# Karbon14

Whitepaper
V 1.0

# Index

Karbon14 is the first Startup using the benefits of blockchain technology to create Life Certificates which will allow users to validate proof of life that could be used for financial services such as receiving pension benefits and annuity payouts among many other things.

The goal is to offer an efficient way to create life certificates making formalities quicker and more convenient, at the same time making all of your private information more secure. A life certificate is a document that cannot be altered and can be used for companies or entities when they need proof that you are still alive or in some instances when a valid form of identification is required.

One of the main objectives of this project is to add value to the blockchain while simultaneously creating new utility. Karbon14 is exploring a field on the cutting edge of technology, where the priority is to keep the sensitive information safe and secure.

Almost all entities require a form of identification to be physically shown and for people who are retired, have disabilities or simply live out of their country of origin this can become difficult. Since the blockchain technology is so secure it can be used as a means of international identification, it can allow the user more freedom and convenience. Centralized Information is more of a serious threat to modern society than most know or understand. It compromises financial institutions, all large data centers and many daily necessities due to the ease of hacking and this is where blockchain draws one of its major advantages. Karbon14 recognizes this major and is striving to eradicate the world of this serious problem and the idea is to make Karbon14 the dominant provider of life certificate verifications in the world.

**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, the goal is to create a startup that uses blockchain technology to issue Life Certificates. It will allow users to validate proof of life that could be used for financial services such as receiving pension benefits and annuity payouts among many other things.

Karbon14 startup will include features such as buy tokens, issue life certificates with different levels of information, apply for crypto scribe, among others.
Karbon14 does not store your data or any sensitive information. That is an important safety quality to highlight. The Life Certificates will not replace your physical documentation, such as passport, driver's licence or ID, you will still need them to travel go through airports and similar activities.
The scope of this project includes both developing and implementing Karbon14 Startup including its documentation. The fact that Karbon14 will reach people and companies from all around the world makes this project one of the most important ever to be developed.

## Problem Definition

Over the years, technology has revolutionized our perspective of the world. Technology has created amazing tools and resources, putting each person's most useful information at their fingertips.
The digital revolution has launched a new era of human empowerment and engagement across business, society and in every aspect of our lives.

When it comes to prove your identity and that you are alive, a Proof of Life might be required from governments, pension and insurance companies and other bodies may need to check periodically that the people they are paying have not died in order that they do not overpay annuities and pensions.
Where individuals are resident outside their country of origin, a Proof of Life may sometimes be obtained from a person's embassy in their country of residence by producing proof of identity such as a passport.
Also, pension is an essential source of income after retirement for senior citizens. It supports them financially during emergency and helps them look after their needs at this stage of life. One of the main requisites for the pensioners post their retirement, was to provide life certificates to the authorised pension disbursing agencies like the bank, following which their pension got credited to their account.

For obtaining a Life Certificate, a pensioner earlier needed to present himself/herself before the Pension Disbursing Agency or had the life certificate issued by authority where they served and had it delivered to the disbursing agency.

Karbon14 is willing to solve this problem. The idea is to issue a valid Proof of Life that the user can use as much as needed. It is a simple and easy way to provide your sensitive information and make sure that it will not be changed or stolen. Karbon14 will have different levels of certification, providing a design that works best for each specific need. With this, you will be able to:

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*

## What is a Proof of Life?

It is very important to understand the difference between "Proof of life" and "Proof of Identity". A Proof of Life (also called Life Certificate or Letter of Existence) it is a certificate produced by a trusted entity to confirm that an individual was alive at the time of its creation.
It is a natural action for any concerned family or company, as well security consultancy to take. Pensions and insurance companies may need to check periodically that the people they are paying have not died in order that they do not overpay annuities and pensions.

Where individuals are resident outside their country of origin or traveling around the world the Certificate of Life may be required very often.
While a Identity Certificate a document such as your driver's license, and it proves your identity, a life certificate goes beyond that, not just proving that you are who you say you are, but also proofs that you were alive and at the time you issued it.

## Stakeholders

### Governments

Once a year (or even more often, depending on the country) pensioners receive the form "Life Certificate" requesting confirmation that they are still alive. The pensioner must personally sign this form and have his/her signature certified by an authorized agency or authority of their country of residence.

The pensioner must prove his or her identity by presenting a valid ID. This includes a driver´s license, a senior citizen ID card, or a non-driver´s license. A valid passport may, but does not need to be presented. If the pensioner is unable to personally sign the life certificate (e.g. due to illness and/or incapacity) the process becomes even more complex.

The certification for a Life Certificate may be performed by a notary public, a Social Security Administration office, or physician. The Embassy or a Consulate General may also certify a life certificate.
However, all of this is a long bureaucratic process and the result may even take more than expected.
This project could be used by governments to receive certified and legal Proof of Life, making all of the formalities easier for seniors, disabled citizens and even those who live out of their country of origin.

**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

Due to rising interest in the crypto world, verifying your identity has become a common practice on most cryptocurrency trading sites nowadays, in order to prevent activities such as money laundering. Especially if you're a newcomer or struggling with daily withdrawal limits you will have to show your real ID card in order to verify your account.
Karbon14 will allow cryptocurrency apps to de a very easy and simple validation, with all of the sensitive data safe and secured.

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

## Senior citizens

As it has been explained above, once a year (or even more often, depending on the country) pensioners receive the form "Life Certificate" requesting confirmation that they are still alive. The goal is to offer an efficient way to create life certificates making formalities quicker and more convenient for retired people, specially those who have disabilities or simply live out of their country of origin.

## Fintech/Banks

The way incumbent banks onboard and verify the identities of their customers online is inconvenient and insecure, resulting in lowered customer satisfaction and loyalty, and security breaches leading to compensation payouts and legal costs. At the same time, this approach doesn't gain banks much, since the verification methods they use to remain compliant can actually end up compromising customers' personal data.
As trends toward mobile banking and decentralization of access meet increased information around identity and advanced analytics, opportunities are being created which will enable customers and providers of financial services to interact in new ways including any technological innovation in the financial sector.

**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 discredit 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.

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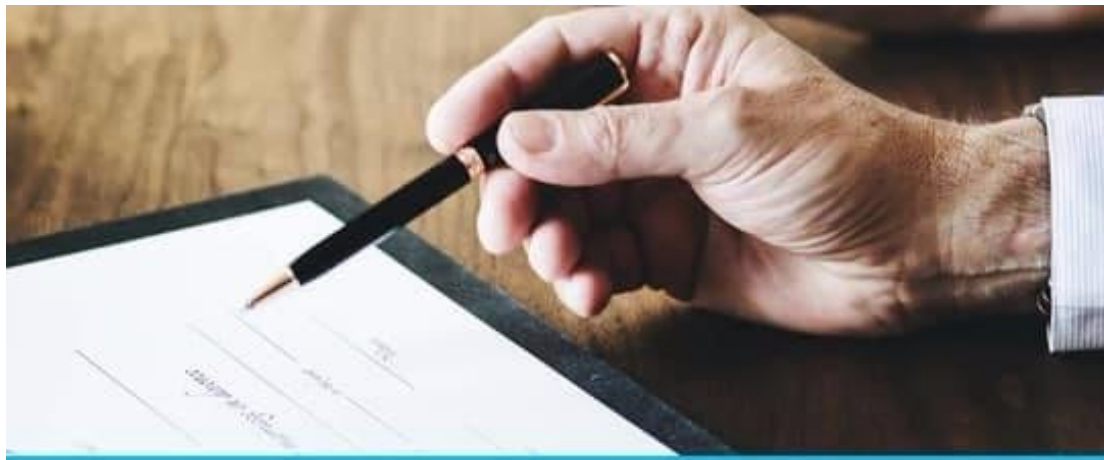
## To create the certificate, Karbon14 will use different tools, let's see them below

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

—



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

—



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



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
—



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

—



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 is a unique tool in the market, which comes to propose something totally disruptive and innovative that will greatly help both people and institutions, save a lot of time and improve existing centralized systems.

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.**

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
■ 30% Development
■ 10% Founders
■ 7% Marketing
■ 3% Airdrop
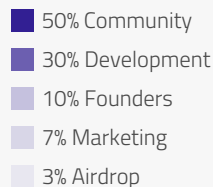
**50% Community:** Is sure that a strong community can achieve a very large project. That is why a big part of it will go to listen to the community, talk, have meetings, and all kinds of actions that will make the community to multiply.

**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 |

# Legal Statement

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.

Everything cited in it is not subject to any type of investor protection or security in transfers. This applies without restriction to all types of law or legislation. Karbon14 does not assume responsibility or guarantees for the information shared by the user. Likewise, this Whitepaper does not endorse the requests or declarations of guarantees from any investor or of any other legal or contractual guarantee regarding a relationship with the investor.

Any prediction, specific data, or estimate contained in this Whitepaper do not constitute factual statements, according to the information provided and how the final development of the implementation may result.
The statements made do not validate the user to make legal disclaimers in relation to the discounts, offer and sales promotions token in the aforementioned Whitepaper, in the event that they come to differ with how it was finally implemented by Karbon14.

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.