

# Giracoin Platform - Technical Whitepaper

IT

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## ABSTRACT

Giracoin Platform aims to become the reference digital-only network for Europe. Core feature of the platform will be the cryptocurrency, that is to say a digital token built on top of the Blockchain, a distributed database.

## INTRODUCTION

Giracoin (the name of currency) will be secured by two different consensus mechanism, both running SHA256 as hashing algorithm (the same that underlies Bitcoin): Proof of Work (PoW) and Proof of Stake (PoS).

Proof of Work consists in supporting the network by solving mathematical problems, using dedicated hardware (a.k.a. Miners, specifically ASIC miners for SHA256 algo).

Proof of Stake is still solving a mathematical problem, but it does need much less computational power and it requires to have a positive balance available into the wallet. It should be done using normal CPU/RAM and it is suitable for Desktop and Servers.

Proof of Work will be performed internally by the Giracoin Company, preventing attacks and ensuring fair coins distribution. The Proof of Stake, on the contrary, will be performed by every user in a distributed way. On the long-term, this will ensure that neither the Company nor the community of users will be able to take control over the network, because none of them, alone, has enough power to complete an attack.

The distribution will be performed selling mining power used to support the Giracoin Blockchain, ensuring a fair distribution (fair distribution doesn't mean equal distribution, fair is to say that all users follow the same flow to get

Giracoins and they all have the same chances and the same opportunities to get them). During the distribution period, no wallets but the Web Wallet will be available, thus having only PoW in place.

As soon as the distribution is considered spreaded enough (expected time: 4 months), the Company will release the other wallets (Desktop and Mobile), allowing users to withdraw some of their coins from the Web Wallet (where PoS cannot be done) to their Desktop Wallets, leaving on the Web Wallet only the balance that they are going to spend in the short-term (indeed, the Mobile Application will perform payments authenticating on the Giracoin Platform).

## CRYPTOCURRENCY

The Giracoin platforms core feature is the Giracoin cryptocurrency (GRC from now on). As a real currency, it is a token used to exchange value, as well as a good asset to store value in the long term.

## SPECIFICATIONS

**Money supply** 21'000'000'000 Coins

**Hashing algorithm** SHA256 (same as Bitcoin)

**Consensus algorithm** PoW/PoS

**Block time** 60 seconds

**Difficulty retarget** 3600 seconds

**PoW block reward** 2600

**PoS min time** 604800 seconds

**PoS max time** 15552000 seconds

**POS : 7 - 90 days** 1.5%

**POS : 90 - 120 days** 1.6%

**POS : 90 - 180 days** 1.8%

**Min tx confirmations** 4

**Min fees** 0.00000002 GRC/byte

## **MINING**

First mining phase will start with approximately 1. October with an significant amount of TH/s, which will be increased during platform lifetime to meet both user demand and network security (the latter to avoid 51% attacks). Mining will be totally performed internally and Desktop Applications wont be able to do PoW (only Proof of Stake will be allowed). This is mainly to prevent attacks and keep control over the network.

## **GIRACOIN DISTRIBUTION**

For Distribution users can exchange Tokens from Giracoin Platform against Giracoin (GRC). The Exchange rate itself is based on difficulty, powercost per TH/s and  $\chi - \chi$  itself is a matter of calculations that will be done during the initial phase of the launch and is to be defined.

## **SERVICES**

The Giracoin Platform makes the blockexplorer publicly available through <https://blockexplorer.giracoin.com> any other current or later services will be either directly routed through <https://giracoin.com> or an subdomain.

## **WEBWALLET**

The webwallet will be accessible through <https://girabanking.com> while <https://giracoin.com> itself is only the Platform for Mining. Girabanking will be the main Platform which will also have the related API for Payments services accepting Giracoin.

## **DESKTOPWALLET**

Desktop wallet which makes you as user eligible to run Proof of Stake will be published on January 2017, until then you have only access to Webwallet through Girabanking.

## **DISCLAIMER**

Take in count that this whitepaper is a initial draft and the information provided here might change until to launch of the platform itself until october 2016.