

Telegram’s ICO – Revolution or Just a Scam?

AUTHOR

KILIAN DALLO
 KILIAN.DALLO@EDHEC.COM

Cryptocurrency ICO Statistics 2017

Total: \$3,700,682,293
 Total Number of ICOs: 235

Top Ten ICOs of 2017

| Position | Project | Total Raised |
|----------|--------------|---------------|
| 1 | Filecoin | \$257,000,000 |
| 2 | Tezos | \$232,319,985 |
| 3 | EOS Stage 1 | \$185,000,000 |
| 4 | Paragon | \$183,157,275 |
| 5 | Bancor | \$153,000,000 |
| 6 | Kin Kik | \$97,041,936 |
| 7 | Status | \$90,000,000 |
| 8 | TenX | \$64,000,000 |
| 9 | MobileGO | \$53,069,235 |
| 10 | KyberNetwork | \$48,000,000 |

Cryptocurrency ICO Statistics 2016

Total: \$96,389,917
 Total Number of ICOs: 46

Top Ten ICOs of 2016

| Position | Project | Total Raised |
|----------|-----------------|--------------|
| 1 | Waves | \$16,436,095 |
| 2 | Iconomi | \$10,576,227 |
| 3 | Golem | \$8,596,000 |
| 4 | SingularDTV | \$7,500,000 |
| 5 | Lisk | \$5,700,000 |
| 6 | Digix DAO | \$5,500,000 |
| 7 | FirstBlood | \$5,500,000 |
| 8 | Synereo | \$4,700,000 |
| 9 | Decent | \$4,178,357 |
| 10 | Antshares / NEO | \$3,608,378 |

Telegram is one of the fastest growing instant messaging services, offering the platform for all common operating systems. Two whitepapers leaked in December 2017 describe a new cryptocurrency designed by Telegram co-founder Dr. Nikolai Durov which may be issued by an ICO. Since nothing is confirmed by Telegram’s officials yet, this article assumes the authenticity of the leaked whitepapers. In times of the cryptocurrency-hype, a possible ICO obviously attracts a various group of market participants including speculators, serious investors, regulators as well as managers of start-ups and larger companies, which could make use of this new cryptocurrency. This article briefly describes this planned cryptocurrency without becoming too technical and discusses the legitimacy of a possible ICO.

What is Telegram?

In August 2011, Facebook released the Facebook Messenger app; in February 2014 they acquired WhatsApp Inc. (founded 2009) for US\$19 billion. Both apps are used by more than 1.3 billion active monthly users, respectively, making them the most used messaging apps by far. Founded in August 2013 by Russian entrepreneurs Nikolai and Pavel Durov, Telegram introduced the end-to-end encrypted chats and calls two years ahead of WhatsApp. Even though Telegram is considered to be a small messaging app (180 million users, December 2017) compared to the outstanding figures of Facebook’s Messenger and WhatsApp, the app is quickly catching up by realizing at least 500,000 new registrations per day. Currently, both apps are free of charge; however, WhatsApp was fully acquired by Facebook, while Telegram still remains a nonprofit organisation solely lead by the Durov brothers.

Figure 1: Number of Users of 3 Biggest Messaging App

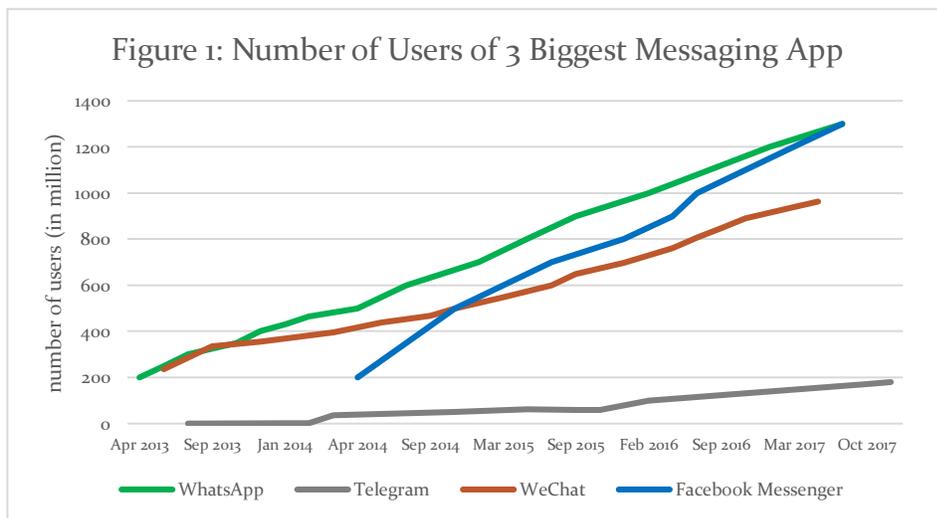
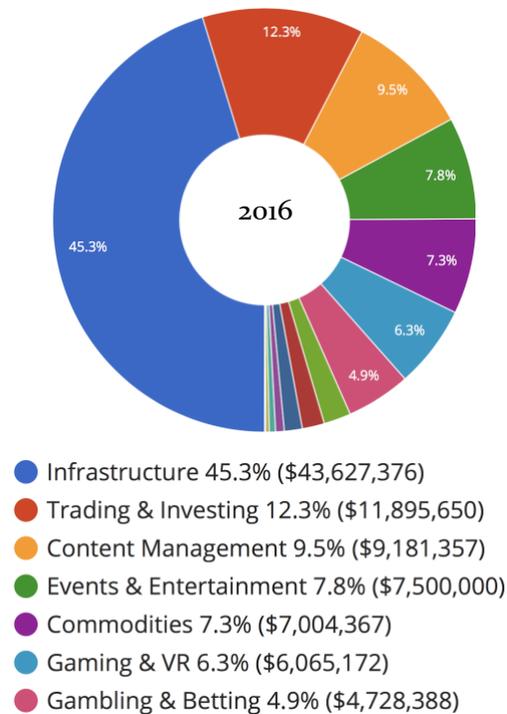
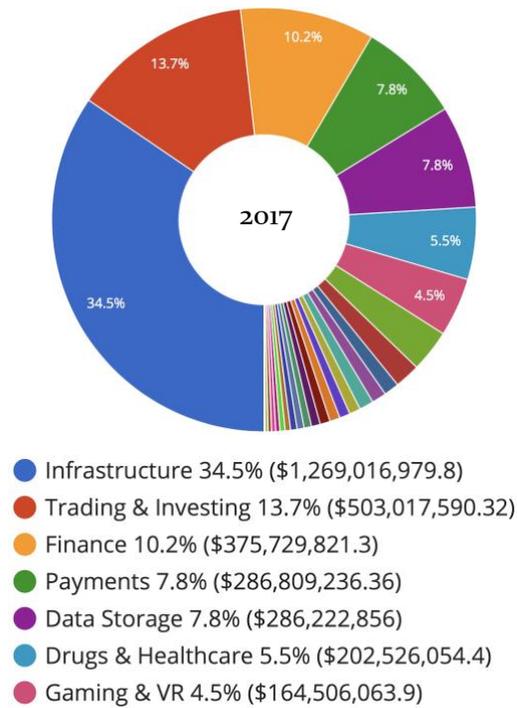


Figure 2: ICO Value by Sector



The History & Mechanics of the ICO Ecosystem

The blockchain technology was initially implemented in Bitcoin, the mother of all cryptocurrencies, by Satoshi Nakamoto in 2009. Since then, a myriad of typical companies and start-ups launched projects based on this technology. To finance further development, research, and expansion, these companies often launch *Initial Coin Offerings (ICOs)* instead of raising capital via venture capital, angel investors or private investors. Simply speaking, instead of equity, companies offer tokens in exchange for the investors' money (which is usually transferred in Bitcoin or Ether). This means that investors have no ownership of the company, but they may have governance rights via the ownership of the cryptocurrency. However, investors often do not even believe in the company's or project's success, in contrast to common crowdfunding, but expect a significant increase in the token's value. Obviously, this strategy comes with a huge risk but incredibly high returns (e.g. IOTA recording a return of 60,000%), due to sale of tokens at high discounts for the investors. On the other hand, many ICOs have failed since their cryptocurrency lacks in terms of utility or security. To achieve a sustainable increase in the token's value over time, the token clearly has to be a crucial component of a growing project, i.e. has to be exposed to as many users, buyers and holders as possible, resulting in a greater demand of the token.

The history of ICOs dates back to 2013 when J.R. Willett launched the first ICO issuing a token called *Mastercoin (Omni since 2015)*, inspired by the common procedure of *Initial Public Offerings (IPOs)* to raise capital. During 2017, ICOs attracted massive attention, mainly driven by the cryptocurrency boom, leading to huge crowdfunding campaigns. The total value of ICOs in 2017 sum up to US\$3.2 billion, compared to only US\$96 million in 2016. Of these figures, the infrastructure sector represents over one third the total ICO value in 2017 and nearly half in 2016 (compare tables and figures). In August 2017, within one month, US\$257 million was raised by the *Filecoin* project, a decentralized storage network powered by the blockchain technology. This massively exceeded the US\$5 million raised by Willett in the very first ICO and therefore underlines the aforementioned hype of cryptocurrencies.

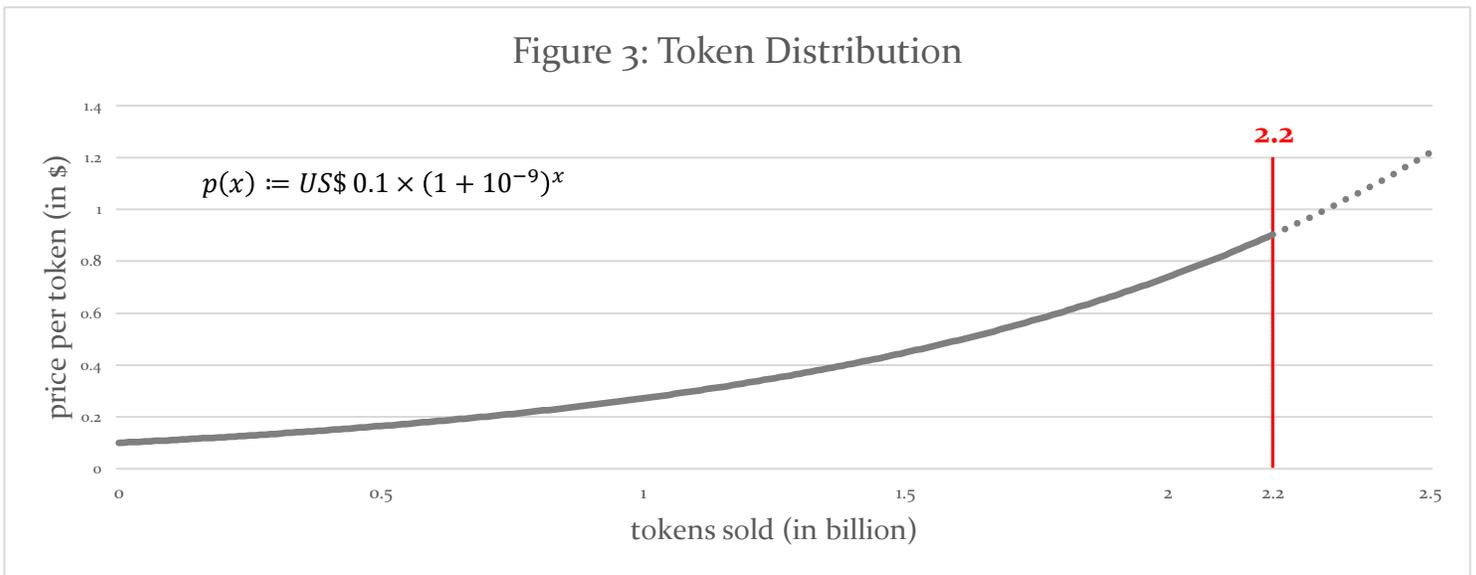
While IPOs are heavily regulated, ICOs exhibit little to no regulation. China, as an exception, banned all ICOs in its crackdown against cryptocurrencies. Still, ICOs have revolutionised the way of funding and may play an even more important role in the future than today. Since we have only seen the beginning of what they are capable of, we can expect a very interesting year 2018 for ICOs.

The Telegram Open Network & ICO

Recently leaked whitepapers seemingly reveal that Telegram is planning to raise US\$600 million in a private sale of token called *Grams* at a 50% discount (February 2018) and an additional US\$600 million in a public sale (March 2018) to fund its new *Telegram Open Network (TON)*. The total of US\$1.2 billion would be the largest ICO so far, raising 4.7 times as much as Filecoin in 2017. Telegram states its motive is to establish a substitute for Visa and MasterCard payments by tackling the main problems of existing cryptocurrencies. The design of current cryptocurrencies like

Telegram ICO

Figure 3: Token Distribution



Bitcoin (or Ether) exhibits a lack of capacity to manage high volume transactions and allows only 7 (15) transactions per second, rocketing up average transaction confirmation time as well as transaction fees. This makes it clearly impossible for Bitcoin or Ether to become a mainstream digital currency which is actually used in everyday life. In his technical whitepaper, Dr. Nikolai Durov explains how to solve these problems. The TON will consist of two main components, the *TON Blockchain* and the *TON Platform*. A scalable and flexible blockchain architecture, built of a master chain and up to 2^{92} chains, represents the core of the platform. Compared to existing generations of blockchain technology, TON Blockchains are able to split and merge to allow the quick generation of new blocks. This technical improvement will allow the TON to process millions of transactions per second, an incredible improvement. Moreover, *2-D Distributed Ledgers* allow the blockchains to “grow” new valid blocks on top of any block in order to correct potential defected blocks.

The token (called *Grams*) distribution of 5 billion Grams will look as follows: 4% (200 million) will be kept by developers with a vesting period of 4 years, 42% (2.2 billion) will be sold to investors, leaving 52% (2.6 billion) to be retained in the TON reserve. Telegram claims this is necessary to protect the cryptocurrency from speculative trading and to allow certain flexibility in the early stage of the project. This critical point will be discussed below. The 2.2 billion Grams, which will be available to the general public will be sold according to the pricing formula given in figure 3, where x represents the x -th sold Gram. This results in a price of US\$0.1 for the first and \approx US\$0.9 for the last sold Gram, implying each token to be priced one billionth US dollar higher than the previous one.

Is it Just a Scam?

With the leaked whitepapers, Telegram certainly triggered hype about its ICO, with people beginning to ask where to buy Grams and scam websites pretending to conduct the ICO to collect money from fooled investors. Nonetheless, Telegram could learn from the design stage of established cryptocurrencies. Allowing millions of transactions per second with low transactions fees could allow this cryptocurrency to become the world’s cryptocurrency. An important advantage to

make the TON world-leading, is the already existing user base, since Telegram has the entire audience of the “crypto community” and over 180 million users. This is an excellent opportunity to allow users to begin using the cryptocurrency by implementing a payment system in the Telegram messenger app or relocating the messenger in a new “TON app”. In the same way, Telegram could create the biggest crypto wallet, making it available on all desktop and mobile operating systems. There is now doubt that Telegram has chosen a suitable design for the TON and has the appropriate conditions to make their cryptocurrency mainstream. But in case of such a risky project like an ICO, can investors expect the management behind the TON to be reliable? If we take a look on the history of projects led by the Durov brothers, the answer is “yes”. The founders of Telegram seem to be serious about providing sustainable service to its users, via the non-profit organization they founded with huge own investments. Pavel Durov, during his position as CEO of VK (the Russian Facebook), publicly refused to transmit user data of Ukrainian protesters to Russian security agencies when they forced him in March 2014. He decided he would rather be dismissed as CEO of VK than violate his principles. However, can a “simple” messaging app raise over US\$1.2 billion? Probably yes, if we consider the messaging app *Kik*, which raised over US\$35 million within 30 seconds with only 15 million users in September 2017. To make the new cryptocurrency company-independent from Telegram, the TON will be renamed *The Open Network (TON)* in 2022.

Even though I see a lot of potential in the project and am confident in its success, there are crucial facts which have to be mentioned since they may have a negative impact on the project’s long-term run. From my point of view, the most problematic property of the project is the token distribution. Remember, more than 50% of all tokens will be retained by the TON reserve, i.e. Telegram will always hold the majority stake. Considering that the TON is based on *Proof-of-Stake (POS)* and not *Proof-of-Work (POW)*, as for example Bitcoin, this could lead to serious riskiness for token holders, since under POS the creator of a new block is always chosen by the wealthiest token holder. In simple words, the individual with the highest stake (Telegram with 52% of all tokens) has a significant advantage via holding full control over issuing new coins at whatever price they want. This obviously contradicts with the idea of a decentralized currency! Therefore, this issue requires a lot of trust in the project’s future, but the only way to solve this issue is the reduction of Telegram’s stake far below 50% over time. Another problem I see, is that maybe only a small amount of the 180 million messenger users are actually interested in a payment system based on TON. This would seriously diminish the demand in the cryptocurrency and therefore its value.

Conclusion

I strongly believe Telegram’s management successfully tested the public’s reaction on their developed cryptocurrency by initiating a leak of the two whitepapers, which has revealed a huge hype. This makes me confident to expect a trouble-free ICO, raising the full target amount of US\$1.2 billion. On the other hand, the token distribution represents a serious concern. With respect to Telegram’s vision to build the standard of cryptocurrencies to exchange value in everyday life, believe their long-term success can be ensured if and only if the company reduces its stake

as soon as the value per Gram stabilized. This problem must be addressed before the general public is given access to the ICO.

Sources: Bloomberg, Coinschedule, Cointelegraph, ExpressVPN, Forbes, Leaked Whitepapers about Telegram's ICO

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