

White Paper

2018 Curecoin Model (White Paper draft)

Our Mission

Curecoin aims to increase the maximum potential of Distributed Computing Networks (DCN) around the world that are searching for important answers to medical, scientific, and mathematical problems by incentivizing the donation of computational resources, such as GPU's and CPU's. Incentivization is done through the creation of a unique blockchain which rewards this research.

Since our inception in 2014 the Curecoin DCN team has grown to produce more than half of computational power for the largest research based DCN on earth, Stanford's Folding at Home project. Some estimate the Curecoin team produce as much as 45 PetaFlops of computational power, completely dedicated to research. In comparison, USA's fastest supercomputer, IBM's Titan, only produces 17 PetaFlops nominal and 24 PetaFlops at peak, 2-4 times slower.

What is Curecoin?

Curecoin is a Bitcoin-like digital token designed to reward those who create computing power for the DCN. It uses decentralized blockchain technology to allow unlimited and nearly free exchange of Curecoins on the Curecoin network

How are We Different?

Curecoin's current model is based closely on the Bitcoin Proof of Work (PoW) model, but with a few key differences. Unlike Bitcoin's PoW system that uses miners to hash mundane mathematical problems to secure the blockchain; Curecoin uses the automated distribution system from cryptobullionpools.com to reward miners who contribute computational power to our select DCN(s), a fair share based on the percentage of the computational power they give to the network. We then use a Proof of Stake (PoS) system, similar to PeerCoin, to reward those who contribute to the security of the blockchain which is a much more (environmentally) efficient way to secure the blockchain.

For further distribution details, please see:

“How are Tokens Divided Up” and “Details on Pre-mined Coins and Future Mintage”

Currently the Curecoin team has only one DCN, Stanford University's Folding@Home project. However Developer Maxwell Sanchez has been working on a new system to introduce more DCNs to our system and we will announce in more

detail about these as they develop. This expands our focus beyond Folding@Home, creating a versatile rewards system for DCNs of many types. This new, secure system is cutting edge in its technology that we believe it will resist to attacks, even from quantum computers, due to the use of cryptographic primitives which aren't based on mathematical trapdoor functions.

The Curecoin 1.x technology continues to undergo development lead by Joshua Smith along with developer Steven Saxton, and also Maxwell Sanchez. Features that have been added since launch include better seed node resolution, fork prevention and checkpointing upgrades, an "Easy Stake" user friendly update, UI improvements and more. There is development started for advanced features such as document storage and accounting features.

Our Ecosystem

Curecoin, like other similar platforms, can be used for General Exchange and exchange for goods or services. This means that the theoretical use case is unlimited.

In reality, it will take focused efforts to introduce acceptance in various areas. Early business applications may focus on Healthcare and Medicine, rewards like Gift Cards, and technologies such as GPUs, allowing users to put their rewards back into powerful hardware to continue the cycle.

With the introduction of coinpayments.net anyone in the world is now able to send or receive Curecoin and other digitals items as form of payment in stores around the world.

Our Team

Curecoin Developer Joshua Smith developed the original concept in early 2013, and he was joined soon after by developer Maxwell Sanchez. Together, they created the version of Curecoin that launched in May 2014. Maxwell is now leading the charge on the technical side of the next iteration of Curecoin 2.0.

Shortly before launch, they were joined by Jake Wiser and Curtis Chapman, who took up the mantle of networking. Around this same time, Mike McMullen joined the project as the Webmaster and technical writer. Since then, Ivan Tuma, Jr. has also joined the team as a technology advocate, spreading the news of Curecoin.

In 2018 the core team is now composed of 14 people, with additional active community assets.

Community building

A clear focus for our target users, as well as our methods of incentivizing, is crucial to the project.

The initial focus community for participation in the network is cryptocurrency miners, gamers, and computing enthusiasts. These groups represent enormous amounts of largely un-utilized or underutilized computational power. The Script mining boom saw an unprecedented run on GPUs – many of which now sit idle as the price of Script-based altcoins has dropped. Other algorithms continue to go through a similar cycle of cpu > gpu > asic mining as well. Gamers use their GPUs only part of the time – why not put them to valuable work when idle?

Putting Curecoins to use is our other key focus. Rather than attempt to compete directly with Bitcoin, the juggernaut of the arena, Curecoin aims to develop its own niche. It can be a reward for corporate health initiatives, redeemable in a “company store” of rewards for those employees who earn it through improved overall health. It could also be accepted as payment for Healthcare Services, or medical devices and supplies. Computing hardware companies can accept Curecoin for purchases or in return for rewards, a marketable approach partially proven by EVGA Bucks, allowing users to improve their systems and get new hardware to give back even more to the DCNs.

2014 – 2018 Achievements

Our premise has been thoroughly proven in the short time the project has been live. In 6 months, Team Curecoin shot up to the #5 spot in the all time rankings of total contribution to Folding@Home, surpassing many teams which have been at it for decades. The raw computing power that drove this shift is but a tiny fraction of what is available amongst miners and gamers. And that was just the beginning – by mid 2017 the Curecoin system has taken the #1 spot in total contributions of computational cycles provided to folding@home research. Q2 2018 puts Curecoin team at roughly 20x the total production of any other DCN team and more than half of the total DCN.

Operations

The relatively low operating costs of Curecoin’s highly autonomous blockchain systems mean that Curecoin development can be self-funding and self-sustaining. The team members and community members receive some Curecoin from a “Dev Funds” created at inception (Dev Fund is released as 3% of weekly mintage on a time release basis), though this is largely symbolic – we do what we do because we believe in the future of Curecoin’s potential to accelerate DCN’s and many forms of research.

Additional work continues for Curecoin, enabling the team to be present at cryptocurrency and technology conferences, university visits (to discuss onboarding additional DCNs), advertising, and more. Work to increase these efforts is underway.