

BCH Open-Source Pulse: Vol #4

Weekly Summary

This is the Fourth week of the BCH Pulse weekly developer newsletter. Existing projects have been updated. Two new projects have been added: Bitcoin Verde and BMP. Two new developers have been added: Joshua Green and Javier Gonzalez.

Chris Pacia - BCHD

Recently completed:

- * Added new RPC calls to the gRPC interface: GetUnspend, OutputGetMempool

Current work:

- * Add RPC calls to gRPC API to service Electron-Cash
- * Build an SLP index and RPC

Future work:

- * Reusable Addresses

Wants help with:

- * Need urgent backports and fixes from the Andriod-neutrino repo:
<http://github.com/gcash/android-neutrino/issues>
<http://github.com/gcash/bchd/issues>

Josh Ellithorpe - BCHD

Recently completed:

- * Mobile UI Changed green plus to light grey

Current work:

- * Add RPC calls to gRPC API to service Electron-Cash
- * Build an SLP index and RPC

Future work:

- * Reusable Addresses

Wants help with:

- * Need urgent backports and fixes from the Andriod-neutrino repo:
<http://github.com/gcash/android-neutrino/issues> <http://github.com/gcash/bchd/issues>

Tyler S - BCHD

Current work:

- * Coordinate reusable address spec meeting with other developers

Wants help with:

- * Implementing CashFusion and contributing to the CashFusion specification
- * Reviewing the following Pull Requests:
 - <https://github.com/gcash/android-neutrino/pull/31>
 - <https://github.com/gcash/bchd/pull/265>
- * CashShuffle library for Golang



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Jason Cox - Bitcoin ABC

Recently completed:

- * Minor Bug Fixes
- * Working on next release

Current work:

- * Building test infrastructure
- * Optimizing Code

Planned work:

- * Backporting Bitcoin Core patches

Wants help with:

- * Backporting improvements to the functional test framework
<https://github.com/Bitcoin-ABC/bitcoin-abc/blob/master/doc/functional-tests.md>
<https://github.com/Bitcoin-ABC/bitcoin-abc/blob/master/doc/backporting.md>
- * Improving Deep linking specification
<https://github.com/bitcoincashorg/bitcoincash.org/pull/145>

Jonathan Silverblood - Cashual Wallet

Working on:

- * Trustless smart contracts for merchants.

Future work

- * Cloud backup
- * Reusable Addresses

Wants help with:

- * Would be happy to help other projects with user interface reviews
- * Testing Cashual and giving actionable feedback
- * 3rd party BWC/BSW dependency libraries
- * Resolve bugs in bitcoincom fork of bitcore in order to get BIP70 working
- * There is an open issue at bitcore insight to add raw transactions:
- <https://github.com/bitpay/bitcore/pull/1881>

Axel Gembe - Electron Cash

Working on:

- * Improving UI polish
- * Make emojis consistent to enhance the UX of the user.

Would like help with:

- * Finding an NFC library that could be used with Electron Cash
 - * Fixing hardware support issues.
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Tom Zander - Flowee the Hub

Recently completed:

- * Double-spend proof up for review - <https://gitlab.com/snippets/1883331>

Working on:

- * Docker image

Future work:

- * Transaction builder
<https://gitlab.com/FloweeTheHub/thehub/blob/master/libs/utills/TransactionBuilder.h>

Wants help with:

- * Corresponding about toolkits and languages developers prefer to start new project in.
- * This would help give focus on which type of bindings to create.
- * Website translations and rewrite of the about-page with more documentation
- * Work on docker images and configs
- * Research on how to be able to quick-start a complex (multiple server) setup

Joshua Green - Bitcoin Verde

Recently completed:

- * Rewrote the logging framework to be configurable at the package level + to be able to be changed at runtime

Working on:

- * Running tests and looking for issues/bugs in newly written framework

Wants help with:

- * Providing a bloom-filter-like tx-index
- * Connection-pool quirk
- * Windows build

Issues:

- * <https://github.com/SoftwareVerde/bitcoin-verde/pull/2>

Pokkst - Crescent Cash

Recently completed

- * Redesigned the UI screen and removal of redundant/unneeded UI elements to make screens simpler
- * Internal code changes

Working on:

- * Add JSON RPC methods for SLP tokens
- * Refining the UI
- * Optimizing and cleaning up codebase

Future work:

- * Social features

Wants help with:

- * A better PHP library for Bitcoin Cash. Potentially look at forking bitcoin-lib-php
- * Java based wallet library akin to bitcore-wallet-client and bitcore-lib

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Calin Culianu - Electron Cash

Recently completed

- * implemented new BitPay 2.0 JSON API
- * libsecp256k1 now natively built and included in iOS app
- * Added Schnorr to iOS app which increases the speed of signing
- * Minor bug fixes
- * New release 4.0.9

Current work:

- * Optimize EC SLP to validate tokens faster
https://github.com/simpleledger/Electron-Cash-SLP/tree/graph_search_n_load
- * Enable SLP features in EC main client

Future work:

- * Reusable addresses

Would like help with:

- * Replacing Electrum backend for Electron Cash with something better and more performant
- * BCH UX Fix: Mandatory CashAddr for P2SH.
<https://github.com/Electron-Cash/Electron-Cash/issues/1225>
- * Reviewing zero confirmation forfeit from Awemany
<https://github.com/Electron-Cash/Electron-Cash/pull/964>

Imaginary_Username - Electron Cash Development

Current work:

- * Soliciting input for a reusable address spec
https://github.com/imaginaryusername/Reusable_specs/blob/master/reusable_addresses.md
- * Product design
- * Quality Assurance
- * Community needs
- * Create long-term strategies for the wallet
- * Assists in cashshuffle development
- * Runs various nodes for DevOps. (append .imaginary.cash after)
- * rest (providing full services with an almost completely independent backend)
- * bch bitcoin-abc, electrumx, p2pool
- * electrum BU, electrumx, cash-account
- * insight bitcore-insight, bitcore-insight-testnet, bitcore-wallet-service
- * cashacct cashaccount
- * slpserve SLPserve endpoint for SLPDB
- * bchd bchd
- * p2pool BU, p2pool
- * testnet bitcoin-abc-testnet, testnet explorer
- * sync EC labelsync, cosigner pool

Future work

- * Double-spend proof (on hiatus until BIP62 is in).

Would like help with:

- * Looking to recruit developers who are interested in doing toy implementations.

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Jonald Fyookball - Electron Cash Development

Working on:

- * CashFusion v2.0 specification
<https://github.com/cashshuffle/spec/blob/master/CASHFUSION.md>
-

AlwaysAn0n - CashShuffle.js

Working on:

- * Maintaining and improving library

Would like help with:

- * Review the behaviour of the ShuffleRound class using tests
<https://github.com/alwaysAn0n/cashshufflejs-web/pull/7>
-

Chris Troutner

Recently completed:

- * Released API documentation for Bchjs.cash
<https://bchjs.cash/bch-api/index.html>

Working on:

- * Integrating SLP into bch-cli-wallet
- * Adding Cashshuffle into bch-cli-wallet
<https://github.com/christroutner/bch-cli-wallet>

Would like help with:

- * Adding SLP token support to bch-cli-wallet
 - * Add support for SideShift.ai
 - * Add support for Cashshuffle
 - * troutsblog.com/about to explore the way IPFS and BCH can be used together.
-

James Cramer - Simple Ledger (SLPDB - Electron Cash SLP)

Recently completed:

- * Initial implementation of graph search in electron cash
- * Proof of concept to increase validation speeds for light wallets using SLPDB graph search; results gave a 250% increase
- * SLP List
<https://github.com/simpleledger/slp-list>

Current work:

- * SLPDB updates and improvements
- * Electron Cash SLP 3.4.15 release

Future work:

- * Coordinate security audit for SLP code/protocol

Wants help with:

- * Token document standards for NFTs and fungible tokens

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Jason Dreyzehner - Bitauth-ide

Future Work:

- * Build bitcoin-ts into a fairly complete library of BCH utilities for creating/debugging transactions. (A lot like bitcore-lib-cash, but a more FP approach rather than the object-oriented style, and without dependencies.)
<https://github.com/bitauth/bitcoin-ts>

Karol Trzeszczkowski - Inter-wallet Transfer Plugin

Recently completed:

- * Bugfix: Show if transfer was initiated; assistance from Calin
<https://github.com/KarolTrzeszczkowski/Inter-Wallet-Transfer-EC-plugin/issues/6>

Current Work

- * Gathering UI feedback

Future Work:

- * Custom icon

Mecenas Recurring Payment Plugin

Recently Completed:

- * Major bugfix: Some of the contracts inaccessible for protege due to wrong encoding of numbers; assistance from Tendo Pein and Mark Lundeborg
<https://github.com/KarolTrzeszczkowski/Mecenas-recurring-payment-EC-plugin/commit/53251c014c55f2024003bced47d30110a79523c9>

Current work:

- * More precise time estimation

Future work:

- * Increase performance when loading contracts

Shammah Chancellor - Cashweb Keyserver

Current Work:

- * Cashid tutorial
- * Keyserver spec finalization

Future Work:

- * Relay network support for keyserver nodes
- * Proof of Concept integration with Electron Cash

Would like help with:

- * Corresponding on wallet integrations, and other possible uses.
- * Code reviews, and pull requests for:
 - * Node peering
 - * Banning and rate limiting
 - * Real payment support (right not the server does not specify a payment as part of the BIP70 invoice)

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BCHan

Current Work

- * Started BCHan a tutorial project, and proof of concept, for an *off-chain* service using micropayments to pay for accounts and other service usage. The tutorial service is a simple image board.
- * Found a frontend developer and a designer

Future Work:

- * Implement backend API

Would like help with:

- * Implementing a CashID Library for Golang
 - * Any other interesting backend or frontend development.
-

Tendo Pein - Spedn

Recently Completed

- * Bugfix: Wrong encoding with negative numbers (Also found in Mecenaz Plugin)
- * Released version 0.1.2.

Current Work

- * Optimization

Future Work

- * Schnorr multisig support
- * Optimization techniques so the compiler could produce shorter scripts
- * Improved support for covenants
- * Macros

Would like help with:

- * Feedback and proposals about Spedn syntax.
-



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BCHD - Node Software

Website: <https://bchd.cash/>

Repo:

<http://github.com/gcash>

<https://github.com/gcash/android-neutrino>

<https://github.com/gcash/bchd>

<https://github.com/gcash/bchwallet>

Workspace:

https://join.slack.com/t/bchdhq/shared_invite/enQtNzAyODMzNTYyMDU1LTRkNTk5YWVvZDZkZGEzMzlkODIyZjRjOThlZjgzNGE1ODhmNGYxYzcxMzZkNWl2YjRjZWVhMjg2Njc1NGZjYjE

Language: Golang

License: copyfree.org ISC license

Overview:

- * Work to provide an excellent API experience to BCH developers
- * Combine full node, indexer, SLPDB, electrumX into one software app — BCHD
- * BCHD provides an address index for app developers + JSON-RPC and gRPC interfaces
- * BIP 157/158 to power Neutrino based wallets
- * Built a Neutrino android wallet beta and a command line wallet backend

Primary roadmap items:

- * Working with ElectrumX Protocol
- * Enhancing gRPC interface to support SLPDB
- * Finish and release neutrino android
- * CashAccount integration
- * Reusable Addresses

Bitcoin ABC - Node Software

Website: <https://www.bitcoinabc.org/>

Repo: <https://reviews.bitcoinabc.org/>

Mirror: <https://github.com/Bitcoin-ABC/bitcoin-abc>

Workspace: <https://t.me/joinchat/HCYr50mxRWjA2uLqii-psw>

Language: C++

License: MIT

Overview:

- *Implementing a series of optimizations and protocol upgrades enabling p2p cash at scale
- *Refactor various parts of the codebase and maintain infrastructure for the ecosystem
- *Primary roadmap items
- * Build out QUIC infrastructure
- * Implement Schnorr multisig



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Bitcoin Unlimited - Node Software

Website: <https://www.bitcoinunlimited.info>

Repo: <https://github.com/BitcoinUnlimited>

Workspace: <https://bitcoinunlimited.slack.com>

Language: C++

License: MIT

Overview:

The Bitcoin Unlimited organization maintains an open source full-node client for the Bitcoin Cash network in order to provide more choice to node operators and to add robustness to the network.

The organization supports continued growth and adoption of Bitcoin as a peer-to-peer electronic cash system as described in Satoshi Nakamoto's white paper.

Flowee the Hub - Node Software

Website: <https://flowee.org/>

Repo:

<https://gitlab.com/FloweeTheHub/thehub>

<https://gitlab.com/FloweeTheHub/devs/bitcore-proxy>

Workspace: <https://discordapp.com/invite/WXPcf6G>

Language: C++

License: GNU GPLv3

Maintainer: Tom Zander

Overview:

Flowee is a suite of servers that provide infrastructure that connects to a node hub. Basic infrastructure has been created for the hub and indexer. The current direction is to extend that but create something directly usable by app-developers.

Primary roadmap items

- * Develop a Bitcore-proxy insight server that reuses existing Flowee Infrastructure
- * Refractor bitcore into library functions
- * Create bindings from current C++ code to for a transaction building library
- * Design a double spend proof concept

Bitcoin Verde - Node Software

Website: <https://bitcoinverde.org/>

Repo: <https://github.com/SoftwareVerde/bitcoin-verde>

Language: Java

License: MIT

Maintainer: Joshua Green

Overview:

Bitcoin-Verde is a ground-up implementation of the Bitcoin (Cash) (BCH) protocol. This project is an indexing full node, blockchain explorer, and library. They are continuing to improve database indexing from both an informational, disk-space, and performance perspective. They are also focused on increasing stability, which includes improving handling misbehaving nodes.

Primary roadmap items

- * SLP transactions indexes
- * Preparing the SLP/SPV libraries for release

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Crescent Cash - Wallet Software

Website: <https://crescent.cash/>

Repo: <https://gitlab.com/pokkst/crescentcash>

Language: Java

License: MIT

Overview:

- * Non-custodial wallet
- * CashAccounts

Features:

- * SLP tokens,
- * BIP70
- * Cointext SMS

Primary roadmap items:

- * Refining the UI
 - * Optimize and clean up the codebase
 - * Social features
-

Cashual Wallet - Wallet Software

Website: <https://play.google.com/store/apps/details?id=org.monsterbitar.wallet>

Repo: <https://gitlab.com/monsterbitar/cashual-wallet>

Maintainer: Jonathan Silverblood

Languages:

- * Javascript
- * CSS
- * HTML
- * Cordova

License: MIT

Overview:

- * User friendliness
- * CashAccounts and UX
- * Non-custodial Wallet

Primary roadmap items:

- * Integrating BIP70/JPP payment support
 - * OP_RETURN metadata (CashIntents)
 - * Cloud backup
 - * UI for the backup/restore process
 - * Reusable Addresses
-



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Electron Cash - Wallet Software

Website: <https://electroncash.org/>

Repo: <https://github.com/Electron-Cash/>

Workspace: <https://t.me/electroncashwallet>

Language: Python

License: MIT

Overview

Improve privacy, features, and performance

Features:

- * Cash Shuffle
- * SLP Edition
- * BIP70
- * Cold storage
- * Schnorr signatures
- * HD wallet integration
- * Plug-in support is available.
- * There are also versions supported by iOS and Android.

Priorities:

- * CashAccount integration and registration into the client
- * Improved UI polish
- * Merging the SLP edition into the main client
- * Reusable address specification
- * CashFusion protocol

Bitauth-ide - Misc Software Projects

Repo: <https://github.com/bitauth/bitauth-ide>

Language: JavaScript

Maintainer: Jason Dreyzehner

Overview: Bitauth-ide is an integrated development environment for Bitcoin authentication.

Bitcoin Mining Parliament - Misc Software Projects

Website: https://virtualpol.com/BMP_EN.pdf

Repo: <https://github.com/JavierGonzalez/BMP>

Language: PHP

Maintainer: Javier Gonzalez

Overview: Hashpower voting software. Allows Authentication with hardware-wallet, real time chat, vote creation and rectifiable votes.

Primary Roadmap Items:

- * Connect BMP to multiple blockchains
-

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Cashshuffle.js Library - Miscellaneous Software Projects

Repo: <https://github.com/alwaysAn0n/cashshufflejs-web>

Language: Javascript

Maintainer: AlwaysAn0n

Overview:

A javascript Cashshuffle client for use in front-end web applications and the browser.

Cashweb Keyserver - Miscellaneous Software Projects

Repo: <https://github.com/cashweb/keyserver>

Language: Golang

License: MIT

Maintainer: Shammah Chancellor

Overview:

Provide a simple-to-use and cryptographically verifiable way to look up pubkeys, and other metadata, from their hashes. Enabling wallets to query a distributed network of metadata nodes to find out various information for contacting or paying the owners in a secure and private manner. Enabling off-chain correspondence for Stealth Transactions. Additionally, wallets managing a key can advertise special capabilities they support.

Primary roadmap items:

- * Get experimental support into a branch of Electron Cash
 - * Peer 2 Peer relay network for keyserver nodes
 - * Banning and Rate limiting
 - * Validating BIP70 transaction data
 - * Specification for key revocation
-

Consolidating Coinjoin - Misc Software Projects

Repo: <https://gist.github.com/chistroutner/8d54597da652fe2affa5a7230664bc45>

License: MIT

Maintainer: Chris Troutner

Overview: A trusted, central wallet, combining its UTXOs is equivalent to a CoinJoin. Consists of a command-line wallet, a mirror which is a type of node that wallets connect to download from p2p servers, and the servers that can transfer data between clearnet and dark web.

<https://gist.github.com/chistroutner/457b99b8033fdea5ae565687e6360323>

Primary roadmap items:

- * Build cloud infrastructure
 - * Integrate IPFS blob or .onion hidden service
-

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Inter-wallet Transfer Plugin - Miscellaneous Software Projects

Repo: <https://github.com/KarolTrzeszczkowski/Inter-Wallet-Transfer-EC-plugin>

Language: Python

Maintainer: Karol Trzeszczkowski

Overview: A plugin, that sends your coins to another wallet one by one, to a fresh address every time.

Primary roadmap items:

- * Optimization
- * Fixing issues as they appear

Mecenas Recurring Payment Plugin - Miscellaneous Software Projects

Repo: <https://github.com/KarolTrzeszczkowski/Mecenas-recurring-payment-EC-plugin>

Language: Python

Maintainer: Karol Trzeszczkowski

Overview: A recurring payment plugin for Electron Cash designed as a solution for noncustodial patronate.

Primary roadmap items:

- * Increase usability for recurring donations
- * Command line version to serve as backend.

P2PVPS - Miscellaneous Software Projects

Website: <https://p2pvps.org/>

Repo: <https://github.com/P2PVPS/p2pvps-client>

Language: JavaScript

License: MIT

Maintainer: Chris Troutner

Status: Offline

Overview: P2P VPS aspires to create a peer-to-peer (P2P) marketplace offering Virtual Private Servers (VPS), the P2P VPS marketplace will never have the speed or reliability of the commercial outfits linked above. Instead, the focus of P2P VPS is to create a decentralized network of anonymous web servers, capable of delivering websites or web apps, in order to prevent censorship and promote free speech.

Primary roadmap items:

- * Automated payments
- * Refunds
- * ERC20 native token

Simple Ledger (SLPDB - Electron Cash SLP) - Miscellaneous Software Projects

Website: <https://simpleledger.cash/project/slpdb/>

Repo: <https://github.com/simpleledger/SLPDB>

Workspace: <https://t.me/slpdb> & <https://t.me/simpleledger>

Language: TypeScript

License: MIT

Overview: SLPDB has all SLP token data stored in one database.

Primary roadmap items:

- * Add additional token graph properties to enhance graph search for light clients
- * Add collection for storing token document metadata



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Spedn - Miscellaneous Software Projects

Website/Documentation: <https://spedn.readthedocs.io/en/latest/>

Repo: <https://bitbucket.org/o-studio/spedn/src/master/>

Workspace: https://t.me/bch_compilers

Maintainer: Tendo Pein

Overview: Spedn is a high level smart contracts language for Bitcoin Cash. It is designed for explicitness and safety.

Primary roadmap items:

- * Create a VS Code plugin for working with Spedn -syntax highlighting first, then debugging.
- * Lower barrier to entry for developers interested in smart contracts, but in a safe manner to prevent something like a DAO hack.

Tipbitcoin.cash - Miscellaneous Software Projects

Website: <https://tipbitcoin.cash>

Repo: <https://github.com/pokkst/tipbitcoin.cash>

Language: Python

License: MIT

Maintainer: Pokkst

Overview:

Users can make an account and accept tips by adding an extended public key. Tipbitcoin.cash works on Twitch, D-live, and other alternative platforms for streamers also.

Primary roadmap items:

- * Add more SLP tokens
- * Add more stream customization features
- * Design an upload system for the site so users can upload their images/gifs, sounds, etc. directly to the site and to use for their streams rather than having to use a link from a third party.