GRAVIO Ecosystem

Is a new communication platform (c2b, b2b, c2c).

It is able to unite people, smart things and business.

It will allow all participants (both virtual and real) to communicate using natural language.

It will help to work and earn money.

GRAVIO will able to create

01 | Unified secure communication space

02 | Unified protected information field / space

03 | Unified semantic space

04 | Unified geoinformation space

05 | Unified space for earning and spending based on the crypto currency - GRAVIO coin (GIO)

Structurally, within the ecosystem, three main vectors can be distinguished

01 Mobility concept

02 Security concept

03 Earnings concept

Technical and functional aspects of the ecosystem

01 Technological and functional concept

02 Information security concept

03 Architecture

GRAVIO coin (GIO)

Digital currency for the real world

01 Intergated and secure payments withing ecosystem

02 Every GRAVIO user has a light wallet and initial amount of GIOs for FREE

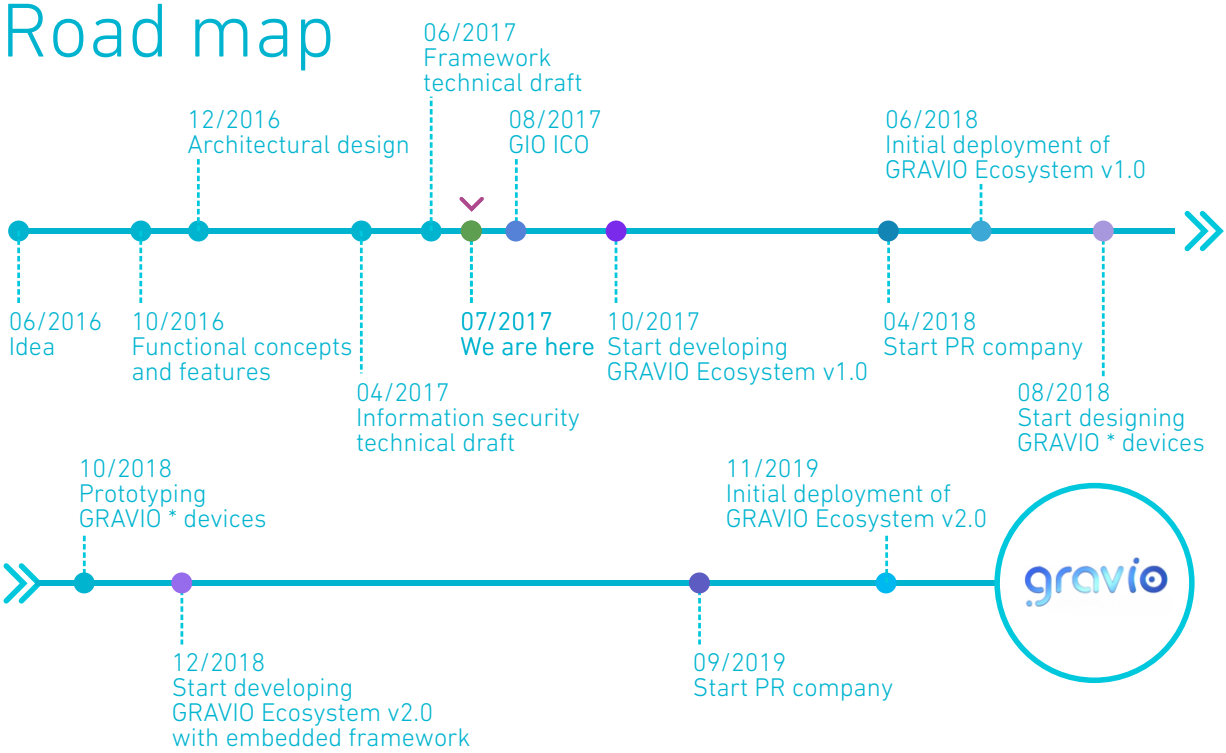
03 GIO will be placed on the popular exchanges

Coin details

ICO Information

gravio
everything is connected

Road map



GRAVIO Team

Join

Wladzislaw Pewzner

CEO
Cofounder

Project Manager. General Director.

General project management. Business analytics.

PMI member.

Andrew Demuskov

CTO
Cofounder

Systems architect. General technological and organizational leadership.

Crypto-algs, network protos, AI.

Sergey Glushko

CCO
Cofounder

Commercial director.

Commercialization, partner search.

Sergey Zhelonkin

TL/SD
Cofounder

Chief developer.

Coordination of technical expertise, development of server-side solutions.

Unstructured distributed storages, cloud/fog computing.

Alexander Eltsov

SD

Senior developer.

UI desktop and mobile expert.

Rich and responsive UI development, MVVM, MVP, MVC, hybrid UI apps.

Elena Shadrina

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Senior business analyst.

Functional design and specifications.

Dmitry Denisov

LD

2D/3D designer.

UI ergonomist, 2D/3D models/UI designer.

Concept design, industrial/consumer devices design.

Mobility concept

GRAVIO will accompany the user continuously (in a smartphone, tablet, netbook) and will serve as a permanent personal assistant. It would help "attract" people, things, events, interesting proposals of goods/services. In doing this, it will require minimum configuration efforts from the user.

GRAVIO will have sufficient intelligence to become a smart assistant. Based on simple settings specified by the user, the assistant will continuously analyze user actions, track user movements, use user preferences - to help navigate the city, to interactively "attract" events/services, report about identified potential security threats. The assistant will constantly be learning to make its actions and recommendations more helpful and informative to the user with each new step forward.

Assistant will help - find information, exchange information, prompt the user sights, events, facts, etc. in line with his/her preferences. Also assistant can help user in his daily activities - whether private communications or business contacts. It can help to structure information and keep "on the fingertips" what's happening in user's areas of interest. If user is a member of several interest groups, the assistant will help him to share information with peers and work on common projects. It will help also to get an income by selling his ideas, materials, knowledge, etc - every type of content, actual for members of different gravio communities.

One of the basic functional concepts of the GRAVIO network is the notion of gravity (attraction).

Gravity is a function based on:

- Preferences (explicitly set)
- Gravity points
- Geo-positioning

Preference is an essence described by a set of attributes and their values. Preferences can have temporal, territorial limits and a nominal range of action.

Gravity points is another entity described by a set of attributes and their values. Gravity points may have time limits and are usually tied to a geographic location (geographical coordinates determined automatically).

If the user moves, the GRAVIO network will rely, on the one hand, on the specified public preferences of the user, its geolocation and radius of relevant "preferences" and, on the other hand, on the multiple gravity points. By using semantic analysis elements, GRAVIO will be constantly (discreetly) analyze the compliance of the attributes and values of preferences and the attributes and values of the points of attraction within the radius of action of one or another preference. If conditional compliance is found, GRAVIO network, based on the collected lexical base of the user, sends the user a p2p message saying that there is something within the specified radius that might interest him/her.

For example, the user will create an open "preference" (a simplest example):

Drink = Coffee a la Arabic
Radius = 100 m

Moving around the city on his/her business, the user can get a message from a point of attraction described (created) as in the example below:

Drink = Arabic coffee with cardamon
Drink = Espresso
Drink = ...
Geographical coordinates = x / y (automatically determined during

In this case, when receiving the message, the user can "communicate" with the virtual assistant of the place by clarifying, for example, the product range ("Do you have cheesecakes?").

In the broad sense "attractions" allow/help:

Attract interesting contacts, activities, events
Travel (sights / museums)
Attract offers of services / goods
Work and earn money

For companies and entrepreneurs there arises an opportunity to use open user preferences (of course not directly) to promote their products and services (both digital and non-digital) - Direct Digital Marketing.

Security concept

Several outstanding features of GRAVIO will make it a personal security advisor and officer.

First, the natural language communication feature helps to use connected devices and establish communication while user is extremely occupied and in case of emergency, when the person has no time to switch interface windows or type any text. GRAVIO will learn appropriate vocabulary and semantics in order to communicate with the user effectively and provide communications with GRAVIO devices for home and car, personal assistant of the user's kid, a.s.o.

For example, a simple question "Where are you ?", addressed to a kid's assistant, will return back his position. The same question may be addressed to the GRAVIO.car - if the user forgot where he had left the auto.
From the other side, "car" or "home" devices will react to the events that require user's attention by sending him message with an appropriate picture made by VR or home security camera if it is needed. Taking care of a child, the assistant would study his usual routes and, if there is a considerable deviation, it will send an alert about the unusual location and/or an abnormal route.

Attending an outpatient at his/her home, the assistant will analyze medical sensors data stream (heart rate, blood pressure, oxygen saturation, etc.) in order to recognize the emergency in time and send a message to the user immediately. So the user would have a chance to respond quickly and decide whether to contact the patient, ask the assistant for additional data or to call an ambulance.

Eventually, GRAVIO will:

Compound an absolutely secure personal area IoT network, including smart house elements, cars, home medical devices, home security system elements, and a variety of smart stuff from smartphones and tablets of family members, home laptops and desktops to new kinds of devices to be developed in the future.

Look after children and grandchildren, help to take care of people with disabilities and patients undergoing outpatient treatment at home.

Create a unified family security contour and an alert system to warn about potential or past incidents.

GRAVIO will make the user's environment comfortable and safe. GRAVIO will reduce the distance between the user and his/her family and will takes a part of the worries on.

Earnings concept

Each user in the system will have his own personal account - GRAVIO Coin (GIO) Wallet. When registering with the GRAVIO Ecosystem, the user will receive a number of GIO tokens on his GRAVIO Wallet.

GIO Wallet will resides on GRAVIO servers. So users will deal with it through lightweight client app (GRAVIO app). GRAVIO servers and apps communication and subsequent information storing will be built on the extremely secure principles (see Information security concept).

In various public groups the user can post digital content and set prices for it (photos, videos, business intelligence, etc.) User can create a paid group and set a fee for participation in it (tuition, stock market predictions and many more).

In this case, when publishing a material, the user can add to it some attributes and values that describe features of the offer. The material added to the proper public group, will also be gravity point, being a peculiar point without a geotag.

To organize and manage the uploaded content, users can use Content Manager. Content Manager enables flexible management of various materials that users share within groups and individually. Content Manager will organize materials by section and category and link them to the context of discussions in respective chat rooms. It will also provide a convenient interface to quickly search the contents of chat and catalogs.
Content Manager will assist in the dissemination of the materials and will provide a convenient interface to monitor access, including access to paid content.

GRAVIO will take on all the complex monitoring of access to the paid content or control of participation in relevant paid groups.

Motivation

We strongly believe in open decentralized economy in conjunction with cryptocurrency community. Also we sure, that the driving force of the every economy - is the people.

But, as professionals we see and understand how unattainably high the entry threshold is for the ordinal user into this new bright world. That is why one of the main goals of the GRAVIO Ecosystem - is to unite people, business and smart things on the simple and widely understandable principles.

And we sure - together we can do it. We can build very powerful community, that can change the world.

Coin details

Total tokens ~ 2 000 000 000
Premine = 10% (200 000 000 tokens)

Premine distribution (see also ICO):
Investors = 75% (150 000 000 tokens)
Community growth stimulation (CGS) = 10% (20 000 000)
Bounty campaign = 1.5% (3 000 000)
New GRAVIO users = 8.5% (17 000 000)
Development team motivation and growth (DTM) = 15% (30 000 000)

Investment distribution

Development plan

ICO

Bounty

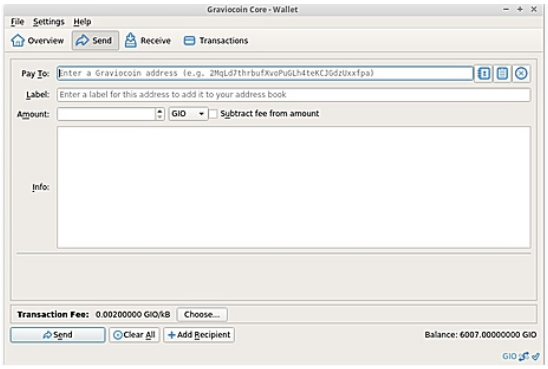
Coin technical details

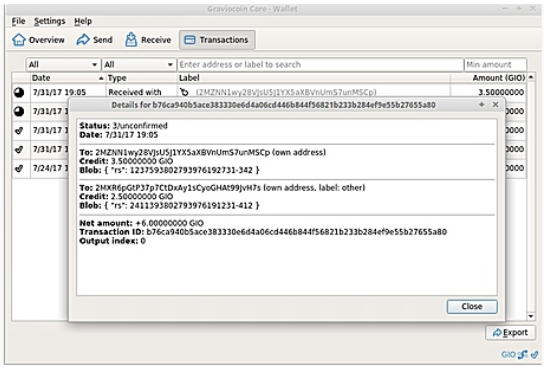
Halfing	~2 years (1.9 years)
Block reward	1000 tokens
New block	1 min
Difficulty recalculation	1 day
Block size	~2 MiB
Algorithm	scrypt / POW
Mining pool:	n/a till ICO starts
Block explorer:	n/a till ICO starts
Wallet binaries:	n/a till ICO starts
Sources:	Graviocoin Core v0.1.6.1 - n/a till ICO starts
Code base:	Litecoin Core v0.13.2.1

Base enhancements (for now)

We added an optional “link” to the resource in the GRAVIO Ecosystem into the body of transaction (each txout now has a blob, where link is stored). This link is the information about how to identify resource for which you pay for (in a simplest sense) in the GRAVIO Ecosystem.

You can see this enhancements in the Linux/Windows/MacOS Graviocoin Wallet UI.





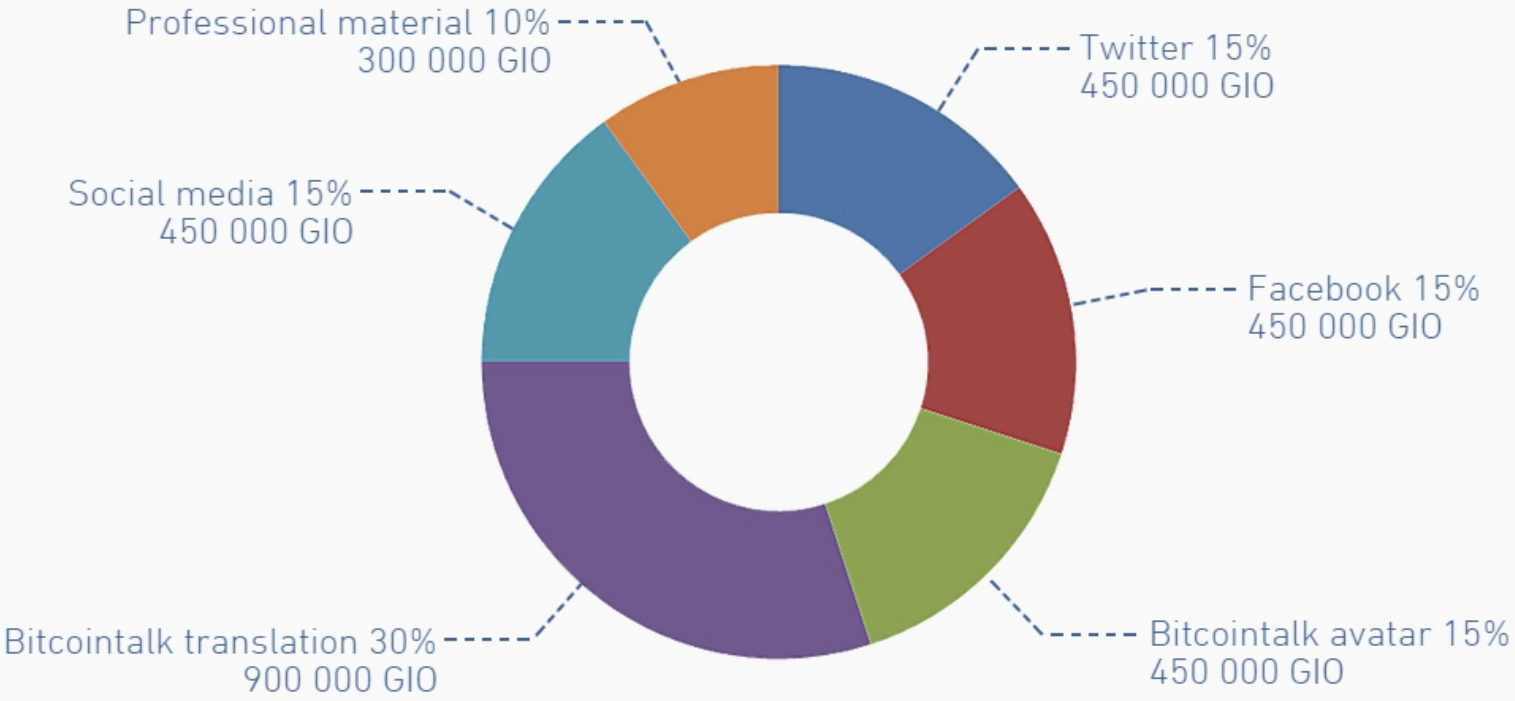
Future works

We are working on architectural concept, that will allow to “compress” blocks into “superblock” chain. That technique will can help reduce full synchronization time to several minutes on 10 GiB full blockchain with communication channel about 10 MiB/s.

gravio
everything is connected

Bounty campaign

We are offering 0.15% of total amount to bounty campaign
(3 000 000 or 1.5% of GIO premine).



Twitter

Follow our official page in Twitter. You retweet news marked with #gravioico from our official account within 5 days after their publication and not later, and do not delete them until the ICO ends. Each retweet will earn you the following amount of points:

20 followers and less - 1 point
From 21 to 99 followers - 10 points
From 100 to 199 followers - 30 points
From 200 to 499 followers - 60 points
From 500 to 999 followers - 120 points
1000 followers and more - 250 points

The account must be at least 1 month old.

NOTE: We count ONLY the posts that are marked with #gravioico by our team. So, if you add our hashtag to any posts, it will not be counted.

Total amount for this category: 450 000 GIO (15% of campain)

Register here: https://goo.gl/forms/eriKdH4TsOe4BMYr2

Crowdsale

Begin date: 8/24/2017 12:00 UTC
End date: 9/24/2017 12:00 UTC

75% of premine GIO amount will be sold during ICO campaign (150 000 000 coins) Our goal is ~3000 BTC

Note #1: Please, be patient - all of your transactions will be processed in 2 hours max.
Note #2: To avoid misunderstanding when you send your money, please, read carefully "Send money" tutorial.

Facebook

Repost our posts with the #gravioico hashtag. Shares to public pages and open groups in Facebook are also accepted. All reposts must be public.

Each repost will earn you the following amount of points:

20 followers and less - 1 points
From 21 to 99 followers - 10 points
From 100 to 199 followers - 30 points
From 200 to 499 followers - 60 points
From 500 to 999 followers - 120 points
1000 followers and more - 250 points

The account must be at least 1 month old.

NOTE: We count ONLY the posts that are marked with #gravioico by our team. So, if you add our hashtag to any posts, it will not be counted.

Register here: https://goo.gl/forms/oT03s80fvDBVPIM12

Total amount for this category: 450 000 GIO (15% of campain)

Bitcointalk avatar and signature

Upload the avatar and write at least 7 constructive posts a week.

Each week completed will earn you the following points:

- Legendary/Hero : 20 points
- Sr./Full : 15 points
- Member: 10 points
- Jr. Member: 5 points

Using signatures relevant to your rank on bitcointalk gives you additionally +5 points.

Our GIO ANN main thread.

Restrictions to earn points in this category:

- We will ban and will not send GIO coins to spammers and multi accounts
- Users who do not post a min of 5 posts per week for 2 consecutive weeks will be removed

We do not count discussion boards (games and round, micro earnings, politics and society, off-topic, archival, posts in "tipster" threads, auctions, lending, beginners and help, press, investor based games).

Register here: https://goo.gl/forms/gHMyetG0BOBWaYap1

Total amount for this category: 450 000 GIO (15% of campaign)

Bitcointalk translation and thread moderation

Use this form (https://goo.gl/forms/S7AJIsE92b33tSWr1) to book your language ANN translation and moderation. Participants list.

You will receive:

- 50 points for ANN translation,
- 20 points for our main annotation post translation,
- 5 points per page in your thread.

Also for the White paper (coming soon) translation you will receive 50 points.

Total amount for this category: 900 000 GIO (30% of campaign)

Write a post in your blog/social media

Each week completed will earn you the following points:

- Legendary/Hero : 20 points
- Sr./Full : 15 points
- Member: 10 points
- Jr. Member: 5 points

Write a post about GRAVIO in any language, with at least 1000 characters and containing some links to gravio.net. We will estimate each article as standard (10 points), extended (25 points) or "wow" (90 points).

It can be your blog or your social media personal page. Of course, this article should be available to the Internet. Also, to class your article, we will check the popularity of your blog and the quality of the content.

Send link, using this form: https://goo.gl/forms/Z4uGABeeY10ZXmWl1

Total amount for this category: 450 000 GIO (15% of campaign)

Make a professional material and help us to publish it in the media

If you are a media professional (journalist) and you can help us to create an article on a popular media website or outlet, you are welcome.

We will class each article as standard (10 points), extended (25 points) or superprofessional (90 points) depending on the media outlet and it's reach.

Apply, using this form: https://goo.gl/forms/WzrCN7QY6e8UwZEy2

Total amount for this category: 300 000 GIO (10% of campaign)

Bounty distribution

We will distribute 3 000 000 GIO coins in proportion to the amount of points each bounty campaign participant has earned in each category.

For example, after counting all Twitter retweets, we will make a table where everyone who reposted will see their personal bounty points earned in the Twitter category. Since there are 450 000 GIO coins dedicated to the Twitter category, those coins will be distributed between all members participating the bounty campaign according to the amount of points they have earned. And so on: for Facebook campaign, BTT avatar campaign, etc.

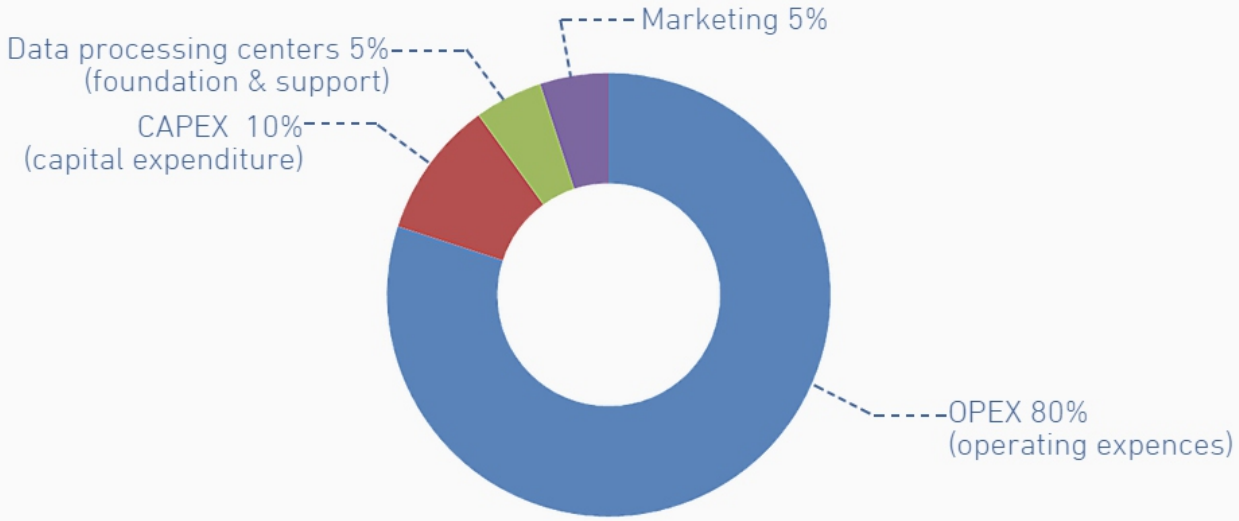
To summarize, points earned in each campaign will NOT be pooled together but rather the coins in each category will be divided in each category separately.

Note: We will collect subtotals by each week on Friday.

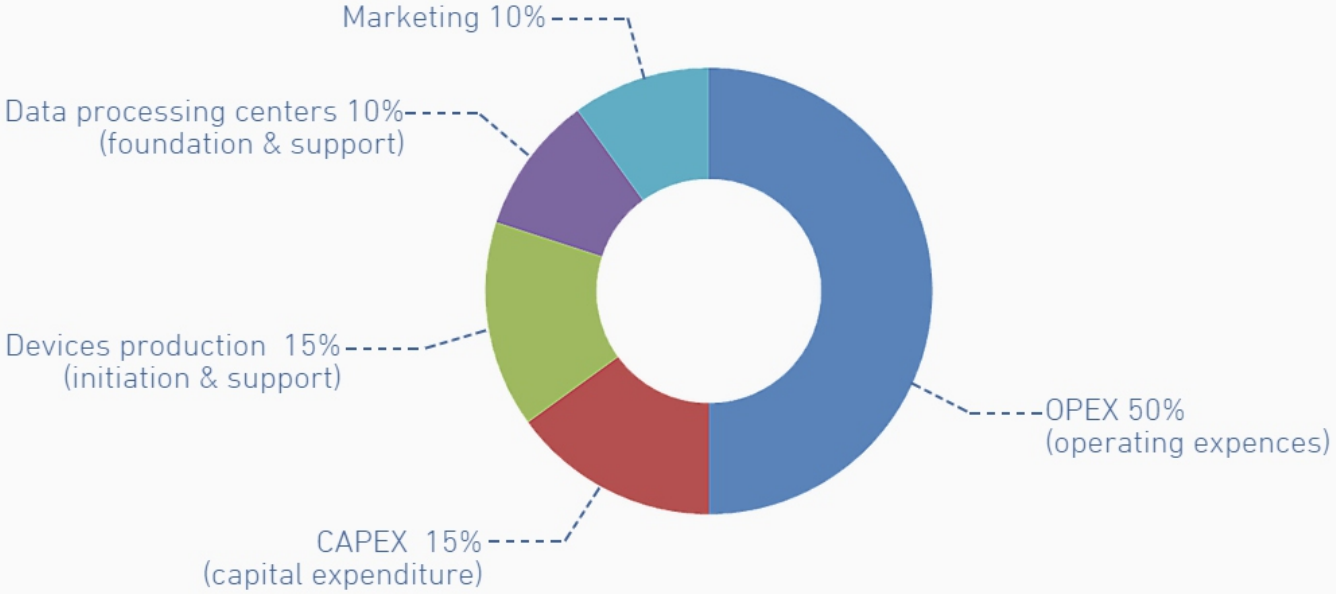
Note: Bounty distribution will be done after ICO ends.

Investment distribution

If investment amount < 3000 BTC



If investment amount > 3000 BTC



Development plan

Up to 1000 BTC

- Basic technology (fully functional mobile and desktop apps, integrated wallets & secure payments, earn&spend, gravity system)
- 1 data processing center

Up to 2000 BTC

- Basic technology (fully functional mobile and desktop apps, integrated wallets & secure payments, earn&spend, gravity system, DDM)
- Extended technology (basic IoT/CIoT software platform)
- 2 data processing centers

Up to 3000 BTC

- Basic technology (fully functional mobile and desktop apps, integrated wallets & secure payments, earn&spend, gravity system, DDM, business “places” templates and business “place” designer)
- Extended technology (basic IoT/CIoT software platform, basic hardware platform GRAVIO.* (HOME, HUB) with some basic exchange protocols support)
- Small-scale production of GRAVIO.HOME and GRAVIO.HUB devices
- 2 support services centers
- 3 data processing centers

Up to 5000 BTC

- Basic technology (fully functional mobile and desktop apps, integrated wallets & secure payments, earn&spend, gravity system, DDM, business “places” templates and business “place” designer)
- Extended technology (basic IoT/CIoT software platform, basic hardware platform GRAVIO.* (HOME, HUB))
- Full stack technology (full IoT/CIoT integration software platform with modern (open and proprietary) protocols support, full hardware GRAVIO.* platform with wide spectrum of physical interfaces support (including GRAVIO.CAR devices))
- Medium-scale production of GRAVIO.HOME, GRAVIO.HUB and GRAVIO.CAR devices
- 3-5 support services centers
- 5-6 data processing centers

From 6000 BTC and higher

- More than 10 data processing centers worldwide
- High-scale production of GRAVIO.HOME, GRAVIO.HUB and GRAVIO.CAR devices
- Widely distributed support services network with official representation

Technological and functional concept

The backbone of the GRAVIO network will include hardware&software solutions for end users — GRAVIO.HOME, GRAVIO.CAR, GRAVIO.HUB — and the end user applications for installation on mobile platforms (smartphones, tablets, netbooks/notebooks) and desktops.

To support the operation of the GRAVIO network infrastructure, it is necessary to deploy a network (based on dedicated servers) united into a single cloud service. The architecture of the network implies a fairly high level of decentralization.

To connect smart home things, devices, or medical devices to the GRAVIO network, the user must purchase GRAVIO.HOME. This is a home assistant that connects to your home router and arranges for:

- Search devices in your home network (eth, Wi-Fi, BlueTooth) and connection to them
- An encrypted channel to the GRAVIO cloud (Internet should be available through your home local area network)
- Configuration of data sources (stored locally, stored in the cloud, not stored anywhere but necessary for generating events)
- Configuring events, conditions required to trigger them (based on the connected devices and the data received from them) and addressees (all recipients must be members/users of GRAVIO ecosystem)

To connect to the GRAVIO network a car, the user must buy GRAVIO.CAR. This is an assistant that can be installed in the car and offers the following features:

- Connection to the on-board vehicle network (if possible)
- Connection of one or several cameras (if possible)
- Connection to the alarm system contour (if possible)
- The device is equipped with a cellular module for a SIM card with the possibility of organizing an Internet channel (as is the case with GRAVIO.HOME only encrypted transport session with optional encryption of content will be used)
- Configuration of data sources (stored locally, stored in the cloud, not stored anywhere but necessary for generating events)
- Configuring events, conditions required to trigger them (based on the connected devices and the data received from them) and addressees (all recipients must be members/users of GRAVIO)
- Wi-Fi Access Point

For each GRAVIO.* device it is necessary to have a special account in the GRAVIO ecosystem and establish "trust" relations with all accounts included in your personal network.

All GRAVIO.* devices will be provided with a flexible web interface for basic device configutation. Models, stream processing algorithms, stream modelling algorithms necessary for the operation of the end user device (GRAVIO.*) will be loaded from the GRAVIO cloud and continually maintained up-to-date automatically.

All GRAVIO.* devices will be able to operate sufficiently autonomously (in the absence of a communication channel)- models will be processed; the data will be stored and processed, and, once the communication channel restores, all necessary things will be sent to the cloud (as per priorities and in necessary volumes).

Platform for machine learning, latent-semantic and probabilistic latent-semantic analyzers, voice analyzers and synthesizers will be located in the cloud (network servers, including those with dedicated server roles). User devices will only be processing primary model - elements of computer vision (fast pattern recognition), primary statistical models.

To work in the GRAVIO network, a user only must install the application on his/her smartphone/tablet and register online.

"Communication" with a home or car assistant will primarily take place in a p2p chat. Processing of an appeal to the virtual (home/car) assistant will be done in the cloud and only if necessary the cloud service will interactively tap the "assistant" for required data (if they are not/should not be in the cloud). In addition to the p2p chat, the user can make a voice call to his/her "assistant", ask questions and get voice synthesized responses.

Whether it is a text or voice chat, GRAVIO network will try to identify the meaning of the question semantically and, if necessary, will generate clarifying questions (request for specification of "unknown" concepts, for example).

GRAVIO will examine the user vocabulary and build semantic associations between his/her smart things, events, car and, among others, other members of the trusted network (other users).

Over time, virtual assistants ("users" in the GRAVIO system, and not necessarily tied to GRAVIO.* devices) could participate in group text and voice chats.

All digital content transmitted (by all users including virtual ones) will be stored in the GRAVIO cloud with certain restrictions on the total volume (including p2p messages and group chats). For example, a user in a group voice chat (or p2p voice chat) may at any time record a call that will be stored in the cloud. The videos transferred from devices, pictures from the cameras, any objective data obtained received through GRAVIO.* devices - everything will be stored in the cloud. Moreover, users can exchange basically any materials (documents in various formats, video and audio files, photos and videos, including from smartphones, etc.)

Information security concept

All the stored and passed content is encrypted, including the one stored on the user's device. The protocol to serve as the basis for exchange will be subjected to encryption too. In other words:

The transport session set between the client and the FE (front-end) server is encrypted with a session key

In the context of the transport session messages will be transmitted whose contents will be encrypted (for the p2p or group chat) with a unique content key

Unique content key within the chat (p2p or group) will be available exclusively to the chat users, but neither the transportation system nor the server system will not know about it and, consequently, there would be no explicit access to the content. Moreover, content keys (used in symmetric encryption) will be encrypted with the public key from the pair that will be generated during user registration. Thus, the content key can be opened with the private part of the paired key (this information can be accessed only by the owner of the account), and information about the account and the paired key will be encoded in turn with the access key that will be generated each time based on user data - name and key secret phrase - and will not be stored anywhere.

Access key is required for the absolute level of protection for all user data. For different cognitive technologies to function, it takes access to the user's correspondence (chats, group chats, speech-to-text data, objective data from devices), personal data and only with the purpose of allowing machine learning. In no other cases, will the user data be used. For this, the user must establish "trusting" relations with the network.

Transport sessions and the content passed within the transport session will be encrypted.

Content keys will be stored in the user account, encrypted with the public key; respectively the content key can be decrypted only with the private key. The pairs, both the open and the closed, will also be stored (it is necessary to restore the account and use the same account on different devices) in the context of the user account on the BE (back-end) of the system.

Access to the account and the paired key is provided by means of an access key that will be generated every time, if necessary, based on user name and a secret key phrase using a stationary hash algorithm (an algorithm independent of the platform, operating system, or bits) - i.e. the resulting hash key will always be the same on all user's devices.

The transmitted p2p messages are encrypted with content keys (symmetric encryption). A content key is formed by the inviting party. To exchange content keys, a pair of keys is generated a public and a private one. This pair is generated once when registering the user and pre-saved on the system's servers, pre-coded with an access key.

A group of users is an entity that is created by one of the users - the owner of the group - who invites in other participants (candidates for inclusion). If a participant accepts an invitation, his/her public key is openly passed for participation in the group. If the same user rejects the invitation, it is excluded from the list of candidates for inclusion. If the user confirms the participation, the owner of the group passes the content key to the newly added user, having encrypted it previously with a new user public key.

When a group is created, its owner enters the group name and generates a constant content key for that group. The group content key is stored in the owner's user account, encrypted with the owner's public key. When inviting a user to the group, the content key is sent (by the group owner) to the appropriate invited user, encrypted with the user's public key, and a content key for that group is encrypted and secured in the invited user's account.

Accordingly, to send a message to the group, the user uploads (and caches) the content key encrypted with his/her public key and decrypts it with the private key. Next, using the decrypted content key the user encrypts the message sent to the group context (or a file).

All the group members, having each on his/her side a proper content key (which has also been downloaded and decrypted), decrypt the sent message or file arriving to their client application.

If you remove a user from the group or if the user leaves the group, the information about the content key of this group is removed from the user's account and to regain access the user would need to go through the invitation procedure.

Group ownership can be transferred to another private person. The owner of the group can leave the group only after the transfer of ownership. The group can delete only the owner together with all the data.

Architecture

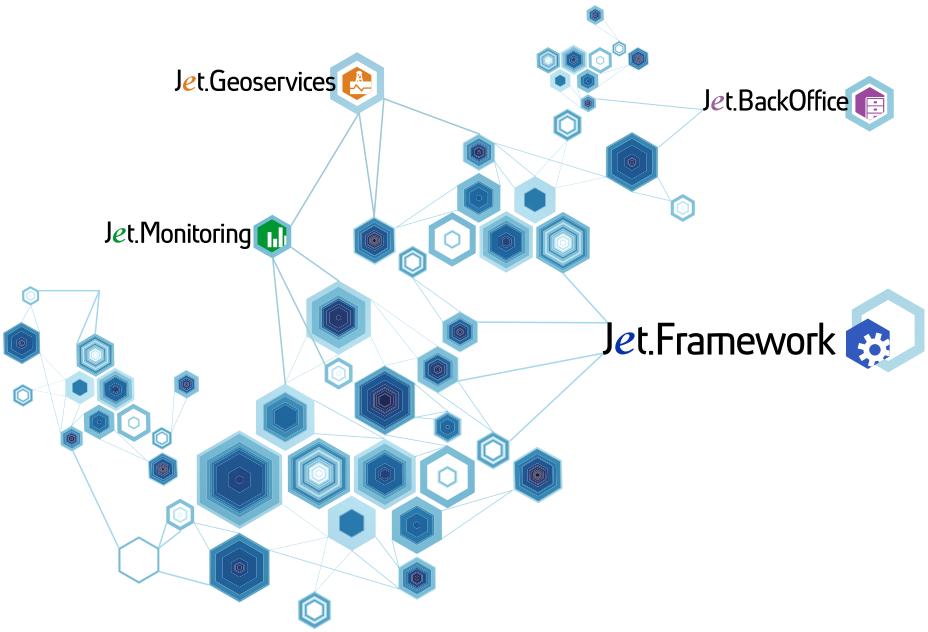
GRAVIO Ecosystem will be an open source platform, which is distributed under MIT License.
GRAVIO is based on a network of transport servers-hubs.
Servers are divided into 6 roles:

front-end - communication with user applications and maintenance of transport sessions
back-end - content storage servers
uds - users discovery server
ums - users management server
cds - content discovery server
seeder - service broker provider

The number of servers for each role will vary depending on the needs, scaling and redistribution of the load.

The basis for developing servers, micro servers, services, communication layer and integration layer with various devices - is the Jet.Framework, cross-platform process-oriented software platform.

Note: For now this is proprietary platform developed by the team members for the numerous commercial products and projects. And we plan to open significant part of platform code.



Key features of the Jet.Framework platform essential for the implementation of the GRAVIO Ecosystem

Process-oriented core. The basis of server operation - the "processes" described as directed graphs whose units contains processing elements (JavaScript), and the arcs between the processing elements are conditional (or absolute) transitions between them.

Cross-platform nature. Jet.Framework is implemented in ANSI C++ and contains an abstraction layer that separates the platform from the operating system. The "processes" will work the same on different servers running different operating systems.

Response time. Platform contains mechanisms to measure the execution time of a unit and schedule execution of the next process or a process step (unit).

Configurability. The server is a set of developed modules that include: a set of "processes", a set of libraries (.js), a description of document maps, descriptions of data sources and their formats, a description of the queues of interaction a description of built-in storages (XmlDb, Db, TimeseriesDb), a description of the distributed repositories and shared repositories. Configuration modification can be done without stopping the server itself, unless the binary code of the Jet.Framework platform changes.

Performance. Jet.Framework platform focuses on the development of solutions that operate, among other things, in a mode close to real time. When the server runs, the required number of JavaScript machines with jit'ing is used. At the same time, to maximize the performance, some of the functions can be implemented in C++ and connected to server API to be used in writing the "processes".

Integrability. The platform contains a specialized API and the corresponding SDK needed to create adapters to various systems and data sources.

Role structure. When describing the server configuration, one can assign one or more performed roles. The role defines which modules should function on a particular server.

Scalability. The platform contains mechanisms to create a self-balancing network of servers with an assigned role structure. The servers in the self-balancing network exchange information about the resources they utilize.

Event-driven processing. The platform allows building a processing schema focusing on: 1. Generation of events according to a combination of factors (the result of the "process") and 2. Reception and processing of the resulting/incoming events (run a suitable "process").

Basic system of statistical and probabilistic statistical modelling in real time. Analysis of aggregate trends in the behavior of digital parameters (approximation, defining conformance with pre-set parameters), forecast of the behavior of the aggregate parameters in the nearest discrete time (5 seconds, 10, 20 ...), based on actual data and revealed analytic curves.

Security. The opportunity to use session encryption and content encryption when transferring information between the servers and services of the system. The ability to encrypt the stored data.

Network exchange. Network Exchange Subsystem allows fine-tuning (at configuration levee) both message and query routing and the type and characteristics of the transport used. This technology can be used for both intra-server exchange and for sharing between network servers (including the end user application). It can be operated in narrow and unstable communication channels.

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