LITECOIN

Fundamental Asset Overview



Market Research



Fundamental Asset Overview

Litecoin LTC

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Alex Sunnarborg Founder & CFO – Lawnmower September 13, 2016

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Brief Overview

Litecoin is an open-source, global payment network created by forking the Bitcoin client for a decreased average block time, increased supply, and modified consensus mechanism structure. Compared to Bitcoin, the system has faster transaction confirmation times and a public founder & development team who view Litecoin's technical implementation as an improvement to Bitcoin.

Investable Asset

The underlying asset on the Litecoin network is called litecoin (LTC). Litecoin functions extremely similarly to bitcoin with its high divisibility, supply release structure that halves approximately every four years, and a public key cryptography system with secret "private" keys and "wallets" that help you manage storing and sending funds. Litecoin is frequently traded for bitcoin (as well as numerous other Blockchain Assets & fiat currencies on many exchanges).

Key Metrics

Websites:	litecoin.org / litecoin.com
Software:	github.com/litecoin-project
Current Price ¹ :	\$3.82 – Sep. 13, 2016
All-Time High ¹ :	\$50.27 – Nov. 28, 2013
Previous Year High ¹ :	\$5.65 – Jun. 17, 2016
Previous Year Low ¹ :	\$2.81 – Sep. 17, 2015
Current Supply ¹ :	47.54 Million
Supply Limit ² :	84 Million
Current / Limit:	56.60%
Current Market Cap ¹ :	\$181.48 Million

Underlying Technology

Litecoin was built with its own blockchain with its design heavily influenced by Bitcoin. Like the Bitcoin blockchain, Litecoin uses a slew of cryptographic techniques for establishing proof & consensus across the network and utilizes a distributed database mechanism for broadcasting transactions into a global, public ledger. The record of payment history represents every past & current state of the system, including the history of & to all Litecoin balances. The ledger is composed of a series of time-stamped "blocks" of transactions and associated details, all "chained" to previous blocks, allowing users to verify

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the validity of any Litecoin balance, proposed transaction, or block. Similarly to Bitcoin, Litecoin is built using public key cryptography, with user's secret "private keys" that can be used to send Litecoin to others, used to generate "addresses" to receive Litecoin from others with, and verify authenticity of control over funds, all which can be handled for a user with Litecoin wallet software.

Technical Details

Unlike Bitcoin, Litecoin uses a hashing algorithm called Scrypt (as opposed to SHA256) for proof-of-work, which makes manufacturing specialized mining hardware (ASICs) more expensive in relation. Thus, the barrier to entry for mining Litecoin is much lower than in Bitcoin, allowing users to mine more competitively with just common CPUs & GPUs, leading in theory to higher decentralization3.

Transactions, blocks, new supply, and consensus in Litecoin are structured similarly to Bitcoin with a few modifications. The Litecoin protocol automatically adjusts its difficulty to ensure a new block is found approximately every 2.5 minutes as opposed to 10 minutes in Bitcoin. The protocol also specifies a maximum supply of litecoin of 84 Million as opposed to 21 Million bitcoin. Both Litecoin & Bitcoin block rewards are structured to decrease by one half approximately every 4 years, and these mining fees along with transaction fees attached to transactions between users provide the economic incentive structure for miners to continue to maintain the network & its integrity².

Project History

Litecoin was created by Charles Lee (a former Google engineer and MIT CS graduate who currently leads engineering at Coinbase) in October 2011 & released on GitHub as an open-source fork of the Bitcoin client.

The Litecoin Genesis Block was mined on October 8, 20114 & has slowly seen growth in merchant adoption and exchanges featuring Litecoin trading, adding to the size of the overall market.

The Litecoin project is current currently maintained by a group of about 5 core software developers, led by Charles Lee, and a group called the Litecoin Association that exists "to improve the Litecoin experience for entrepreneurs, investors, consumers, and the general public by facilitating communication between members of the community, aiding educational efforts, and protecting important community resources." 2,5

Asset Supply

The first Litecoin block released 50 litecoin into the network in October 2011.

itecoin (LTC)

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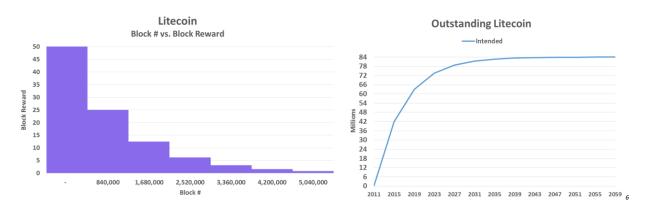
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The Litecoin software specifies that every 840,000 blocks, the block reward will half, creating a cap of 84 million litecoin³.

As the Litecoin network automatically adjusts to strive for an average 2.5 minute block time, we can very accurately model the intended supply distribution timeline³.

As a 365 day year is approximately 525,600 minutes, the Litecoin block reward should half about every 4 years.



However, the Litecoin software dynamically adjusts for increased or decreased computational power on the network on a lagging basis and the intended 2.5 minute block interval frequently varies.

The Litecoin network actually started out with average block times slightly slower than expected and has since shifted to closer to the intended 2.5 minutes.

Block	Intended Date	Actual Date	Days "Early"	Avg Mins / Block since "Genesis"	Avg Mins / Block since last Block
-	10/8/2011	10/8/2011	-	-	-
840,000	10/5/2015	8/25/2015	41	2.43	2.43
1,061,500	10/23/2016	9/13/2016	40	2.44	2.50

Price History

The first litecoins were released to the network with the mining of the Genesis Block in early October 2011⁴.

As of April 2013, litecoin was trading just under \$5, and remained beneath until November. In November 2013, a major rally began, propelling the price to over \$50 by the end of the month.

Litecoin than began a massive downtrend, falling back down to less than \$5 a year later, and to just north of \$1 six months later.

Litecoin has since trended back upwards, sitting at just under \$4 on September 13, 2016.

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Historical Litecoin Price



Litecoin's historical yearly & monthly returns can be seen below beginning in June 2013.

2013		
484%		
Date	Price	Return
5/1/13	\$4.18	
6/1/13	\$2.95	-29.56%
7/1/13	\$2.80	-5.11%
8/1/13	\$2.96	5.92%
9/1/13	\$2.68	-9.61%
10/1/13	\$2.23	-16.53%
11/1/13	\$2.24	0.40%
12/1/13	\$38.74	1627.13%

2014		
-89%		
Date	Price	Return
1/1/14	\$24.45	-36.90%
2/1/14	\$21.66	-11.39%
3/1/14	\$13.69	-36.82%
4/1/14	\$12.98	-5.13%
5/1/14	\$10.37	-20.14%
6/1/14	\$10.84	4.55%
7/1/14	\$8.88	-18.04%
8/1/14	\$7.34	-17.44%
9/1/14	\$5.16	-29.66%
10/1/14	\$4.27	-17.27%
11/1/14	\$3.76	-12.01%
12/1/14	\$3.57	-4.94%

2015		
28%		
Date	Price	Return
1/1/15	\$2.70	-24.27%
2/1/15	\$1.92	-29.09%
3/1/15	\$1.84	-4.07%
4/1/15	\$1.67	-9.14%
5/1/15	\$1.43	-14.50%
6/1/15	\$1.64	14.91%
7/1/15	\$4.08	148.62%
8/1/15	\$4.59	12.41%
9/1/15	\$2.85	-38.00%
10/1/15	\$3.00	5.52%
11/1/15	\$3.95	31.54%
12/1/15	\$3.61	-8.52%

2016		
9%*		
Date	Price	Return
1/1/16	\$3.46	-4.26%
2/1/16	\$3.09	-10.68%
3/1/16	\$3.47	12.24%
4/1/16	\$3.24	-6.59%
5/1/16	\$3.74	15.43%
6/1/16	\$4.61	23.39%
7/1/16	\$4.17	-9.54%
8/1/16	\$4.05	-2.97%
9/1/16	\$3.79	-6.47%
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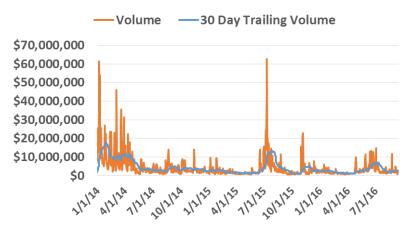




Trading Volume

Since 2014, trading volume has generally stuck in the few Million (\$) range with occasional jumps over \$10 Million & days as high as \$50+ Million.

Total Litecoin Trading Volume



Industry Growth

Some of the current largest organizations in the industry can be seen below:

Wallets	Litecoin Core, Electrum, Litecoin Wallet (Android)
Exchanges	OkCoin, BTC-E, Poloniex, Kraken, GDAX, Bitfinex
Miners ⁷	F2Pool, BW.com, Yihaochi, LTC1BTC, LitecoinPool.org

Litecoin (LTC)

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Daily transactions on the Litecoin network are frequently in the few thousand range with brief historical periods over 10,000 & a max of just over 20,000.



explorer.com/block/80ca095ed10b02e53d769eb6eaf92cd04e9e0759e5be4a8477b42911ba49c78f

explorer.com/block/e2acdf2dd19a702e5d12a925f1e984b01e47a933562ca893656d4afb38b44ee3, ltc.block-explorer.com/block/5e4e01a65ef318e16d183b1f76a0e1ca646be984ae83142d46b47fcd25edc831. "Intended" timeframe assuming 2.5 minute

¹ Data source: coincap.io API – daily as of 9/13/2016, current supply implied by market cap / price. *: YTD. "Monthly Return" assumes approximate previous calendar MoM return.

² Reference & additional reading: litecoin.info/litecoin

³ Reference & additional reading: litecoin.info/user:Iddo/comparison_between_litecoin_and_bitcoin

⁴ Data source & additional information: ltc.block-

⁵ Reference & additional information: litecoinassociation.org

⁶ Data source & additional information: ltc.block-

⁷Reference & additional information: litecoinpool.org/pools

⁸ Data & chart source: ltc.block-explorer.com/charts

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About



Lawnmower is an investment platform & market research firm for Blockchain Assets. The mobile app is free to download on both iOS & Android in the United States.

More information can be found at lawnmower.io.



Lawnmower's Market Research is written by the Founder & CFO – Alex Sunnarborg, who has a professional background in financial analysis, working in investment banking & wealth management.

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