICE

3.1. Overview

POLARIS SHARE provides the knowledge trading service in which the knowledge creator and the user are connected. It offers the knowledge creator and the user the opportunity to get compensated in token and earn cheap and quality document respectively. Additionally, SHARE service aims to make not only the document shared, but also it fairly assessed and traded.

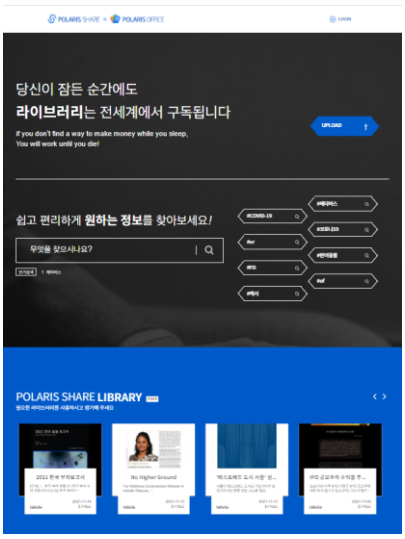
3.2. Service Scenario

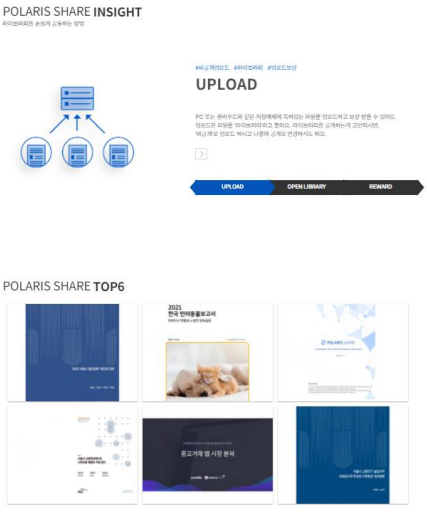
3.2.1. Sharing and Selling Document



The knowledge creator can upload a variety of document formats such as Word, Excel, PowerPoint, and PDF. They could be created by the diverse document-making software like Polaris Office. Available are the documents which deal with not only the specific subject/field, yet also some problems/the ways to solve in the various forms/formula, the Excel file for example. The document could be sold at no cost or at the price decided by the knowledge creator in advance.

3.2.2. Finding Document

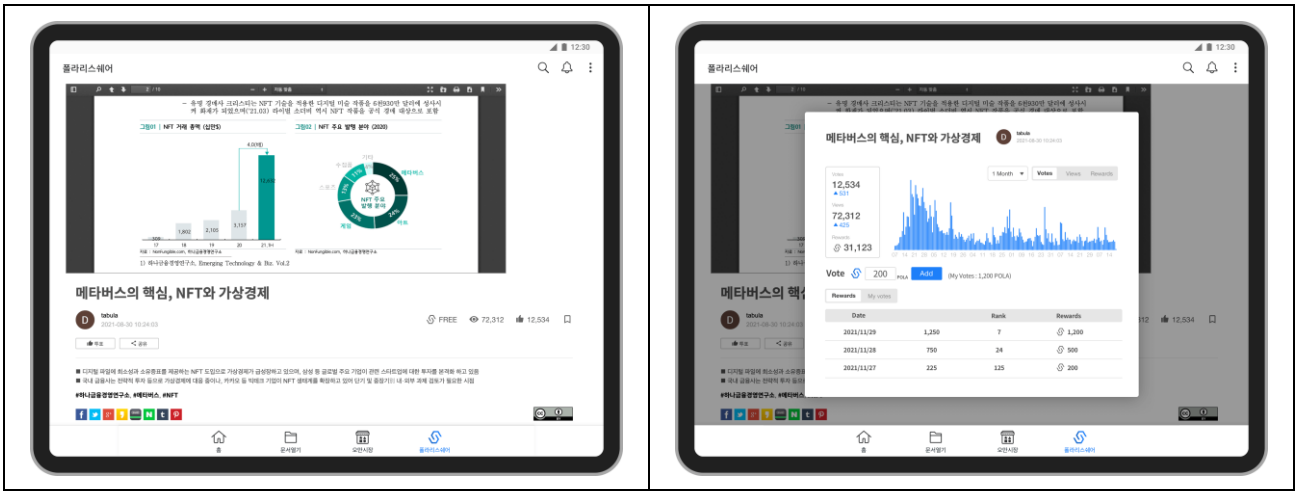




The user can have access to the document uploaded in POLARIS SHARE via diverse ways such as website visits, internal category movements, internal/external searches, reference links, and other website embedding. Once the user visits the website, the latest and popular documents and real-time popular search ranking are shown on the main page. In addition, the user will be able to look for the necessary or the appropriate document s/he really wants by entering a specific keyword on the top of the page.

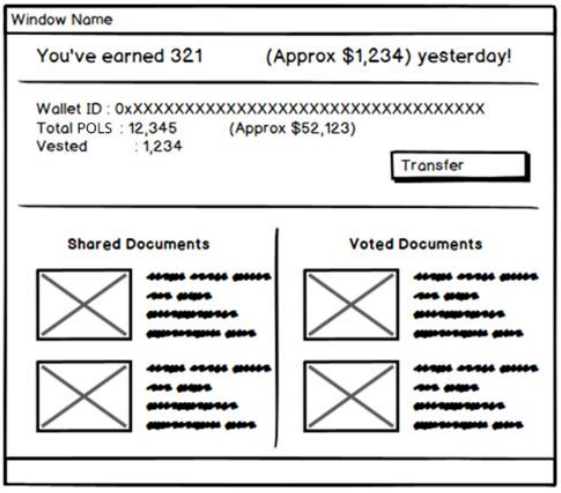
POLARIS SHARE is easily available to anyone who wants to visit since the documents uploaded there are optimized to be exposed to the external search engine such as Google, Yahoo, Naver and others. It means more and more users willing to use the service would come in so that the entire website indicators can be expected to be better improved.

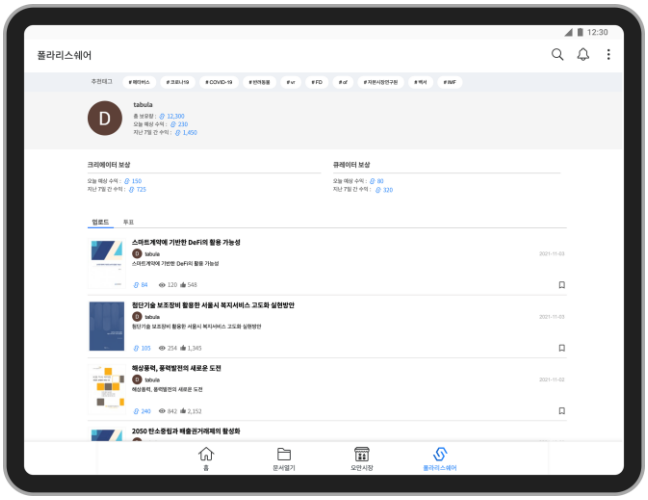
3.2.3. Document View and Vote



The user will be able to read documents uploaded there, leave comments, and assess document values through votes, which influences the order of priority to the main page exposure and to the search result filtering, and the exposure possibility of relevant knowledge or documents. The better evaluation results, the more exposed to the public. And the worse it is, the less exposed. For details, please refer to the later section.

3.2.4. Rewards to Knowledge Creator





The knowledge creator and the other contributors will be able to get rewards based on how much they contribute to. Please refer to the later section for contributable activities and exact reward logics.

3.3. Token Economy

3.3.1. Participants

(a) Knowledge Creator

A knowledge creator refers to the one who produces the knowledge in the type of documentation and s/he can share documents for free or at the price set by in advance. The corresponding number of tokens will be distributed accordingly and the document uploaded there is to be evaluated by the group of curators, collective intelligence.

(b) User

The user refers to the one who looks for the knowledge in the document type and is willing to download for free or at the price set by in advance.

(c) Curator

The curator refers to the one who leaves comments on the document and earn rewards about what s/he is committed to as a member of collective intelligence group. It is so predictable that lots of documents with the same subject would be spread and shared among people. In this case, identifying what is better or worse is not easy every time it’s uploaded, which is almost impossible and ends up leading to where the user can’t find exactly what s/he wants. So POALRIS SHARE intends to make the mechanism to tell better documents from ones uploaded by introducing collective intelligence system that helps users find better ones.

(d) Validator

The validator refers to the one who shares interests with the POALRIS SHARE project and as the member officially approved by the foundation, s/he has the authority to limit token use in the case that someone try to breach laws or rules – Some curators or knowledge creators may try to tamper with for some reasons by using tokens. Basically, the validator position is the honorary one, but s/he could get rewarded set by the foundation at its sole discretion. The mechanism of POLARIS SHARE is that the financial incentives are given to the contributor, and it motivates curators to evaluate the quality and the value of the document.

(e) Foundation

The foundation refers to the one who consists of founders or reputable persons designated by when necessary. One of the roles the foundation plays on is to stablish and approve diverse policies in POLARIS SHARE.

3.3.2. Rewards Pool

Rewards are scheduled to be used for attracting users and making them bring quality, valuable, useful documents to POLARIS SHARE. Highly engaged users and high-quality documents are key to success of the service.

Anyone who contributes to the ecosystem of POLARIS SHARE can get compensated in token that comes out of the rewards pool. Rewards pool is comprised of transaction fee, Ads revenue, and operation costs in addition to 21% rewards allocated for the ecosystem at token generation event.

$$\text{Rewards Pool} = \text{Ecosystem} + \text{Transaction Fee} + \text{Ads Revenue} - \text{Operation Costs}$$

(a) Ecosystem

$$\text{Rewards Distribution of (n)th year} = 21\%\ \text{(Ecosystem)} \times \left(\frac{1}{2}\right)^{n}$$

$$\text{Total Rewards Distribution} = 10.5\%\ \text{(1st year)} \times \frac{1}{\left(1 - \frac{1}{2}\right)} = 21\%$$

Ecosystem refers to the one provided to the contributor to the POLARIS SHARE ecosystem. The more use cases are in POLARIS SHARE, the more appreciated the prices are. In this case, participants would be enough to be satisfied with small number of token rewards. Token rewards to be distributed are designed to decrease by 50% every year according to the above model. For instance, 10.5% is set to be allocated in the first year when the service begins to be operated, and then 5.25%, 2.625%, 1.3125%, (…) are scheduled to be emitted respectively every year. The above first equation says the decrease in token rewards by half on a yearly basis, and the second one says total token rewards to be emitted in the token lifetime.

(b) Transaction Fee

Transaction Fee refers to the one incurred from sales of documents.

(c) Ads Revenue

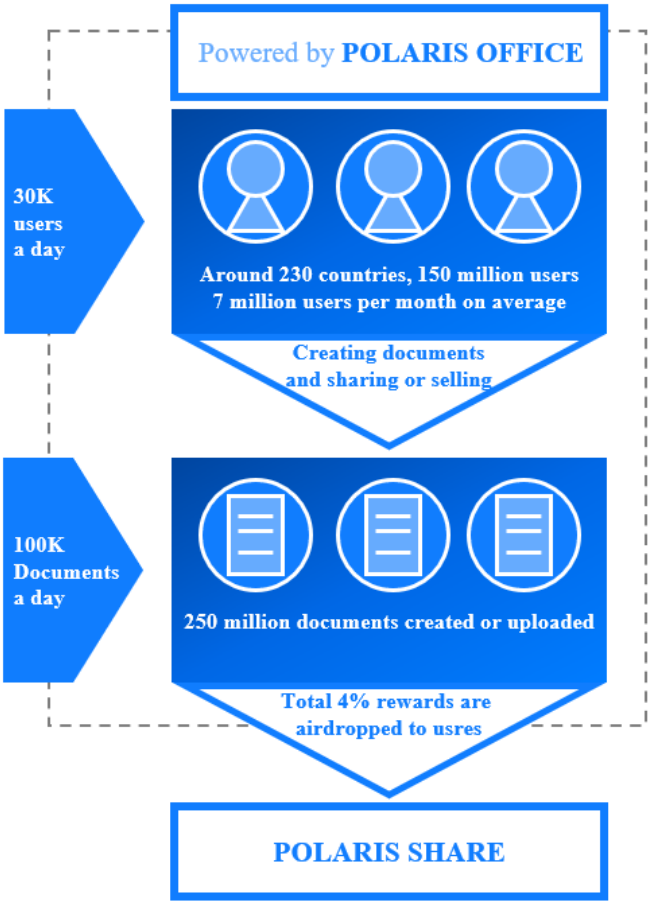
Ad Revenue refers to knowledge-based keyword advertising and other advertising products in POLARIS SHARE to be introduced.

(d) Operation Costs

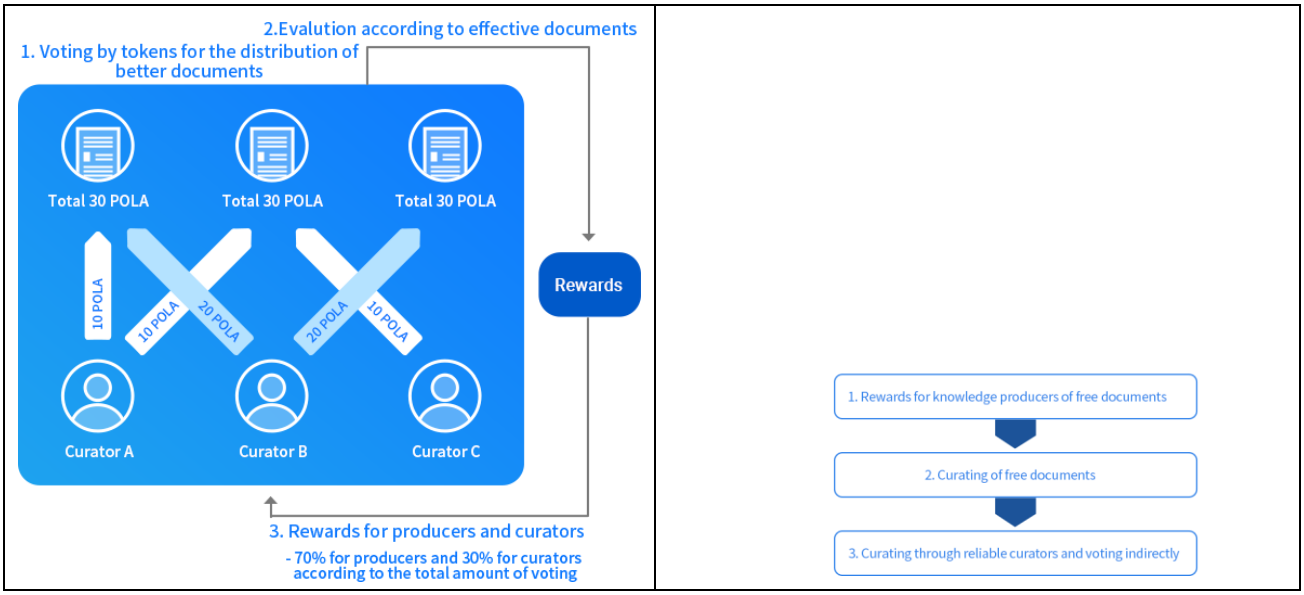
Operation Costs refers to the basic operation costs such as server fees and blockchain network fees, and other operation costs like service management ones.

3.3.3. Initial User Acquisition with Airdrop

Making active knowledge ecosystem active within POLARIS SHARE needs enough number of users and documents. To acquire necessary users and documents, resources of global service POALARIS OFFICE are planned to be aggressively used. In Q4 2021, POLARIS OFFICE has about 110 million subscribers across globe and 7 million MAU(Monthly Active Users) on average. Around 100K documents a day are created or uploaded, roughly 30K users sign up for POLARIS OFFICE daily even though POLARIS OFFICE does not run specific promotional campaigns for POLRIS SHARE.



3.3.4. Free Document Rewards and Curation



(a) Rewards for Knowledge Creator Sharing Free Document

$$\text{Rewards for the document} = \frac{\text{Effective view for the document}}{\text{Effective view for the entire documents}} \times \text{Rewards Pool} \times 70\%$$

70% out of the rewards pool are planned to be used for the knowledge creators who share documents for free. Any knowledge creator who shares the document without charge can get paid in token based on how many views of that document are achieved. It motivates knowledge creator who wants the document to reach effective hits to create and upload the high quality document.

(b) Free Document Curation

$$\text{Curator's Rewards for the document} = \frac{\text{Effective view count for the document}}{\text{Effective view count for the entire documents}} \times \frac{(\text{Votes of the curator})^2}{\sum(\text{Votes of each Curator})^2} \times \text{Rewards Pool} \times 30\%$$

The remaining 30% from the rewards pool is going to be used for the curators who votes for the document. There might be the document with the same or similar subject and the one which makes users confused in their taking advantage of it as a professional knowledge. The fame and the value of POLARIS SHARE service could be damaged if many similar, incorrect, or misleading documents are uploaded.

POLARIS SHARE is willing to solve these problems that may happen by introducing curating systems where curators can get rewarded in tokens after voting for the document. To participate in the vote for the document, curators should spend some or all of the tokens. These tokens spent for votes are left locked for 4 weeks all the while and so they are not available for this period. How many rewards should be paid to curators is calculated considering view ratios of the document, voting ones of the curators, and 30% out of rewards pool. More importantly, this system is super innovative in the perspective of driving curators to keep curating and of finding high-quality ones since more rewards are provided to the one who votes for the document with more views.

The above equation of the curator reward intends to be designed to induce the curator to vote for a variety of documents for active virtuous cycle of ecosystem within POLARIS SHARE. In this regard, please refer to 3.3.6 (a) to follow.

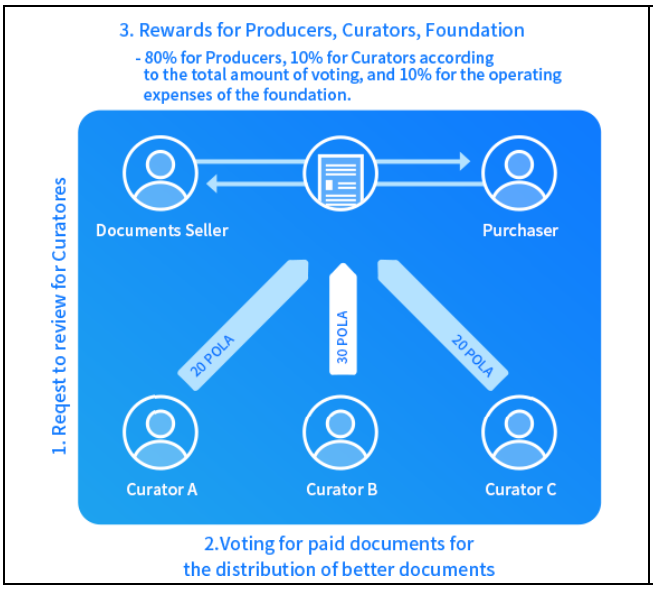
In order to explain why square root and geometric sequence are used in that above equation, let's compare the expected value of the above equation with it of the simple share ratio as follows. Please take a close look at the above equation first. Supposing that one curator tries to cast 100 votes for the document with 1,000 ones already, for example. In the vote section of the above equation, 'the sum of the squares of the number of each curator's vote for the document A' in the denominator becomes $(\mathbf{1,000})^{\mathbf{2}} + (\mathbf{100})^{\mathbf{2}} = \mathbf{1,000,000} + \mathbf{10,000} = \mathbf{1,010,000}$, and 'the value of the squares of the number of one curator's votes for the document A' in the numerator is $(\mathbf{100})^{\mathbf{2}} = \mathbf{10,000}$ resulting in $\frac{\mathbf{10,000}}{\mathbf{1,010,000}} = \frac{\mathbf{1}}{\mathbf{101}}$(≒0.0099009900990099). Conversely, the other curator who gives 1,000 votes for the document A gets $\frac{\mathbf{1,000,000}}{\mathbf{1,010,000}} = \frac{\mathbf{100}}{\mathbf{101}}$(≒0.9900990099009901). Next, let's think about the expected value of the share ratio under the same conditions. The conditions are the same as the above example. One curator achieves $\frac{\mathbf{100}}{\mathbf{1,100}} = \frac{\mathbf{1}}{\mathbf{11}}$(≒0.0909090909090909) resulting from 1,000+100=1,100 in the denominator and 100 in the numerator. Conversely, the other opposite curator gets $\frac{\mathbf{1,000}}{\mathbf{1,100}} = \frac{\mathbf{10}}{\mathbf{11}}$(≒0.9090909090909091). In conclusion, when square root and geometric sequence are used for vote variables, curators who achieve relatively higher vote ratios get more rewards, and curators who achieve relatively smaller ones get less reward. So the curators who voted get exponentially more or less rewards.

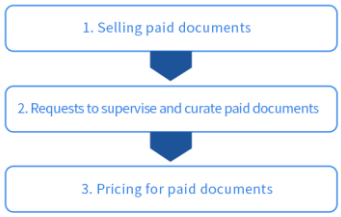
Item	Expected Value (Current Equation)	Expected Value (Share Ratio)
Curator (100 voted)	0.0099009900990099 (≒0.99%)	0.0909090909090909 (≒9.09%)
Curator (1,000 voted)	0.9900990099009901 (≒99.01%)	0.9090909090909091 (≒90.91%)

(c) Reliable Curator and Curation through Indirect Votes

Anyone without having the ability to distinguish whether documents are quality could participate in the rewards pool by delegating tokens to other curators. Tokens delegated to the curator will be re-allocated according to the ratio of token voted by that curator for the document. Supposed that the one user delegates 6 tokens to the curator who uses 30 tokens for the vote of document A, 20 for B, and 10 for C. 6 tokens would be automatically distributed with ratio of 3 : 2 : 1 and 20% out of rewards earned in this way will be paid to the curator. The curator who proves to have the ability to distinguish whether documents are quality would become the reliable person by getting more votes from the user who delegates, and s/he expects to earn token rewards through the document vote in addition to his/her own tokens.

3.3.5. Document Sales





(a) Document Sales

3 different entities bring revenues incurred from the document sales as follows. The rewards which is going to be provided to knowledge creators are calculated based on the equation saying the actual sales amount multiplies 80%. The foundation takes 10% out of actual sales amount as the transaction fee. In the case of the curator, s/he is going to be designed to receive 10% of actual sales considering the vote ratio of curator for the document as below.

$$\text{Knowledge Creator's Rewards} = \text{Actual Sales} \times 80\%$$

$$\text{Foundation's Transaction Fee} = \text{Actual Sales} \times 10\%$$

$$\text{Curator's Rewards for the paid document} = \text{Actual Sales} \times \frac{\text{Curator's vote for the document}}{\text{Total vote for the document}} \times 10\%$$

(b) Sales Document Review and Curation Request

Generally, the document vote and its curation should be necessarily done after reviewing and evaluate them. However, the user is likely to be reluctant to pay for the document to see, which is not easy for the curation to proceed. The knowledge creator could ask the specific curator to vote for the document needed to be assessed, and conversely, that curator would deliver the curation needs to the knowledge creators such knowledge creators have the authority to decide whether to make the document disclosed wholly or

partially. After that, knowledge creators could request the curator to assess the document and the knowledge creator should decide whether to accept it with the range of disclosure upon curators' requests.

(c) Sales Document Pricing

Token price refers to the one decided by token supply and demand of major crypto-currency exchange. There have been many cases where the price has dramatic ups and downs. Supposing that one knowledge creator wanted to get 100 tokens for one document sales and its value was $100 since its price was $1 at that time. However, its value has become $200 as its price has increased to $2 so the purchaser should pay $200 worth of tokens, which means sales number of tokens are fixed but the price changes. In conclusion, anyone who wants to buy the document has to pay more in this case. On the other hand, in the case of price decrease to $0.5, the purchaser could just provide $50 worth of tokens to the knowledge creator. We propose 3 different ways to solve this matter for the knowledge creator to set the fair price as below.

Option 1. The document pricing in token – price of document A is 100 POLA tokens (Token purchase)

The knowledge creator can set the price for the document in token and the number of tokens is fixed. For example, s/he can sell the document A at 100 POLA. In this case, knowledge creators and users all would be exposed to the risk of price fluctuation.

Option 2. The document pricing based on token price – price of document A is $100 worth of POLA tokens (Token purchase)

The price for the document can set by the knowledge creator and the amount tokens are flexible. The document A can be on sale at $100 worth of POLA for example. Token amount to be decided are set by referring to the one provided by the major crypto exchanges. Please keep in mind that the foundation itself would have trouble in reflecting the information given by those exchanges for the number of tokens on a real time basis, which could make those two players feel burdened in taking that risk.

Option 3. The document pricing based on token price – price of document A is $ 100 (Credit/debit card purchase)

The user could pay for the document in card while the knowledge creator would get paid in token by the foundation who engages in the fiat-to-crypto conversion about the transaction. There is the risk that the foundation should take advantage of crypto exchange loss, which forces the knowledge creator to pay a 20% charge as the risk fee of crypto exchange loss. Below is the step-by-step example of settlement process:

(Step 1) the document paid in card by the user.

(Step 2) the exchange rates set by referring to the external data provided by major crypto exchanges.

(Step 3) the number of tokens to be decided considering document prices and exchange rates set above.

(Step 4) 20% out of number of tokens decided above are deducted as the risk fee of crypto exchange loss. And the rest will be delivered to the knowledge creator.

Tokens for the fiat-to-crypto conversion come from the reserves. And the reserves need to be kept enough to be converted for this future conversion. While knowledge creator could get predictable profits, user would pay in card without holding tokens this way.

3.3.6. Fraud and Abusing Prevention

(a) Abusing of Curators due to Financial Reason

Let's think about the case where the curating system is abused in the way that should not be used. Imagine that the curator with huge number of tokens intends to vote more for the document that has already specific number of token votes, which means s/he wants to increase the vote ratio in that document so that most rewards can be distributed to him/her. Of course, anyone with many tokens can keep voting for the document to increase his position for the rewards close to 100%. However, it's not very efficient in the perspective of opportunity costs because expected rewards earned when the curator votes for the document with less token votes are relatively larger than the ones obtained when s/he gives a vote for the document with enough token votes already. Supposing that one curator intends to give 1,000 votes for the document with 100 token votes already. The vote ratio s/he expects to receive is $\frac{(1,000)^2}{(100)^2+(1,000)^2} = \frac{1,000,000}{1,010,000} =$ around 99% while

$\frac{(10,000)^2}{(100)^2+(10,000)^2} = \frac{100,000,000}{100,010,000}$ = around 99.9% in the case of 10,000 votes. Additional expected rewards by giving 10x token votes are just about 0.9%, which motivates curators to look for other new good quality document rather than the one with many token votes already.

(b) Abusing of Curators for Non-Financial Reason and Validators

There might be the cases where someone uses the curating system in the way that should be not used for the non-financial reasons. That's the case in which the knowledge creator gives a vote for his/her own low-quality document with many tokens to make it exposed publicly more. To prevent any attempts, like that case, a series of validation system is planned to be introduced in POLARIS SHARE. The validator is designated by the foundation through the validation system, and how many validators are appointed is independently up to the foundation who would consider the number of documents and curators as well. The designated validator will start to work as a member of foundation accordingly.

The role on which the validator plays is to monitor such attempts so once suspicious activities are detected, s/he could make a claim for these activities to the relevant curator. And then the necessary action will be taken accordingly – not exposed on main page or category page or excluded from the algorithm that determines the order of search result; however, this will not affect curator's rewards. In other words, It makes the documents not exposed publicly only and the vote itself remain effective.

Once the claim is made by some validator, the foundation should consider it to decide whether to have a problem. Then it should give a final opinion about it saying, 'there is a problem', 'no problem', or 'unable to judge'. If this turns out to be 'no problem' or 'unable to judge', the token vote is effective again whereas the token votes are withdrawn and voted tokens are returned to the relevant curator if 'there is a problem'. The token rewards calculated to be distributed are invalidated and the rewards are calculated again with the abuser's token votes excluded during that time. Should there be any other curators who voted, token rewards may go to the foundation, or the validator.

(c) Free Document Promotion

Since the votes are a kind of index that represents the quality of the document, it is strictly prohibited to damage the intent of POLARIS SHARE by abusing the curating system. Nevertheless, a knowledge creator or a user can promote a certain document by using some tokens to make the document exposed publicly. In order to solve this problem, the foundation needs to create and manage the category of 'promotion document' both in the main and in the category page, and 'promotion result' in the search result page as well. This alternative may prevent the curator who intends to advertise by voting from abusing the curating system.

(d) Qualified Knowledge Creator

The knowledge ecosystem that POALRIS SHARE desires could be created, when many documents are piled up and users who understand the document usability gather. However, there would be the person who attempts to disclose as many low-quality documents as possible even though project does not intend. In such case, there could be excessive number of documents beyond curators' ability to validate. So therefore, good documents which need to get fairly evaluated fail to do so and users have trouble looking for the appropriate documents. To prevent, typical knowledge creators can disclose 1 document per week. Anyone who wants to upload more needs to become a qualified knowledge creator. The qualification that can be acquired by vesting a certain number of tokens is invalid after 4 weeks of the vesting period, and the tokens are returned accordingly. Since the rewards token resulting from document disclosure and sales are also vested for the same period, an outstanding knowledge creator who receives a lot of rewards would naturally have the motivation to disclose more.

$$\text{Possible number uploaded by knowledge creators a week} = 1 + \frac{\text{Knowledge creator's vested tokens}}{5,000}$$

(e) Foundation's Role

The foundation's roles are defined as follows:

- notifying exchange rates;
- approving credited validators; and
- assessing claims made by validators.

More importantly, the foundation would give interested parties the authority to propose idea on whitepaper by their reviewing and revising figures, period, or rates – rewards rates of knowledge creators and curators, the period when tokens are vested, etc.

CHAPTER 04 POLARIS SHARE TECHNOLOGY

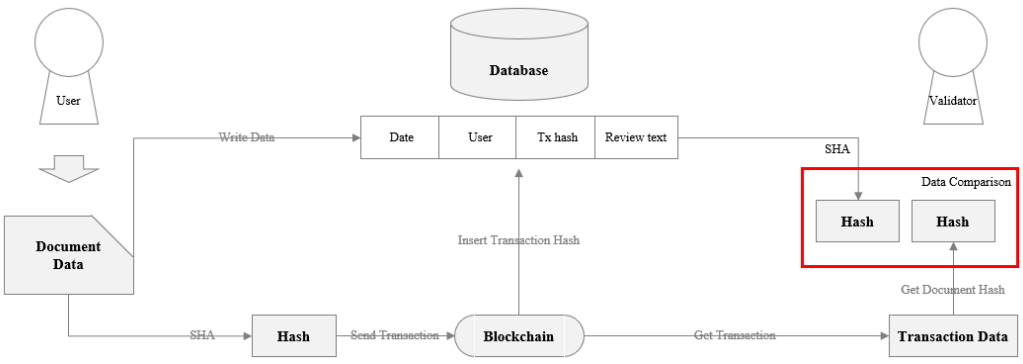
4.1. POLARIS SHARE and Blockchain

POLARIS SHARE project is built on the blockchain network as a DApp through which tokens representing token economy can be issued. Building DApps on the blockchain network means trading activities within this network are done in the decentralized way based on trust. Since the important data and transaction histories are recorded in the blockchain network in real time, potential attackers are not likely to tamper with them. However, POLARIS SHARE service is planned to be developed based on the hybrid basis using the technologies of the blockchain and the cloud at an initial stage due to costs and performance of blockchain network.

Note: Costs and Performance of Ethereum

Ethereum is the first blockchain network using the smart contract where anyone who wants to develop DApps can freely use it. The most important part of Ethereum can make projects take advantage of the smart contract functionality. Since its inception in 2015, many projects have used it especially, to issue tokens as a series of standard upon ICO. In other words, to raise funds for the projects, tokens have been issued with a variety of options. The significance of the Ethereum network is increasing over times thanks to the increase in the level of knowledge from the public and many cases where the smart contract functionality is used – Defi or NFT. However, there might be the case where blockchain network is congested partially or wholly depending on how many transactions are created, which is caused by low TPS, transaction per second even though it provides projects with flexible and reliable environment for development. It could end up giving users bad experience.

Even if the project is provided as a hybrid type, it will be designed in the way that the decentralization, independence, and reliability would be guaranteed, and as the blockchain technology gets gradually improved in the future, many parts of the project will be built on the blockchain network. The selection of the items to be stored in the blockchain network would be decided according to the data volume, necessary processing speed and the reliability requirement level.



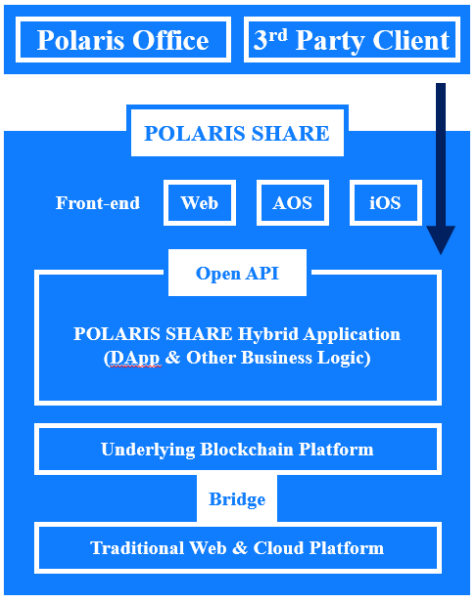
<The process of using blockchain to save documents and validate original documents>

For example, the document-related data can be divided into the document itself, metadata of the document, and the document activity data such as the comments and the number of hits. Even though the document itself is difficult to be recorded in the current block chain due to its big size, the validation on whether the document is an original copy is essential in later time considering the document copyright issues. Therefore, while storing the data itself off-chain, the hash value is stored on-chain so that the system is implemented in a way that the creation time of the document and the identification of the original copy can be trusted.

Also, even if it is implemented through the cloud, not only Polaris Office but also cooperation tools including various Office software would be linked and used through the provision of an open API, which can implement the front end and view the data at the same level, by the POLARIS SHARE team. In the future, when Ethereum 2.0 launches, we are considering migrating the existing Ethereum-based POLARIS SHARE Dapp to Ethereum 2.0. Ethereum 2.0 migration will secure scalability of eWASM and secure

DApp's service performance through Shard Network. At the same time, it is believed that OP Code efficiency through eWASM and shading will reduce GAS costs spent on services.

4.2. System Architecture



POLARIS SHARE contains the following components:

(a) POLARIS SHARE Frontend: User application to use knowledge trading service;

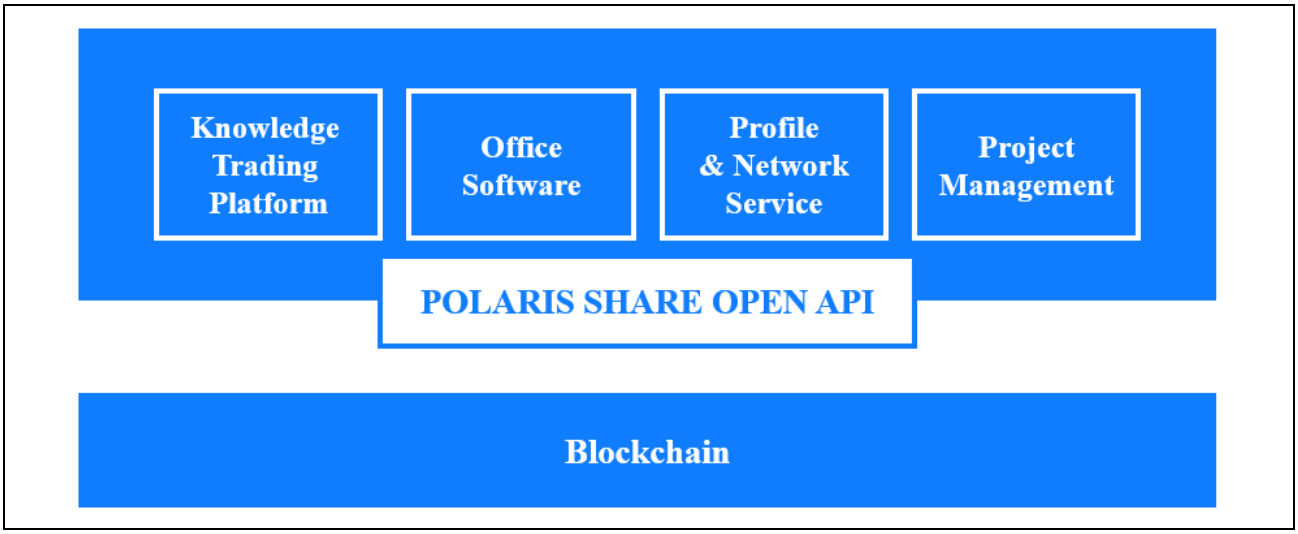
(b) POLARIS SHARE Hybrid App: The knowledge trading service business logic based on the block chain and cloud;

(c) POLARIS SHARE Open API: It provides the common functions based on the business logic;

(d) Underlying Block Chain Platform: Ethereum will be used for underlying blockchain platform; and

(e) Traditional Web & Cloud Service: Amazon Web Service and privately hosted server will be used.

4.3. Architecture Expansion

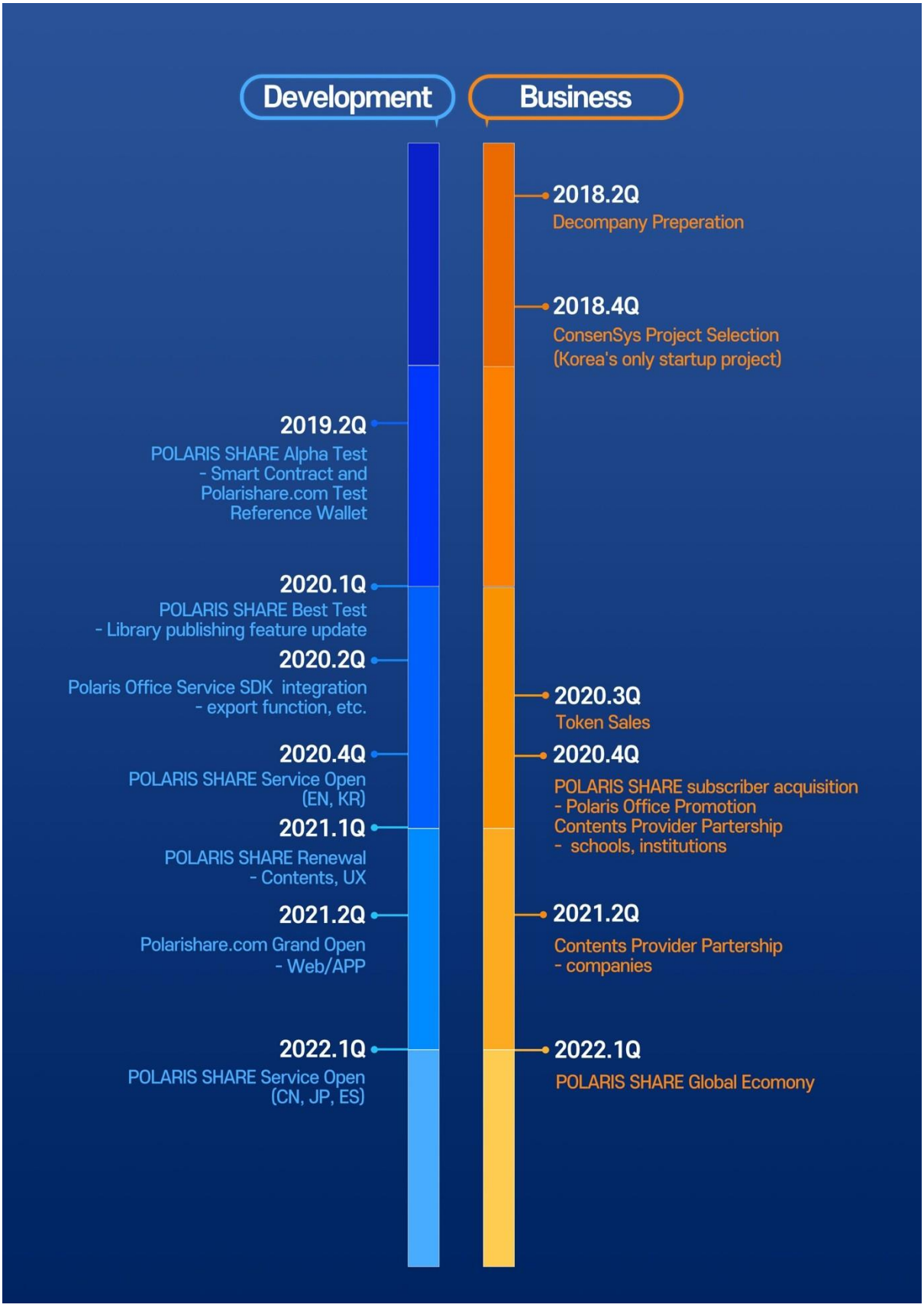


Even though the POLARIS SHARE project only includes a knowledge trading service as an offered service, we aim to become a platform that provides an expert network oriented decentralized working environment beyond the knowledge trading. Starting from the knowledge exchange and the office software, which is a partner app, we will expand to the cooperation services such as a profile and human network service, a project management service, a business messenger, and video chatting. POLARIS SHARE Open API will take the role of making it possible to expand the project to a service platform by supplying the API so that such services can be run on the common base that is stored in the block chain.

4.4. $POLA in POLARIS SHARE

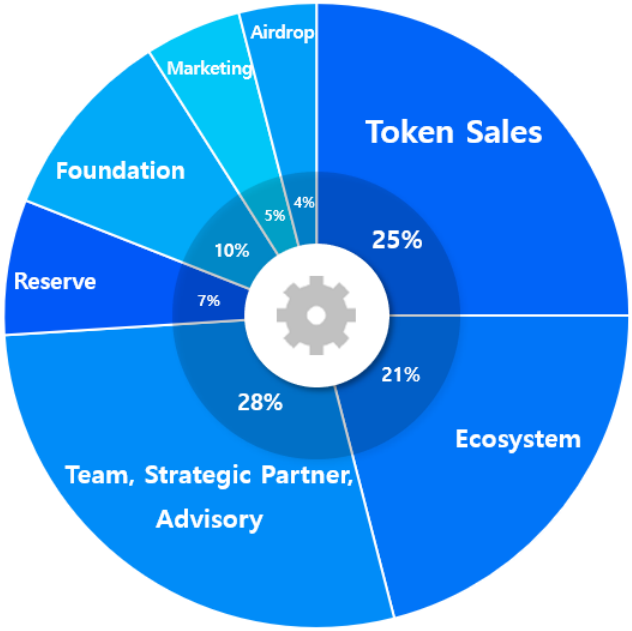
POLA is a commodity for using various knowledge trading services. A standard token of ERC20 specifications can be traded in the cryptocurrency exchange by adding certain functions, and in the POLARIS SHARE platform, it can be used for the purpose of gathering, compensating, and exchanging users and document contents or for some other purposes.

CHAPTER 05 ROADMAP



CHAPTER 06 TOKEN DISTRIBUTION & TOKEN USE

6.1. Token Distribution



- Token Symbol / Type: $POLA / ERC-20

- Total Supply: 5,000,000,000 (5 billion / 100%)

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

The number of tokens that will be sold through ICO will be 25% of the total issuance, and the fund that is raised through the sales of tokens will be used for the development cost.

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

It will be used for the operation of the rewards pool 21% to attract users and documents in the earliest time possible.

(c) Team, Strategic Partner, Advisory 1,400,000,000 (1.4 billion / 28%)

It will be used for the compensation for the team members who participated in the project, strategic partners for the success of the project, and the advisors.

(d) Reserves 350,000,000 (0.35 billion / 7%)

At first, it will be possessed by the company (foundation), and it will not be liquidated unless there is a special purpose of the use such as the expansion of the service and some other contingencies that are beyond the concept of POLARIS SHARE

(e) Foundation 500,000,000 (0.5 billion / 10%)

(f) Marketing 250,000,000 (0.25 billion / 5%)

(g) Airdrop 200,000,000 (0.2 billion / 4%)

CHAPTER 07 CORE TEAM MEMBERS

[CEO / Miles H. Lee]

- Current COO of Polaris Office (KOSDAQ LISTED)
- Former CFO of Selvas Healthcare(KOSDAQ LISTED)
- Strategy Planning Manager of INFRAWARE
- Lead Engineer of Mobile Browser Development
- Manager of Browser Sales Team
- Computer Science, Yeonsei University

CHAPTER 08 STRATEGIC PARTNERS

8.1. Polaris Office Inc

Polaris Office is a KOSDAQ-listed company that was established in 1997, and it is a representative dominant software company in Korea. It has demonstrated the capability to generate the growth momentum with the unique spirit of challenge whenever the IT paradigm changed for last 20 years. Especially, its experience of planning, developing, launching, and operating the Polaris Office, which will work as the priming water in the POLARIS SHARE, and the network it has will be the core steppingstones for the success of the project.

As of 2Q of 2018, a total of 200 executives and employees are working, and 80% of them are software engineers. It has various technical competencies and service operation competencies, as its main business includes Office mobile games and the block chain.

8.2. ConsenSys Ventures Inc

POLARIS SHARE was chosen as one of the first cohorts of Tachyon, an acceleration program by ConsenSys Ventures.

APPENDIX DISCLAIMER

This whitepaper is intended only to provide general information regarding the POLARIS SHARE project, and the information contained in the whitepaper is up to date on the cover. The content of this whitepaper is constantly being prepared and may be reviewed and revised. The Foundation reserves the right to update this whitepaper at any time.

The objectives presented in this whitepaper may not necessarily be achieved or completed as intended. Nothing in this white paper summarizes future plans, goals, and so on for POLARIS SHARE projects, should be considered absolute.
Engaging in token sales can involve high speculation and risk a complete loss of principal. Buyer should review token sales terms and conditions and consider all risks carefully. This whitepaper itself does not guarantee security. Token sales in many regions are scrutinized and the regulations are not fully enforced. In addition, some organizations consider token sales themselves to be eligible for investment sales contract.

This whitepaper is not considered to be a recommendation in any way to purchase POLARIS SHARE tokens. As regulations regarding crypto currency are constantly changing around the world, participating in the purchase of POLARIS SHARE tokens can be a significant risk, and buyers must consult closely with legal and tax experts in advance.

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