BLUEPAPER

Actinium

Building and Supporting the Lightning Network

Contents

Who We Are

➢ Actinium began as a hobby project, designed & written by a single developer. This project was created mainly to provide direct competition to the overwhelming influx of scams, shady developers, and blatant abuse of open-source technology.

➢ The Actinium Network was launched on April 25th, 2018, with no pre-mine, no pre-sale, no founders rewards, and the development team owns *no significant share* of (ACM) coins.

➢ The Actinium development team has always been—and will always be—publicly visible.

➢ Actinium leverages the latest Bitcoin and Litecoin codebase with a heavy focus on the perpetual development of future technologies and the empowerment of users through an intuitive user experience.

➢ Actinium provides stability against volatile speculation through our highly-motivated development plan that prioritizes longevity over short-term price.

➢ Actinium was created for everyone because we believe that it is People who collectively determine the value to things. Therefore, a cryptocurrency must work for everyone in order to be of any value.

➢ The Actinium team takes pride in offering a truly ethical, motivated, and technologically advanced cryptocurrency.

Goals

- ➤ **Paper** Wallets & Address-Generators
- ➤ **Mobile Wallets** for Android & iOS
- ➤ **Hardware Wallet** Integration
- ➤ **Electrum Servers** & Clients
- ➤ **Tor** Integration
- ➤ **Zerocash** Integration
- ➤ **SegWit** & **Bech32** Addresses
- ➤ **Lightning Network**
- ➤ **Atomic Swaps**
- ➤ **Smart Contracts**
- ➤ **Exchanges**
- ➤ **Education** in Blockchain Technology, Security, and Lightning Network

Technology

➢ The Actinium codebase is built using the Litecoin code and follows the Bitcoin development branch.

➢ The Actinium development team continuously integrates the latest blockchain technology features like Segregated Witness, Bech32 addresses, Tor Libraries, Zerocash protocol, and numerous others.

➢ Actinium is actively implementing second layer solutions such as the Lightning Network by developing and porting tools for stable, easy on-boarding and adoption.

➢ Actinium has successfully integrated Tor libraries as well as the ZeroCash Protocol because we firmly believe Privacy and Anonymity *must* be available to every cryptocurrency user via user-friendly applications.

➢ Maintaining the Security and Safety of all user(s) funds is of the utmost importance. Thus, Actinium has full Hardware Wallet compatibility with Ledger Nano and Ledger Blue. (pending the approval of the Ledger HQ Co.)

➢ Actinium aims to support as many different miners as possible, therefore, we use the GPU-friendly Lyra2Z algorithm that works effectively with both NVIDIA & AMD cards.

➢ To further secure the network Actinium utilizes the Dark Gravity Wave v3 as our preferred difficulty-adjustment algorithm.
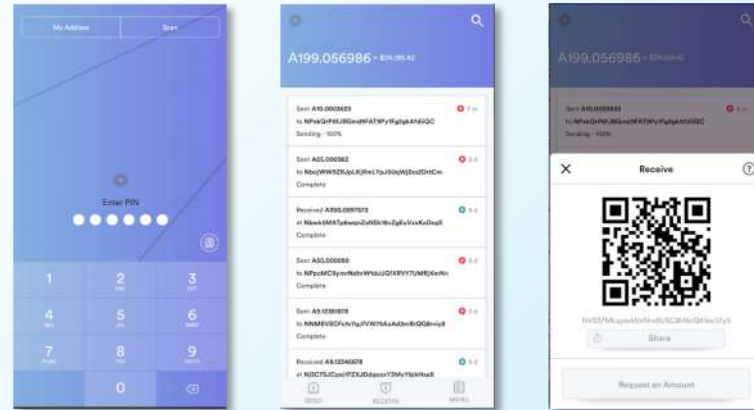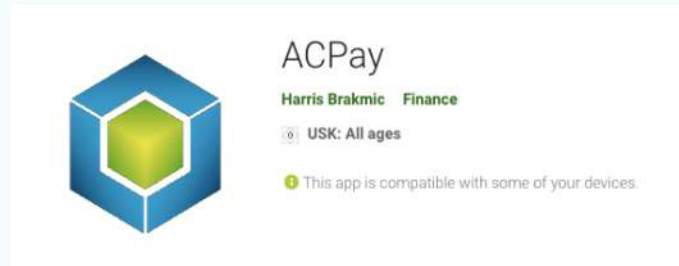
Specifications

➢   **Launched:** 25th April 2018

➢   **Fair Launch: no premine, no airdrop, no ICO, no "founder rewards"**

➢   **Mining: PoW with GPU (NVIDIA & AMD)**

➢   **Algorithm: Lyra2Z—since block 55,000**

➢   **Maximum Supply: 84,000,000 coins**

➢   **Block Reward: 40 ACM—halving every 840,000 blocks (approx. every 4 years)**

➢   **Block Time: 2.5minutes**

➢   **SegWit: active since block 64,512**

➢   **Bech32 Addresses: supported – prefix acm1**

➢   **Dark Gravity Wave v3 difficulty retargeting adjustment algorithm—since block 55,000**

➢   **Tor Library: activated with a single parameter - since version 0.17.5.0-BETA**

Mining

➢   Actinium uses Lyra2Z as a Proof-Of-Work Algorithm.
  ➢ **Advantages of Lyra2Z:**
    ➢ **Energy efficient algorithm**
    ➢ **Prevents GPU cards from overheating**
    ➢ **Lowers efficiency-gap between AMD and NVIDIA GPUs.**
    ➢ **Currently ASIC, FPGA, & Botnet resistant**
➢ **The Dark Gravity Wave v.3 difficulty readjustment algorithm**
  ➢ **Advantages of DGWv3:**
    ➢ **Proven to be more effective at stabilizing hash-rate than the 2016 block algorithm used by Litecoin & Bitcoin.**
    ➢ **Readjusts the difficulty every block; taking into account the calculations of the last 24 blocks**
    ➢ **Reacts quickly to large spikes in hash-rate.**
➢ **Future implementation of Merkle Tree Proof (MTP) algorithm**
  ➢ **Advantages of MTP:**
    ➢ **Further lowers the efficiency-gap between commodity GPUs and ASICs, FPGAs, Botnets, providing a foundation of Equality to all users.**

Mobile Applications

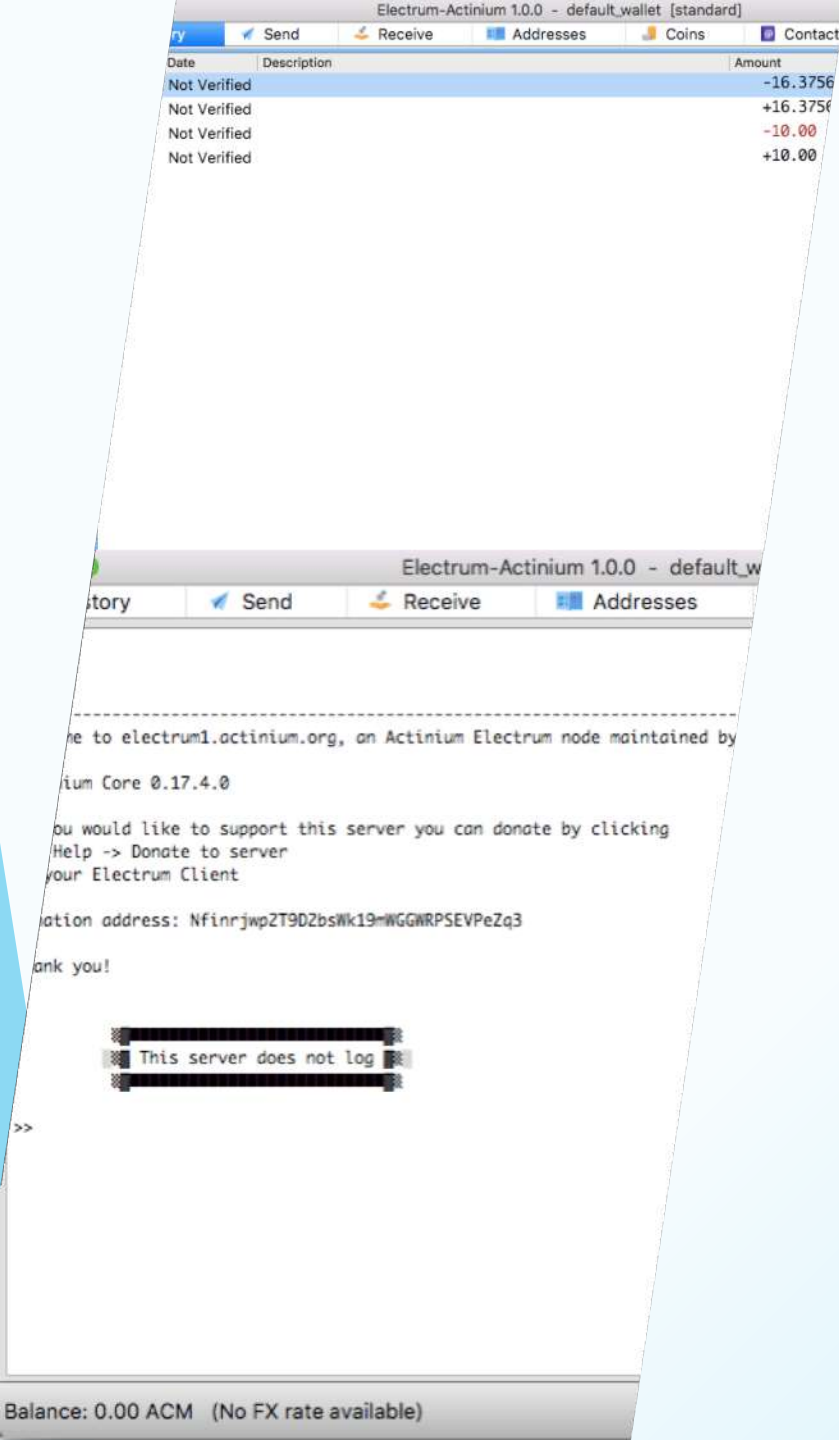➢ **Actinium Mobile Wallet is available for [Android](.)**

➢ **The iPhone version is currently in development.**

Hardware Wallets

➢ **Actinium is compatible with Ledger Nano S and Ledger Blue.**

➢ **We have successfully completed tests of our integration code.**
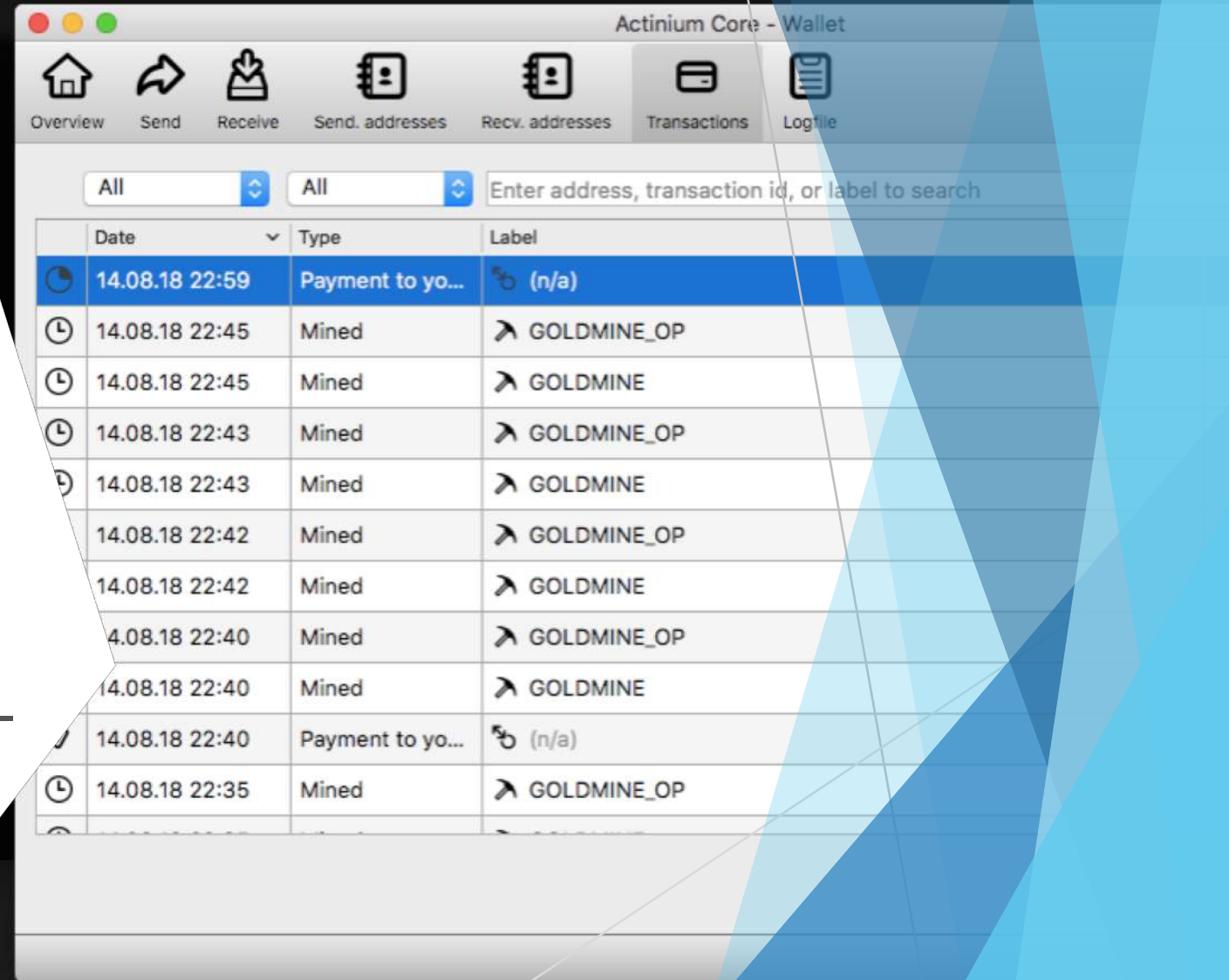
➢ **Awaiting Ledger HQ's final approval.**

	Send		Receive		Addresses		Coins		Contact

Date	Description	Amount
Not Verified		-16.3756
Not Verified		+16.3756
Not Verified		-10.00
Not Verified		+10.00

Electrum-Actinium 1.0.0 - default_w

story	Send	Receive	Addresses

e to electrum1.actinium.org, an Actinium Electrum node maintained by

ium Core 0.17.4.0

ou would like to support this server you can donate by clicking
Help -> Donate to server
your Electrum Client

ation address: Nfinrjwp2T9D2bsWk19=WGGWRPSEVPeZq3

ank you!

This server does not log

>>

Balance: 0.00 ACM   (No FX rate available)

Electrum Support

➢ **To make the using blockchains easier for our users we operate specialized Electrum Servers for Actinium.**

➢ **We also offer an alternative Electrum SPV Wallet.**

Tor Integration

➤ **Actinium has supported the Tor anonymity protocol since v0.17.5.0**

➤ **To activate Tor, users need only enter a single parameter into their configuration file—everything else will be done automatically.**

➤ **Additionally, we support Pluggable Transports to ensure censorship resistance against high-level Tor traffic blocking systems.**

Zerocash Integration

➢ Actinium is currently implementing the **Zerocash** **privacy protocol**.

➢ The **Zerocash** protocol fully anonymizes user transactions making the Actinium Blockchain impervious to chain-analysis.

➢ **Zerocash** enables confidential transactions by creating specialized Actinium coins that obfuscate any-and-all transaction data including transaction amounts, sender/receiver identification information, and more.

➢ **Zero-Knowledge Proofs** confirm the validity of confidential transactions without revealing any details.

➢ Actinium provides a seamless experience for converting, splitting, and recombining the specialized **Zerocash-ACM** coins alongside 'normal' **ACM** coins.

Lightning Network

➤ **Actinium's main priority is facilitating the adoption of the Lightning Network**

➤ **We have already successfully activated SegWit, a necessary protocol for Lightning Network support.**

➤ **Currently, we are developing & porting several tools that will be needed to manage specialized LN-nodes**

Links

- https://actinium.org
- https://github.com/Actinium-project

- https://paperwallet.actinium.org
- https://faucet.actinium.org

- https://explorer.actinium.org
- https://explorer2.actinium.org