EXF

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Introduction

Whether it is accepted or rejected by everyone today, it will be completely digital money that will be used as a medium of exchange in the future. In fact, we started using digital currencies a long time ago. Instead of using physically printed money by transferring it from one place to another, the fact that it started to be transferred over the internet or online meant the use of digital currencies.

Today, we witness how much the use of physical money has decreased with the mobile application or credit card provided to us by our bank. When we buy a house or car today, after making the necessary agreements, the agreed amount is transferred from our bank account to the other party's bank account. The numbers are decreasing in your account and the numbers are increasing in the other party's bank account. There is no physical money.

We go to the mall, we shop. We complete the payment with our credit card or our contactless mobile phone application. The numbers in our account are decreasing and the numbers in the other party's account are increasing. There is no physical money. Our experiences are examples that show us how much the use of physical money has decreased, and these examples are increasing day by day and are becoming ordinary.

It took a long time for humanity to use money as a means of exchange instead of the barter method for the exchange of goods and services, and digital money, which is transferred to any part of the world much more easily with the development of technology. However, the introduction of digital money brought many advantages as well as disadvantages. For example, in a purchase we make using physical money, there is never a situation like paying a third party instead of the person we have to pay the money to. Because we need to perform this action by coming face to face with each other. In the use of digital money, on the other hand, we may encounter the situation of sending money to a third party instead of the person we need to pay, by entering or selecting the wrong account numbers, although very rarely.

This usually does not happen nowadays by entering wrong account numbers. Bank application saves the accounts you have sent money to before for our convenience and presents the registered list to us in the next money transfers. By mistakenly selecting a different account from the list of accounts you have sent money to and sending it to the wrong person will cause the money to be transferred to the wrong person. The issue of sending the money to the wrong person by entering the wrong account number is tried to be reduced day by day with the development of technology and the increase in cooperation between banks, and such errors are minimized, especially in transactions within the country.

At the same time, another issue related to digital currencies is the requirement to pay a fee for the transfer. In all countries, the same procedure is not applied for money transfers within the country. In some countries, substantial transfer fees are paid when transferring money from one bank to another, or even to another account within the same bank. However, if the money transfer will be between accounts located in different countries, these transfer fees can become annoying. If we transfer money between accounts located in different countries, the transfer fee is not the only fee we have to bear.

We have to convert between different currencies. For example, when we want to transfer money from the UK to the USA, we have to bear the exchange rate conversion cost when converting the money to be sent in pounds to US dollars. As it is known, there is a cost between foreign exchange buying and selling prices. Thus, we have to bear the annoying transfer fee, exchange rate conversion cost for a single money transfer transaction.

Also, if we want to store the money in the original currency, ie pounds, in the bank of the country we are sending the money to, for example USA, we have to bear the exchange rate conversion cost again. In other words, in order to transfer the money in pounds in our bank account in the UK to our bank account in pounds in the USA, we have to bear the transfer fee and twice the exchange rate cost.

In the case of sending pounds directly from the UK to the foreign currency account opened in pounds in the USA, the cost will not be less than the above scenario. In the case of such a money transfer, both the sending bank and the bank with the foreign currency account will charge a substantial amount of transfer fees and other fees.

In addition, when you make a transfer between accounts in different countries, this process takes a minimum of 2 days. In some cases much more. In some transactions we make from different countries, technical situations such as the refusal of the counter bank may also occur. If the transfer is not completed, the money can be refunded. This is another factor that prolongs the transfer time.

Cryptocurrency Based Digital Coins

Basically, due to the similar reasons listed in the introduction, blockchain technology, which protects the online transfer feature of digital money, has emerged. Bitcoin, the cryptocurrency, was created on blockchain technology. Throughout this document, wherever bitcoin is mentioned, other cryptocurrencies (Ethereum, Litecoin, etc.) that actually use existing blockchain technology are also meant. Bitcoin basically works like digital currencies. That is, when we transfer money from our account to someone else's account; the numbers in our account decrease and the numbers in the other party's account increase. There is nothing physical there. In addition, bitcoin ensures the security of transfer transactions with its community and encryption technology.

Bitcoin gives everyone in the community a virtual ledger (actually to miners and those who set up a bitcoin wallet on their computer) and ensures that all transactions are recorded in this virtual ledger. Before each transfer transaction, each member in this community checks their own virtual ledgers and confirms whether this transaction is valid or not. Everyone in the community checks their virtual ledger (as a software) to let them know if the transaction is a valid one. This virtual ledger in the community is actually the blockchain. The encryption process takes place entirely on this ledger. In fact, with the encryption process, it is guaranteed that each record on the virtual ledger is immutable. The encryption technology called Blockchain basically works on hard encryption and easy verification.

So what did bitcoin originally aim to do and did it achieve its purpose? The main goal of Bitcoin was to enable the secure transfer of money between peers without being dependent on any authority. That was its purpose. So, has bitcoin achieved its purpose? Absolutely not, bitcoin certainly did not fulfill its purpose. I seem to hear this; “Are you saying that a project that has reached a market

volume of 750 billion dollars as of now is unsuccessful”. My answer is absolutely yes. It is certainly true that it was a project that failed to achieve its goal. Let's now go into the details of bitcoin's failure step by step.

Money Transfer Without a Central Authority

First of all, the most basic claim of bitcoin; Let's take the issue of transferring money between two people without the need for a central authority. Could Bitcoin technically do this? Absolutely yes. This process is not a difficult process technologically anyway. You will decrease the numbers from one account and increase the numbers from the other account. That's what bitcoin does anyway. So what does bitcoin fail to do? Let's examine this with an example scenario.

Alice and Bob want to transfer bitcoins among themselves. However, Alice and Bob have never met each other before and there is no previous connection between them. They met through the Internet. Alice wants to buy bitcoin and Bob wants to sell bitcoin. How will the transaction take place now? There is no central authority.

In the first scenario, Bob sends the bitcoin Alice requested to Alice's wallet. This money transfer transaction is irreversible. When Alice receives the bitcoins, she transfers the money they had previously agreed to to Bob. In the second scenario, on the contrary, Alice transfers the money first and then Bob sends the bitcoin to Alice's account. So will Bob send the bitcoins to Alice? Is there a guarantee that you will send it? Once the money is transferred from Alice to Bob, it is irreversible. Likewise, once bitcoin is sent from Bob to Alice, it is irreversible. So in this way, this transaction does not take place in confidence. In these scenarios, there is no way to know who is trustworthy and who is a fraud.

Are Crypto Exchanges Necessary for Bitcoin?

Bitcoin can technically transfer money between peers without a central authority. But this is only possible in theory. In real life, as in the example we just explained, it will most often not be possible. It is precisely because of this need for trust that cryptocurrency exchanges have been created. Since bitcoin transfer between spouses is not practically possible, exchanges can be made on crypto currency exchanges that spouses can trust. You transfer your crypto money, namely bitcoin, to this stock market that you trust and authorize it to trade on your behalf. Thus, the stock market you trust sells your crypto money on your behalf or buys crypto money on your behalf. The bad news is that they take trading commissions from you during these transactions. This bad news is the best of all bad news. Using a crypto exchange can have far worse consequences. Okay, it seems safer than a money transfer between two people, but this is not always the case, let's explain.

Anyone who wants to own Bitcoin must obtain a digital wallet. You can think of this digital wallet as a physical wallet, but it is a little different, it basically keeps your digital key, not your money. This digital key is a very long number and is unique to you in the world. There is no other of the same number. This number creates your unique digital signature.

You need this digital signature in order to be able to transact on your digital currencies, that is, to transfer your bitcoin to another wallet. Bitcoin system; does not recognize you by your name, surname, identity or social security number. Your only connection to the Bitcoin system is this

number produced exclusively for you in the world. If you give this number to someone else, that person can do all kinds of transactions on your bitcoins, just like you. This means giving your special number to someone else, giving the wallet with your money to someone else. In short, for bitcoin, it's your digital signatures created from these long numbers that make you who you are.

Crypto Exchange Disasters

In order for a cryptocurrency exchange to sell your bitcoins, naturally, it needs your digital signature, otherwise it cannot trade on your bitcoins. Therefore, if you want to trust and work with the cryptocurrency exchange, you must give the exchange a copy of this digital signature that belongs only to you. So what happens in this case? If you're really very trusting, nothing bad might happen. But it's not just about whether you trust that exchange or not. As a result, what we call that crypto exchange may contain software or non-software vulnerabilities installed on a central server.

After all, this central server is a server that anyone in the world can access. In this case, your digital signature could be stolen and you could lose all your bitcoins. This is an event that has happened. Also, if the owner of this crypto exchange one day, he may take all the bitcoins on his exchange and flee to a different country. This event took place in 2021 on a crypto exchange in Turkey.

As you can see, bitcoin has claimed that it will transfer money between two peers without a central authority. However, bitcoin holders have been forced to use crypto exchange. In other words, instead of a secure authority like states, it has forced them to use crypto exchanges, which are much less secure. As a result of this, as we have just said, in 2021, the crypto money worth 2 billion dollars was stolen by the owner of the stock market.

Can Bitcoin Be Used as a Medium of Exchange?

Bitcoin is a currency with a fixed supply. In other words, there cannot be more than 21 million bitcoins in the world. As the reason for this; there is a logic that if it is less, it will be valuable, if it is more, it will be worthless. True to a certain extent, but not entirely. Let's explain it this way. The fact that Bitcoin is created with the claim of transferring money between peers without a central authority also means that it will be used as a means of exchange for peers. In other words, bitcoin also claims to be a medium of exchange for products and services instead of physical money. Such a claim requires a very, very small rate of change in the value of money for the referenced goods and services. I want to say this; for example, while 20 bikes can be purchased with 1 BTC today, buying 200 bikes after 1 week and purchasing 4 bikes after 5 weeks prevents bitcoin from being a medium of exchange. Markets cannot price this rate of change (volatility). This is certainly true for bitcoin today.

What happened with Bitcoin shows exactly this. Just 1 bitcoin sold for over $63,000 on April 16, 2021, and $38,000 on May 27, 2021. Such a rapidly changing currency cannot be used as a medium of exchange for the markets. However, why was bitcoin $63,000 on April 16 and why did it drop to $38,000 on May 27?

It is possible to explain and even predict why any country's currency rises and falls against other currencies because these values are based entirely on real-life economic data and are rational. If a country's economy management cannot manage economic parameters such as production,

employment, high value-added products, etc.; that is, if it cannot manage its economy well, it will print money to compensate for the deficits in its economy. This will basically reduce its value against the currencies of countries that regulate their own economy well. It is rational, predictable and measurable. So is this the case with bitcoin? Definitely no. Maybe you have heard of people who got rich from bitcoin in one day on various social media platforms. Besides, you will see few people who have lost almost everything. It only takes a little research to see many more losers.

You may have seen photos of people who, in a few days, have achieved riches that they couldn't get by working in a lifetime, with bitcoin investments. The question is, what did these rich people predict and invest and get rich? What did Bitcoin promise them? There is absolutely no clear answer to this question. The only but only logical answer that can be given is that the community, that is, people who want to buy bitcoin, think that this technology is the technology of the future and invest (Or at least some of them think so). Or it is the desire to become rich in a short time by listening to those who say that they will rise in a short time.

Apart from that, since bitcoin is not used as a medium of exchange and a certain authority does not own it, it basically has no arguments to make it valuable. I ignore the fact that people's personal information cannot be tracked in money movements. If you are using a crypto exchange, this is not possible either; because crypto exchanges request all your information from you to open an account. In addition, it should be noted that blockchain is open to everyone due to its structure. When the crypto exchange is not used, personal information may not be tracked in money movements. However, the transfer of money between wallets is traceable.

Also, on April 16, when people thought it was the technology of the future, why did a large part of this huge community suddenly change their mind on May 27? It is clear that bitcoin has been speculated by high-profit individuals and groups; that is, it is a speculative currency that is artificially raised and sold after making the necessary profit.

It is not possible to say exactly if or when this will happen, but what will happen when this community that wants to own bitcoins stops demanding bitcoin for any reason?

Safety of Bitcoin

Also worth mentioning is the 51% attack and vulnerability for bitcoin. When explaining how Bitcoin works; we said that each wallet in the community has a virtual ledger (miners and those who have a bitcoin wallet installed on their computers) and before each transaction, this community is asked whether the transaction to be made is valid. We mentioned that each virtual ledger owner in the community checks their own virtual ledgers before the transaction and confirms the validity of the transaction to be made.

Now, for simplicity, let's think about it this way. There are 100 people who own the Bitcoin, virtual ledger, and let's assume that the transaction is approved by getting approval from these people or a large part of them before each transaction. If 51 of these 100 people in our sample had previously agreed among themselves for a particular wallet. What if that wallet owner claims to have money that doesn't really exist, and those 51 people confirm it, even though it's not true? Yes, in this case the system will accept that it is a valid transaction and this transfer will take place. A transfer of money that does not actually exist will have taken place.

We have just mentioned that bitcoin has no known value except that it is valued by the community, as it is not under the control of any particular authority. So why is the US dollar valuable? It can be expressed briefly as follows. “Because of the authority that put it into circulation”. Okay, where does the value of this authority come from? It can be summed up in one word; TRUST. Yes, in fact, states do not print money in exchange for the authority they have. The main issue is the trust in that authority. All in return for this, people transact with this printed currency. If there is no trust, that authority and that currency have no meaning. The value of that currency is largely determined by the trust in that authority. That is why such currencies are called fiat money.

Based on Bitcoin and the blockchain on which it is built, the first step of the currency, which will be the real exchange tool of the future, has been taken. So is it possible for any cryptocurrency to do what bitcoin can't? Absolutely yes and EXF (Exchangeable fund) was created for this purpose.

So how will EXF be used as a medium of exchange instead of bitcoin, which counts for bitcoin and cannot be used as a medium of exchange? In the rest of this white paper, you will find step-by-step answers to this question.

EXF, Secure Money Transfer Peer to Peer

We explained that the main claim of Bitcoin is to be able to send money between peers without any central authority, but although it can theoretically do this, it cannot be done practically due to the reasons we have mentioned. The question is; So how will EXF do this?

First of all, let me state this. EXF; it is based on some of the technologies used by bitcoin. For example, it is based on a certain part of blockchain technology and developed its own technology. In this respect, we can say that EXF is a "community based cryptocurrency based on the trust protocol". What is the trust protocol? What is community-based? Let's explain these.

As we said in our previous statements, the money of the states is actually a quantitative reflection of the trust placed in them. In other words, the more trust there is in a state authority, the more valuable its money is. We have already stated that such currencies are called fiat money. The quick question can be asked. Even if its economy and other parameters are bad, is this so? Of course no. Its economy is trouble-free and its permanent state creates trust.

We mentioned that in Bitcoin, miners have virtual ledgers (blockchain) and before a money transfer, the miners tell the information about those who want to transfer money by looking at these virtual ledgers. The most basic assumption here is that “all miners have the same reliability”.

The situation of a miner who has been trading in the system for a long time and a miner who has been involved in the system a short time ago are equal in terms of trust. In fact, in real life, the issue of trust does not work this way. Is our trust or distrust of a person we just met the same for us as someone we have known for a long time and perhaps tested on various issues and found to be reliable or unreliable? Of course no. EXF is basically based on this trust protocol. There are differences between those who have been in the system for a long time and those who have just joined the system in terms of the system's trust in them. The operation of the trust protocol will be explained in detail later. To put it in a single sentence, the trust protocol is a protocol based on a “hard to get, time-consuming and easy to lose” structure, just like in real life.

If it is community-based, it can be explained as follows. Owners of EXF wallets (in short, wallets) in the system review each other as a result of their transactions. These reviews form the basis of their further actions. They also decide whether or not to trade with them in other wallets based on these reviews. In addition, if wallets have used intermediary or intermediaries (to be explained in the next section), they also review the intermediary or intermediaries. Reviews are based on a five-star scoring system.

The most basic principle for wallets to review each other is that the wallets have a communication within the EXF system. What will occur as a result of communications outside the EXF system cannot be review within the EXF system. However, wallets that play the role of resolving disputes between two wallets cannot be evaluated by the wallets that are parties to the dispute. Wallets that play the role of resolving disputes such as mediators and decision makers are reviewed by the wallets to be selected by the EXF system according to the trust protocol as a result of their transactions. As a result of these reviews, badges are given to the wallets and published for all to see. Intermediaries, local regulators, local auditors, representatives, mediators and decision makers are also essential parts of this community, all of which will be explained in detail.

Intermediaries

Now let's ask and answer this basic question again. How will EXF make the transfer that can't be done practically between peers by Bitcoin? We just said that EXF takes a certain part of the underlying blockchain mechanism laid out by bitcoin as its starting point. However, the EXF blockchain mechanism is a new technology developed by itself. Defines wallets that have the role of “Intermediary” within the EXF blockchain.

These intermediaries ensure that money transfers between two wallets are seamless. With your EXF wallet, you can transfer your money to another wallet without any intermediaries. The EXF blockchain structure is similar to the bitcoin blockchain structure; any transaction transferred to the block cannot be undone. The block structure is immutable. However, in EXF, when the transaction will be transferred to the block can be determined by the intermediaries. In other words, once a transaction is completed and transferred to the block, that transaction cannot be reversed. If you send money to another wallet without using any middleman and this transfer is recorded in the block, there is no way to get your transfer back. Except, of course, that the wallet you transferred the money to voluntarily refund to you.

So how do intermediaries make this transaction secure? Intermediaries can only control whether the transaction is transferred to the block structure. In other words, if you have used an intermediary or intermediaries in a money transfer transaction, it is now under the control and responsibility of the intermediary or intermediaries whether or not your transaction will be transferred to the block. If the intermediary approves, the transaction is transferred to the block and can no longer be reversed, or if the intermediary does not approve, the transaction is not transferred to the block and is no longer valid. If you are using multiple intermediaries for your transaction, all intermediaries must approve the transaction for the transaction to be valid and transferred to the block. If one of the intermediaries does not approve the transaction, the transaction is invalid and will not be transferred to the block. The intermediary or intermediaries cannot take any action other than to approve or

reject a transaction. It cannot ensure that money is transferred to a different wallet or wallets. They simply approve or reject the transaction.

Who Can Be an Intermediary?

This question has come to your mind. So who are these intermediaries? In fact, anyone can be an intermediary. Let's explain through an example. Alice and Bob be people who don't know each other at all and have met online. Alice wants to buy EXF and Bob wants to sell EXF. There is no environment of trust since there was no acquaintance before. However, Alice and Bob have a mutual friend, Charlie, whom they trust very much. In this case, Bob identifies Charlie as the intermediary and sends EXF to Alice. Seeing that the EXF has been sent, Alice then pays Bob. Learning that transactions have been made from both, Charlie confirms the transaction and ensures that the transaction is transferred to the block.

If Alice and Bob had identified Olivia as the intermediary along with Charlie, that is, if both Charlie and Olivia were the intermediary for this transaction, then both Charlie and Olivia would have to approve the transaction for the transaction to be transferred to the block. If Charlie approves the transaction and Olivia rejects it, the transaction will not be valid and will be canceled by the system. Both Charlie and Olivia must approve the transaction for the transaction to be approved. In other words, if more than one intermediary is used, all intermediary must approve the transaction in order for the transaction to be transferred to the block. Otherwise, the transaction is not transferred to the block and is not a valid transaction.

What if Alice and Bob don't have a mutually trusted friend named Charlie. Where will they find an intermediary in this situation? In this case, they can trade by choosing a intermediary approved by the EXF system (local regulators – who the local regulators are will be explained later). So the intermediary; Alice and Bob may have mutually trusted acquaintances, as well as a intermediary whose identity and other information has been approved by the EXF system (by local regulators) and whose previous transaction has been reviewed. In addition, corporate wallets can also act as intermediary. In this case, all corporate data and access information of these users are open and accessible to all users.

After the transaction, Alice and Bob will be able to review each other, as well as the people and institutions they use as intermediaries. Thus, in the next transactions for the EXF community, those who want to trade with Alice and Bob will decide whether to trade by reading the reviews about them. Just like in states, trust and reputation; will continue to be an indispensable element for this community.

Value of EXF

While talking about why Bitcoin could not fulfill its claim, we mentioned that it is a speculative currency and cannot be used as a medium of exchange for goods and services as it is. The fact that its supply is constant is also a factor for the continuous increase in its value, but the fact that it is not tied to a natural value is also a factor in the high rate of speculation and value change. So how is the situation in EXF?

1 EXF is equal to 1 EAU at the time of its introduction. 1 EAU is equal to 1gr of gold. EXF is the only medium of exchange in the system. Values and assets other than EXF; are physical values. EAU is one of these values. The EAU is the digital gold reserve in the system and the value of 1 EAU is always 1gr gold.

This is what it means. How much 1gr gold is sold in the markets today, the value of 1 EAU is also. As the gold price in the markets changes, the value of the EAU will change accordingly and will be equal to the value of 1gr gold.

1 EXF is equal to 1,000,000 SXF. So the subunit of EXF is SXF. EXF has been put into circulation in the amount of 2,500,000,000,000 by the EXF wallet transferred to the block by the wallet transferred to the block by the Genesis wallet (GNSW – to be explained later) and can be transferred securely through the application. It does not need any external crypto exchange to transfer EXF securely.

What is Trust Protocol?

We defined EXF as “a community-based cryptocurrency based on the trust protocol”. What exactly is this trust protocol? Again, we spoke briefly as follows. Do the person we just met and know very little about and the person we met a long time ago have the same credibility? We already know whether the person we met a long time ago is reliable or not by doing various tests ourselves? This protocol, which we call the trust protocol, is the transformation of trust between people into a software protocol. Every person will be able to understand that what is explained in the trust protocol is already a part of her own life. Based on this basic trust protocol, EXF establishes security levels between wallets. The two most important factors in the calculations of the trust protocol are whether to have an approved profile and the duration of its presence in the system. In addition to these two basic factors, the other factors described also constitute the trust protocol. To put the trust protocol in one sentence; “Hard to get, time consuming and easy to lose”.

In other words, there is a difference in trust between a wallet that has just entered the system and a wallet that has been in the system for a long time and has completed many transactions in accordance with the trust protocol and fulfills the expected behaviors as expected. Time of presence in the system; From the point of view of the trust protocol, for wallets with all other conditions being equal, (for profile-approved wallets that have exactly the same numerical and quantitative review, for example; have the same trust score from 30 different wallets) the trust score of the one with longer time in the system will be higher. However, in order for them to come to that state of trust, they need to perform transactions that will gain trust in the system. Of course, the following question may come to mind; well, what if the trusted wallets make wrong transactions after a while? Of course, this also has a counterpart in the system. They lose their trust status, partially or completely.

Another important part of the trust protocol is that the statements of trusted people and statements of untrusted people do not have the same degree of reliability. Let's put it this way, the person who is told to be reliable by the people around her and the person who is told to be unreliable by the people around her are not equal in terms of trust. Therefore, the reliability of the word spoken by a person who is known to be reliable is not the same as the reliability of the word said by a person

who is known to be unreliable by everyone. In EXF, this situation is evaluated as follows. The review of another wallet by a wallet with a high trust score is not the same as the review of a wallet with a low trust score about the same wallet. The effects, ie the amount of increasing or decreasing the trust score of the wallet they are reviewing, will not be the same. This corresponds to the difference between the expression of a trusted person and the expression of a less trusted person.

Another issue that is in the nature of trust and brings it to a very sensitive point is that trust is very precious like a diamond, but it is also fragile. What is meant here is the following. Losing trust as a result of a mistake made by a person who is very trusted by those around her is not the same as losing trust as a result of a mistake made by a person who is not very trusted by those around her. When a person who is truly trusted makes a mistake, she loses much of her trust. From the person who is less reliable to himself; becomes more and more unreliable. Depending on the mistake she made. If the less trusted person made the same mistake in the same way, the trust she would lose would be much less. Because on average, it will be thought that she can do it, even if it is not expected from the less trusted person. However, the effect will be much greater when the person who is truly trusted makes the same mistake. In the EXF system, this corresponds to the fact that wallets with high trust scores are more sensitive to errors. If they make mistakes, their impact will be much greater. While calculating the confidence score in the EXF system, the highest and lowest confidence scores in the past form a separate part of the confidence score calculation.

Another important factor in relation to the trust protocol is the number of different people a particular person is said to be trustworthy. We can express it as follows. Let's suppose that we get information about a person we want to know whether she is a reliable person or not, from the people around her. The more the number and diversity of people we receive information from, the more reliable information we get about that person. Namely, the reliability of the person who asked 2 different people and said that 2 people are reliable, and the reliability of the person who asked 30 different people and said that 30 people were reliable are of course different. Here, the following question immediately comes to mind. So how do we know if the people we ask are trustworthy? In real life we actually do this somewhat intuitively. We look at the conversation of the other person and try to understand whether she is sincere or not. In addition, the person in question can tell us about her experiences and give details about the person we want to learn about, and it can also convince us that what she says is reliable. When we want to do this in software, we do not have intuition, we cannot understand the sincerity of the other person. There's no need for them anyway. Because, considering the same case in terms of software, we make a more rational evaluation based on the history of the respondent in the system and the trust score. To summarize this part of the trust protocol. Many different people's statements and fewer people's statements differ in terms of trust protocol. The higher the number, the healthier the result will be. In EXF, this factor corresponds as follows. It is different for a wallet to review another wallet 10 times than the review of 10 different wallets will be different. It will not increase your confidence score in the same way. The evaluation of 10 different wallets will further increase or decrease further.

One of the important points that determines trust is when the evaluation made about the person is made. Let's try to give an example. You did a research on a person 2 years ago about whether it is reliable or not. At that time, your research concluded that she was quite reliable about that person. But is this a valid conclusion today? The answer to this question may be yes or no. So when you do the same research today, you may not get the same result. In short, a recent reliability assessment

may not be the same as a past reliability assessment. A recent assessment may be healthier than one made in the past. This confidence factor is also used in the calculation of the confidence score in the trust protocol.

From a commercial point of view, there are other parameters that create trust. For example, a wallet that successfully completes a trade with a volume of 2 EXFs and a wallet that successfully completes a trade with an EXF volume of 100,000 are different in terms of trust. When the high-volume trade is completed as desired, the confidence score will increase even more. Likewise, if a high-volume trade is not completed as desired, the confidence score will decrease further. The trust protocol also takes this parameter into account when calculating the confidence score.

Trust score is mainly used in two ways within the EXF system. These are authorization and fee calculations. Put very simply, a wallet with a high trust score and a wallet with a low trust score will not make the same transaction payments. Wallets with a high trust score pay less, while wallets with a low trust score pay higher fees. Here we should also state the following. Another basic situation that is relative in the natural flow of life is that we think that people we don't know about at first are reliable, or at least we have a tendency to be so. Accordingly, EXF considers the trust score of a new wallet that has no ratings as the highest trust score in terms of fee calculations. Subsequent transactions of the wallet will reveal the true trust score. However, in authorization calculations within the system, the trust score of a new wallet is considered zero. In addition, the biggest factor affecting the trust score in authorization calculations is the system history of the wallet. The wallet with more system history than the wallets with the same trust score will be ahead of the other in trust calculations.

For example; We talked about the 51% attack for bitcoin before. In other words, before a transaction, the community was asked whether it had the amount of money the wallet claimed to have. As a result of the approvals received, the transaction was carried out or rejected. Here for EXF, the community to be asked will be the community that has trust. Not wallets that have just logged into the system and have not gained the necessary trust.

Badges

Badges are basically of three types. These are basic badges, talent badges, and commercial badges. Some of the badges are related to the duration of the wallet in the system, some of them are related to the place where the wallet lives and its capabilities, and some are related to its commercial activities. Badges specifically related to business activities are the result of a five-star rating system.

Basic badges, the country badge of the wallet, for example, if you are currently living in the USA and the information you have provided has been verified by the EXF system (local regulators), the USA flag icon will appear on your profile. If you are an active wallet that has been using an EXF wallet for 5 years, you will see a badge symbolizing this on your profile. Every year this badge will be updated.

Talent badges, for example, if you know a foreign language and this information has been verified by the EXF system (local regulators), the foreign language badge you know will appear on your profile.

Commercial badges, unlike other badges, are badges that are calculated from the evaluations received in the five-star rating system. A trust badge (not trust score – wallets that have a certain trust score for a certain period of time) is a badge within commercial badges (not trade points – wallets that have a certain trade score for a certain period of time).

Activities of Intermediaries

Everyone can take on the role of an intermediary in EXF, there is no obligation to pass any approval or pre-examination (Of course, except that the trust score is 4.00 and above). For example, Alice and Bob can choose Charlie, whom they know and trust in common, as the intermediary for the transfer between them. In this case, Charlie will be able to confirm or cancel the transfer of the transaction between Alice and Bob to the block. Such is Charlie's role as an intermediary in the system. That is to confirm or cancel the transfer process. Charlie can only confirm or cancel this transfer once. It cannot cancel a transaction that it has approved or cannot approved a transaction that it has canceled. Apart from that, it cannot interfere with any other parameter of the process. He can't decide whether the transaction should be between Alice and Olivia, not between Alice and Bob. It only confirms or cancels the transaction once.

As can be seen in the EXF wallet application, there is a section called "Intermediaries". So, can I find Charlie, who has not received any approval from the EXF system (local regulators) in this section, and designate her as an intermediary? The answer to this question is no. For a wallet to be listed in the “Intermediaries” section, it must be approved by the EXF system (local regulators). She must then apply to become an “intermediary”. Apart from this, no wallet can be found in the list in the "Intermediaries" section.

Since the intermediaries that people use as mutual acquaintances are not approved by the system, they cannot be review after the transaction. In other words, they are not subject to the five-star rating system. It is not possible to act as an individual and institutional intermediary on the system at the same time.

So what does a wallet have to do to be listed in the “Intermediaries” section? First of all, it must have an approved profile. To have a verified profile, he or she must present and verify a valid ID for the country of residence, pass email verification, phone verification, address verification, and any additional verifications required by local regulators for that country. This profile confirmation is not fixed. Confirmation of variable partitions is repeated by EXF. For example, for a wallet holder living in the UK, their profile in the EXF must be reconfirmed after the driver's license expires. Otherwise, the wallet profile loses its approval status.

In addition, a wallet with a trust score below 4.25 cannot apply for profile approval. When the trust score of a wallet with an approved profile drops below 4.25, the profile approval of the wallet ends. Afterwards, when her trust score rises to 4.25 and above, she must have her profile reconfirmed. Any wallet whose profile is not verified will not be listed in the Intermediaries section.

It envisages that intermediaries may have functions other than securing money transfers between two people. In our example, he wants to buy a house from Alice and Bob with EXF. Because they don't know each other, they find Charlie, a real estate agent from EXF's intermediaries section. Charlie not only receives his payment as EXF by providing real estate services, but also receives the

commission he determined from the brokerage service by ensuring that the house sale between Alice and Bob takes place safely.

In a different scenario, Alice will import woman bags from Chen in China. Alice and Chen do not know each other. Bob is a customs broker in the UK. In this case, Alice and Chen choose Bob as the intermediary. Bob handles customs clearance on the trade between Chen and Alice. He receives the payment he should receive from the customs brokerage as EXF. He also receives the transaction commission he set for the EXF transfer between Chen and Alice.

Likewise, Alice is a local courier in a city. As an intermediary, after ensuring the delivery of the product between two people, it confirms the transaction and ensures that the EXF is transferred to the seller. It collects the cost of the courier service it provides as a transaction commission.

Intermediaries charge a transaction fee at the rate they determine, or with a fixed fee, or in both a rate and a fixed fee, or in the form they determine, in order to carry out transactions between two people. These amounts and rates are entirely determined by the intermediary himself. There are no limitations and restrictions. While some intermediaries do not receive any commission, some may demand an intermediary fee for the transfer of their money and an additional real estate transaction fee, as in the case of a real estate agent. This is entirely the intermediary's own choice.

In addition, if two wallets use an intermediary for a money transfer, the system does not charge for this money transfer transaction. The system collects fees from intermediaries. When Alice and Bob make a money transfer without using an intermediary, the fee to be made over the total amount transferred is in the "EXF System Fees" table in Annex-1. To give an example for easy understanding, when 1000 EXF transfers are made (In case Alice and Bob have a trust score of 5.0), an EXF transfer fee of 2.14 will occur (based on current nominal value). Of this payment, Alice pays EXF 1.07 and Bob pays EXF 1.07. However, Alice and Bob can decide between them how this total amount of 2.14 EXF will be paid. In other words, Alice can pay this commission entirely, or Bob can pay this commission entirely, or they can pay the rate they determine among themselves.

However, the fee will change when one of the wallets making the transfer is determined as a miner (or when one of these wallets uses a miner of their choice other than system miners). In this case, the total transfer fee will be 0.59 EXF (based on current nominal value). Again, this total amount can be paid by Alice and Bob in an amount to be determined among themselves.

When the intermediary is used, such a deduction is not applied to the money transfer between Alice and Bob. Alice and Bob pay commission to the intermediary.

When wallets transfer between themselves without intermediaries, they pay at the rates found in the "Miner" and "Local Regulators" sections of the "EXF System Fees" table in Annex-1. When wallets transfer between themselves without intermediaries and if one of the wallets does the mining, (or when one of these wallets uses a miner of their choice other than system miners) they make payments at the rates found in the "Local Regulators" and "EXF Wallet" sections of the "EXF System Fees" table in Annex-1.

Intermediaries' Commission Rate

Intermediaries do the mining themselves (or with the miner of their choice) to transfer every transaction they make to the block. Thus, they make payments to the system at the rates found in the "Local Regulators" and "EXF Wallet" sections in the "EXF System Fees" table in Annex-1.

Software as Intermediary

Intermediaries may not be just human. It can be used as an intermediary in third party software. Let's exemplify this. A marketplace website uses EXF to sell vendors' products. Marketplace is a shopping environment in which a business operates the website, sellers selling on that website, and buyers buying products sold on that website.

When buyers place an order, they go to the company that operates the payment website, the order is displayed on the seller's screen and the seller ships the product to the buyer. The website owner company pays the seller after receiving its own commission and expenses. That's basically how marketplaces work.

In the use of EXF, the website owner is in the role of "Intermediary". It will create a request on the system with the EXF wallet address of the seller (in terms of EXF, recipient), the company operating the website, EXF wallet information (in terms of EXF, the intermediary), buyer information (in terms of EXF, sender). The transaction will take place when it is approved by the receiver (sender in terms of EXF). Thus, it will be used as an intermediary in software.

Miners

In Bitcoin, miners also perform the discovery of money that has not yet been put into circulation, while this is not the case for EXF. In EXF, 2.500.000.000.000 EXF put into circulation by the “System – EXFW” wallet transferred to the block by the wallet transferred to the block by the “Genesis” wallet are ready for use (For 2.500.000.000.000 EXF; 2.500.000.000.000 EAU was generated by the EAUW wallet transferred to the block by the wallet transferred to the block by the Genesis wallet). Miners are charged according to the "Miner" section in the "EXF System Fees" table in Annex-1 for the cryptographic decryption required for the transfer of each transaction to the block.

Since miners do not fulfill a task such as the discovery of new funds in EXF, there is no such thing as competing among themselves. The cryptographic decryption required for each transaction to be transferred to the block is distributed by the system among miners currently online based on previous transaction performance and status in the trust protocol (If the miner is not selected to transfer the transaction to the block).

Miner Selection

We mentioned that every money transfer transaction becomes valid only when it is transferred to the block. After a transaction is confirmed by the intermediary (if an intermediary is used, it is strongly recommended to use it for wallets that do not know each other before), it is transferred to the block by a miner selected by the intermediary (in case of timeout, by a miner to be determined by the

system). The EXF sending wallet can identify itself as a miner for sending. Likewise, the recipient can be designated as a miner in the EXF sending process.

A transaction ready to enter the block; If it is not transferred to the block within the time set by the wallets or the miner selected by the intermediary, the system will ignore the selected miner. The miner to be determined by the system will transfer the transaction to the block. In this case, the miner who cannot make the transaction at the time determined by the system will be processed according to the trust protocol.

If a miner is selected by the wallets to transfer the transaction to the block, an review can be made about the miner at the end of the transaction.

Who Can Become a Miner?

Anyone who runs the "Mining" section in the desktop EXF wallet can become a miner.

What is the Function of Miners?

Miners ensure that transactions are transferred to the block. Also, miners store the block on their local computers.

How do miners transfer transactions to the block and what do they get in return?

Miners who are online in the EXF system are assigned tasks according to the trust protocol status in the system. It is expected to fulfill this task within the time determined by the system. If the miner does not complete the task within the specified timeout, this will be recorded as a negative confidence score for this miner. The task is assigned to the first available miner by the system. In return for the transfer of transactions to the block, miners receive fees that will be determined by them and that will not exceed the fees in the "Miner" section of the transferred amount in the "EXF System Fees" table in Annex-1.

Local Regulators

Local regulators are completely independent units. This unit is created for each country. If there are political regions whose laws may change for that country, then only one local regulator is not created for the whole country (for example, if the country is made up of states and laws may vary for states). One is created for each political region. Money transfers made in that country (political region) are transferred to local regulators according to the "Local Regulatory" section in the "EXF System Fees" table in Annex-1. For transactions of wallets located in different local regulators, each local regulators receives payment according to the section “Local Regulators” in the “EXF System Fees” table in Appendix-1, depending on the amount paid by the wallet in its section of the transaction.

Local regulators are responsible for all localization, application verifications (personal and corporate) and legal matters related to the EXF application and other online assets. It is also responsible to the “Local Auditors” for what is necessary for the proper operation of EXF in its home country.

Local regulators' reports of payments required for their activities are submitted monthly by the local regulator manager to local auditors through the EXF application. All local auditors can access these reports. Local regulators may be reviewed by those they serve in return for their services.

Responsibilities of local regulators

Local regulators are independent units for each country (political region). However, they provide the following requirements.

1. It provides enough Ticket servers for the system required in its own country (region).
2. It provides servers that are required for the client-server architecture of the system in its own country (region) and will work as peers within the system.
3. They provide the miners that the system will use.
4. They publish the security tests of the servers to local auditors at specified intervals.
5. They provide support services for wallet holders in their country (region) regarding the use of EXF wallets and tools.
6. For their own country (region); They ensure the operation of the wallets, which, like local regulators, are members of the EXF board, a three-person, fully independent body elected by the votes of local auditors. This board is funded from the wallets of local regulators.

Who are the local regulators?

Local regulators are people selected from among the intermediaries. Local regulators are completely independent units.

How are local regulators selected?

Initially, during the startup funding period for each country, the wallet that has the most funds for that country and provides the necessary infrastructure will be the local regulatory manager for 6 years. The second and third wallets with the most funds will be the local regulatory assistant managers. It will then be selected by the votes of the intermediaries in that country. Local regulators elected for a 6-year term will also be eligible to stand for election for the first time.

If no local regulator is determined for that country at the time of system funding. The wallet with the highest funding and providing the necessary infrastructure will be the local regulatory manager and the next two wallets will be the local regulatory assistant managers.

The candidate who receives 50%+1 votes of the intermediaries will be the director of the local regulators. In addition, 2 assistant managers will be elected in the same election. Apart from this, the local regulatory manager will continue to work with the employees he has determined. Local regulators have a total tenure of 8 years for their employees. Those whose term of office has expired will be selected from among the intermediaries by the manager again.

How long will local regulators work?

The manager and assistant managers who constitute the local organizers are elected by the intermediaries for a period of 4 years. After 4 years, the same manager and assistant managers can participate in the elections to be re-elected. The same manager and assistant managers can serve a maximum of 2 times, ie 4 + 4 years. However, re-election can be made within the period with the votes of 50%+1 of the intermediaries. Or, when the local regulator's trust score of the wallet drops below 4.40, the local administrator and their deputies lose approval of the wallet. Whoever loses their approval, that wallet will be re-elected.

In case of re-election with 50%+1 vote of the intermediaries, the same manager and assistant managers can be elected until their term of office is 8 years, without the limitation of participating twice. However, if the trust score of the wallet drops below 4.40, they cannot be re-elected.

What Will Local Regulators Get for Their Work?

The amount calculated according to the "Local Regulators" section of the "EXF System Fees" table in Appendix-1 of the entire transferred amount within that country (political region) is transferred to the local regulator's wallet. Local regulators have an organization of their own. There is a manager, two assistant managers and their employees. Managers and assistant managers are elected by the votes of the intermediaries. Managers, assistant managers and employees receive monthly amounts to be determined jointly by the intermediaries and premiums to be determined by the intermediaries in return for their work.

Local Auditors

Local auditors are the body that oversees the activities of local regulators. Local auditors and local regulators are independent units. All local intermediaries are natural local auditors.

Mediators

Mediators are the first point of resolution for all disputes (commercial and arising from all transactions on the system).

Who are the Mediators?

Anyone with a confidence score of 4.40 or higher can become a mediator. Mediation is a role similar to brokerage but resolving disputes between wallets.

Approved wallets who do not want to act as mediators can take a mediation role in the system by making mediation applications to local regulators. You can also act as a mediator institutionally.

How Do Mediators Work?

Mediators, just like intermediaries, are one or more wallets that are jointly designated by the wallets transacting between them. Just like intermediary, wallets transacting between them can designate their mutual acquaintances as mediators.

The decision produced by the mediator determines the action to be applied to the wallets in dispute between them.

In order for the mediators to step in, both of the wallets in disagreement must approve the mediator or mediators they will choose together. In other words, it is not enough for one of the wallets in dispute to approve the mediator or mediators. Both require approval.

In order for a wallet to be included in the "Mediators" list in the application; It must have an approved profile, have a trust score of 4.40 or higher, and then, after a mediator application, its application must be placed on the block by local regulators.

What Do Mediators Get for Their Work?

Mediators determine the fees they will demand in return for the mediation services they provide.

Decision Makers

Decision makers are a little different from mediators. Decision makers; wallets determined by the system according to the trust protocol. Among these wallets, the wallets chosen by the disputing wallets decide for the dispute. The wallets in disagreement do not choose exactly the wallet or wallets to resolve the dispute, just as they choose the mediators. The wallets they can choose are offered to them by the system. Decisions are taken for the disagreement between them by the wallets that they will choose as partners among these wallets.

It is sufficient for only one of the wallets in dispute to file a dispute to settle the dispute. In this case, the other side of the dispute will also be affected by the outcome of this decision.

Who Are the Decision Makers?

The decision makers are the wallets selected by the system according to the trust protocol. Each wallet can choose whether it wants to be chosen as a decision maker or not through its wallet. However, any wallet that has played the role of mediator or representative or has applied for the role of mediator or representative is not selected by the system as a decision maker. Institutional wallets are not chosen by the system as a decision maker.

For wallets that used mediators before the decision makers, the wallets that the mediators communicate with are not selected by the system in the decision maker selection.

Wallets that have been in contact with a representative representing any of the wallets are not included in the decision maker list by the system.

In short, wallets associated with the parties to the dispute and the wallets they are associated with are not included in the list of decision makers.

As a decision maker, resolving disputes between wallets is a confidence-building process for that wallet, just like any other community benefit action. And it has a systemic counterpart.

How Do Decision Makers Work?

For a dispute between two wallets, one of the wallets can create a dispute. In this case, the system determines 14+2 wallets according to the trust protocol and presents them to the wallets that have disagreements. The 7 + 2 wallet that she will choose jointly in both wallets will be the decision maker for the dispute between the two wallets.

No evaluation is made in return for the decision made by the decision makers. A dispute application can be created for the decision made by the decision maker. If the new decision affects the previous decision as a result of a dispute application to be created for a particular decision maker or decision makers' decision, the previous decision can be marked as invalid by the next decision, while the previous decision remains in the block.

What Do Decision Makers Get for Their Work?

Decision makers are charged according to the "Decision Maker Coefficient (For each decision maker)" section in the "EXF System Fees" table in Annex-1 of the transferred amount in return for resolving the disputes.

Representatives

They are wallets that have the authority to perform transactions that the wallet owner has authorized to do, other than fund transfer, on behalf of the wallet.

Who are the Representatives?

Anyone can be a representative. Anyone who has a verified profile, has a trust score of 4.40 or higher, and applies for a representative can become a representative.

How Representatives Work?

In order for the representative to represent a wallet and perform the transaction on its behalf, the wallet must be designated as the representative for that transaction. Representatives can be reviewed for their services.

What Do Representatives Get for Their Work?

Representatives determine their own remuneration for their work. This is an amount to be determined entirely by the representative.

EXF Technology

EXF, unlike many cryptocurrencies, uses a hybrid network architecture. EXF uses P2P and Client-Server network architectures simultaneously. Each server works simultaneously as a Peer in the P2P network. Both desktop and mobile phone wallet application first try to run on Client-Server architecture. If it cannot get the required response from here, it works in the P2P network. Applications on the server operate on both Client-Server and P2P networks.

Once the EXF has completed the startup funding, the system will be operational for the country where the wallet is located, when the local regulators in that country are operational. In order to create a wallet for the first time in any country, local regulators must be operational in that country.

Main Wallets

The EXF cryptocurrency system is composed of four main wallets, structured on a single wallet.

Genesis Wallet (GNSW)

It is the origin wallet that makes up the entire EXF system. Wallets that can generate assets/values or put the assets and values they produce out of circulation; It will transfer to the block by the wallets that will transfer to the block by the Genesis wallet. Any wallet that is not transferred to the block by the wallets transferred to the block by Genesis cannot generate assets/values within the EXF system. Each of the wallets Genesis transfers to the block can only transfer to the block for the asset/value generation of a single wallet. In addition, the wallets that GNSW transferred to the block also transferred the four basic wallets of the EXF system to the block. These are System Wallet (EXFW), Gold Wallet (EAUW), Reserve Wallet (RSVW) and Investment Wallet (INSW) wallet.

The first wallet that the Genesis wallet transfers to the block; EXFW has transferred its wallet to the block. EXFW produced 2.500.000.000.000 EXF. In return for this 2.500.000.000.000 EXF, the second wallet transferred to the block by GNSW; EAUW has transferred its wallet to the block. The EAUW wallet produced 2,500,000,000,000 EAU. The third wallet that Genesis wallet transferred to the block transferred the Reserve wallet to the block. The fourth wallet that Genesis wallet transferred to the block transferred the Investment wallet (INSW) to the block.

The Genesis wallet is the origin wallet of the system that transfers the wallets that will generate value to the block. It is the beginning of the system. The Genesis (GNSW) wallet itself cannot generate value and cannot transfer any assets to the system. Genesis (GNSW) cannot generate value in wallets that the wallet transfers to the block and cannot transfer any assets/values to the system. Only and only; they transfer a single wallet that will generate assets to the block.

Except for EXFW generating EXF, which is transferred to the block by wallets transferred by Genesis wallet to the block, all wallets can transfer assets/values only with the digital signature of the wallets transferred by the Reserve wallet to the block. And they can only deprecate their own generated values.

In addition, all wallets except the EXFW wallet accompany the asset and value transactions they generate with the digital signature of the wallets they transfer to the block. What this means is that for an EAU transfer, the crypto key pair that will sign this transfer transaction is transferred to the block by the EAUW wallet. And afterwards; In the transfer transaction, he signs the status of the transaction. For each EAU transaction, a crypto key pair is generated by the EAUW wallet and transferred to the block. The private key of this key pair is then irretrievably deleted from the system. This key pair is transferred to its own wallet block by signing the EAU transaction.

In addition, except the Reserve wallet EXF, the transfers of all values generated for the EXF system are accompanied by the digital signature of the wallets that it transfers to the block. Apart from the EXF, all transactions of value and assets generated for the EXF system (for example, the EAU

transfer) are accompanied by digitally signing the wallets transferred by the Reserve wallet to the block. To summarize briefly, when trading EAU between wallets, they are accompanied by the EAUW wallet and the RSVW wallet. In other words, both the EAUW wallet signs this transaction with a key pair to accompany this transaction, and the RSVW wallet also signs the transaction with the key pair it will generate for this transaction.

For wallets that have been transferred to the block by the Genesis wallet, transferred to the block by the wallets and will generate their own values; which condition, amount, for how long and in what form it can produce value is clearly stated in the transaction. Wallets that fail to meet these conditions will be deprecated by the wallet transferred to the block by the Genesis wallet.

System Wallet (EXFW)

The first wallet transferred to the block by the Genesis wallet; It is the wallet that transfers the EXFW wallet to the block to generate 2.500.000.000.000 EXF. System wallet is EXF's wallet. This value, which is produced for all infrastructure operations required for EXF activities, is used.

Due to the verification nature of the blockchain, all transactions are traceable. In other words, which wallet has historically done what transaction is recorded in the block. Therefore, all transactions made by all wallets; can be tracked. However, this is not a situation that a commercial enterprise can accept. Therefore, the issue of commercial privacy inherent in commerce is not supported by the underlying structure of blockchain. Within the EXF blockchain, wallets that want to avoid such traceability for purposes such as hiding their trade secrets can create untraceable sub-wallets within the EXFW wallet, thereby preventing the traceability of their transactions.

Gold Wallet (EAUW)

The second wallet transferred to the block by the Genesis wallet; It is the wallet that it transfers to the block to generate 2.500.000.000.000 EAU. Gold wallet (EAUW) generated 2.500.000.000.000 EAU. However, all EAU transactions to be made are accompanied by the digital signature of the wallet transferred to the block by the EAUW wallet and the digital signature of the wallet transferred to the block by the Reserve wallet (RSVW).

For similar reasons as in the EXFW wallet, they can prevent the traceability of their transactions by creating untraceable sub-wallets in the EAUW wallet.

Reserve Wallet (RSVW)

It is the wallet transferred to the block by the third wallet transferred to the block by the Genesis wallet. It is the wallet with the most complex function among these wallets. Wallets transferred to the block by the Reserve wallet; they just don't digitally sign EAU transactions. They also sign all asset and value transfers that can be converted to EXF and defined by the system. There are 2.500.000.000.000 EAUs in exchange for 2.500.000.000.000 EXF as a priority. EAUs are digital gold reserves, the equivalent of EXFs. And the transfer takes place with the signature of the wallets transferred by the “Reserve” wallet to the block.

EAU can be purchased with EXF. When you buy EAU, these digital golds are transferred to your EAU wallet. From this new EAU wallet, you can always transfer EAUs as EXF to your EXF wallet.

Investment Wallet (INSW)

By the fourth wallet transferred to the block by the Genesis wallet; is the wallet transferred to the block. This wallet is an investment wallet. All kinds of investments are made through this wallet. The brokers of the investment wallet act as "investment advisors". Anyone (with a confidence score of 4.40 and above) can become an investment advisor in the system.

For the investment wallet, projects are submitted through an investment advisor. In this presentation, the financial flow should be in the form specified for the system. The conditions under which the investors will start the investment and under which conditions they will withdraw from the investment should be in the form determined in the system. The finance put forward by the investors is transferred to the wallet of the project owner or owners through the "Investment Advisor" intermediary. The profit obtained at the end of the project is transferred to the shareholders through the investment advisor intermediary.

Ownership Rights of Wallets

Within the EXF system; main wallets, local regulators, mediators, decision makers, representatives or a wallet in any other role; cannot interfere, suspend, freeze or redirect any wallet account. Under no circumstances and conditions; personal or institutional property rights cannot be interfered with. However, there are two exceptions to this. These;

1) In the case of 150 years of inactivity for individual wallets (300 years in case of heirs), and 350 years of inactivity for corporate wallets, their assets are transferred to the local regulators and EXF wallet at the discretion of the decision makers. For wallets whose transactions are signed by the Reserve (RSVW) wallet (for example, wallets that have purchased EAU) do not trade for 1000 years; assets are transferred to local regulators and the Reserve (RSVW) wallet at the discretion of the decision makers. When the time comes, local regulators present the documents to the decision makers, enabling them to reach a decision on the necessary transfer.
2) Death of a wallet owner; The meaning of the wallet owner's death is this; is the death of the wallet owner and the wallet access information cannot be obtained by the heirs. If access information has been obtained by legal heirs, necessary transfer procedures can be made by them. However, in the absence of access information, action will be taken according to the following conditions.
    a) In case of heirs and representatives; the owner of the wallet, before his death, determines the wallets that will be his heirs, the rate and amount of inheritance; digitally signed the wallet that he designated as the representative. Representative; the documents proving the death of the wallet owner and the inheritance rates and amounts digitally signed by the wallet owner to the representative; transfers to the block. And the local regulators signs the same block. And the action is taken according to the decision made by the decision makers.
    b) If the representative is determined and there is no heir, the representative; transfers the death of the wallet owner to the block. Next, the representative receives the necessary

payments for the transaction. And wallet funds; timeout period (specified in clause 1) is expected.

c) Absence of a representative;

   I. In case of heir; heirs submit documents proving that they are heirs to local regulators. Local regulators present the documents to the decision makers, and action is taken in accordance with the decision made. In the absence of an heir; the expiry period of wallet funds (specified in clause 1) is expected.

   II. In the absence of an heir; wallet funds are expected to expire (specified in clause 1).

d) If the representative is designated by the wallet and the representative is dead, the representative is considered undetermined. Documents regarding the death of the representative are prepared by the legal heirs and submitted to the local regulators. And it is prepared by local regulators and transferred into the block with the decision of the decision makers.

e) If the heir is determined by the wallet and the heir is dead, the heir is considered undetermined. If more than one heir is determined and one or more of the heirs have died, the inheritance is distributed to the remaining heirs in accordance with the rate determined by the decision makers with the presentation of the local regulators.

The personal or corporate property rights of the wallets are not interfered with. However, unfair action was taken; for wallets that are definitively identified by decision makers; At the end of the objection period, the decision is transferred to the block. And the necessary trust score adjustment is made in line with the decision made by the decision makers. Even this transaction cannot create any interference on the ownership right of the wallet. Or, it cannot create any restrictions and freezes on EXF and asset transfers. Except for the restrictions caused by the lowering of the trust score, of course.

The EXF system has a principle-based paradigm. It's not rule based. What is explained throughout the entire document is merely an elaboration of the principles. The most basic principle is equality of equals. This principle; means that those who are on equal terms are equal. That is, for example, all wallets with 5 trust score will have the same authorization and rights. However, this is not always the case. This is because it is principle-based, not rule-based. It may be thought that there is a contradictory discourse here, but it is not so, let's explain. For example; Let's consider the same example scenario being the subject of dispute between wallets located in different countries (political regions). The result of this dispute; may not be concluded in the same way by decision makers. This is the correct one. The same scenario may lead decision makers to take a different decision as a result of different laws applied in different countries. If EXF were rule-based, it would accept the same result as a paradigm. However, this is not the correct one. The same conditions can produce different results in different countries. This is the nature of life. Considering these different results and the laws of that country, it will lead to different results for equal scenarios, and this is the truth. This is not an inequality, but the equality of equals, which we have explained as the basic principle. For example, the same applies to the subject of inheritance. The principle here is; decision makers must decide for the dispute in accordance with the laws of that country. Maybe the laws for that country may change, but the principle will remain the same for EXF.

Exchange

Exchange is the place where values/assets are exchanged. One of the values to be exchanged in the exchange must be EXF. Because EXF is the only medium of exchange of the system. The exchange value can be selected among the values open to exchange on the stock exchange.

Trading in the Exchange

The value and assets that a wallet can trade and buy and sell on the exchange and their upper limits are determined by the trust score determined by the trust protocol of that wallet. According to the trust protocol, each wallet can exchange EAU, EXF on the exchange.

However, for wallets transferred to the block by the wallets transferred to the block by the Genesis (GNSW) wallet; the terms of sale are included in the transaction.

Starting the Transactions of the Exchange

The opening of the exchange to all wallets will be after the completion of the startup funding (also for the wallet; local regulators is operational).

Startup Funding

Startup funding includes the completion of the sale of the basic 250.000.000 EXF, for which the buyers of the fund will determine the buying coefficient.

In all new initiatives and in the natural flow of life; People who start early go a long way. This also applies to the EXF system. It is an startup funding with 3x to 10x buying opportunities based on the remaining amount of the fund and the amount purchased.

Here, those who buy early will have to make fewer purchases to get the same multiplier, while those who buy later will need to make more purchases to get the same multiplier based on the remaining amount of the fund.

Exchange Auditors

Exchange Auditors are independent units like local auditors.

Appendix

Annex-1 EXF System Fees

Transaction Interval (EXF)	Miner Coefficient	Local Regulatory Coefficient	EXF Wallet Coefficient	Decision Maker Coefficient (For each decision maker)
0 – ND x 1.000 <=	NV x TA x ((17x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((4.4x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((1.5x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((9x10^{-4})+(10^{-3}x(5-TS)))
NV x 1.000 > - NV x 10.000 <=	NV x TA x ((16x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((4.3x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((1.3x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((8x10^{-4})+(10^{-3}x(5-TS)))
NV x 10.000 > - NV x 100.000 <=	NV x TA x ((15x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((4.1x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((1.1x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((7x10^{-4})+(10^{-3}x(5-TS)))
NV x 100.000 > - NV x 1.000.000 <=	NV x TA x ((13x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((3.7x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((0.7x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((5x10^{-4})+(10^{-3}x(5-TS)))
NV x 1.000.000 > - NV x 1.000.000.000 <=	NV x TA x ((11x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((3.5x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((0.5x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((3x10^{-4})+(10^{-3}x(5-TS)))
NV x 1.000.000.000 >	NV x TA x ((9x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((3.3x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((0.3x10^{-4})+(10^{-3}x(5-TS)))	NV x TA x ((2x10^{-4})+(10^{-3}x(5-TS)))

* Nominal value (NV) : $\frac{Total\ EXF\ Supply}{Total\ EAU\ Supply}$ * TS : Trust score * TA : Transaction Amount

* For wallets with no reviews, the trust score is calculated as 5.0.

Annex-2 Trust Scoring

At the end of all transactions between wallets, wallets can review each other. Even if the transactions between the wallets are canceled or the transaction is never started between the wallets (even if there is no transaction between them), the wallets may review each other. The determinant here is that the wallets have established contacts within the EXF system. However, in order for such an evaluation (no transaction between them or the transaction to be cancelled) to be made, the wallet that wants to evaluate must take the necessary decision from the decision makers (to make an evaluation) with justified reasons.

The most basic criterion for proof in transactions is that the person performing the transaction is obliged to prove it. Just like two people shopping online, the buyer has to prove that she sent the money and the seller has to prove that she has delivered the goods. The buyer cannot prove that she did not receive the goods, and this is not expected from her. The seller is obliged to prove that she has delivered the goods. However, the buyer has to prove (claiming) that the goods she received is defective, dysfunctional or not as described before the sale. In short, the perpetrator is obliged to prove that she has done it.

Review is a confidence-building action because it is for the benefit of the community, while not reviewing is a confidence-destroying action. Taking or not doing this action has a counterpart in the trust protocol. All reviews, positive or negative, made by a wallet are actions for the benefit of the community. An review; regardless of whether it is positive or negative, when it is transferred in the block, the trust score will increase for the wallet that made that review, due to the review. Once an review is imported into the block, it can no longer be changed.

For wallets transacting between them; if the wallet, which is the party of the transaction, has taken the expected steps in the required manner and at the prescribed time; 5 stars are expected to be given to that wallet. In this case, an explanation, photo, video, etc. can be added as to why it was given 5 stars. However, when less than 5 stars are given, concrete reasons for why it was given are expected. In the event of a low score, the wallet receiving that score can create a dispute or offer a mediator.

1 Star

When a star is awarded, the trust score of the wallet awarded a star will be reduced by 5 points (-5). A star that you have given means that the wallet is absolutely unreliable and should not be worked with that wallet. When you give a star, you are expected to add the supporting elements from the attachments section. In addition, the score to be calculated based on the trust score of the wallet that gave the score will be deducted.

If the wallet that received this score files a dispute and shows that this rating is unjustified. In this case, the trust score of the wallet that gave the score will be reduced by 15 points (-15). In addition, the score to be calculated depending on the trust score of the wallet that gave the score will also be deducted. 1 star given will also be cancelled. However, if it turns out that the wallet that issued the score was right about the score it was awarded. For 1 time regarding this dispute to the wallet that gave the score; an additional 15 points will be awarded, as well as a score to be calculated based on the current confidence score.

When this scoring is transferred into the block without any dispute. 5 trust points will be transferred to the wallet that gave this score. And the score that will be calculated based on the current trust score of the rated wallet will also be transferred.

2 Star

When two stars are awarded, the trust score will be reduced by 3 points (-3). The two star that you have given means that the wallet is unreliable and should not be worked with that wallet. When you give two stars, you are expected to add the elements that support this in the appendices section. In addition, the score to be calculated based on the trust score of the wallet that gave the score will be deducted.

If the wallet that received this score files a dispute and shows that this rating is not justified, then the trust score of the wallet that issued the rating will be reduced by 14 points (-14). In addition, the score to be calculated depending on the trust score of the wallet that gave the score will also be deducted. The 2 stars given will also be cancelled. However, if the wallet that issued the score is found to be right about the score, the wallet that issued the score will be awarded 14 points, once related to this dispute, plus an additional score to be calculated based on the current trust score.

When this score is transferred into the block without any dispute, 4 trust points will be transferred to the wallet that gave this score. And the score that will be calculated based on the current trust score of the wallet where the score is given will also be transferred.

3 Star

When three stars are given, no points will be added to the confidence index. The three stars you have given mean that there is no positive opinion about the trust of the wallet that is being traded. When you give three stars, you are expected to add the elements that support this in the appendices section.

If the wallet that received this score files a dispute and shows that this rating is not justified, then the trust score of the wallet that issued the rating will be reduced by 13 points (-13). In addition, the score to be calculated depending on the trust score of the wallet that gave the score will also be deducted. The 3 stars given will also be cancelled. However, if it turns out that the wallet giving the score was right about the score it gave; The wallet that gave the score will be given 13 points, once related to this dispute. And also, the score to be calculated based on the current confidence score will be given additionally.

When this score is transferred into the block without any dispute, 3 trust points will be given to the wallet that gave this score. And the score that will be calculated based on the current trust score of the rated wallet will also be transferred.

4 Star

When four stars are awarded, 3 points will be added to the confidence index. The four stars you give indicate that the wallet is reliable. And it means that it can be worked with. When four stars are given, the supporting elements can be added from the appendices section. In addition, the score to be calculated based on the trust score of the wallet that gave the score will be added.

If the wallet that received this score files a dispute and shows that your scoring was intentional, then the trust index of the wallet that issued the score will be reduced by 10 points (-10). In addition, the score to be calculated based on the trust score of the wallet that gave the score will be deducted. The 4 stars it has given will also be cancelled. However, if the wallet that issued the score is found to be right about the score awarded, the wallet that issued the score will be awarded 11 points, once for this dispute. And also, the score to be calculated based on the current confidence score will be given additionally.

When this score is transferred into the block without any dispute, 2 trust points will be transferred to the wallet that gave this score.

5 Star

When five stars are given, 5 points will be added to the confidence index. The five stars you have given indicate that the wallet is very reliable and it is recommended to work with it. When five stars are given, the supporting elements can also be added in the appendices section. In addition, the score to be calculated based on the trust score of the wallet that gave the score will be added.

When this score is transferred into the block, 1 trust point will be transferred to the wallet that gave this score.

Comment

They are explanations about the content of the transaction and how the other party performed the transaction. These are the notes that other wallets who want to trade with the same person should know.

Expressions other than profanity, insults or general moral rules should never be used in explanations. The trust points of the detected wallets will be reduced according to the decision of the decision makers according to the nature of the action.

Sharing

From the wallet where the transaction is made; It is the sharing made as a result of being satisfied with the result of the transaction or vice versa (after the evaluations are transferred to the block). In accordance with this sharing trust protocol (if the wallet to share has sufficient trust points); It is the share made to the wallets that follow the wallet that will share.

Recommendation

The stronger advice (advice to work or not to work) than sharing is; It is the sharing made as a result of being satisfied with the transaction, or vice versa (after the evaluations are transferred to the block). In accordance with the trust protocol (if the wallet to recommend has sufficient trust points), it is a share to other wallets that it has traded before.

Criteria to Consider When Review is Made

Wallets are expected to consider the following basic criteria when reviewing each other in their transactions.

- Were the agreed criteria met before the transaction was taken?
- Does the value, asset, good or service subject to the transaction comply with the specified criteria?
- After the procedure; has the promised support been provided?
- Has the stipulated time been complied with?

How Does Review Benefit the Community?

Review of the wallet with which the transaction is made is very important in the healthy functioning of the community, as it will assist in the decision of other wallets that will then transact with it.

Of course, this review should be realistic and objective, and it should cover every stage of the process. Before some transactions, the wallets may make promises about the transaction. The degree of fulfillment of these promises can only be understood during and after the transaction. In the review to be made; reviewing the rate and fulfillment time of these promises is very important for the community in subsequent transactions with this wallet.

Reviewing is not making a positive review about the wallet being traded. The important thing is to make an objective and accurate review that is beneficial to the community. The wallet about which the review is made; If they are in negative behaviors and this situation can be supported by evidence, this reviewing is a very valuable reviewing for the community. And the wallet that does this will be rewarded for this review, according to the trust protocol.

What is the Benefit of Making a Review for the Wallet?

As a wallet in the community, review will help you decide on your next transactions with that wallet. However, any review, positive or negative, is a positive value according to the trust protocol and it will increase your trust score.

Of course, in almost every community, there will be those who do not want to follow the community rules and want to use it for their own benefit. This is the natural flow of life. By doing a review, you will be blocking these manipulators both in your own name and on behalf of the community. The basic meaning of this is; It will be to ensure that the community on which the transaction is taken is safe. Finally, as a single wallet, you will be able to transaction with the confidence of being in a safer community.