

ADAMANT

THE FUTURE OF MESSAGING

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Summary

A Blockchain-based system for data and message transfers along with an integrated payment system are providing a truly fundamental benefits for all-personal and business-like communications.

ADAMANT for individuals — is a Blockchain messenger available from any device. An unsurpassed anonymity and data protection, usability and integrated payment system.

In order to maintain the whole ADAMANT network infrastructure an ADM Utility-token is forged. It is used as an internal accounting unit.

ADAMANT Messenger is already available for use at: https://msg.adamant.im

ADAMANT Business — is a corporate system for data and message transfers with an ability to digitally-sign documents and an integrated payment system that allows a company to reduce its internal transactional costs.

ADAMANT Business is a way for companies to implement an internal Blockchain solution for a consistent and reliable network information exchange along with a smart and flexible mutual settlements system for a corporate cost reduction purposes.

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ADAMANT Conception

Data Protection and Anonymity

Nowadays, data transfer protection is becoming the number one priority for the most users of personal electronic devices, as well as the corporate ones. Every day more and more events in the world are proving that fact and in meanwhile, large companies like BlackBerry, IBM, Google, Apple, Samsung, Facebook are offering their own solutions for data protection purposes.

All modern encryption methods are using such strong algorithms, that the hundreds of years of work with the use of supercomputers is necessary in order to completely decrypt even a small amounts of data. They are also secured from such cyber attacks as a message interception, by using the concept of “public and private keys”, making the security of data exchange even more robust than ever.

To this day, there is probably no modern messenger that wouldn’t use the encryption. However not everyone trusts them as there is a good reason for it. And it’s not about these messengers could use an “unsafe” encryption methods, but it is mostly about their covert proprietary source code and their potential ability to intentionally give out your information to the third parties.

Another big issue lays in field of User’s Private information access. Almost all messengers do require direct access to the device’s address book, and then passes it on (all together with other sensitive private data) to their own servers. Simply justifying such questionable behaviour commonly with the increase of the ease of use, this approach creates a great threat of leakage and an unwanted data usage on all stages of interconnection.

Consider to this a most messengers’ necessity of user identification by a personal phone number, an email address, a linking the messenger’s account with accounts on social media and tracking the user’s browser activity, Corporations receive a complete information about people — including their private photographs, outcoming messages, location details, relationships to other people, users’ preferences and other kinds of Personal Data.

Despite the obviousness that such data collection violates the human rights for their privacy, it is legally “concealed” from users by “forcing” them to accept the “User Agreement” and “Terms And Conditions” agreements to make it through to registration. And most users don’t ever read these agreements. These companies which collect the data often use it “by their own discretion” and the biggest threat lays in the fact that all this information can be easily received by the third parties.

Moreover — all of these centralized message transfer services do govern their user accounts and have a full ability and rights to make certain restrictions and even block your account by their own will. As an example — there have been multiple cases of blocking Telegram users’ accounts, allegedly as a response to third party’s complaints.

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A user IP-address disclosure (when connecting to the central servers, or Peer-to-peer) is yet another problem that most contemporary messenger users encounter. However there is an efficient workaround to this issue by using the Tor-network or such progressive Blockchain infrastructures like ADAMANT network.

The ADAMANT project is made to respond to this serious question of trust in private data transfer security, since it is based on a proven to be robust Blockchain conception, and as its program code is open and public. Everyone interested can make an independent audit for the code and even build a fully functional system by himself.

An another very remarkable advantage of Blockchain technology is anonymity. This means that unlike all other centralized message transfer systems it is almost impossible to associate a message history to a specific persons — due to the absence of credentials being used by the system. Users don't need to enter their cell phone numbers, any email or social accounts, payment details, etc.

ADAMANT has the following distinctive security and anonymity features:

- All messages are directly stored in the blockchain;
- There is no access to the user's address book;
- There is no access to the user's location information;
- No user identifications — a complete anonymity of use;
- All messages are fully encrypted on the sender's device and then decrypted on the recipient side. No One (including the developers) has access to your messages — check the message transfer scheme;
- The client app does never transfer a user's Private Key or mnemonic phrase (your password) over the network. All work is done locally on the user's device;
- Therefore no user Private Data is being transferred;
- The message history is never stored on a device and is directly loaded from the blockchain;
- Unlike with P2P-messengers it is impossible to obtain the user's IP-address;
- The program code for ADAMANT Messenger and blockchain are openly sourced;
- ADAMANT accounts can not be closed, blocked or limited by anyone, including the developers.

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Legal aspect of guarantee for correspondence privacy

The jurisdiction of most countries warrants inviolability for private life and correspondence privacy on a constitution-level basis.

For example — excerpt from clause 23 of Russian Federation constitution:

1. *Everyone has his rights for inviolability of private life, personal and family secrets and to protect his honor and reputation.*
2. *Everyone has his right for correspondence privacy — including telephone conversations, mail, telegraph and other kinds of messaging. The restriction for this right is allowed only on a court-decided basis.*

Another one — from clause 15 of the Italian Constitution:

"The freedom and secrecy of correspondence and of every other form of communication is inviolable. Restriction thereto may be imposed only by warrant which gives the reasons issued by a judicial authority with the guarantees established by law."

However the governments are often trying to violate these principles, so the citizens have to find new ways to protect their rights.

ADAMANT is made to protect your Privacy.

ADAMANT message storing

All ADAMANT messages are stored decentralised in its blockchain.

This fact ensures:

- Redundant and reliable storage for message history;
- An inability for backdated message change;
- Certified authenticity for message sender and its recipient, MITM-attack protection (this kind of attack will be detected, cause the sender identificator will be changed);
- Access to user's message history from any device — like with a centralised storage;
- Reliable and Blockchain-powered message delivery;
- Security provided by the following encryption schemes: Ed25519 EdDSA, Curve25519, Salsa20, и Poly1305.

Despite the fact that everyone has the access to all the encrypted messages, the decryption of particular messages is possible only by the sender and recipient, as is guaranteed by the modern encryption methods. Blockchain and based on it Bitcoin technologies have proved the reliability of such approach — although the balances of all

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wallets are publicly stored there were no actual incidents of violate access to them by “breaking” the cypher keys.

The Token transfer system

Everyday in the modern world we all face a pressing need for convenient and reliable transfer systems, especially on kind of territories where hyperinflated currencies are used and (or) traditional payment methods are limited for a various number of reasons.

Bitcoin and Blockchain technologies have already shown their ability to solve these issues. Nowadays there is a constantly growing amount of cryptocurrencies being publicly available. But all of them bring on their own pros and cons to the table.

ADAMANT system includes its’ very own accounting unit — an ADM token, which:

- Is used as a commission for messaging, direct transfers and other additional system functions in order to maintain the whole network infrastructure;
- Operates with a truly great transaction speed (with a 5-second block time);
- Is convenient and easy-to-use for direct token transfers right from the chat screen;
- Is fully-independent from all other services and blockchains (ADAMANT is built as a self-sufficient system).

ADM is an Utility-token within the ADAMANT infrastructure. It is used to maintain the internal transaction system and whole network operability.

Interest for long-term token holders

All ADM tokens unsold in the fundraising campaigns will be proportionally distributed between all existing owners (holders). By this measure we’re going to stimulate most holders to accumulate tokens (for the first year or two) and make a counterweight for the possible speculation moods when we first-hit the markets.

The detailed plan for the ongoing distribution process is listed in the “Economical aspect” section of this original document — check the “ADAMANT Grows” part.

ADAMANT Business

In addition to ordinary features like message and file transfers, ADAMANT will include the ability to digitally sign a transferred document for users to make their treaties confirmed.

ADAMANT also possesses an integrated transfer system, which provides an ability to transfer tokens along with any relevant treaty documents (if needed) or files, directly within the chat screen. This way you can “power up” any kind of your agreements with an

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instant payment coming along with them. And since all the data is permanently stored in the blockchain, it could not be changed by any side hereafter.

In a number of cases a company will be interested in not using the general ADAMANT blockchain, but a similar one that operates only within the company structure and along with its partners. This feature will also be provided by ADAMANT Business solution.

For geographically distributed companies the blockchain allows to significantly reduce the commission costs of all internal transactions. It is especially important when a significant amount of money is being transferred between a limited number of company units several times a year and there is no actual need to convert these amounts directly to fiat money.

In this case, most of accounting runs within the company (with the use of tokens) and its assets are being converted to fiats only when necessary.

Another possible blockchain application for organizations would be a linking tokens to workers' labour compensation or other criterias like labour intensity, bonuses and work experience.

ADAMANT platform will become an easy and efficient business tool.

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Alternative solutions review and their comparison

Messengers are the most popular and convenient way of communication in the modern world. The number of available messengers is counted by hundreds and the amount of people who use at least one messenger is close to 100% of all smartphone and PC owners. However, the percentage of security-oriented and anonymous messengers which are independent from a centralized server (or a group of) is distinctively low.

Since ADAMANT's main features are security and anonymity, there are only proper alternatives considered within our comparison (this is why we don't review such messengers like Kik Messenger, Skype, Google Hangout etc).

With respect to the fact that security, anonymity and usability are often contradict each other, we do value the messenger's accordance to security and anonymity criterias as an advantage in our comparison. For example — if the messenger is making a notification about message "Read" status — this kind of behavior is a loss of anonymity for "pleasing the usability".

We had also excluded from our comparison all messengers which does not have a functional prototype: like Echo, Status, Crypviser; and all messengers that are available only for the desktop environments (and do not operate on smartphones): like RetroShare, Tox, Bitmessage, Ricochet.

	ADAMANT	WhatsApp	Telegram	Facebook Messenger	Connect.im	Signal	Dust	Ring
Open Source Code for server, application and protocol parts	Yes	No	Closed Source Code for server part and Open Source for protocol and client apps	No	Closed Source Code for server part and Open Source for protocol and client apps	Yes	No	Yes
No centralised storage for any part of the User Data	All User Data is stored in the Blockchain (decentralised)	Operator stores Data of all conversations — including images, video and files	Operator stores all Data, except the one from the "Encrypted" chats	Operator stores data of all conversations — including images, video and files	Peer-to-peer, but there are intermediate servers which store undelivered messages	Operator is able to log all Data on servers	All Data is Stored and Viewed by the operator	Peer-to-peer, but there are intermediat servers which store undelivered message
Developers / Provider is NOT able to block user account	Yes	is Able / Blocking	is Able / Blocking	is Able / Blocking	Is Able	Is Able	is Able / Blocking	is Able
No explicit user identification	Yes	Mobile number is used for authorization	Mobile number is used for authorization	Mobile number of Facebook account is used for authorization	Mobile number is used for authorization	Mobile number is used for authorization	Mobile number of Facebook account is used for authorization	User account creatio in the Ring Network
End-to-end encryption (with inability for developers to read user messages)	Yes	There is a potential ability for operator to read all messages	There is a potential ability for operator to read all messages	There is a potential ability for operator to read all messages	Yes	Yes	There is a potential ability for operator to read all messages	Yes
No access to address book	Yes	Asks user for access	Asks user for access	Asks user for access	Asks user for access	Asks user for access	Asks user for access	Asks user for access
No access to user location	Yes	Asks user for access	Asks user for access	Asks user for access	Asks user for access	Yes	Asks user for access	Yes
Does NOT transfer user Private Keys over the network	Yes	Source Code is closed for Review	Source Code is closed for Review	Source Code is closed for Review	Stored encrypted on operator's servers	Yes	Source Code is closed for Review	Yes
Does NOT store message history or any other usage information on the user device	Yes	is Storing	is Storing	is Storing	is Storing	is Storing	Is able to delete messages from both end-users' devices.	is Storing
Does NOT disclosure or expose user IP-address	Yes	Exposed to Operator	Exposed to Operator	Exposed to Operator	Exposed to Operator	Exposed to Operator	Exposed to Operator	Directly interacts wit Ring Network
Not able to get statuses like «Message Read» or «User Online»	Yes	Enabled by default	You can hide only the "Last Seen" Status	You can only switch the "Active" Status	Yes	Asks for user Permission	Forced «Message Read" notifications. No Status for user Availability	Yes

You can locate the comparison table at the following link:
https://adamant.im/docs/en-adamant-messenger-comparison-table-plain.png

Thus ADAMANT is made to solve the confidentiality and security issues.

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The technical solution

The System's architecture

ADAMANT is a fully decentralized system that is based on Delegated Proof-of-Stake Consensus (DPoS) algorithm. This choice was made in order to meet the following criteria:

- DPoS allows for any transaction to be reliably confirmed within the 5 second interval. This time is critical for fast messaging and payment execution;
- DPoS dramatically lowers the system maintenance cost — there is no need for vast computing powers and therefore — barbaric electricity waste, comparing to POW;
- Fixed transaction fees;
- Dignified system scalability and reliability factors.

ADAMANT system consists of two types of nodes:

1. Full nodes that contain the entire blockchain database and which can participate in new blocks forging;
2. And light-clients which run full data encryption on their side before further transferring to the blockchain.

However all blockchain operations are carried out by the full nodes, with which light-clients interconnect through the HTTPS protocol (End-to-End encryption), using a certain API to transfer all their data in JSON format.

A full node is using the following basis:

- OS Linux Server (Ubuntu). Installation on other platforms is also possible through the Docker application packages;
- Node.JS Application Server;
- PostgreSQL Server for storing the blockchain.

Light clients do make use of the following technologies:

- Progressive Web App (PWA) — web application for the modern browsers;
- HTML5, JS, CSS, Vue — program languages and frameworks for web;
- A full node utilization through the special API protocol.

All of the network nodes do use Peer-to-Peer scheme over the HTTPS protocol for their interconnection.

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ADAMANT token specification

- Token name: ADAMANT (ADM)
- DPoS algorithm (Delegated Proof of Stake)
- Maximum tokens amount: 200 000 000 ADM
- Genesis-block: 98 000 000 ADM
- Block time: 5 seconds (17 280 blocks per day, about 6 307 200 blocks per year)
- Block size: variative (not limited)
- Reward per block:
    - First year: 0.5 ADM per block
    - Another years: decreasing by 0.01 ADM every year till fit 0.1 ADM
    - Rewards start from: block number 2,000,000
- Reward per transaction (transactions cost):
    - Direct token transfers: 0.5 ADM
    - Message transfers: 0.001 ADM for every 256 symbols in UTF-8. Message transfer commision could be dynamically adapted to stay adequate, corresponding to the growing market price of the ADM token;
    - User Profile information update: 0.05 ADM
    - Avatar upload: 0.1 ADM
    - Image transfer (without storing in blockchain): 0.05 ADM for every 100 KB
    - Document transfer (with storing in blockchain): 10 ADM for every 1 KB
    - Digitally sign a document: 100 ADM
    - Delegate registration: 3000 ADM
    - Voting for delegate: 50 ADM
- Initial token accrual for the newly created wallets:
    - 0.49 ADM till block 6 300 000 (est. for the first year) — 490 free messages
    - For each next 125 000 of blocks the initial token accrual is decreasing by 0.01 ADM till it reaches the minimum of 0.01 ADM (est. for another year);
- Program code: Open Source (GNU GPLv3)
- Default system ports: 36666 for the MainNet and 36667 for the TestNet.

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An independent Blockchain

Unfortunately all modern use cases of the Ethereum blockchain are not quite suitable for maintaining the ADAMANT network. This is determined by a relatively high value of “gas” (transactions’ fee), that is used for every Ethereum transaction, including all message transfers. This is why ADAMANT is built on an independent blockchain — hence the transactions’ costs could be low enough to operate the whole network and they could also be adjusted based on the future rising token price.

Moreover, Proof of Work technology in not suitable either, because its maintenance cost is high, and with the grow of participants amount the transactions fee is rising up quickly.

Considering these reasons a program code of the Lisk project is being used for realization of the server part and the blockchain itself. This source code was extended in order to obtain the required functional.

The ADAMANT architecture is flexible enough for allowing us to make changes to transactions’ fee, if needed.

ADAMANT Transactions

Each block includes a variable amount of transactions. In order for it to be approved an amount of 6 to 10 block confirmations are needed. It is, however, only important for token transactions and document transfers. All messages are being sent after one confirmation. Here goes a list of our network’s transaction types:

1. Direct token transfer
2. Message transfer
3. Profile updates: like saving a contact or user settings directly in the blockchain
4. Profile picture Upload
5. Creating a Group Chat
6. Closing a particular chat (chat history hiding)
7. Document transfer (saved in the blockchain)
8. Signing a document
9. Delegate registration
10. Voting for delegate.

All transactions do require commission payment (a fee) for their execution. All such payments are being shared between active delegates as network maintenance cost.

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Infrastructure maintaining and ADM token forging (mining)

ADAMANT infrastructure is handled by a system of distributed servers that are running full nodes (blockchain). All servers' support expenses are covered by ADM tokens forging:

1. Transaction fees
2. Rewards for blocks forging.

To participate in forging process, a node should be registered as a network delegate and afterwards receive enough votes from ADAMANT users. Delegate registration fee is 3000 ADM. An ADAMANT user voting for another delegate is required to pay 50 ADM.

DPoS scheme functioning algorithm is based on a voting process that proceed in real-time mode (with the use of the reputation level of the network members) which is aimed to create a list of trusted nodes (delegates). After being elected, delegates have the legitimate right to create and verify blocks for adding them to the blockchain and also prevent invasion into the process. These nodes forge (create) blocks one after another in an order that randomly changes after each round.

Delegates do forge (obtain or earn) themselves ADM tokens when creating new blocks.

The amount of tokens being produced this way is constantly increasing. With the system inception it was to be 0.5 ADM per 1 block, but each 6 307 200 blocks (approximately a year in real time) this number decreases by 0.05 ADM till fit 0.1 ADM. This forging reward increase is going to motivate all delegates to manage the increasing network loads.

Regarding the calculations, the delegates will gain these rewards approximately for 140 years, after which the infrastructure will be fully supported by transaction commissions only.

The number of active delegates participating in blocks forging is 101. In case when their number is lower than that, these 101 votes will be allocated among the existing members which operate as a full node. The minimum amount of such nodes is 3. The whole system becomes more stable and reliable with the amount of nodes increasing.

To create (or forge) new blocks using DPoS, an election do take place in which 101 delegate members are chosen from the delegate pool in order to make all ongoing 101 blocks.

The voting is executed by nods (all wallet owners) automatically, based on the trust in particular delegates and their online uptime. After all delegates are being chosen, they are given an order in which new blocks should be formed. Creating a que of 101 blocks approximately takes 8 minutes.

Important to note however, that the payment for block forging starts only after the sequence of 2,000,000 first blocks is being created. This measure guarantees that the initial network participants won't get their tokens with the minimum amount of effort.

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And this fact will ensure the constant interest among all new users and the equality of rights among all users on the blockchain.

The new block Information is sent out with a 5 seconds interval. Each pack of new blocks is sent once from a source node and twice from each addressee for a fast distribution within the whole network.

All transactions which were not placed within a new forged block do stack in the transaction queue. This queue might contain up to 5000 transactions with a transaction lifetime of 1080 blocks.

If during this period the particular transaction haven't been added to a block then it is considered to be unconfirmed (or) unauthorized and therefore is not accepted to the blockchain and being deleted from the waitlist (the wallet states remain unchanged).

To determine the consistency and relevance of the current blockchain's state we use broadhash. It's a checksum that is system-calculated upon the 5 latest transactions within the blockchain. It is used to quickly reaffirm that all full nodes handles the identical state of the blockchain database for the particular moment.

The payback of all transaction fees is equally distributed between the delegates which take their part in block formation process and is made in the end of each 101st block round.

Security and Reliability

ADAMANT is a reliable system based on a blockchain and implemented through the following concepts:

- Distribution. Blockchain represents an immutable distributed database that allows to store data and does not allow to make any modifications within it. This way it could be used for an open, secure and reliable data storage;
- The DPoS technology is allowing the creators to control their blockchain with much more extent if compared to PoW scheme. In case of PoW there is a way to take control over the network by interconnecting it with a much more powerful processing unit;
- Broadhash consensus algorithm ensures that the whole network is tolerable to temporary desynchronization with any of its part by choosing the most long fork available;
- A BIP39 mnemocode is being generated within a wallet creation process. It is used to locally generate a user's Private Key. Then this private key is used to generate a Public Key that clearly defines the wallet address. A user can start to utilize the system right after this process completion. The whole amount of possible wallet addresses is close to infinity;

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- All outgoing transactions are being signed with the use of a private key and robust cryptosigning algorithm — Ed25519 EdDSA;
- All messages are strictly encrypted on a source device (using Curve25519, Salsa20, и Poly1305[1]) and then decrypted only on recipient device;
- The client application do never transfer the passphrase or a private key over the network. All crypto functions take their place strictly on the user's device;
- There is no actual way for a user to reveal his interlocutor's IP-address (unlike with the most common P2P messengers).

Amounts of storing data

For present time it is rather hard to estimate the amounts of data that will be stored within the ADAMANT nodes. But some assumptions can be made.

Estimated daily amount of messages — around 10,000 messages every day for the first year with an increase to 100,000 for a next few years.

Assuming that one message contains on an average of 100 symbols, the amount of data needed to safely store this message in the blockchain is calculated as 100 symbols * 2 bytes * encryption increase coefficient of 1.5 — making its total size roughly equal to 300 bytes.

In this way the amount of space needed to stored these messages for the first year can be calculated as 10,000 messages * 365 days * 300 = 1 GB, with a possible increase by 10 GB per year. The ADAMANT blockchain has a potential for growing up to 50 GB or more in next 10 years.

The total amount of fees received by delegates for such number of messages sent starts from 10,000 * 365 * 0.001 ADM = 3,650 ADM for the first year, slowly rising to 36,500 ADM in next few years.

Considering the fact that delegates will also receive their rewards for blocks forging, the increase of ADM token market price and rather cheap data storing costs — the ADAMANT infrastructure will be effectively supported and delegates will constantly make profits.

[1] Cryptography in NaCl https://cr.yp.to/highspeed/naclcrypto-20090310.pdf

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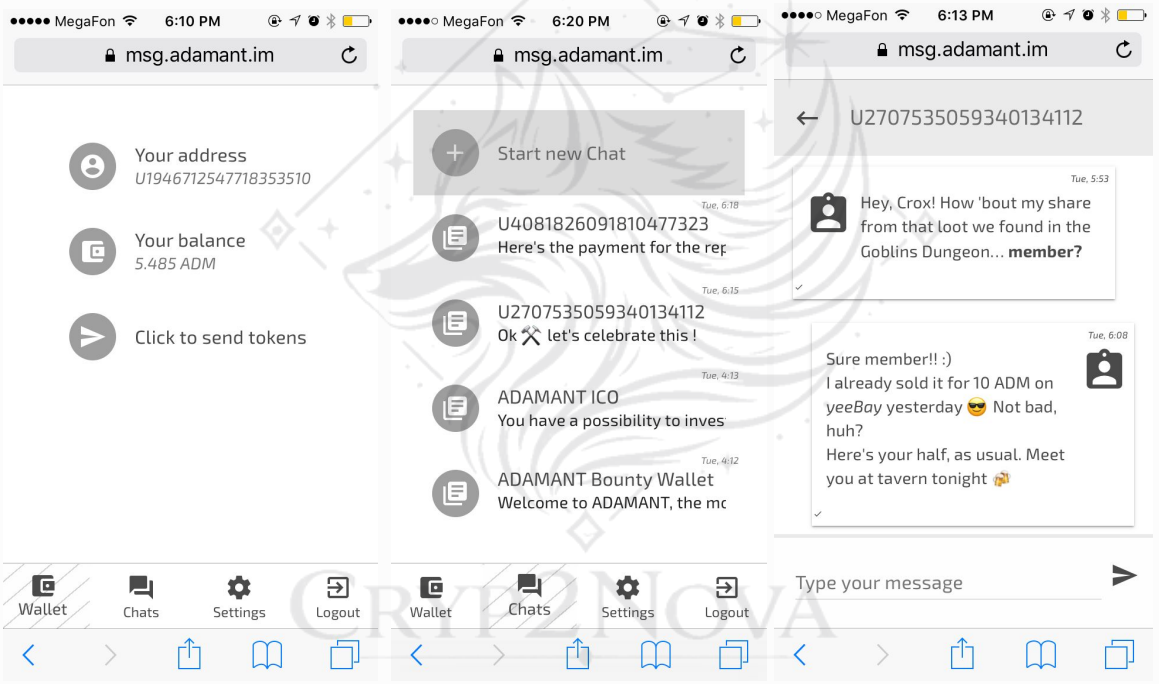
Project's current state

By the moment of the ICO, the ADAMANT system represents a fully functional product with the following features:

- Message transfer (ADAMANT Messenger);
- Tokens storage and transferring;
- Exploring the information about current blockchain state;
- A ready-to-scale full nodes infrastructure.

ADAMANT Messenger

ADAMANT Messenger is available for use at the following link https://msg.adamant.im



By the moment the ADAMANT Messenger is implemented as a Progressive Web App (PWA) working in the major modern browsers on mobile and desktop systems. The development of native applications for Android and iOS platforms is also in the ongoing process.

ADAMANT Messenger system requirements:

- For mobile devices:
  - Apple iOS 9 mobile operating system or higher
  - Google Android 5.0 or higher / mobile Google Chrome browser (version 62+)
- For PC:

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    - Any modern web browser

ADAMANT Messenger has an ability to store and send ADM tokens (wallet application).

ADAMANT Messenger current features:

- Encrypted message transfer;
- List of conversations and chat history;
- Transactions' list;
- Detailed Information about every payment transaction;
- New message notifications;
- Setting a name (or nickname) for interlocutor's address;
- Emoji support;
- Markdown support.

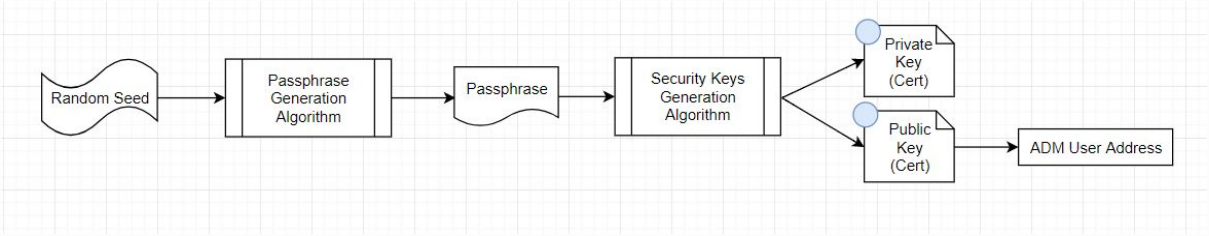
ADAMANT Messenger planned features:
(please, also check the "Roadmap" sections of this document)

- An internal address book;
- Blockchain-stored profiles and settings;
- Transferring tokens within the chat screen;
- Tokens transfer notification within the chat screen;
- Image transferring;
- Blockchain-stored document transfers ;
- Digital signing (approving) a document;
- Favorites for chats and messages;
- Search through contacts and messages;
- Simplified Sign-In using a pin-code;
- Chat hiding (closure);
- Group chats.

You can find all the advantages and features of ADAMANT Messenger right in the "ADAMANT conception" section of this document.

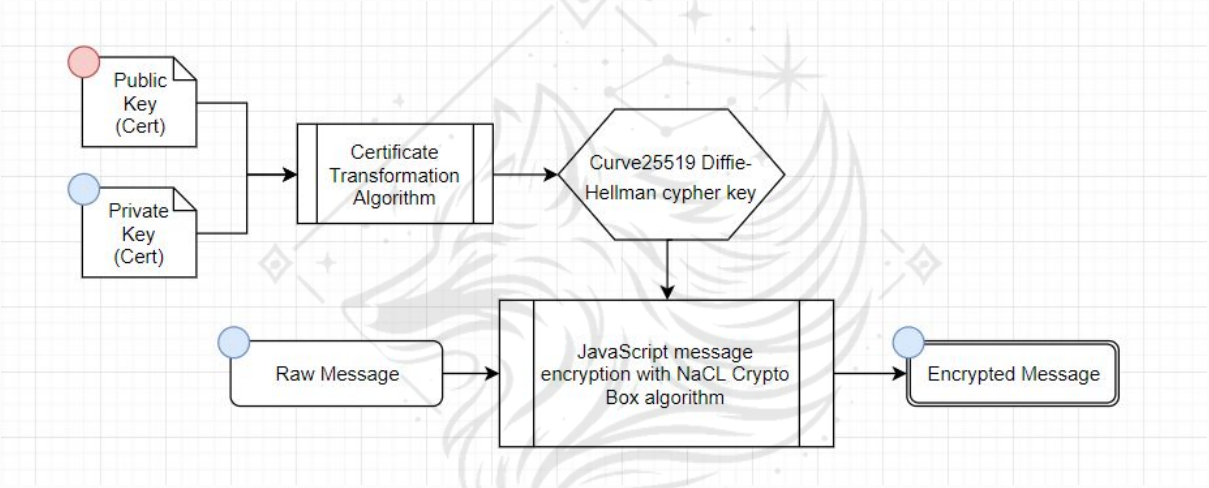
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ADAMANT Messenger account creation scheme — on user's device:



1. A random Seed is being generated
2. The system produce a unique Passphrase based on this Seed value
3. The Passphrase is used to generate a Public and a Private keys
4. A user's ADM Wallet Address is generated from the Public key

ADAMANT Messenger work scheme — on user's device:



1. A message is locally encrypted on user's device (using the Curve25519, Salsa20, and Poly1305 cipher algorithms)
2. The encrypted message is transferred through a randomly selected node to the blockchain.

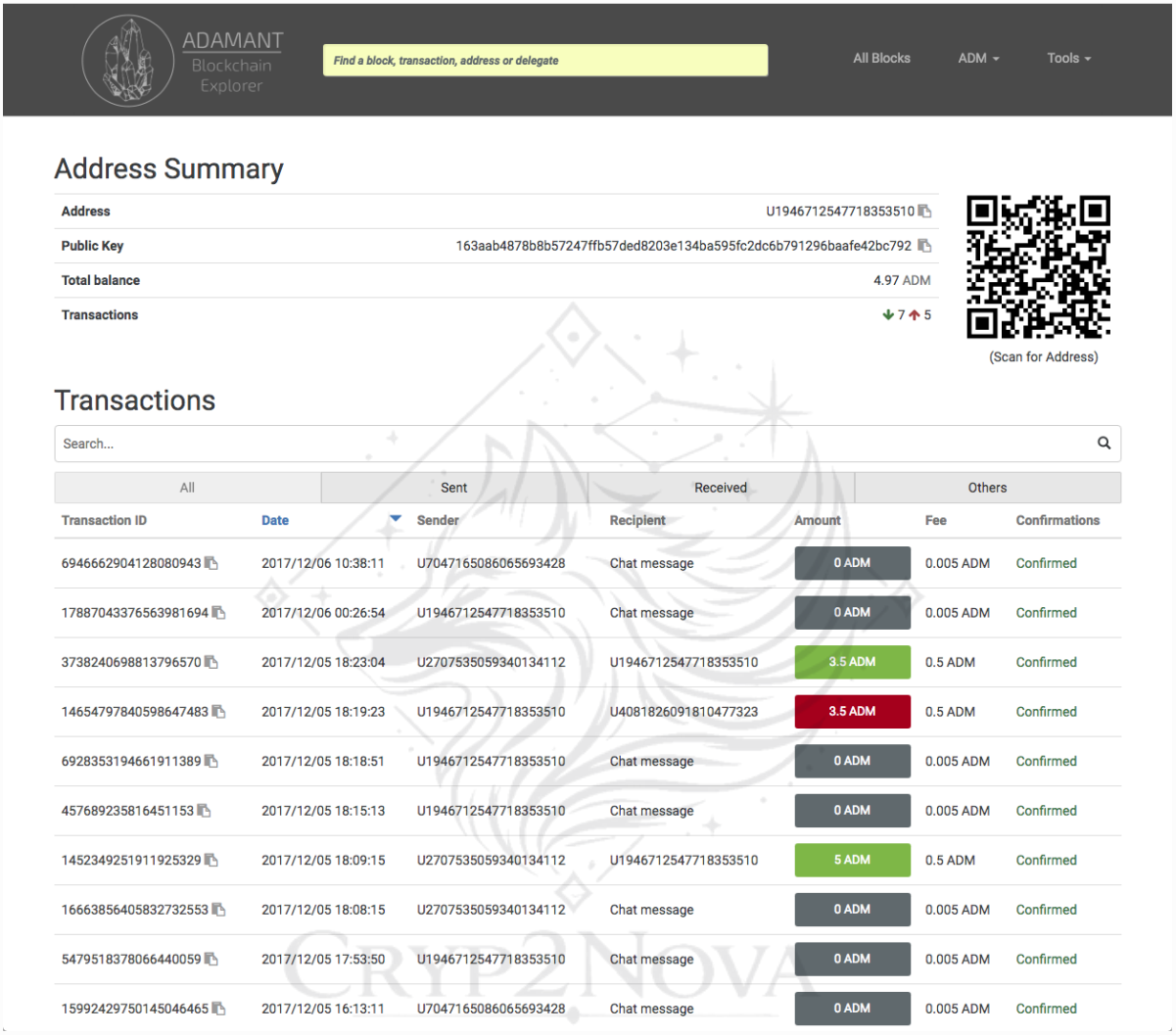
Since all messages are fully encrypted on the user's device before sending to the blockchain, there is no precise way to determine the exact message size (the total amount of symbols within it). Therefore the transfer fee is calculated approximately — 0.001 ADM for each 255 UTF-8 symbols received. The message transfer fee would be further adjusted according to the actual market price of ADM tokens.

ADAMANT Messenger is available for use to everyone. For the whole two years after the inceptional release, all new accounts will receive a small amount of ADM token to get freely acquainted with the messenger.

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Blockchain Explorer

Blockchain Explorer provides a detailed information about ADAMANT blockchain status, a blocks list, all network transactions and full information on them. It also Includes an activity graph, an information about delegates and the network.



Blockchain Explorer is available to use at https://explorer.adamant.im

ADAMANT full-node package

Anyone who wants to support ADAMANT infrastructure can do so by deploying a full blockchain node and registering as a delegate member to start forging new blocks and receiving fees for network transactions execution (note: you'll have to pay 3000 ADM for delegate registration to proceed and obtain some user votes to become an active one).

Detailed setup instructions are available at https://adamant.im/devs/

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Economical aspect

Token value rationalization

ADM is a token, which value is ensured by commissions (fees) for message and data transfer. These fees are designed to fully cover all infrastructure cost dictated by the needs for anonymous and secure data transmission.

ADAMANT Business Service also includes digital document signing (approving) features.

There is an additional ADM value that is produced through the distribution process of all remainings of the unsold tokens which were allocated for the ICO campaign. This process is named “ADAMANT Grows” and users that have enough ADM tokens within their wallet balances will receive proportionally monthly rewards for the approximate period of a one year after the ICO ends up.

ADM is an Utility-token which is used for internal system purposes only and it's apply is not intended for any speculative operations or profit gains.

Token emission

On the ADAMANT MainNet inception a genesis wallet of 98 millions ADM was created.

Initial emission distribution:

- 75% (73,500,000 ADM) — Wallet for ICO campaign maintaining;
- 4% (3,920,000 ADM) — reserve for system development and infrastructure support;
- 4% (3,920,000 ADM) — ADAMANT Business Service marketing reserve;
- 9% (8,820,000 ADM) — initial Investors’ and founders’ rewards;
- 8% (7,840,000 ADM) — Adoption wallet for Bounty Campaigns and initial user assessments.

The maximum (limited) amount of tokens — 200 million ADM.

Therefore, 102 millions of ADM tokens (+ transaction fees) will be used to payback the delegate members for infrastructure support and maintaining the network functional.

To learn more on the forging rewards — please read the “Infrastructure maintaining and ADM token forging (mining)” section of this original document.

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Fundraising for the future project development (ICO campaign)

Selling ADM tokens from genesis-block through the Pre-ICO and ICO campaigns is a planned measure aimed to support the whole range ADAMANT system growth by gathering the necessary funds for its further development process.

Please, keep in mind that ICO wallet volume is only 73,500,000 ADM.

Since ADM is made to be an Utility-token used to maintain ADAMANT infrastructure and is aimed to assure the transaction system functions, the buying (or obtaining) ADM tokens is allowed for citizens of any country and of any jurisdiction.

All tokens unsold in the fundraising campaigns will be proportionally distributed between the existing owners (holders) according to the plan listed in “ADAMANT Grows” section of this original document.

The Pre-ICO stage was handled within 12/14/2017 and 01/25/2018.

At the moment the ICO fundraising stage is taking its place with the following terms: 01/30/2018 – 06/30/2018.

- How to participate: through an automatic exchange system at https://adamant.im/ico/ webpage
- Receiving ADM tokens: through an automatic system transfer to partner's wallet right after a payment have been received and confirmed by the processing network
- Accepted cryptocurrencies: ETH, BTC, BCH, DASH, DOGE, LTC, ETC, LSK
- Token price: from 0.0002 ETH to 0.0004 ETH for 1 ADM unit.
  Accurate ADM token price for other cryptos is dynamically calculated based on the actual ETH price on the date of your purchase.
- Minimal participation amount: no cap
- ICO operational phases:
    - First:
        - 01/30/2018—02/14/2018
        - Token price: 1 ADM = 0.0002 ETH
    - Second:
        - 02/15/2018—02/28/2018
        - Token price: 1 ADM = 0.0003 ETH
    - Third:
        - 03/01/2018—06/30/2018
        - Token price: 1 ADM = 0.0004 ETH

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- Participation Bonuses (same for all phases):
    - from 20 to 30 ETH: + 20% for total ADM gain volume
    - from 30 to 50 ETH: + 30% for total ADM gain volume
    - from 50 to 90 ETH: + 40% for total ADM gain volume
    - more than 90 ETH: + 50% for total ADM gain volume

Project budget planning

All funds raised during the ICO will be used for ADAMANT development, support and evolution.

Soft cap — $500,000. Hard cap — $8,000,000.

Soft cap will provide the essential amount of resource necessary for developing of main messenger features and whole infrastructure support. More finance will allow us to speed-up the development and increase ADAMANT's active user base.

A two-year plan for the raised funds allocation:

- Infrastructure support — 10%
    - Servers
    - Staff salary
- Development — 30%
    - Staff salary
    - Office space renting and maintaining
    - Technical equipment and its support
    - Listing on cryptocurrency exchanges (markets)
    - Consulting with industry experts
- External security and code auditions (reviews) — 10%
- Users involvement — 50%
    - Offline promotion campaigns and conferences participation
    - Staff salary
    - Contextual advertising
    - Advertising on crypto resources
    - Writing and publishing thematic articles and posts

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«ADAMANT Grows»

To make ADM tokens even more valuable, all the dedicated for the ICO campaign tokens being unsold will be distributed among the actual ADM owners — their wallet balances will proportionally grow by 5% monthly for an estimate period of a one year after the ICO ends up.

As far as ADM is an Utility-token which is used to maintain the network infrastructure, the ADAMANT Grows system is only aimed to protect the conceptual system aspect and not suitable for gaining profits.

This distribution will be eventually stopped with the ICO wallet depletion.

Therefore, the earlier you'll support ADAMANT, and the longer you'll hold your tokens, the more "grow"-bonuses you'll get.

- Distribution beginning: 04/11/2018
- Distribution period: monthly
- Growth percent: 5%
- Distribution closure: eventually with ICO wallet depletion.

These wallets do not participate in token distribution campaign:

1. All initial system wallets (ICO, investors rewards, Adoption, reserve wallets);
2. Wallets with their balance being less than 10 ADM tokens.

The information about each distribution round details is open (hence will be published on an official website) and all growth transactions are visible through the ADAMANT Explorer.

Listing ADM tokens on cryptocurrency exchange markets

After the ICO campaign end up the ADAMANT token (ADM) is going to be listed for free exchange on the cryptocurrency markets.

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Adaptation and promotion

The modern messengers became a convenient way of communications. The percent of people who use them in everyday life is constantly growing, and soon it will reach 100%

The ADAMANT Messenger targets that category of users who actually high value such things as the security of their messaging and a convenient way for tokens transfer.

The high unevenness of users' adaptation is one of the main features for the every new messenger being released. The amount of new users is rising slowly at the beginning, but after a while these active users start to invite their friends and relatives, thus the total amount of users starts to grow exponentially.

ADAMANT project includes the following methods for growth of active user base:

- An ICO campaign as a way to attract people from crypto-community;
- A Bounty Campaign;
- Social networks advertising campaigns;
- Ads campaigns and commercials (online and offline);
- Attending the conferences;
- Initial assessments for new users' wallets;
- ADAMANT Business Service for inhouse company use.

Initial accruals for users' wallets

All the transactions within the blockchain do need to have their minimal fees.
This is necessary to support the network infrastructure.

To give all users the ability to freely try ADAMANT features, they are credited with a small amount of tokens during the wallet creation process:

- 0.49 ADM till block number 6 300 000 (it will estimately take a year to reach it) — 490 free messages
- Afterwards this welcome credit amount will be gradually decreased by 0.01 ADM for every 125 000 blocks till the minimum of 0.01 ADM (estimately one more year)

Since the system's direct transfer fee is 0.5 ADM, this welcome credit amount is not enough for its abusive exploitation by a subsequent accumulation of the initial balances. The initial accruals are made within the first minutes of the new wallet creation process right from the Adoption wallet (7,840,000 ADM). Thus an estimated number of users which could test the system this way for free is about 7 to 14 millions.

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Bounty Campaign

The Bounty Campaign is made to allow users to contribute in ADAMANT promotion and receive their rewards with ADM tokens.

It will take its place between 12/14/2017 and 03/30/2018 and includes:

- Rewards for signatures and avatars on Bitcointalk.org;
- Social networks activities;
- Website and documents translations;
- Translations and support of main Bitcointalk.org and Bounty Bitcointalk threads;
- Translations of ADAMANT Messenger app;
- Translations of Whitepaper;
- Related (and promotion) posts and articles in blogs and websites;
- Hosting banners on websites.

All additional information about the Bounty Campaign is located at https://adamant.im/bounty/

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Project Roadmap (2017-2018)

✓ 2nd quarter 2017

✓ Developing ADAMANT conceptions
✓ Consulting with industry experts
✓ ADAMANT TestNet deployment

✓ 3rd quarter 2017

✓ Progressive Web App development (ADAMANT Wallet and Messenger)
✓ Making the Whitepaper

4th quarter 2017

✓ Website development
✓ Starting up the ADAMANT MainNet
✓ Making a full node distribution package
✓ Creating ADAMANT Blockchain Explorer
✓ Setting up information resources (social networks, forums and blogs)
✓ Bounty Campaign launch
✓ An internal security audit
✓ Pre-ICO launch (12/14/2017)

1st quarter 2018

✓ Pre-ICO closure (01/25/2018)
✓ ICO launch (01/30/2018)
✓ ADAMANT Messenger promotion and adaptation fixes
✓ Adding new languages and translations for information resources
- Extending ADAMANT Messenger functionality (with user profiles, simpler login process and sending files / tokens right from the chat screen)

2nd quarter 2018

- Releasing ADAMANT Messenger native application for iOS
- Infrastructure whole-scaling
- Extending ADAMANT Messenger functionality (adding address book, group chats, search through messages, ability for chatroom closure)
- ICO end up (06/30/2018)

3rd quarter 2018

- Listing ADM tokens on the cryptocurrency markets
- Introducing ADAMANT Business Service (with blockchain storing for documents and their digital signing)
- Releasing ADAMANT Messenger native application for Android
- Marketing campaigns

4th quarter 2018

- An independent security audit
- Setting up ADAMANT Business Service for partner companies.
- Marketing campaigns

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ADAMANT Tech Labs

There are over 20 members in ADAMANT team.
(the main ones are listed below)



CEO — Pavel Evgenov

Executive and innovator with huge history of successful IT and Financial projects. MBA.
Graduate of Government and Municipal Management (IMEI) — Alumnus.
Secretary of Moscow Youth Community Ward.

http://vk.com/p.evgenov



Lead Developer — Alexey Lebedev

IBM Certified Solution Designer — IBM Rational Unified Process. Blockchain enthusiast.
Over 15 years of work experience with IT-projects management and development. Head of InfoResheniya and irSoftware.

lebedevau@gmail.com

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Lead Developer — Dmitriy Soloduhin

Master of science at Information Systems department of Vladimir State University. Developer and system architect for wide spectrum of information systems (including Blockchain). Wide range IT-specialist. Interests: Lego, photography.

https://www.linkedin.com/in/dmitriy-soloduhin



Lead Designer — Maxim Pikhtovnikov

Graduate of the faculty of Micro-units and technical cybernetics (MIET) — Alumnus.
Designer and marketologist with work experience in major international companies.
Computer network and information security enthusiast since 1999.
IT-advisor and executive, coach.

https://www.linkedin.com/in/pikhtovnikov/

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Product manager — Artem Vorobev

Graduate of the faculty of Micro-units and technical cybernetics (MIET) — Alumnus.

Over 10 years of work experience with IT-projects.

Over 7 years of work experience with IT-startups.

Wide range IT-specialist.

art.vorobev@gmail.com



Public relations — Sergey Lebedev

Graduate of the Architecture and Construction Department of Vladimir State University.

Chief project engineer, entrepreneur.

Under his leadership more than 50 projects have passed state expertise in the field of construction design.

https://vk.com/id405481034

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iOS Developer — Pavel Anokhov

Moscow Institute of Management.

12 years of experience in IT, from Technical Support to highload backend applications.

Interests: Programming, snowboarding, and Portal 2.

https://vk.com/realbonus

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ADAMANT Web Presence

- Website: https://adamant.im
- Messenger: https://msg.adamant.im
- Block Explorer: https://explorer.adamant.im
- Source code at Github: https://github.com/Adamant-im
- Twitter: https://twitter.com/adamant_im
- Facebook: https://www.facebook.com/adamant.im
- Vkontakte: https://vk.com/adamant_im
- Slack: https://adamant-im.slack.com
- Telegram: https://t.me/adamant_im
- Bitcointalk.org ADAMANT Messenger thread: https://bitcointalk.org/index.php?topic=2635564.0

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