



# Karbon14

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Whitepaper

V 1.0



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Karbon14 is the first application to use blockchain benefits to create Proof of Life Certificates. The information that will be used to create the Proof of Life and the certificates, will generate a unique hash that will be saved in a Smart Contract. For greater security and protection of personal data, Karbon14 won't store and save any data of the user.

Karbon14 goal is to offer the possibility of create Proof of Life Certificates in a fast and simple way. A Proof of Life Certificate for Karbon14 consists in the information provided by the user, approved by Karbon14's crypto notaries and persisting in the blockchain.

Karbon14 wants as a final end to develop a decentralized community by creating a new utility in the blockchain. Exploring an unusual way to provide a new service for the realization of Proof of Life.

The Proof of Life Certificate is an immutable document, so it can't be altered. That is to say that they can be used by entities that require a Proof of Life to start operating, or for institutions that demand in a certain amount of time the renewal of those certificates.

One of the main objectives of Karbon14 is that users shorten waiting times, acquire a reliable and easy to use service, with the reassurance that their data will be secure, absolutely immutable, available all the time and that will last over time.

**The potential of Karbon14 has no limits, since it is unexplored territory and without actors in the market yet.**



## What is Karbon14?

Karbon14 is an open source project that aims to create the first decentralized platform to perform Proof of Life Certificates. Due to the rise of cryptocurrency applications, validation of user information is required, which is simply a Proof of Life. The Proof of Life is an indisputable certificate that confirms the existence of that person.

## Problem Definition

Today's digital world lacks a credible identity system that is universally consumable and trusted by counterparts in all industries. Getting all industries, governments and consumers from hundreds of jurisdictions to agree on one framework is a challenge. Right now, users need a long time to provide the information to the different petitioners, because in most cases they are not prepared to create their Proof of Life.

But this problem will be solved with Karbon14 having his different types of Proof of Life in one place, avoiding in this way, repeating again and again the same procedure with the different entities that need the certificate. Karbon14 aspires that this Proof of Life Certificate will be a valid document in governmental entities. Thanks to Karbon14 we could:

1. Facilitate the possession of identity for people
2. Establish massive consensus on the verification of real identities
3. Leaving behind centralized systems, as they are not reliable in the long term due to political and security risks
4. Maintain identities constantly validated and updated
5. Expand mass adoption by different stakeholders

**Governments around the world and industries are desperately looking for a solution and Karbon14 can help solve it.**



## What is a Proof of Life?

Karbon14 defines the Proof of Life as the process to confirm that the person in question really exists and that he is alive. Karbon14 will verify that past information is consistent with present data.

We could take as a reference that the information of the past are certificates or documents provided by a government agent testifying their identity, and that those are congruent with their present data provided by the same user.

## Stakeholders

### Governments

Governments usually ask citizens for some type of certificate or document that corroborates the existence of that person when making a sort of procedure.

In general, the method is characterized by being excessively bureaucratic, slow and inefficient. Generating a highly frustrating process for people and a huge waste of time.

**A tool like Karbon14 will allow governments to leave behind the centralized and analogical system that now counts and will avoid the risk of losing the physical documents generated today by citizens.**

It is important to mention that the above has already happened countless times when climatic or imponderable disasters such as fires have affected public buildings where all that citizens sensitive documents are storage, resulting in their partial or total loss.



## Cryptocurrency Exchange Applications

As mentioned above, the constant progress of cryptocurrency applications makes necessary at the time of the transaction, to validate user data. That is to say, a Proof of Life.

**An application such as Karbon14 will allow cryptocurrency applications to incorporate a secure and easy-to-use validation system.**

## Users

For users, a system like Karbon14 will directly benefit them when creating the Proof of Life, by giving them a great agility to do it. Which represents a significant saving of time, since they won't have to repeat the same procedure over and over again with the different entities that ask for it.

## Fintech/Banks

Currently a lot of Banks, are making major changes in Digital Banking, always trying to improve user experience. One of the ways to do this, is through the possibility to create an account, accessing loans or making transfers, completely by a digital medium, usually called Home Banking.

For such a thing, Banks needs a Proof of Life or certification of it as a fundamental requirement prior to operating. Thanks to Karbon14 digital banking world could further improve the experience and the approach of people towards the digital use of it.



**Vitalik Non-giver of Ether** @VitalikButerin

Another day, another blockchain use case.

9:01 PM - Jun 25, 2017

2,520 978 people are talking about this

## Mass Media

The instantaneity and decentralization of social networks makes it possible for anyone to spread a rumor and make it viral. In this way, in a matter of minutes, you can spread false news about the death of a famous person or recognized by society.

The chaos of the news can make media didn't verify correctly the truth of it, thus incurring in the coverage of a false news. Thanks to Karbon14 media will be able to check in real time, the rumor viralized through social networks, quickly reached the truth of it and report correctly. This will be useful to deny the rumor or as to confirm it. Thanks to Karbon14, the person involved or affected by this false news will be able to create their Proof of Life certificate quickly and easily.

Having the possibility of denying almost immediately the false news. We can show as an emblematic antecedent of this, the case happened to the creator of Ethereum, where he discredited the false news of his death with a photo of him next to a paper where the last block of Ethereum mined until that moment was written.



## Information Security with Karbon14

In the blockchain the information is stored in blocks, which are linked to each other identified by a hash generated next to a timestamp. All that information is immutable, that is, nobody can modify it. And even more is replicated throughout all the nodes that creates the network.

Karbon14 will create an smart contract that will be stored in the Ethereum blockchain to achieve privacy and information security. Smart contracts are ideal for conducting micro-transactions guided by events verifiable by the network. Karbon14 is the first application to use the benefits of the blockchain to create Proof of Life certificates. When you create your Proof of Life certificate with Karbon14 your data will be transformed into a hash code and that hash will be saved in a smart contract.

**It should be noted that no personal data will be stored in the smart contract, avoiding in this way the exposure of user's data.**

Karbon14 will create a validation protocol for the hashes to authenticate the Proof of Life certificates. As well as several tools will be created that will use the protocol to allow validation from different platforms.





## Benefits

The fact of having an application that creates Proof of Life Certificates through a decentralized system entails various benefits to the different actors involved:

### Shorten waiting times

Karbon14 main goal is that users reduce waiting times, acquire a reliable and easy to use service, with the reassurance that their information will be secure, highly available and will last over time. We will solve this by using the blockchain, which will provide us with a decentralized network.

### Security in the information provided

As mentioned in the Security Information section, an application such as Karbon14 will ensure that people's information are unmodifiable by third parties. Therefore, users and the requesting entities can be sure that the certificates are 100% real, that people's data is reliable and is completely protected.

### Trust for companies or entities

We will solve this with a scoring system. The most remarkable thing about the scoring system is that it will be totally decentralized. The certificates will have a score according to the chosen level, therefore the applicant institutions will be able to check person's profile score, thus giving the necessary confidence to take these certifications as valid.



## How does Karbon14 work?

Karbon14 use blockchain benefits to create the proof of life certificates and at the same time will take advantage of the potential of smart contracts to achieve privacy and security of all users information.

Karbon14 idea is to be able to create Proof of Life Certificates that the different entities request from the users. Basically a Proof of Life Certificate for Karbon14 consists in information provided by the user, approved by the crypto notaries from karbon14 and persisting in the blockchain.

To this end, a notary system will be implemented, which will approve family relations. In order to create this process, the user will be asked for a birth certificate or, failing that, verifiable documents to authenticate the family relationship. The notary will be composed by network users who will exercise the role of notaries, executing this action by means of an affirmative or negative vote. These notaries will exercise their vote without knowing who their counterpart is, this will guarantee that the vote is not consensual, but totally independent so notaries should be an odd number. To do this procedure, users involved must offer a monetary reward in Karbon14 tokens.

**To create the certificate, Karbon14 will use different tools, let's see them below:**

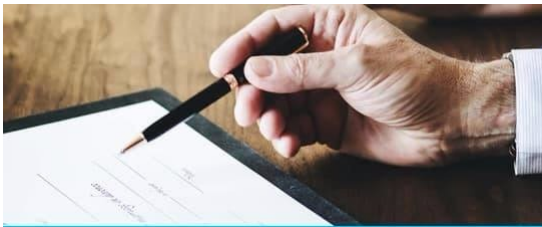
1. Proof of Life Certificate
2. Cripto Notaries
3. Cripto Notary License
4. Proof of Life Explorers
5. Karbon14 Wallet
6. Family Tree



# 1.

## Proof of Life Certificates

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The Proof of Life Certificate is immutable, so it can't be altered. This feature means that they can be used by entities that require Proof of Life to start operating. Another characteristic presented by the Proof of Life Certificates is that they have different levels of validation. Generating from simple proofs to more complete proofs as needed by the user or entity that will validate this Proof of Life. Certificates levels are related to the requesting entity, since it has its own levels of security.

For this reason Karbon14 will provide the possibility to create different types of Proof of Life. According to the security level requested, the Proof of Life will require having fewer or more steps to complete it. Each certificate will have a score according to the chosen level. Once validated in the network, it will contribute to add a score in your profile. With this feature Karbon14 seeks to create a reputation for the user with their Proof of Life.



# 2.

## Crypto Notaries

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As in the daily life the governmental entities are the ones that verify that a person is still alive, crypto notaries will fulfill the same role but in a decentralized network. That is to say, that its main objective will be the verification of the Proof of Life that are sent to it.

It is important to highlight that each time a Karbon14 user requires to validate a new Proof of Life, that validation to be done in blockchain will require a minimum of 3 crypto notaries to get the approval, this will be given only if there is a positive consensus by the crypto notaries in the voting.

Karbon14 will offer a list of registered notaries in the system. Users will have this list available and will have any of these notaries ready to send their Proofs of life and their subsequent validation.



### 3.

#### Cripto Notary License

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Karbon14 will give the possibility to any user of being a crypto notary by acquiring a license for this purpose, which will be paid with Karbon14 tokens.

Notaries will have the ability to establish the value of the Proof of Life validation. This value will be charged to the user with Karbon14 tokens. The crypto notary will be a holder of Karbon14 tokens and will generate profits as he keeps validating Proofs of Life.



# 4.

### Proof of Life Validator

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Karbon14 will create a Proof of Life Validator that will use the validation protocol developed for this purpose.

In conjunction with the protocol, different tools will be developed that make use of it, to provide the possibility of validate the proof of life certificate on multiple platforms and devices.

Allowing easy adoption of the solution proposed by Karbon14 to be integrated into third-party applications and developments.



# 5.

## Karbon14 Wallet

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Karbon14 will create a multiplatform application so users will be able to manage their Proofs of Life, visualize them or create a new one. The application will be continually updated by the new features that we will develop.



There are several use cases for Karbon14, here are some examples in which Karbon14 could be used.

### **Birth Certificates**

It could generate the first Proof of Life from birth. This can be done by government agents or parents.

The objective is to safeguard the document in the blockchain. This could establish a degree of relationship in Karbon14 family tree.

### **Fake News**

Nowadays thanks to how social networks handle the information, we often see fake news about public persons death.

For example, we can take the case of Ethereum founder, Vitalik Buterin, who made his Proof of Life on Twitter. This could have been easily disproved with the use of Karbon14.

### **Proof of Life for Government Agent**

Generally to obtain or keep having some benefits from the state, people are asked for a Proof of Life, Karbon14 could be the one that provides the state with the Proof of Life of the applicant.

### **Streamlining and Reusing a Proof of Life**

The crypto currency transaction sites usually ask the user for evidence that the person is who claim to be, this can easily be done with a Proof of Life from Karbon14.





# Karbon14

Karbon14 es una herramienta única en el mercado, que viene a proponer algo totalmente disruptivo e innovador que ayudará enormemente tanto a las personas como a las instituciones, a ahorrar mucho tiempo y mejorar los sistemas centralizados existentes actualmente.

Governments will be able to modernize their services, expedite the management of procedures and, above all, provide a better experience for citizens. Karbon14 will allow to decentralize the document generation such as Proof of Life Certificates.

**Investing in Karbon14 is to join the first decentralized platform that creates Proof of Life Certificate. It is a totally surpassing project with immense potential. Being an unexplored territory and without actors in the market, its limit doesn't have a visible horizon.**



## Budget Use

The funds raised during the Contribution Period will be used only for the development of the Karbon14 application. The following is an estimated budget that represents the scenario in which all of the investment sought is achieved:



**50% Community:** Is sure that a strong community can achieve a very large project. That is why a big part of it will go to listen to the community, talk, have meetings, and all kinds of actions that will make the community to multiply.

**30% Development:** An important part of the budget will be used for the development of the applications and everything required to achieve the best product.

### 10% Founders

**7% Marketing:** This percentage will be use to the construction of the community and will help reach the general public through traditional channels and social networks.

**3% Airdrop:** A karbon14 is interested that its users are more than satisfied with the platform and its founders, for that reason it was thought to allocate 3% of the generated tokens will to the Airdrop

## Crowdsale

Total token crowdsale	3,600,000,000 K14
Soft cap	15,000 ETH
Hard cap	60,000 ETH
Token value	1 ETH = 30,000 K14
Token type	ERC-20
Token name	K14



This Whitepaper describes the main functionalities of the first Karbon14 prototype. As such, it may be subject to modifications during the development of the application, mainly due to security issues. Therefore, it can undergo modifications, distancing in this way in some points with the initial proposal thrown in this Whitepaper. This Whitepaper is not subject to any legal requirement or legislation.

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An investment represents an independent risk for investors funds, whose capitalization of royalties results in an uncertain future and which its economic development is solely and fully the responsibility of investor's decisions. The investor is also aware of the total loss of said investment.

Any possibility of legal claim against Karbon14 for the aforementioned as well as against part of its members, employees, representative or affiliated companies is excluded.



### **Proof of Life**

Process in which it's verified that the data of the past is congruent with the present information. Confirming that the person is who they say they are, and that they are currently alive when they make the life certificate.

### **Cripto Notary**

The Cripto Notaries will certify the data sent by users. They will have the responsibility to approve or reject the information.

### **Proof of Life Certificate**

A Proof of Life Certificate for Karbon14 is a document consisting of information provided by the user, approved by the crypto notaries and persisting in the blockchain.

### **Karbon14 Wallet**

A multiplatform application so that users can manage their Proof of Life, visualize or create a new one.

### **Proof of Life Explorer**

Tool that will allow users to provide their data quickly and easily to the institution who ask for the certification.