Litecoin Core and Litecoin Association Road Map 2016

The Litecoin Association in cooperation with the Litecoin Core development team present the 2016 Litecoin Road Map. This road map intends to convey recent developments in both the association and core endeavors and it offers a vision and plan for the future. Represented here are many months of work by a multitude of volunteers who strive to provide a future for Litecoin and crypto currencies more broadly. As can be easily seen, global interest in crypto currencies and Litecoin specifically, has increased dramatically since inception, and the increase is particularly rapid in China, where people think Litecoin is parallel to Bitcoin. The association and core development team are proud of their accomplishments over many years of work, and they will continue providing support to improve the Litecoin and crypto currency experience for both new and old users.

We are honored to present the following changes to Litecoin and the Litecoin Association!

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Board of Directors

The Litecoin Association is pleased to announce the addition of Franklyn Richards to its Board of Directors. Franklyn is from Nottingham, England and he has been involved with Litecoin since November 2013. Ever since that time, he has been volunteering to help the association achieve its mission for the betterment of the Litecoin ecosystem. He has managed and maintained the official LA YouTube channel and Twitter accounts, and he heads up the creation of our educational videos. He has also helped design, direct, and create association projects including LoafWallet and Litecoin.com. With this addition, the Board of Directors is again whole following the departure Ryszard Mielcarek, of Poland. Join us in welcoming Franklyn. He can be reached at franklyn@litecoinassociation.org.

Association Bylaws

The Litecoin Association, in collaboration with its attorney Rishi Nair (Nair Law LLC, Chicago Illinois), has drafted organization bylaws. These bylaws provide the governance in which the Litecoin Association operates. These operations include official voting, director and officer status and placement, and the future of Litecoin Association. Much like other not-for-profit organizations, these bylaws guide us towards our goal and mission. The Litecoin Association Board of Directors will be moving to enact these bylaws and upon approval, they will be released to the public. We look forward to a significant level of engagement from our members to help shape the organization's future!

Systems Administrator

With the departure of Ryszard Mielcarek, the Litecoin Association was not only left in need of a new member to its Board of Directors, but also a new Systems Administrator for our servers. These house resources including www.litecointalk.org, www.litecoin.info, and more. After considering a number of alternative potential recruits, the Board of Directors has appointed Robert English (AKA Red and KSAREDFX) as our Systems Administrator. Over the coming weeks, Robert will take over the Systems Administrator role in coordination with our community. We are delighted by Robert's eager attitude and willingness to volunteer his time to this project. Hailing from Ontario, Canada, Robert's Litecoin involvement goes back to its early days when he mined transactions using his CPU! Learn more about Robert and connect with him online at: www.RobertEnglish.net.

LitecoinTalk.org

On March 10th, it became apparent that LitecoinTalk.org was targeted in a successful hack. Once identified, users were immediately notified through official communications published on twitter, reddit, and email. Additionally, the site was taken offline. Since then, an archive has been made available at: https://archive.litecointalk.org. Planning for a replacement has

been ongoing, with a number of alternative platforms having been considered. Discourse is an example of one platform getting serious consideration. We welcome suggestions from the community, which, at this time, can be communicated via reddit or info@litecoinassociation.org. Once a platform has been selected, our new systems administrator will work collaboratively with the broader development team and a new version of LitecoinTalk.org will be deployed.

Litecoin Association Membership

Following the deployment of a new and improved LitecoinTalk community and the enactment of our bylaws, membership to the organization will re-open. We understand there are many people interested to begin their association with the organization and yet others interested to renew their memberships. The Board of Directors is excited to engage the community once again with its membership drive, and we look forward to collaborating with the community to help us focus on the future of Litecoin!

Litecoin Trademark

On February 15th, and on behalf of the Litecoin Association, Patrick Kothbauer of the Swedish Chamber of Digital Currency Commerce (www.scdcc.se) submitted our trademark response to the European Office for Harmonization in the Internal Market (OHIM). Now known as the European Union Intellectual Property Office (EUIPO), EUIPO has responded to our submission with the clarification that, "In principle, neither the opponent nor the applicant needs to be represented before the Office. However, parties to proceedings before the Office with no domicile or seat or establishment within the EU cannot deal with the Office directly and need to be represented by a person qualified to act as representative before the Office." Because of this requirement, the Litecoin Association has proudly appointed Jan Bryme as our European Union representative and legal representation.

Originally, both the Swedish Chamber of Digital Currency Commerce (SCDCC) and the Litecoin Association filed as oppositions to this trademark. In order to facilitate ease of the trademark opposition, the SCDCC has ceded their opposition and is collaboratively working with the Litecoin Association to fight this trademark. The Litecoin Association is being represented by Andrew Vegetabile.

A previous press release on the trademark fight can be seen here http://litecoinassociation.org/files/trademark-update.pdf

Lastly, with the legal assistance of our attorney, Rishi Nair, the Litecoin Association has moved to produce its own trademark in the United States. Our goal in this pursuit is to secure the trademark and to release the mark into public domain so that its control will not be held by an ill-intentioned individual.

LitecoinAssociation.org

With so many changes occurring within the association, a new website is in development and it will be deployed with a more flexible, adaptable, and easily managed infrastructure. We intend to make better use of the domain as an official communication tool for the community. We look forward to comments and suggestions once released.

LinkedIn

The Litecoin Association was founded by David Sterry, now a developer of the ReinProject, a decentralized freelance marketplace for Bitcoin. During the formation of the association, a LinkedIn Group was setup and it currently has 164 members. David has recently agreed to turn over administrative privileges for the group and the association intends to update and maintain its presence there. We welcome any members of the organization, who are so inclined to do so, to join the group in this professional setting.

Fundraising

The Litecoin Association is a 501(c)(6) not-for-profit organization, and because of that we depend on the community to help us operate. The LA has various expenditures, both on a recurring and nonrecurring basis. Examples of monthly expenditures include hosting services from Digital Ocean, DDoS protection from CloudFlare, email, and other related services. Non-recurring examples can come in the form of contractors whose specialized development talent was needed (most recently iOS) and the trademark opposition campaign.

Association Board Members from time to time have funded the LA's expenditures out of pocket for later reimbursement, partial reimbursement, or no reimbursement at all. To facilitate our ability to meet our financial obligations and to motivate special project work, we ask that you consider donating to any of the following funds. Please note that when the Litecoin Association membership opens up, a fee structure for membership will be in place in order for us to continue to facilitate operating. Donations to the addresses below will not count to membership fees.

iOS Development Fund	LfVszG74eZKRxrx2s29rQs3MR2Vvau3LsE
Android Development Fund	LPwViUHsXXKWp65ZxVqag7B3wmbmo4Zfd2
Trademark Fund	LhZLSy6tePUACYaADRyPFcQycESv3wDgRZ
General Operations Fund	LZwZMi6i9suK1wzFaw1NHqcYLcLGAo1Fs3
Developers and Litecoin Association Fund	LXks4nXBkoAgmQ5MCBBqaei2Qkt3Qkm9WS
Litecoin.com	LNYBbaB3CrQ2PxfM9DhNM55GdYPkDvXXxq

Litecoin Association Contact Information

The Litecoin Association board members as well as social media accounts can be reached at the following. More contact information will be available at LitecoinAssociation.org along with GPG keys and links to other forms of social media.

Twitter: https://twitter.com/litecoinassoc
LinkedIn: https://www.linkedin.com/groups/5133828/profile
Andrew Vegetabile / TheMage: themage@litecoinassociation.org
Phillip Auman / LitecoinLearner: pauman@litecoinassociation.org
Franklyn Richards / MLPFrank: franklyn@litecoinassociation.org
Jason King / Seansoutpost: beinghomelessisnotacrime@gmail.com
Eric Mihalik / Carnth: carnth@litecoinassociation.org
QQ Group: 224855357

Litecoin Core

Developers: Warren Togami, Charlie Lee, Adrian Gallagher, pooler, shaolinfry, Xinxi Wang, Kunal Jaiswal
Website: https://litecoin.org https://litecoincore.org

Litecoin Core is the Litecoin reference client. Featuring 'full node' capabilities to fully download and validate the Litecoin blockchain as well as the wallet functionality to manage transactions. Litecoin Core is the most feature rich client out there and contains all the protocol rules required for the Litecoin network to function. This client is used by mining pools, merchants, and services all over the world for its rock solid stability, feature, set, and security.

Litecoin Core v0.13.x will be a major release featuring many protocol level improvements, code optimizations, the ability to roll out several soft forks at once, and the greatly anticipated segregated witness innovation. Some of the most notable features include:

- *Faster signature validation* using the libsecp256k library developed by Bitcoin Core developers.
- *Wallet pruning* to reduce block size storage.
- *Memory usage improvements* including better mempool filtering of transactions.
- *Inbuilt Tor control socket* API support if Tor is running and also stream isolation for Tor communication.
- Functionality to *reduce upload traffic*.
- *Segregated Witness* to allow for greater transaction output and mitigation of transaction malleability.
- *ZMQ support* - ZeroMQ is a high performance asynchronous messaging library, aimed at use in distributed concurrent connections. Litecoin will support ZMQ for broadcasting block and transaction data.

- *Hierarchical Deterministic wallets* - Litecoin Core will support hierarchical deterministic wallets also known as HD wallets.
- *Obfuscated blockchain data* - Several antivirus applications detect the Litecoin stored blockchain data as a malware threat. Litecoin v0.13 will obfuscate the blockchain data to rid these false positives.

This update will also see the inclusion of several BIPs to prepare Litecoin for upcoming innovations to do with the Lightning Network and create/use more complex smart contracts. These include:

- **BIP 9 -** This BIP allows multiple soft fork changes to be deployed in parallel.
- **BIP 32** - This BIP allows Litecoin Core to support hierarchical deterministic wallets.
- **BIP 68 -** This BIP allows relative locktime enforcement through sequence numbers.
- **BIP 111 -** This BIP extends BIP 37, connection Bloom filtering, by defining a service bit to allow peers to advertise that they support Bloom filters explicitly. It also bumps the protocol version to allow peers to identify old nodes which allow Bloom filtering of the connection despite lacking the new service bit.
- **BIP 112 -** This BIP is a proposal to redefine the semantics used in determining a time-locked transaction's eligibility for inclusion in a block. The median of the last 11 blocks is used instead of the block's timestamp, ensuring that it increases monotonically with each block.
- **BIP 113 -** This BIP describes a new opcode (CHECKSEQUENCEVERIFY) for the Litecoin scripting system. In combination with BIP 68, it allows execution pathways of a script to be restricted based on the age of the output being spent.
- **BIP 130 -** This BIP adds a new message, "sendheaders", which indicates that a node prefers to receive new block announcements via a "headers" message rather than an "inv".
- **BIP 133 -** This BIP adds a new message "feefilter", which serves to instruct peers not to send "inv"s to the node for transactions with fees below the specified fee rate.
- **BIP 141 -** This BIP defines a new structure called a "witness" that is committed to blocks separated from the transaction Merkle tree.
- **BIP 143 -** This BIP contains the logic for signature verification for the version 0 witness program.
- **BIP 144 -** This BIP contains the logic for new messages and serialization formats for propagation of transactions and blocks committed to segregated witness structures.
- **BIP 152 -** This BIP adds compact block relay to reduce the bandwidth required to propagate new blocks.

The Litecoin Core developers aim to have this version released by September/October. Litecoin shares the same P2SH address format as Bitcoin (addresses beginning with a 3). This has caused some confusion for Litecoin users. We will look into introducing a unique P2SH address prefix.
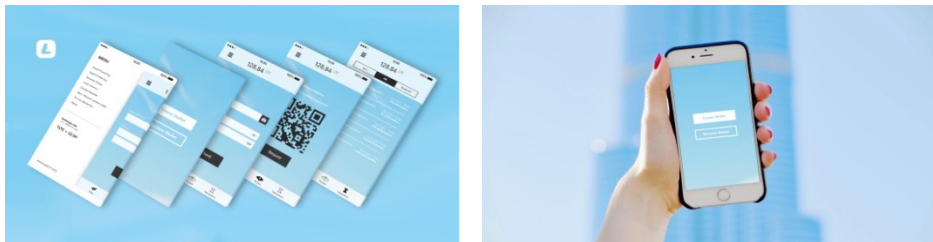
We would also like to congratulate the involvement of three more new Core Developers who will help bring the next update to Litecoin Core at a faster speed. In the longer term, we will do extensive research and development into the flexcap block size limit.

LoafWallet (iOS)

Developers: Loshan T, Adrian Gallagher, Alexandre Linhares, Franklyn Richards, Austin Chou

LoafWallet is a standalone Litecoin client designed and built for iOS bringing together advanced security and simplicity into the palm of your hand. Based on the popular 'BreadWallet' software we have been working with its creator Aaron Voisine to bring Litecoin to iOS.

LoafWallet connects directly to the Litecoin network to provide powerful performance using

'Simple Payment Verification' (SPV Mode) and because there is no server to be hacked or go offline you will always be able to access your money. LoafWallet is deterministic, which allows users to access their account using just a simple backup phrase on any device running the app, so just in case you lose your phone you won't lose your Litecoins. LoafWallet also makes use of AES hardware encryption and app sandboxing as well as keychain and code signatures to protect your coins from malware and browser flaws to provide a significantly more secure experience. LoafWallet features all the benefits of BreadWallet and is available to download free on the App Store.

Alongside the release of LoafWallet we are glad to share with you what its future development holds. The Litecoin Association Development team has begun working on various improvements to the base experience of LoafWallet and these will be rolled out in upcoming future updates, these include:
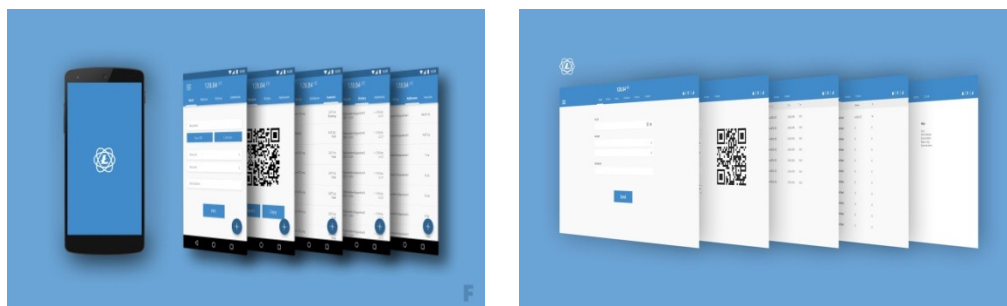
- Simplified Code
- Improved UX/UI
- Live Price Conversion
- Improved Menu system
- Support For Apple Watch
- Filter Options for Transactions
- Improved scaling for larger devices
- Purchase Litecoin within Application
- Litecoin Statistics
- iOS 10 Features (use Siri to send and receive Litecoins - and send Litecoin to friends through iMessage)

Developers interested in aiding in Loafs future development can find more information on the github page: https://github.com/litecoin-association/LoafWallet.

Electrum (Android+PC)

Developers: Pooler, Adrian Gallagher

Website - https://electrum-ltc.org/

Electrum-LTC is a fast, free, secure, and popular wallet option for a significant amount of Litecoin users as well as a mainstay of the Litecoin ecosystem. With its simple and powerful desktop client across Windows, Mac and Linux systems we are now taking the next step and bringing Electrum for Litecoin to Android. Bringing Electrum to Android marks a big step in not only user choice but Litecoin functionality as just like its desktop counterpart. It's quick, lightweight and by using a 12-word seed users can now access their existing wallet and manage funds/payments on the go. Just like its desktop counterpart Electrum for Litecoin features:

- **An indexed copy of the Litecoin blockchain** stored on Electrum-LTC servers for speed.
- **Freedom to export private keys** and move your wallet into another Litecoin client.
- **12-word seeds** to recover a wallet across multiple devices in case of loss or theft.
- **Cold Storage** to store private keys offline for another layer of security.
- **Transaction verification** via simple payment verification (SPV).
- **Encrypted Private keys** for security.
- **No downtime** on the network.

Users can expect to get their hands on Electrum-LTC for Android by late July at the latest as we move to make final preparations to ensure a clean release.

Electrum-LTC has reached a good and stable level of maturity and versatility and with the latest desktop release 2.6.4.2 users saw a minor update that focused on fixing bugs mostly concerned with the 'Command Line Interface' (CLI). The philosophy with Electrum-LTC has always been to provide a Litecoin port of Electrum as stable and maintainable as possible, for this reason 'Pooler' has always tried his best to keep the code as close as possible to upstream. There are currently no plans to directly add any additional features, only to keep the code up to date and bug-free. Future decisions made to improve Electrum-LTC will be proposed upstream first in order to streamline any future development.

This being said developers at the LA have shown interest and began working on an improved UX/UI proposal for Electrum that if successful would affect both Litecoin and

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Bitcoin versions. This is an independent proposal that we will be working on in the background behind our own primary projects. The improvements aim to clean, simplify, and unite the desktop and mobile platforms through a shared design philosophy. We believe our plans could benefit and expand Electrum's user base by making it more user friendly and accessible to those just starting out with cryptocurrency.

LiteTip

Developer: Losh11
Website: https://github.com/losh11/altcointip

'LiteTip' is the official Litecoin tipbot built for use across social media platforms. Having previously been run and maintained by community member /u/zipzo on reddit, over the previous months LiteTip was experiencing technical issues, which unfortunately led to its being shut down. During this period, we approached /u/zipzo and offered to take over the service and fix any issues in order to keep LiteTip up and running, and as such he has handed over control and entrusted all future development of the tipbot to the Litecoin Association.

We are proud to reiterate as mentioned in an earlier reddit post that LiteTip is once again working and now that we have control over its development; we have begun work on laying out future improvements such expanding the service to other platforms beyond the current support for Reddit, which will first include Twitch.TV and Slack. Any further implementations after these will be announced publically on Twitter @LitecoinAssoc.

Beyond this we will be looking to expand functionality by cleaning up the code, simplifying user commands, and improving how people interact with LiteTip.

LiteTip will continue being maintained and updated by the Litecoin Association. To get started send /u/Litetip a message with '+Register' then join in the conversation on reddit: https://www.reddit.com/r/Litecoin

Litecoin Node

Developer: Losh11
Website: http://litecoinnode.org/

Litecoin Node is a small open source project. The project was conceived by Losh11 and aims to make it easy for individuals to deploy and maintain Litecoin supernodes. All that needs to be done to run a Litecoin supernode to help the decentralization of the Litecoin network, is to run this script and answer a couple of questions asked in a terminal. Follow instructions on the website to learn how you can help the network.

LiteVault V2

LiteVault.org is a wallet run by Litecoin Association developer Chris (someguy123) and this service has provided to be a valuable online and trustworthy Litecoin online wallet and service. As part of version two, many new features are being added; they include: multi-signature support, multiple language internalization (support for Russian and Chinese), conversions from Bitcoin to Litecoin (and vise-versa), and some other improvements making the wallet more user friendly.

Litecoinaverage

The Litecoin Association would like to personally thank the developers of Bitcoinaverage for helping develop www.Litecoinaverage.com. This site was released on June 30th 2016, and it shows the continuing support of the community in helping stand up critical infrastructure for the Litecoin ecosystem. Litecoinaverage can now be utilized in assisting many businesses adopt Litecoin, and continue to grow Litecoin as an organic payment method. Below are a few examples of how Bitcoinaverage has been utilized to help the Bitcoin community.

- Bitcoin Android Wallet
- Purse.io Bitcoin Marketplace
- Mycelium Wallet
- LocalBitcoins (Buy/Sell Bitcoins)
- Lamassu Bitcoin ATM
- Green Address

Lamassu ATM

The Litecoin Association will be porting Litecoin over to the very successful Lamassu ATMs. This will help improve accessibility to new Litecoin consumers, and together with mobile wallets, will make it easier for more and more new users to enter the Litecoin market. This project will work alongside Bitcoin on the ATM, and the ATM operator will be able to change what cryptocurrencies they accept.

Thank you for the Support

The Litecoin Core development team along with the support of the Litecoin Association is continuing supporting Litecoin, its core infrastructure, and the Litecoin ecosystem as a whole. We are both excited and humbled at the increasing adoption, and we are all working to realize the true nature of crypto currencies, which is to give financial freedom to the world! Thank you to the support of the community!