

SONM

Supercomputer organized by network mining

sonm.io

SONM BUSINESS OVERVIEW

Supercomputer organized by network mining

Distributed computing power exchange

Decentralized operating system for fog computing

11.06.2017

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1. ABSTRACT

1.1. What is SONM?

SONM is a global operating system that is also a decentralized worldwide fog supercomputer. It has the potential to include unlimited computing power (IoE, IoT). Worldwide computations organized using our system can serve to complete numerous tasks from CGI rendering to scientific computations.

The defining feature of SONM is its decentralized open structure, where Buyers and Workers can interact with no middlemen, while building a market profitable for them first, unlike other cloud services (Amazon, Microsoft, Google).

Unlike widespread centralized cloud services, the SONM project implements a fog computing^[1] structure – a decentralized pool of devices, all of which are connected to the internet (IoT / Internet of Everything).

SONM is implemented using SOSNA – Superglobal Operating System with Network Architecture for fog computing.

Buyers of computing power get more cost-efficient solutions than cloud services (Amazon, Microsoft, Google Cloud, Digital Ocean etc.) can offer.

We use fog computing instead of a cloud structure, so there is no more need to pay in advance for private and monopolized cloud computing. Since SONM is fully decentralized, there is no single authority that regulates computing resource distribution.

In terms of providing distributed value for investors, SONM uses its own token SNM, based on the Ethereum blockchain. ([click here to skip the project description and go to SONM token description](#)).

Almost every online service needs computational power for their product, including websites, online shops, MMORPGs, companies using large databases, and apps. Everyone in the world who uses the internet for business will have an option to use SONM tokens to solve their computing power issues. Also, all internet users will be able to use SONM to receive passive income by providing their computational resources for rent.

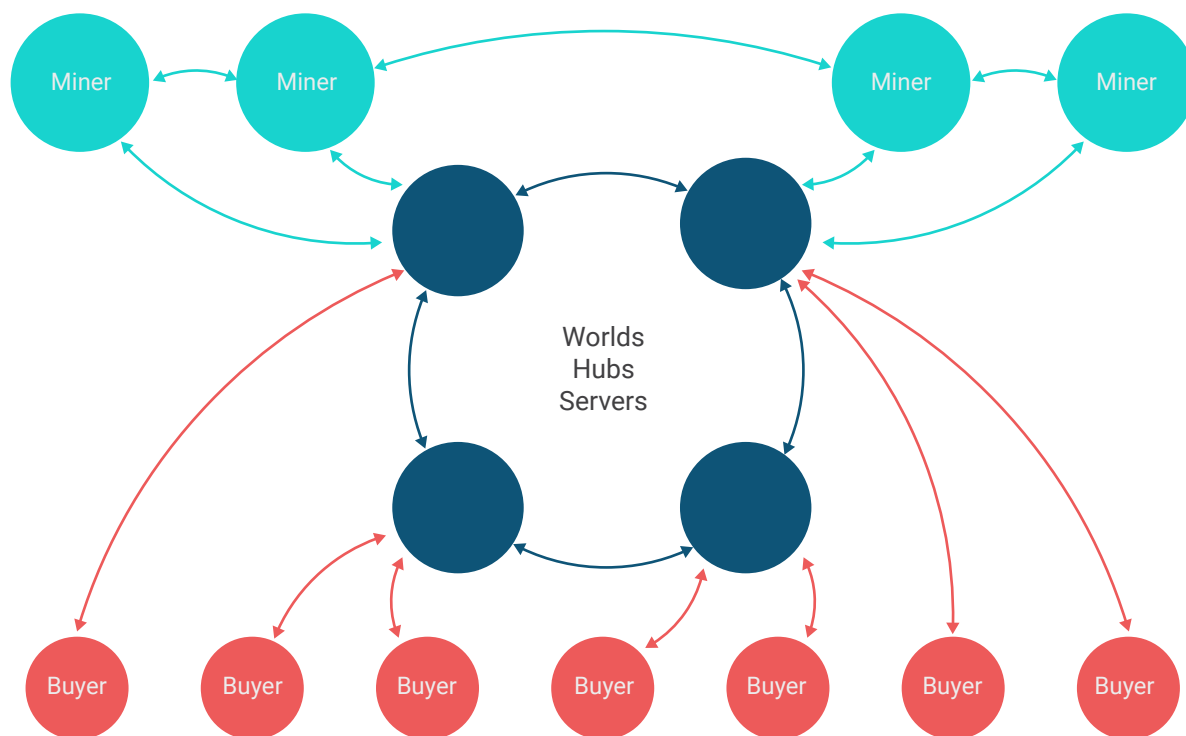
This disruptive migration from centralized cloud computing to decentralized fog computing may not occur immediately, but the results will be worth it. SONM token price calculations show decent ROI for the project's early adopters.

SONM token price is supported by stable market demand for computing power and the ability to provide more competitive prices than traditional cloud computing services. SONM token holders earn the percentage from transactions and operations fees (buy-sell-develop). It is a direct analogue of holding shares and receiving dividends from operational profit.

If you are a miner or computational power owner, SONM is a great opportunity to use your equipment for useful calculations and proceeding real tasks.

SONM fog computing platform is a fresh start for solo mining. There are lots of miners with GPU mining farms that are becoming useless due to the increased Proof-of-work mining difficulty (even for altcoins). In recent years, being a part of a mining pool has been the only way to guarantee profit from mining. But even in doing so, this profit is so small that sometimes it does not even cover the cost of electricity spent for PoW mining.

We expect SONM to be the smartest, cheapest and largest decentralized computing system with strong rules regarding morality and loyalty. This is largely due to SONM's reputation and self-learning intelligent agents.



2. GOVERNANCE

2.1. SONM token

SONM platform uses a token of the same name – SONM (ticker SNM).

Token account is a core component of SONM, and it is designed to ensure flexibility and control for the future evolution of the project. Tokens will be created during the crowdfunding period. Total supply of **SNM** will be limited to the amount of tokens created during the crowdfunding period. **SNM** tokens will be used by the computing power buyers to pay for the calculations using the smart-contracts based system.

SNM is a token issued on Ethereum blockchain. Its design follows the widely adopted token implementation standards. This allows token holders to easily store and manage their **SNM** tokens using existing solutions including Ethereum Wallet.

SONM project crowdfunding (ICO) and SNM token creation will take place using Ethereum smart contracts. Participants willing to support the SONM project development will send ether to a specified ICO

ethereum address, creating SNM tokens by this transaction at the specified SNM/ETH exchange rate.

ICO participants will be able to send ether to the SONM crowdfunding ethereum address only after the start of the crowdfunding period (specified as the Ethereum block number).

Crowdfunding will finish when the specified end block is created or when the ICO cap is reached.

2.2 SNM tokens sale ICO

2.2.1 Pre-ICO information

SONM presale launched on the 15th of April and was successfully finished in less than twelve hours, raising 10.000 Ethereum

Pre-ICO tokens will be transferred into the main token contract through a special safe migration function.

2.2.2 ICO smart-contract

ICO smart-contract will be available at this URL after ICO starts:

0xc8e3aA7718CF72f927B845D834be0b93C66b34E1

Date of start ICO:

15.06.2017

You will be able to get your presale SPT tokens after the end of the SONM crowdsale using the "Migrate" function from the main ICO smart-contract.

FAQ and all the required information regarding the SONM ICO participation and tokens purchase will be available on the ICO page (ico.sonm.io) and in all the SONM social media accounts.

2.3. SONM Crowdfunding (ICO)

(pre-sale investors don't get x5 eth then x2 sonm bonus and may be little sad, but "double-up deal" remains)				ETH	%
Maximum ICO funding				117 337,11	
Total number of SNM tokens	444 000 000,00			157 223,80	
Bounty, marketing, advisers	4 000 000,00			1 416,43	0,90%
SPT tokens issued on PRE-ICO	6 060 000,00		was sold for 10 000		
migrates to	24 240 000,00			8 583,57	5,46%
SNM tokens issued on ICO	331 360 000,00			117 337,11	74,63%
SONM Team SNM tokens number	44 400 000,00			15 722,38	10,00%
SONM Ecosystem Fund SNM tokens number	40 000 000,00			14 164,31	9,01%

Crowdfunding terms

- ICO will proceed through the native SONM application using Ethereum smart contract.
- No token creation, minting or mining will be available after the crowdfunding period. At the end of the ICO, SNM tokens creation will be closed permanently.
- SNM tokens transfer will be restricted for security reasons for one month after the end of crowdfunding. All unredeemed tokens will be burned.
- In case of the maximum ICO funding cap not being reached, tokens distribution (bounty, SONM team, SONM ecosystem) is proportional to the number of SNM generated during the ICO.
- The cut-off for funds gathered during ICO is 3 mil \$, if this is not reached - the money will be refunded to the participants.

SNM / ETH exchange rate:

	for 1 eth
ICO	2824

Further crowdfunding process details will be announced before the start of the ICO through the following channels:

[Reddit](#)

[GitHub](#)

[Twitter](#)

[Telegram](#)

[BitcoinTalk](#)

[Slack](#)

[Facebook](#)

[Medium](#)

ICO page will be available at this URL when crowdfunding starts: <http://ico.sonm.io>

2.4. Token allocation

PRE-ICO allocation structure

SONM original team	19%
R&D (including team expanding, advisers, etc.)	24%
Indirect (legal, office etc)	10%
Marketing (promotion, market growth, community & expansion)	42%
Complementary technologies	2%
Technology infrastructure	3%

ICO allocation structure

SONM original team	20%
R&D (including team expanding, advisers, etc.)	30%
Indirect (legal, office etc)	4%
Marketing (promotion, market growth, community & expansion)	33%
Complementary technologies	7%
Technology infrastructure	6%

Founder's fee

At the end of the main crowdfunding, the founding team will receive 10% of allocation of SNM, subject to a twelve-month holding period. These tokens will serve as a long-term incentive for the founding team. 90% will be distributed according to the table above and spent on direct costs according to the Roadmap.

Funds gathered during the ICO phase will create the capital of SONM and will be used for operational costs at the development stage. In a worst case scenario in terms of development the funds (if the ICO was funded fully) would be sufficient to sustain the project until 2023.

3. THE MARKET AND FINANCIAL MODEL

3.1 Cloud technology market size and its tendencies

The cloud technology market is very dynamic and is growing extremely fast globally. Different analytics firms offer a diverse array of assessments for this market, and their assessments differ mostly due to the wide boundaries these firms set for the cloud services market.

One of the leading analytics firms on the market, Gartner^[2], published the results of their research about the cloud market on 22th of February 2017, using public data centers. Judging by their research, the overall expenses for public cloud services by users and companies came to 209.2 billion dollars in 2016, compared to 175 billion in 2015.

PUBLIC CLOUD MARKET ANALYSIS AND FORECAST (2016-2020, BLN \$), GARTNER

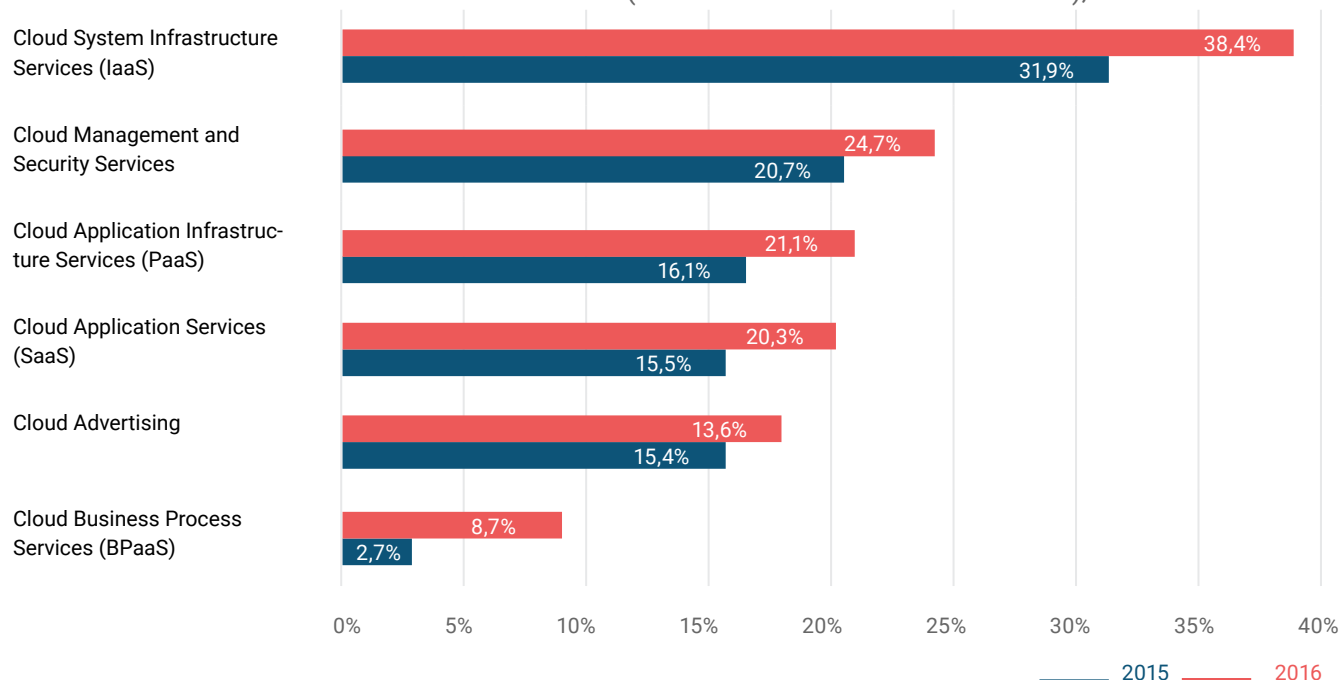
	2016	2017	2018	2019	2020
Cloud Business Process Services (BPaaS)	40,812	43,772	47,556	51,652	56,176
Cloud Application Infrastructure Services (PaaS)	7,169	8,851	10,616	12,580	14,798
Cloud Application Services (SaaS)	38,567	46,331	55,143	64,870	75,734
Cloud Management and Security Services	7,150	8,768	10,427	12,159	14,004
Cloud System Infrastructure Services (IaaS)	25,290	34,603	45,559	57,897	71,552
Cloud Advertising	90,257	104,516	118,520	133,566	151,091
Total Market (\$ bln)	209,245	246,841	287,821	332,724	383,355

In 2015, at Oracle OpenWorld2015 Mark Hurd claimed that in 10 years 80% of industrial applications will be transferred to the cloud, while 80% of the world market of SaaS will belong to two major suppliers. In addition, all development and testing of software will be carried out in the cloud, as well as corporate data, which will be stored there, and corporate clouds will become the most secure IT systems.

Confirming their forecasts, Oracle CEO added that by 2025 80% of IT budgets will be spent on cloud technologies, rather than traditional IT systems. Almost all new applications will become SaaS-applications, and in the next 10 years, investments in cloud infrastructure will increase rapidly.

The market of cloud technologies will reach \$ ¼ trillion in 2017, and will continue increasing in size. While the world's analytical companies and heads of the largest corporations can still differ in their opinions about the size of the market, the only thing that they can all agree on is the evaluation of the growth rates of the cloud market. Growth in the period of 2012-2014 was at least 30% annually for the whole market. In the past few years, growth has slowed and is at about 20% per year, still retaining serious potential for the next 5-10 years.

WORLD MARKET OF PUBLIC CLOUD SERVICES (YEAR-ON-YEAR GROWTH RATE %), GARTNER



In February 2016, Synergy Research Group analysts^[3] published the results of a survey of the world market of cloud services. Its volume, as specialists learned, increased slower than the growth rates of market leaders.

Indeed, if we take one of the leaders in this industry, the largest cloud provider - Amazon Web Service (AWS) company, we will see growth rates much faster than the market as a whole. If we take official reports from Amazon^[4], then the AWS revenue in 2014 was \$ 4,65 billion, and in 2015 it was already \$ 7.88 billion (+ 70% per year). In 2016, revenues amounted to \$ 12.20 billion, an increase of 55% compared to 2015. According to Amazon's forecasts in 2020, their revenue in this direction will be \$ 50 billion, i.e. it will maintain an approximate growth of 40% annually, which is almost 2 times faster than the general market.

More and more companies are using cloud technologies not as an addition to the IT infrastructure, but as a complete replacement for classical local solutions. This is what allows us to make such bold predictions. The cloud technology market will grow 8-12 times faster than the growth rates of traditional IT products. This will attract additional capital and new players to this market, such as SONM.

3.2 Computational power market size

Cycle Computing built several clusters for the Amazon Elastic Compute Cloud, which scale to several thousand cores. Engineers have strived to reach new heights. The client, who needed all the power of 10,000 cores, was Genentech, led by Jacob Corn, who studies protein molecules. Scientists would need several months to simulate interactions at their facilities, instead of 8 hours with the help of cloud services of Amazon.

Cycle Computing has the means to create and maintain a cloud cluster of this size (10,000 cores = 1,250 processors with eight cores each, 8.75 TB of RAM and a 2-PB system). Therefore, the engineers took only 45 minutes to fulfill the client's requirements. The cluster "existed" for 8 hours and cost the customer \$ 8500.^[5]

Cycle Computing believes that the cluster created by them can occupy 114th place in the ranking of the most powerful supercomputers in the world, with a performance of about 66 teraflops. The data is a little outdated, but nevertheless one can imagine the volumes of AWS capacity. They are incomparable even with one of the existing supercomputers, as they can only show power supercomputers from the TOP10 when connecting all possible AWS clusters. And while the power of the TOP10 supercomputers in the world is ~ 0.2 exaflops, the total power of all TOP500 supercomputers can be designated as 0.5 exaflops.

The power of the bitcoin network is approximately 51,000 exaflops. But the truth is, you need to understand that ASIC-miners can not equalize in universality. For example, with supercomputers on the x86 platform. These miners can only count bitcoins and nothing more, meaning they are useless for science. Moreover, they burn a lot of electricity on a global scale.

"Although integer calculations using the SHA256 algorithm are difficult to compare with floating point operations," said Ackermann,^[6] in the standard tests of LINPACK Rpeak and Rmax, each of our systems surpassed the fastest supercomputers in the world. Each of them contains more than 6 million cores, which is twice as large as that of Tianhe-2, the first supercomputer on the PetaFLOP list. However, it costs less, takes up less space and consumes 20 times less energy. SONM's supercomputers with a quasi-opportunistic model of mass parallel scheduling of tasks being mining to a new level - the level of exahashes.

With regards to the power in the mining on video cards, we can confidently talk about greater versatility and the ability to perform tasks, especially since the mining farms built on video cards have standard CPUs with a full set of algorithms, a sufficient amount of RAM, and a hard disk. It is more about using farms for mining built on GPU. Now the capacity growth is very fast, the complexity of the largest Ethereum network is 24 terahash and about 35 terahash common hash networks including the other altcoins. Taking into account the approximate formulas for transferring capacities from hashes to flops that are

used for the bitcoin network (According to bitcoinwatch.com 1 hash = 12,697 FLOPs, it is important to mention the qualitative difference of computing power) and the average statistical parameters of the used GPU (6 Tflops = 30mh / s) . 24 terahash involved in the ethereum network are full capacities capable of computing any kind(deterministic and non-deterministic) and in the near future there will be a release of these capacities during the transition of Ethereum to PoS.

We are will speak about the 8 exaflops of power that are used in mining. Altcoins using video cards by the most modest calculations (additional power is given by CPUs and much more universal work of video cards by multiprocessor architecture). This covers the power of all supercomputers in the world and has a truly universal applicability in computing. Even a part of this capacity will allow SONM to lead the cloud computing market, not to mention the fact that the SONM project involves the use of any capacity up to the Internet of Everything.

3.3. Costs on the computational power market

With the rapid development of cloud technologies and services, the main competitive advantage in this market is the price. The largest companies, such as AWS, IBM and Microsoft have been drawn into an acute price struggle in the past few years. It is not difficult to verify this fact, as the price slides on a yearly basis.

The AWS cluster that performed the Genentech research mission for protein molecules had the power of 66 teraflops = 0.000066 exaflops. In turn, this is 1 to 120,000 from the possible resources of SONM (approximately 8 exaflops / 0.000066 teraflops = 120,000).

Miners with 35THs per month in total for the rate of profit receive \$ 400m with a deduction of electricity per month. If you recalculate how much these capacities would earn according to the AWS price list (\$ 1250 price per hour AWS), \$ 1250 x 24 hour = \$ 30,000 per day, \$ 900,000 per month is obtained - this is the cost of using the cluster of 0.000066 exaflops.

The potential capacity of SONM in 8 exfoliates is \$ 900,000 x 120,000 = \$ 108,000,000,000 under the AWS price list. Rounding and decreasing everything in the light of the worst expectations, **we will get the opportunity to reduce the price in comparison with AWS by 10 times**, [from the one that was in this example]. This pricing provides an opportunity to enter the market and take on its own niche. This will allow you the opportunity to make a profit higher than what you can get nowadays using regular mining. This will also give everyone the opportunity to earn using their own computers and develop SONM companies, and to join the ranks of the most promising companies in the world.

The more customers which get a cloud platform, the more servers it can afford to add. The more servers - the more savings due to growth, so that the company can offer customers lower prices for more reliable and enterprise-oriented functions. The lower the price and the better the products, the more customers and users want to go to the cloud. In Amazon, this is called a "virtuous cycle".

With SONM, we offer market pricing for computing power. This means that everyone will be able to earn, both those who provide capacity, and those who need it. SONM investors will be able to make a profit (within the framework of DAO) with a commission from all concluded contracts in accordance with the number of tokens. Even if SONM takes an insignificant part of such a huge and dynamically growing market, investors can expect an impressive profit.

3.4. SONM financial model

The main assumptions and prerequisites of the financial model

- Operating expenses are covered by revenue and capital of SONM;
- Revenue - the share of dividend income accrued to the tokens that form the ecosystem of the fund;
- SONM capital - assets denominated in the cryptocurrency, accumulated during the ICO;
- The main line of expenditure - Payroll grows from 24% in the cost structure in the first year to 61% from the third year;
- The staff of SONM is 10 people at the initial stage, and by the end of 2019 it will reach 40 people with an average salary of \$ 70 thousand per year and bonuses in the form of tokens;
- In connection to this, the Payroll grows non-linearly due to the awarding of new employees with SONM tokens in 2Q 2018 - 4Q 2019;
- Tokens for bonuses to new employees are redeemed from the market (buyback tokens), which will provide exchange prices support before the project reaches the planned capacity and reduces the free float token ratio from 81% to 73% subject to full placement on the ICO;
- The second most important item of expenditure is marketing: formally accounted for within the cost price, but in fact financed by the capital invested at the time of ICO;
- To estimate the fair value of the token, we applied the dividend discounting model;
- The discount rate of WACC was estimated by us at 15.3% per annum.

We offer two scenarios of SONM project development. Those are based on the Gartner data, supplied earlier is clause 3 (3.1)

3.4.1. Pessimistic scenario

Assumptions:

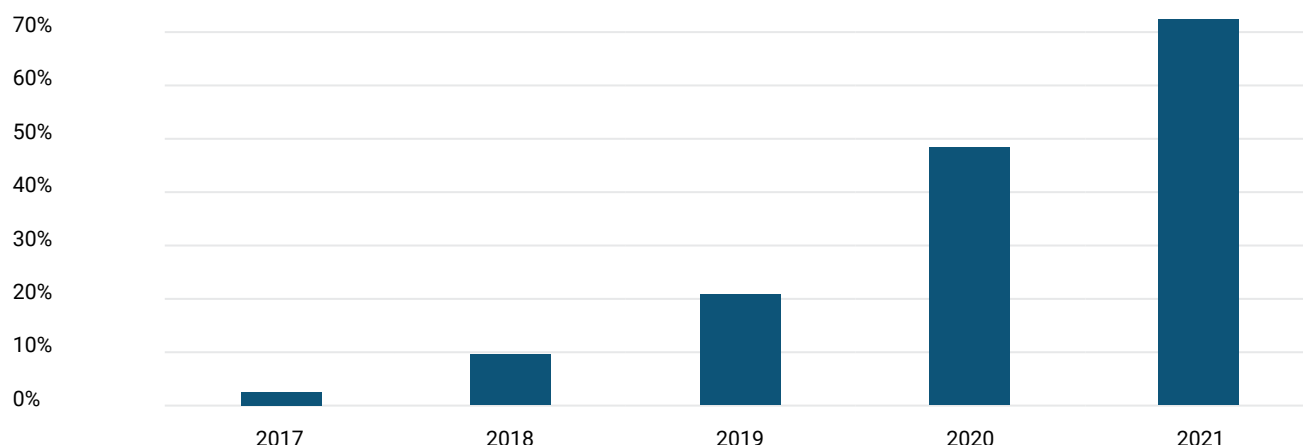
- The BPAAS, PAAS, SAAS, CMSS market share, taken up by SONM will reach 2.5% by 2021.
- The market share grows steadily by 0.14% each quarter;
- Fee will be 0,5%;
- Cloud advertising project will be launched in the first quarter of 2019.

Implementing this scenario, the dividend yield of the token in US dollars without adjusting for possible revaluation of the / USD rate in 2017 will be 1.93% (for two quarters) on invested capital (\$ 0.13 per token). By the fifth year it will reach 72.8%. The total dividend for five years will be \$ 0.21 per token or 165% of its price. The nominal period for obtaining a profit comparable to the amount invested will be 3.44 years. A classical economic model is used for calculations.

It is important to note the factors that are more likely to exceed these figures by multiples:

- The general growth of the Crypto-currency market
- Dynamics of capitalization growth of existing projects of competitors
- Technological superiority over existing projects

DIVIDEND PROFITABILITY OF THE TOKEN



The SONM project, according to the criteria of the classical business, will operate without profit until the project reaches the planned capacity. Capital attracted in the ICO will be enough until at least 2023.

FINANCIAL RESULTS REPORT (THOUSAND. \$)

	2017	2018	2019	2020	2021
Revenues	51	356	957	1 906	3 099
Operating expenses	1 479	3 291	4 831	5 759	5 759
EBITDA	-1 428	-2 935	-3 874	-3 853	-2 660
Other expenses	0	300	900	0	0
Financial income	335	604	490	343	230
Profit	-1 094	-2 631	-4 284	-3 510	-2 430

BALANCE (THOUSAND. \$)

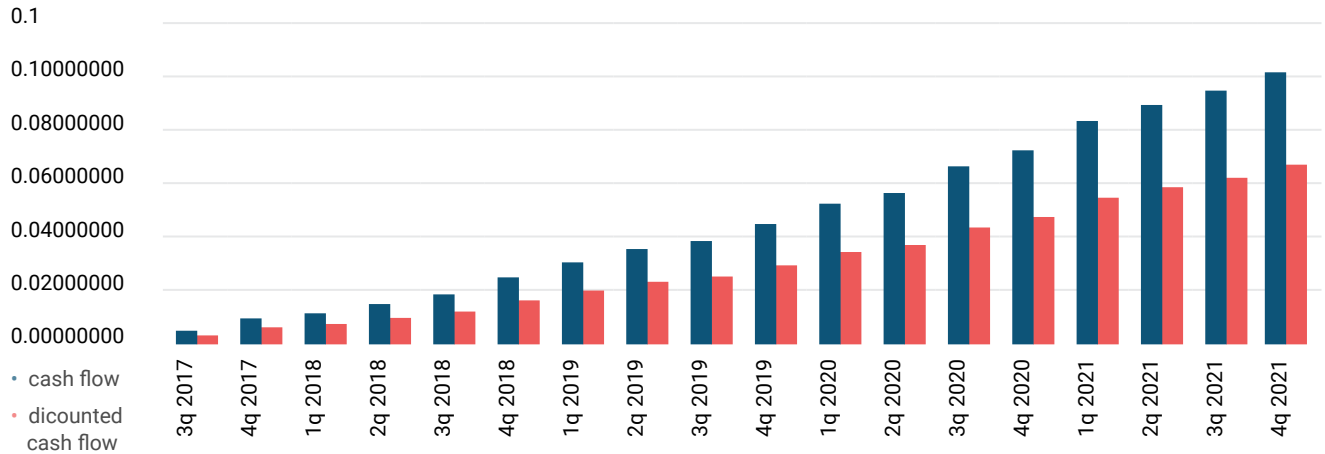
	2017	2018	2019	2020	2021
Assets TOTAL	24 219	21 587	17 304	13 794	11 364
Fixed assets	2 961	3 601	4 242	4 883	5 524
Current assets	21 258	17 986	13 062	8 911	5 840
Liabilities TOTAL	24 219	21 587	17 304	13 794	11 364
Equity	25 312	25 312	25 312	25 312	25 312
Unallocated earnings	-1 094	-3 725	-8 009	-11 519	-13 948

Thus, the risks associated with the possible bankruptcy of the operating company SONM are eliminated.

If the token is not fully bought out during the ICO, the project's financial security boundary is 60% of the planned volume of placement (156 thousand tokens). In accordance with the DDM model (Dividend Discount Model) with a token price of \$ 0.14, it will be 6% more than the price of the token on the ICO.

The token price calculations are conducted without taking the speculative influence into account.

CASH FLOW DYNAMIC



This graph is for the token price calculations according to company assets for 2020. Taking 2.5% of the general \$ 383.355 billion market will come to \$ 9.583 billion. The functional assets of the company and a high margin of profits affect the liquidity of the company assets (capitalization) and the revenue associated with it.

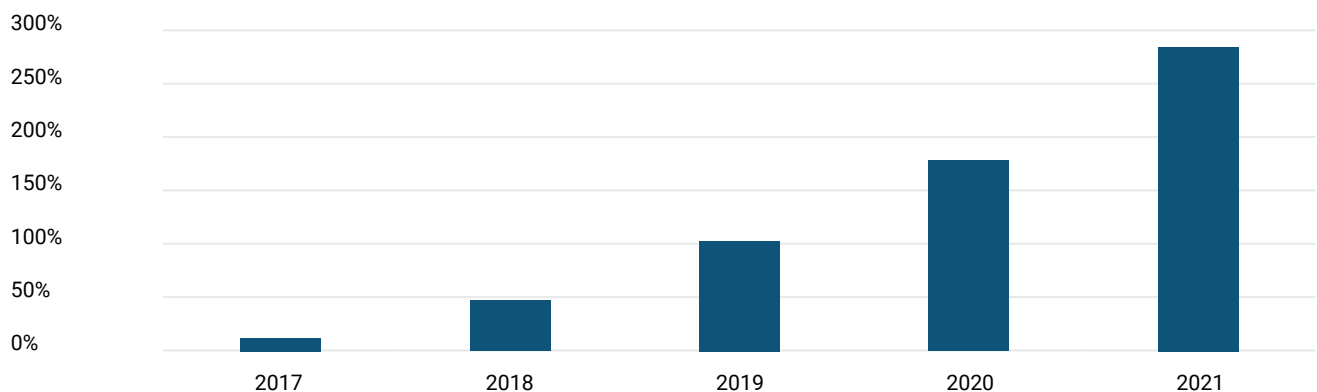
3.4.2. Optimistic scenario

Assumptions:

- The BPAAS, PAAS, SAAS, CMSS market share, taken up by SONM will reach 10% by 2021.
- The market share grows steadily by 0.5% each quarter;
- Fee will be 0.5%;
- Cloud advertising project will be launched in the first quarter of 2019.

Implementing this scenario, the dividend yield of the token in USD without adjusting for possible revaluation of the ETH / USD rate in 2017 will be 7.6% (for two quarters) on invested capital (\$0.13 per token). By the fifth year it will reach 285.9%. The total dividend for five years will be \$ 0.86 per token or 648% of its price. The nominal period for obtaining a profit comparable to the amount invested will be 1.68 years.

DIVIDEND PROFITABILITY OF THE TOKEN



Project SONM will start earning revenue by 2021

FINANCIAL RESULTS REPORT (THOUSAND. \$)

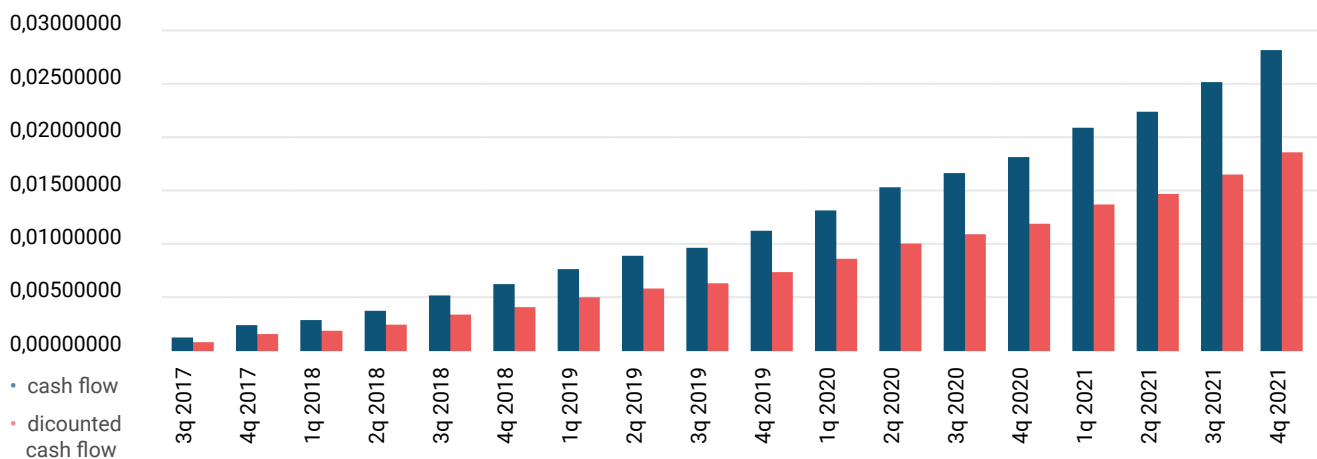
	2017	2018	2019	2020	2021
Revenues	186	1 298	2 965	5 266	8 176
Operating expenses	1 479	3 291	4 831	5 759	5 759
EBITDA	-1 294	-1 993	-1 866	-493	2 418
Other expenses	0	300	900	0	0
Financial income	335	616	543	473	484
Profit	-959	-1 677	-2 223	-20	2 902

BALANCE (THOUSAND. \$)

	2017	2018	2019	2020	2021
Assets TOTAL	24 354	1 298	20 453	20 433	23 336
Fixed assets	2 961	3 291	4 242	4 883	5 524
Current assets	21 393	-1 993	16 211	15 551	17 812
Liabilities TOTAL	24 354	300	20 453	20 433	23 336
Equity	25 312	616	25 312	25 312	25 312
Unallocated earnings	-959	-1 677	-4 859	-4 879	-1 976

In accordance with the DDM model (Dividend Discount Model) with a token price of \$ 0.55, it will be 315% more than the price of the token on the ICO. The token price calculations are conducted without taking the speculative influence into account.

CASH FLOW DYNAMIC



This graph is for the token price calculations according to company assets for 2020. Taking 10% of the general \$383.355 billion market will come to \$38.335 billion. The functional assets of the company and a high margin of profits affect the liquidity of the company assets (capitalization) and the revenue associated with it.

3.5. Dividends and fees

During the SONM crowdsale, 444 000 000 SNM tokens will be distributed to ICO participants. We plan to create a control system for SONM in the form of a simple DAO (Decentralized autonomous organization), where the holders of tokens can choose the amount of the commission (and its existence, if necessary) and influence key decisions of the project.

Minimum settlement commission for SONM is 0.5%. 100% of the amount collected by the commissions will be distributed among the holders of the tokens as dividends.

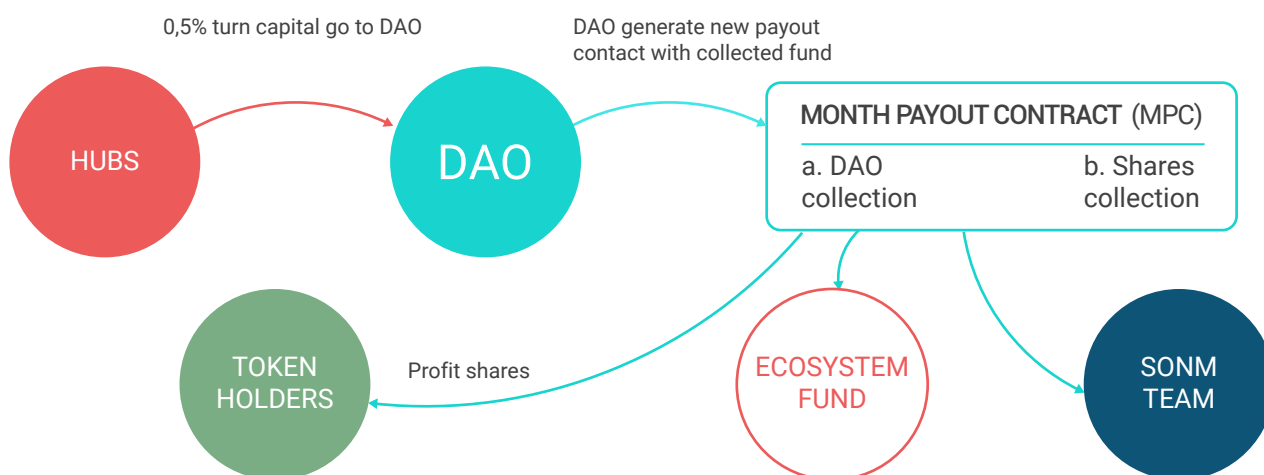
40,000,000 SNM tokens will not be sold during the ICO, but will form the ecosystem of the fund. Dividends accrued on these tokens will be used to finance SONM's operations. This ensures the motivation of the SONM team for the timely implementation of the project in accordance with the Roadmap. An additional stimulating factor will be 44,000,000 SNM tokens, which will be the remuneration of the SONM development team after the ICO. Under the agreement with the developers, these tokens cannot be sold within one year after the ICO.

For new SONM employees, a co-financing program for the SOT is provided by awarding SNM tokens. Within 6 quarters, starting from Q2 2018, a program of buyback tokens from the market with a maximum value of \$1.2 million is envisaged to realize these goals. According to our calculations, this will reduce the free float of tokens from 81% to 73%, which will not have a negative impact on their liquidity, but will support the demand for the price of the token in the period prior to the project's output at the intended capacity.

Dividend payout structure and DAO organization. (Example)

Concentrators (hubs) of the SONM network which are registered in the whitelist transfer 0.5% of their turn-over funds to the DAO wallet at the end of each payout period (actual timeframe may vary); This way all the funds required for dividend payout to Holders will be accumulated on the DAO wallet.

The distribution of funds collected by the DAO among the community members will be conducted in accordance to the following schematic:



The decentralized autonomous organization generates a special smart payout contract called Month Payout Contract (MPC), using which the dividend payout is conducted in accordance with the amount of tokens collected.

DAO uses this contract for the entirety of the payout period, transferring all accumulated funds (in tokens) to it for this period.

Members of the DAO can vote to change the following conditions:

- commission size
- minimal dividend payout
- the distribution of additional funds towards tasks important for the community

(You can read more on the economic aspect in the Business Overview, [chapter 3. THE MARKET AND FINANCIAL MODEL](#))

MPayout Contract

This contract carries the main functionality of distributing funds which are forwarded to it in accordance with terms provided. The contract has changeable and set conditions which create the basis for platform functionality.

Main conditions set in the contract:

1. Safe storage of all funds accrued by the DAO
2. Calculating the dividend amount for 1 token. Each holder gets a share depending on the ratio of the amount of tokens he/she holds to the overall amount.
3. Sending dividends (the according sum) from the contract upon a request by a specific holder

Members of the DAO can vote to change the following conditions:

- commission size
- minimal dividend payout
- the distribution of additional funds towards tasks important for the community

3.6. Trade volume

SNM token trading volume will be supported by lower costs for computing power buyers and higher profits for miners (sellers). We will reduce the margin of the current market, offer easy entrance to the market for new players, maximize profits for buyers and sellers by removing middlemen (current cloud services providers).

The wider the usage of SNM tokens for computational power purchases, the higher will be the market demand for the token on exchanges, and the higher the price in comparison with the initial ICO price.

3.6. Payment (exchange) mechanism description

Computing power buyers will be able to pay for the SONM resources they rent using cryptocurrencies, fiat currencies and traditional centralized electronic payment systems (PayPal, Skrill, etc).

The team will implement payment methods similar to those used by cryptocurrency exchanges, with Shapeshift-like services for instant cryptocurrencies exchange and payment gateways for fiat deposits.

Buyers' deposits will be instantly converted to SNM tokens at the current market rate, and after that buyers will be able to use the tokens to pay hubs/miners for performing computing tasks.

3.7. SONM Ecosystem fund

Ecosystem fund holds 40 000 000 SNM tokens, ~10% of the main amount. The fund's tokens will be frozen for 6 months and will not be available for sale or transfer during this time period. The fund will accumulate the necessary part of profit from the overall fees set by the DAO in SONM. Ecosystem Fund's tokens will act as the voting power in DAO.

The increase in turnover and profit of the company will allow us to increase the profits to, among others, the Ecosystem fund. Usage of the profits input into the fund will be negotiated by the main developer team and will have a multisignature, to regulate all the expenses, including unforeseen ones.

There are a few distinct steps, all intersupprotive of each other, within the development plan for the Ecosystem fund:

- Marketing and development.
- Conferences, open API, multi-platform SONM app
- Opening up offices and registering in appropriate locations, mergers and acquisitions

4. SONM HR

4.1. SONM Team

Sergey Ponomarev

Founder, creator of SONM multi-agent and blockchain technologies

Sergey Ponomarev is the creator of SONM's decentralized supercomputer architecture and SOSNA globalOS concept, as well as the lead developer of the SONM platform.

Sergey is an expert in multi-agent and blockchain technologies and is experienced in smart contract development, Java, C++, C#, PHP, node.js, and Solidity programming.

Sergey has a background in peer-to-peer networks organization and research, and has deep knowledge in program architecture.

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Andrey Voronkov

Founder, CEO of DrugDiscovery@home project

Andrey Voronkov is an expert in computational chemistry, chemoinformatics, and medicinal chemistry. Andrey holds a Ph.D. in computer-based drug design and has extensive experience in IT and biomedical startups. For the last eight years, Andrey has held leadership roles in several innovative biomedical research companies, including DrugDiscovery@home, IVAO, and Digital BioPharm.

Andrey is deeply experienced in preclinical drug development using molecular dynamics, docking, and virtual chemical spaces processed via distributed BOINC computing. Andrey is also a Python and R programmer and has been a blockchain enthusiast since 2013.

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Anton Tiurin
Lead SONM P2P and PaaS technology developer

Anton is a senior software engineer in Yandex. Within the Cloud department, Anton Tiurin is one of the leading [Cocaine platform](#) creators.

He has serious experience in load balancing: IPvS, nginx, nginx modules; containerization: Docker (contributor to Docker Distribution and Docker); Porto Python, Go, C++.

He is also engaged in distributed systems development : distributed consensus (Zookeeper, etc), data storage.

[GitHub profile](#)

[Twitter](#)

[LinkedIn profile](#)



Max Taldykin
Smart-contract and SONM DAO developer

Max Taldykin is an experienced smart contracts developer, currently working on provable off-chain computations for Ethereum. Max is a Haskell, Idris, and Rust programmer, specializing in functional programming and formal methods..

[Stack Exchange](#)

[GitHub profile](#)

[LinkedIn profile](#)



Max Kordek
SONM adviser

Max Kordek is a tech entrepreneur and globally recognised blockchain visionary. He is Co-Founder and President of the Lisk Foundation, the not-for-profit arm of the blockchain application platform Lisk, based in Zug, Switzerland. He is also the Director of the Lightcurve GmbH, a rapidly expanding blockchain consultancy.

Max immersed himself in the global startup community from a young age, beginning at just 14. Over the past four years, Max has become an active participant in the blockchain and cryptocurrency industry, gaining invaluable knowledge of Bitcoin and Altcoins.



Reuben Godfrey
Business developer in Atlantic Region

Reuben has worked in sales, business development, finance and operations roles for major multinationals and start-ups in the tech, telecoms and pharmaceutical industries globally. He has worked as a journalist and is frequently interviewed and asked for comment by tech and mainstream media as well as speaking at and hosting seminars and conferences.

He is co-founder the Blockchain Association of Ireland and the Irish Chamber of Commerce in Slovakia with an ambassador role on the GDPR Awareness Coalition and on the NSAI National Mirror Committee to ISO TC 307



Michail Ivanov
SONM Dev-Ops and System Architect

Michail Ivanov is an experienced cloud integration Dev-Ops engineer and an IBM-certified AIX administrator.

Michail's background embraces UNIX, Linux, FreeBSD servers management; Zabbix, Fluentd, Chef integration, and corporate IT infrastructure implementation (AD, GPO, DNS, DHCP, DFS; VPN, Radius, RDP).



Roman Sivakov
SONM Development and Dev-Ops Architect

Roman Sivakov is an experienced software/data architect. His skills include mq, caches, PHP, NodeJS, C, dag format blockchains, coreos, virtualization (prox-mocks, vagrant, Docker and Ansible). As a fintech expert, Roman acts as an adviser in acquiring, mobile commerce, payment systems development and management, and the creation of various e-commerce models and approaches.

[GitHub profile](#) [GitHub](#)

[LinkedIn profile](#)



Emmanuel Abiodun
SONM Adviser

Emmanuel Abiodun is an industry recognized entrepreneur & Technology Executive who has been a Founder of various technology companies in Blockchain, Big Data and Fintech.

Prior to entrepreneurship, Emmanuel was a technologist at JP Morgan investment bank and built risk and trading systems for investment banks and hedge funds.

He holds a degree in Electronic Engineering and computer Engineering from Queen Mary university of London, England.

Emmanuel has been featured in The New York Times, Bloomberg, CNBC, and San Francisco Business Times.

[LinkedIn profile](#)



Nicolas Titov
SONM Junior Smart Contracts Developer

Nicolas Titov has experience in PHP\HTML, SQL, C++\C#, Python development.

Besides, he is a Junior Solidity smart contracts developer.



Anastasiya Ashaeva
SONM Machine Learning and AI Developer

Anastasiya Ashaeva has a background in neural network organization and is experienced in the field of machine learning algorithm development (C#, NET, ML). She is also interested in system analysis and artificial intelligence development. Anastasiya holds a degree in Mathematics and Economics from Perm State University.

[GitHub profile](#)

[LinkedIn profile](#)



Sergei Sergienko
SONM adviser, Chronobank.io CEO

Sergei Sergienko is co-founder of Edway Group Ltd and Chronobank CEO.

Sergei has won a number of awards in business in Australia, including “Hot 30 under 30” and “Young gun in business”.

He has represented Australia in G20 summits and understands how to connect real and crypto world economies.

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Jaron Lukasiewicz
SONM adviser

Jaron Lukasiewicz has been a notable bitcoin and blockchain industry figurehead since 2012. Jaron recently served as CEO of Coinsetter, a New York City-based bitcoin exchange, and Cavirtex, a leading bitcoin exchange in Canada – both acquired by Payward Inc in 2016. Prior to founding Coinsetter, Jaron was a private equity associate at The CapStreet Group, an investment banker at J.P. Morgan, and began his career in private equity at SPB Partners. Jaron graduated from Rice University on the President’s Honor Roll with a B.A. in Economics and has been featured in The Wall Street Journal, The Financial Times, Bloomberg, CNBC, Fox Business, TechCrunch, Mashable, Entrepreneur, Institutional Investor, Forex Magnates and other news media.

[!\[\]\(0b5e7e25e8775f7e7e80906ada4f0021_img.jpg\) LinkedIn profile](#)



Simone Giacomelli
Researcher

Simone has, for over 3 years, been actively involved in the crypto space, leading teams that provide next generation blockchain solutions for both the private and public sectors.

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Oxana Lorie
SONM Graphic/UI Designer

Oxana Lorie is a graphic and user interface designer. Oxana is responsible for the interactive aspects of the SONM project and ensuring the service is convenient for both miners and buyers to use.

[!\[\]\(7bc43b319a082987e20f7bf78f4bab80_img.jpg\) LinkedIn profile](#)

[!\[\]\(e50091943b385fe16d3277389202856f_img.jpg\) Behance profile](#)



Jake Vartanian**SONM adviser, Blockchain Partners Director and Cryptodex Founder**

Jake has been involved in the cryptocurrency space since early 2011. He trades and studies Bitcoin and other altcoin markets. He founded Cryptodex in early 2015, and has worked on token launch campaigns including SingularDTV, TokenCard, and the Bancor Protocol.

He currently focuses on delivering a clear and consistent narrative to communities, as well as analyzing and designing token models that provide long term sustainable growth.

**Alexander Rugaev****SONM marketing adviser and CEO of icopromo.com**

Alexander Rugaev is a serial entrepreneur and one of the early blockchain supporters. He has experience in creating industrial grade Bitcoin and Ethereum mining farms.

He has 16 years of experience in e-commerce and online marketing.

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4.2. SONM HR Policy

Our plan includes bringing in specialists from all different industries, to allow for a harmonic development of everything outlined in the roadmap and building a successful business project.

We need:	Employee can choose one of the following wage plans:
AI advisers	
Backend programmers	Salary
Community managers	% of SNM tokens
System administrators	Both
Security Software Developer	

We are a responsibility-based company and do not bind anyone to our offices, and this is one of the key advantages for our potential employees. All the work is done online and remotely, so any of our team members can freely choose the location and working conditions, working hours and style.

We need talented people that can produce big results, not the ones who waste their time and energy in the office routine.

5. FINANCING AND MARKETING ROADMAP

5.1. Financing

The main spending of funds will go to sustaining a team of developers, with a smaller part also going to the community and marketing managers.

Team Salary

The main part of funding is needed for full-time financing of the development team and for involving new team members when needed. In addition, external contractors and complementary services are required.

The team listed in the Team Section is the core, but the project expects more hiring in the process of project development. We expect to join the market as fast as possible. Part of funding is going to come from the profits of the network if DAO decides to implement appropriate commissions, which will be deposited, among others, to the initial founders' allocation (10%). We already have experience fusing Desktop Grid computing for DrugDiscovery@home project and coupling it with smart contracts.

In the 'minimal financing' scenario, the ultimate deliverable is a working SONM. It is a creation of the decentralized computing power market along with tools for developers to implement their applications on SONM infrastructure. In particular, the minimal financing will be sufficient to introduce a basic version of the SONM Ecosystem, which is sufficient enough to carry out programs using the decentralized approach and can work with vast amounts of data – this is an area of decentralized computations, but not truly fog computing.

In the 'sufficient financing' scenario, we are making a commitment to deliver software we described much faster due to a parallel development program. We use the most effective GRID-compatible cloud solutions. Currently we are accenting the use of the Cocaine system (working in parallel with BOINC development and looking at all possible solutions for the best implementation). As a result, we expand the cloud solution to the fog standards. This way we can reap the benefits of SaaS, PaaS and IaaS approaches, host and compute anything we want, in all modern programming languages. Depending on the task and the conditions necessary for its completion, we can request resources from any cluster in the world, which will be most suitable for the task at hand – even down to a private miner, depending on which is the most geographically close, cheap, reliable and in compliance with the task's demands. Therefore, we can host any VPS or file sharing system and provide a better decentralized service than Amazon, Google, IBM, etc.

Third-party contractors and complementary services

By contractors we mean all third parties we are willing to work with. The number here is high because of security audits. Legal and accounting services are also included in this category.

Community management and expansion

We expect an expansion of the SONM community in a multilingual and multicultural environment. This will include community management, communication, marketing and promotion.

The goal is to bring Clients (Buyers-Requestors) towards the network and will include direct sales activity and making a self-sustaining decentralized sales network, which may get direct benefits and % from the buyers. This will also include the creation of the SONM foundation. We plan to invest a portion of this money to re-buy our tokens, while also our financing our servers and hubs.

By complementary technologies we mean technologies, which are needed by SONM and can be integrated into it. We mostly will rely on open-source and distributed applications. It will mostly be spent on funding integration work for these technologies with the SONM system.

Contingency

The contingency fund is calculated as 10% of the total budget (5% for minimal financing).

You can see the full development roadmap including Modules implementation and Versions roadmap in our whitepaper. http://sonm.io/SONM_TECHNICAL_WP.pdf

5.2 Roadmap of marketing

v.0.1 - ANGE (Current version)

Tasks:

1. Obtain coverage of project in blockchain, cryptocurrencies and tech publications
2. Bring new business development advisors into the project
3. Conduct ICO

v.0.2 - PRINCIP (summer 2017)

Tasks:

1. Hire experienced cloud computing marketing and sales professional
2. Develop SaaS partner program for companies offering SONM network computing
3. Create digital marketing assets
4. Continued interaction with the SONM community

v.0.3 - ARCH (fall-winter 2017)

Tasks:

1. Continue creating digital marketing assets
2. Begin early marketing campaigns
3. Begin writing byline articles in tech publications
4. Target listing of SONM tokens on the largest exchanges



v.0.4 - POWER (1q 2018)

Tasks:

1. Maintenance of processes related to the formation of market relations within the framework of the platform
2. Carrying out a marketing campaign about the project aimed at shaping the demand of both suppliers and buyers of computer facilities
3. Studying and writing articles related to technological features of the project

v.0.5 - VIRT (2q 2018)

Tasks:

1. Elaborate clear mechanisms for functions of the DAO
2. Outbound marketing to mid-size enterprises
3. Build strategic partnerships with IT resellers

v.1.0 - DOMIN (3q 2018)

Tasks:

1. Positioning the company at a global level, opening offices in target tech cities
2. Begin approaching major global companies for partnerships

v.1.1 - THRON (4q 2018)

Tasks:

1. Development of the company's infrastructure, the formation of departments dealing with marketing, security and customer relations.
2. Collaboration with major global companies representing the opportunity to integrate the maximum range of SONM system devices and provide an opportunity to reach the widest possible market.

v1.n - CHERUB (2019)

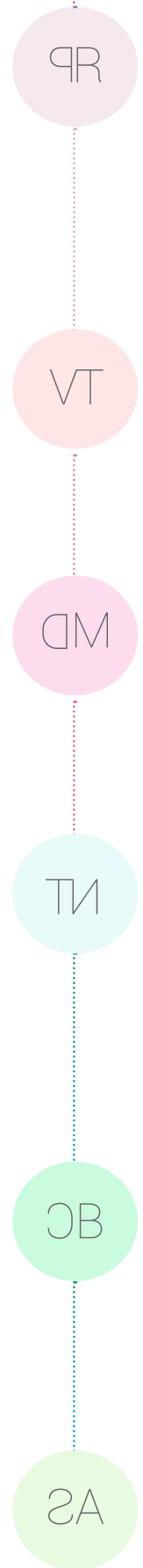
Tasks:

1. The organization of a number of major events with the invitation of representatives of the leading companies in the field of computing and smart device manufacturers.
2. Lead advertising campaign targeted on cloud services users.

v.2.0 - SERA (2020)

Tasks:

1. Build strategic partnerships with IoT manufacturers
2. Presentation of a new iteration of a comprehensive fog with universal implementation.



5.3 Dissemination of the development process information

- The project team is responsible for making the results open to the public and for using all available resources to disseminate information about the project.
- We will publish a report about current development results and issues once a week.
- The report will contain current project needs and issues.
- All major breakthroughs will be communicated with interested mass media and spread via major community forums such as BitcoinTalk and CryptoCoin Talk.

6. REFERENCES

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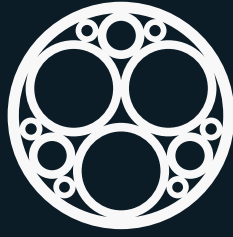
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