

ares

Blockchain.
Gaming.
Network.

16.7.2018
Ares GmbH
Berlin, Germany

Introduction

Scalable Blockchain Social Gaming Network

Ares Tech is committed to growing into a new generation of scalable Blockchain social gaming network based on Plasma technology.

Main Products



suite



arena



connect

ares suite Providing all-in-one solutions for game developers, allowing efficient and friendly cross-chain collaboration.

ares arena The first free social gaming platform Dapp, easily engaging gamers in blockchain social game competition with unduplicable IP and encrypted assets that are transferable between games.

ares connect An ecosystem providing business partners with global monetization opportunities and helping the game developers to upgrade indie games to profitable IP.

Ares Team

Located in the European blockchain center -- Berlin, ares boasts of a professional team with averagely more than 10 years' experience in internet, including growth hacker, social games, big data, mobile internet products, etc.

In 2B/2C products R&D, marketing and sales, ares team is among the top level. They have a deeper knowledge of European business and team management than Asian startups, and a better knowledge of Asian markets than European startups.

Ares has also built an exceptionally strong team of advisors, ranging from computer science and new media professors from German universities, Berlin's blockchain star projects, social media experts, to high level management from European large and medium sized companies. Their working experience has covered Fraunhofer, Zynga, Playfish, Bigpoint, Tencent, Shanda Games, Onefootball, Zalando, N26, Deutsche Bahn, Microsoft, IBM, Nokia, Siemens, Daimler, KPMG, etc.

Ares' investors and partners include Hash Capital, Fangxiang Fund, Jingtum, BlockchainDB, PWC, Frankfurt School, etc..

Ares Competitive Edge

Seamless teamwork between a European tech team, a resourceful and extensive Asian business network and a North American R&D team, jointly building an unprecedentedly active global community.

Tech Highlights

Aiming at solving the current pain points of blockchain games, ares is going to provide an all-in-one solution for game developers that is easy to use, integrated, secure, fair and efficient. The solution is based on core technologies including Plasma, distributed data storage, compiler and random number generators.

Economic System

Integrating ERC721 and ERC20 protocol into a unique IP with encrypted assets transferable between games, ares is going to create a new Token economy boosted by encrypted asset ownership and transaction. Its main network, to be launched in 2019, will be upgraded to a revolutionary Proof-of-Game that combines gaming, socialization and life-long unduplicable IP.

Why do social Games Need Blockchain

Transparency and Fairness Game Rules

The whole ares project is based on the core ideology of blockchain: decentralization and transparency. All the code of ares games will be completely and openly published on GitHub. Ares will also publish all the lottery probability and the code of all random number generators on ares for the users.

Ares will use Plasma to create child-chains attached to the Ethereum blockchain, so as to build a scalable platform of blockchain games. Most of the transactions will be dealt with the child-chains created by Plasma, and only the main results will be running on Ethereum. Such would solve the problems of low efficiency and high transaction fee of Ethereum.

A Profitable IP Universe Where Encrypted Assets can be Transferred between Games

Virtual game assets should be transferable between games. This has become a common sense in the blockchain world. But often we ignored a major challenge: it is easy to transfer game assets, but very difficult to transfer the worldviews between games. Big games often hold their unique and comprehensive worldviews, and often very difficult to translate the values between them. But in social games, players can have their own unique encrypted IP, with which they can join different social games without changing the IP. Just like playing different games in the same amusement park.

Ares arena is going to build such an “fun park”, or a universe for the IPs. Game developers can join the universe, using the existing IP images of players to design games, or simply creating their own IP universe with different story lines.

Token Economy and Reshaping the Incentives of Proof-of Game

A new Token economy boosted by encrypted asset ownership and transaction and a revolutionary Proof-of-Game that combines gaming, socialization and life-long unduplicable IP. These two drivers of ares ecosystem come from the core ideology of blockchain technology. They will encourage and empower real-life socialization, changing the current addictive gaming rules, keeping on creating new socialization scenarios and enriching the social life of users and players.

Pain Points of Blockchain Developers

Pain Points of Technology

- Blockchain 3.0 is still at an early stage, applications ecology is still immature and the commercialization prospect of blockchain technology remains elusive.
- Developers often find themselves dealing with an entirely new and unfamiliar technology. Learning and testing can be intense and trying.
- Developers need a solution for efficient and friendly cross-chain collaboration to support the functionality of their games on the blockchain, but Plasma technology is still mostly in theory and needs to be developed and proved.

Pain Points of Platform Usage

- Platforms, be it traditional gaming platforms or blockchain gaming platforms, usually charge fees that independent developers cannot easily afford, ranging from 4-10%, 30% to 50% of their profit.
- Current blockchain platforms named “App Stores” are still highly centralized, and tend to impose the management cost of the platforms on the developers.

- Current blockchain social games put too much stress on a profit sharing mechanism that resembles ponzi schemes. They do not empower and create new scenarios for real-life, offline socialization, but rather become a nuisance and thus unwelcome by social platforms.

Pain Points of Profit

- Indie games normally do not have a clear business model in the blockchain world, and thus difficult to generate profit.
- Tokens issued by current platforms are usually isolated and cannot be used outside the platform, e.g. in other platforms or connected to offline business deals.

All-In-One Solution of ares tech

With many years of professional experience in internet and business world, ares team have an in-depth analysis on the pain points mentioned above. They know that a horizontally expanding “pan-Blockchain 3.0” platform is not going to solve the problems of developers, because it is neither lowering the tech threshold nor helping with the business model. Quite the opposite, it would further complicate the problems by adding the heavy cost of user acquisition and platform management on the developers. Ares team has thus developed a whole vertical technology solution, aiming at solving the three core problems for the developers on an all-in-one solution. The solution will also allow certain horizontal expansion, so that the solutions can be not only practical but also scalable.



ares suite



ares arena



ares connect

The three main products of ares are aiming at solving the three core problems: “How to begin?” “How to acquire users?” and “How to make profit?”



1. Game Development Integration environment: **ares suite**, a mature and friendly game development suite to help developers easily get started with token API, SDK, IDE plugins, random number generator, encrypted image of users, decentralized database, multi-chain adapters, etc. It consists of a complete set of development files, lessons and a developers' community.
2. Game Players: **ares arena**, a decentralized application. Ares arena is a social game platform that prioritizes mobile games, integrating multi-socialization scenario. Based on Token economy and encrypted player images, it empowers real-life socialization, and will trigger a new trend of blockchain socialization.
3. Business Ecosystem: **ares connect**, business opportunities for and from business partners. Spreading across the globe, Ares tech's clients and partners will bring in, and benefit from multiple business resources from online and offline world. Ares connect will provide various opportunities for the developers to make profit, ranging from live show, star management, peripheral products trading, art evaluation and transactions, etc.

Benefits for Gamers

Most Transparent and Fair Game System to Date

Based on the trust mechanism of blockchain, the gamers do not need to trust the ares arena or ares team (although we would love to win your trust ultimately) or certain independent developer to experience the charm of blockchain games with open-resource rules based on truly randomly generated numbers. All the probability of our lotteries and game treasure lost will be 100% disclosed.

An Unduplicable Game Image Completely Owned by the Gamer

A gamer's game asset and personal image will be owned by the gamer completely for the first time. The gamers can freely trade, cultivate and decorate their own encrypted images. Ares will also introduce artists to produce limited edition of encrypted images to create more flair for the gamers, and fulfill the need of gamers to demonstrate their personal values.

The Excitement of Socialization+Games+Token+Simulation

Gamers will gain the biggest fun from ares arena from fighting with friends. Each win or lose will change their token quantity and their images. No matter they are playing with friends, family members, colleagues or unknown opponents, an ice-breaking social game can build better social relations between the gamers.

Benefit for the Developers

Zero Commission

ares arena will be the first zero commission blockchain game platform. Developers and players will profit from the games, but ares arena will not take any commission from them.

Compared with other platforms that charge 30-50% of platform commission, ares arena is strictly decentralized and will not try to shift its burden of gaining profit on the shoulders of game developers or gamers.

ares arena is just a product of ares tech. The whole ares tech project will gain its profit from the business solution consultancy service based on ares suite, plus the business partnership with partners of ares connect.

All-In-One Solution

ares suite will provide paid business solutions for corporate clients, but for independent developers, it would freely and openly provide relevant documents for blockchain games and softwares development, SDK, etc.

All the development classes and codes will be open-source. Ares suites dedicates itself to building a friendly and healthy developers' community and offering the most comprehensive help to blockchain developers.

For corporate clients, ares suite will offer stable, integrated and efficient paid consultancy and development service.

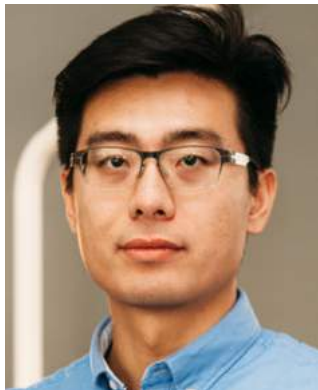
from berlin to world

from game to more

from ares with love

The three main ares products have included multiple resources from its partnership with star blockchain projects in Berlin, Switzerland and Luxembourg. Based in Berlin with a global view, it aims at providing technical solutions for Asian and European blockchain projects.

Team in Berlin



Jack Li - CEO

Over 10 years of extensive tech-industry / professional experience spanning sports, gaming and e-commerce. Including but not limited to product development, marketing strategy, growth hacking, community operations. Complete projects like localization of a Baas platform and App, Design and delivery mobile apps as product manager and director.



Christian Gehl - CTO

Christian has held senior and leading positions in various functions for more than 10 years. After starting out as a Research Assistant at Fraunhofer FIRST in 2008, he became one of the Co-Founders of Trifense GmbH in 2010, and as CTO, played a pivotal role in the company's development into one of the most promising network security solution and consulting firms in the DACH region.



Ciarán Dold - UX/UI designer

Ares Ciarán Dold graduated from Dublin Institute of Technology with bachelor degree of Arts Design and Visual Communications with rich experience in prototyping and UI/UX design. Previously, Dold was UX designer at Mallzee Edinburgh, product designer at guidecentral dublin, primary UI at Clevercards dublin and digital designer at Team P.R. Reilly Dublin.



Lu Sisi - Art Advisor

Lu Sisi is a visual/sound artist originally. Both commercially, his work spans multiple disciplines – live performance, motion graphics, film, music composition and production, sound design, and installation art. In his work, Lu Sisi's particular passion is the theme of Heritage – connecting the past and the present. His most recent work explores the relationship between man, machine and landscape in the UK, and received critical acclaim as well as awards from Sky Arts and New York Festival.



Jiani Yu - Project manager

Jiani Yu is project manager at Ares. Ms. Yu graduates from Berliner Technische Kunsthochschule. Since 2015, Ms. Yu has worked as assistant producer and involved in post production. Ms. Yu has worked for Jägermeister, Sony, Mercedes-Benz in ad production.



Zongxiong Chen - Backend Architect

Senior Backend Expert at Ares. Source code level knowledge in BigchainDB, MongoDB, OpenStack and Docker as well as Kubernetes, which enables blockchain technology to solve database, data storage and scalable infrastructure problems. Previously, Chen participated in Continuous Integral & Continuous Delivery projects in CTRIP. And currently focusing on Docker and OpenStack technology and multiple years of experiences in Python language.



Pei Zhang - Blockchain & Cloud Engineer

As an experienced Blockchain & Cloud engineer, Pei is mainly focusing on Blockchain related technology research and smart contracts, DApp development. Before joining Ares, Pei was responsible for the functional and integration testing for RHV (Red Hat Virtualization) product at Red Hat. Currently working on Cloud service development and Enterprise Cloud Architecture design, e.g. AWS Architecture as well as AliCloud and Google Cloud.

Advisory Board



Dr. Ingo Schneider - Co-Founder Of Icadia Legal

Icadia Legal has a strong focus on crypto assets, ICOs, venture capital and technology and financial services companies. Our clients are founders and their companies, investors, company builders and incubators. We are strategic legal advisors on how to structure projects and transactions and help with their execution and transformation into contracts.



Toni Qiu - Managing Director

Founding member of KPMG's Lighthouse Germany for Data & Analytics after he held consultant and (assistant) manager positions in Digital Finance at KPMG. Previously worked for 4 years as Big Data Architect at Zalando, Europe's leading e-commerce platform. With more than 15 years' experience in forex trading, Teng founded Forex Live Group in Berlin, an AI & NLP-based trading signal platform for quant trading strategies.



Prof. Dr. Konrad Rieck - Scientific Adviser

Professor (W3) of Computer Science at TU Braunschweig. Leading the Institute of System Security since 2016. Prior to taking this position, Prof. Dr. Rieck has been working at the University of Göttingen, Technische Universität Berlin and Fraunhofer Institute FIRST. Research interests revolve around computer security and machine learning methods for structured data, such as sequences, trees and graphs.



Füsün Wehrmann - Engineering Adviser

Vice President Of Engineering at OLX Berlin Tech Hub, former Premier Field Engineering (PFE) Manager, EMEA Technology Manager for Development at Microsoft Germany. Startup Mentor, Speaker, Google LP Mentor.



René Gerstenberger - Data Security Adviser

IT Manager at Mercedes-AMG GmbH and Daimler AG, Information Security, Governance and IT-Security for R&D. René has been working with numerous global clients and organization, helping to manage appropriate Corporate IT Operations, Data Protection Compliance and Data Governance approaches and solutions. He has taken on various leading roles both on a global and national level.



Simon Schwerin - Blockchain Adviser

Simon advises XAIN as a Business Development Manager, since writing his Master's Thesis on Blockchains and Privacy, specifically concerning the GDPR. He now focuses his work on leading medixain as a CEO to build a solution in the Healthcare and Blockchain sector. Previously, he worked for the Blockchain Start-up BigchainDB on the business strategy and project management side. He led the working groups on identity and standardization within the public German blockchain lobby group „Bundesblock“ (Bundesverband Blockchain).



Steven Karch - Blockchain Advisor

Crypto-currency miner since 2013, and a blockchain enthusiast. Over 20 years of experience in distributed systems, computer network, IT infrastructure.



Ran Wang - Game Publishing Adviser

VP of Global BD & Publishing at Winking Entertainment, former management positions at Garena, NVIDIA, THQ and Shanda. Ran has extensive experience in video game industry with deep insights and global views. Ran also has strong entrepreneurship as co-founder of two startup compaines.



Yun Cao - Game & Marketing Adviser

Game Publishing Leader at Six Foot LLC, former Producer at Bigpoint GmbH in Berlin, Germany. Previously, Yun was Sr. Product Manager & Project Lead at Zynga, Shanda and Tencent. Publisher and producer with a background in the international game industry. Shared great success of best games with partners worldwide and leveraged global publishing capability and ambition.



David Espinosa - Technical Solutions Consultant

Front-end Developer / UX Designer specializing in the design and development of web and mobile products. Great interaction design skills. As part of a multidisciplinary team, David used to develop and maintain the front-end code of client websites, built using the Rebelmouse platform for distributed content as well as deploying code to live servers and integrated plugins and third party libraries.



Rasmus Giesel - Branding and Creative Advisor

Rasmus is creative director and founding partner of M.O.R. Design and tutor for brand design. Previous to Berlin he has been working for highly acclaimed brand agency North Associates and Nick Bell Design in London amongst others. he has created branding schemes for clients in sectors spanning from Finance, Tech, Culture & Art to numerous Start-Ups and non profit organizations.



Maurus Radelow - Cyber & Information Security Advisor

Advising clients in both the public and private sector in all matters relating to information security governance (ISO 27000 & BSI Grundschrift, risk management, and compliance). Prior to working in Germany, Maurus spent 6+ years working for numerous international organizations.



Ying Gao - Marketing and Sales Adviser

Marketing and Sales Manager at Classicitic in Berlin, MBA education at HTW Berlin and Magister degree from the University Potsdam, experienced in developing and implementing marketing strategies (B2C/B2B); event marketing; ability to build and maintain a network of relationships, good knowledge of market trends, social media, as well as SEM.



Zeta Zhu - Marketing Adviser

Senior Director Sales and Business Development at Fyber, over 10 years experience in gaming industry, responsible for heading up Fyber's mobile game advertising business in the APAC region.

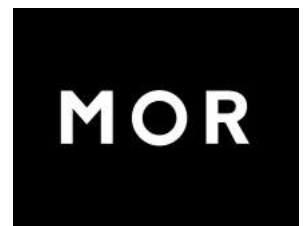
Partners



Partners



medixain



media:net
berlinbrandenburg



Berlin Games Capital

$f(x)$ Live



games:net
berlinbrandenburg



Latest Update

Ares Tech team received seed funding in November 2017. The initial funds are being utilized for team set up and prototype development.

The prototype and documentation will be available in Q3 2018. The alpha versions of the SDK and decentralized application will be available for developers in Q4 of 2018, respectively.

In the meantime, ARES Tech is calling for game developers to join this exciting endeavor. More Meetups will be hosted in the near future.

- 2018.06.06** Ares has been invited to speak at Global Blockchain Leadership Summit in Hangzhou, China, hosted by The People's Government of Hangzhou's Xihu District and Hangzhou Economic and Information Technology Commission.
- 2018.06.20** Ares in Tech Open Air!
- 2018.06.26** Ares Tech at Blockchain Connect Conference Silicon
- 2018.07.13** Artist Lu Sisi Join Ares as Art Director!
- 2018.08.02** CTO and cofounder speaking at Game Developers Conference
- 2018.08.03** Ares Tech was in ChinaJoy
- 2018.08.04** Ares Shanghai Meetup

Please follow Ares Tech official channel to get latest update:

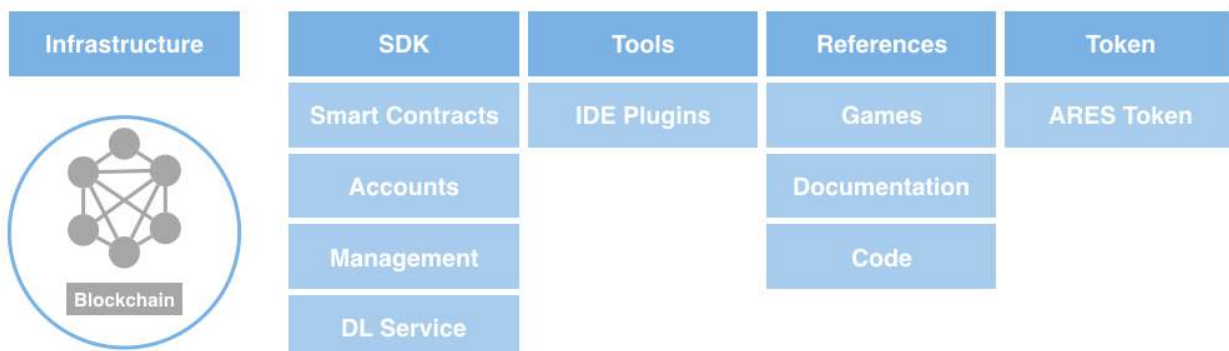
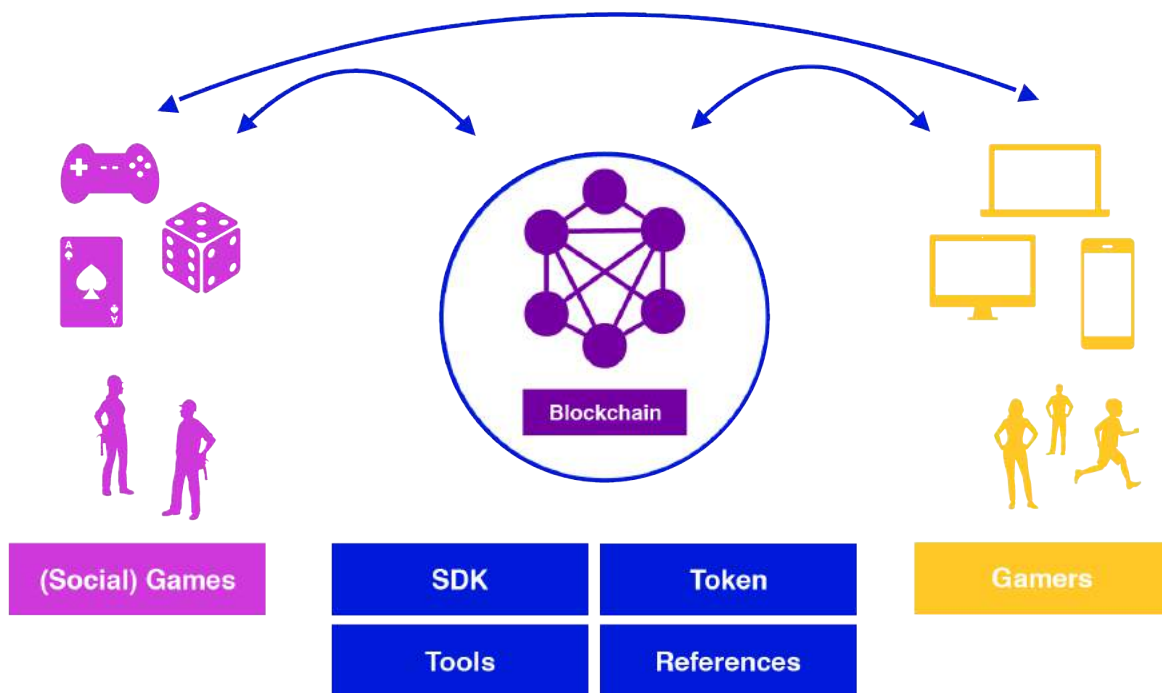
- > Telegram:** https://t.me/ares_tech
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- > Twitter:** https://twitter.com/arestech_io
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- > Website:** <http://arestech.io/>

Project Structure

Ares Suite - Development Suite Layer

Include: Token + SDK + IDE

Target Group: Blockchain Game Developers



Scalable Blockchain - Ethereum Plasma Off-chain and Child-chain

Ares will always focus on its developer-friendly mission. We will provide a SDK based on the most mature public Blockchain technology. In the early stage, Ares will focus on Ethereum until a stable state is reached for the most important business use cases.

Following this, other relevant blockchain technology like Hyperledger, Jintum, Lisk or Corda will be tackled. Besides the usage of public blockchain, we will also spin up public and private side-chains to cover the need for responsiveness and economic behavior.

One particular challenge that must be addressed to make Ethereum useful for economic behavior is scaling.

Applications like Cryptokitties, and other popular ICOs slashed service usability and also raised gas prices, which is a potential downside to working with such a technology with a user base of millions of people.

The main cause for this kind of limitation in public blockchains such as Ethereum is the requirement that every transaction needs to be processed by every single network node. Raising the workload for every single node is not easily achievable.

Off-chain technologies such as state channels, Truebit, and Plasma can keep the throughput of the base-layer Ethereum blockchain at the current level, but in practice, developers would be able to do many more operations that are useful for their application, like transactions, stating updates in a game, or simple computations.

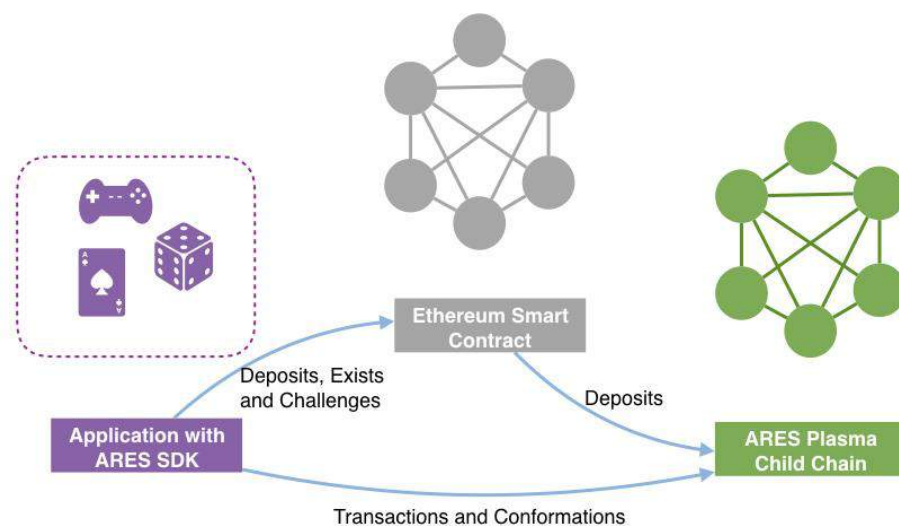
These solutions are built to align with the Ethereum Mainnet and address different challenges. High value transactions are still meant to be processed at the Mainnet but trading digital collectibles where speed is more important, we can use Plasma as a technique for conducting off-chain transactions while relying on security provided through the Mainnet.

Plasma enables the creation of child-blockchains which are attached to the Ethereum blockchain. These child-chains can, in turn, spawn their own child-chains. This process can be repeated for any child-chain.

As a result, many complex operations can be performed at the child-chain level, running unattached applications with a large number of users and minimal interaction with the Mainnet. With Plasma child-chains, applications can move faster, and charge lower transaction fees, because operations do not need to be running on the entire public blockchain.

Two different types of transaction finality exist. Ares will use a mix of two consensus mechanisms in its child-chain – Proof of Stake and Proof of Authority. Root chain finality depends on the consensus mechanism used by the root chain and Ethereum currently uses Proof of Work.

The Mainnet enforces the state in the Plasma chain and enforces all computation globally, but it is only computed and penalized if there is proof of fraud. Multiple Plasma blockchains can co-exist with their own business logic and smart contract terms. An use case example for responsibilities is shown in the figure below:



Token

Ares Token will be deployed as ERC20 tokens on the Ethereum network, before our mainnet launch.

Ares Token is the only circulating cryptocurrency in the whole Ares ecosystem. Developers can integrate the API tokens into their games. The main transaction methods include:

- In-DApp Purchase: tickets, principal, virtual items purchasing, betting, and supporting crowdfunding.
- In Business Projects: star agency, advertising, and other cooperation games.
- Rewards and Commissions: rewards in contexts, early bird rewards for successful crowdfunding games, test-feedback rewards, etc.
- User Transactions: with teammates, models, fans, friends, etc.

Ares SDK

The SDK will be a complete package of APIs and assets. Game developers can easily integrate it into their code using their favorite language.

The SDK will include a collection of smart contracts, such as Mint, Payment Gateway Contract, Smart Wallet Contract, Subscription Contract, Custom Coin Registry, and TopList Contracts, which will provide core functionality on the blockchain. Besides APIs and assets for connecting to ARES Decentralized Application, built-in Random Number Generator (RNG) and the mapping rules of RNG are additional parts of the SDK. These functions will help developers easily design a fairer mechanism or reproduce classical games on the blockchain.

Adapter

The provided language SDKs will include Blockchain adapters to enable Ares application to simplify the transformation of information between the applications and blockchain datasets. Starting with Ethereum, and later, Hyperledger, Lisk, Corda, Jingtum, and furthermore, Ares Mainnet, the supported blockchain technologies will focus on those with a sustainable future.

The adapter ensures a smooth transition to the next generation of blockchain technology, allowing transformation and processing of information between the Ares SDK and blockchain systems with minimal development cost. The goal is to improve the development process efficiency, reduce risks during technology maturation, and enhance the development abstraction from the blockchain technology.

IDE

Ares Suite will provide multi-function plugins for the major IDEs (- Integrated Development Environment). The first IDE targeted is the most famous in blockchain development, Visual Studio Code.

Base on these IDE plugins, developers can easily deploy games into the Ares Test blockchain environment, while getting the benefit of other more common functions, such as Solidity compiler or code auto completion and highlighting. This will significantly reduce blockchain game development entry threshold.

Mainnet and Consensus Mechanism

Gaming-optimized Public Main Network

Ares will create a gaming-optimized public main network (mainnet) wherein the actual transaction takes place. Along with the mainnet, a test network will be provided, where new DApps can be developed and tested.

Consensus Protocol: Proof-of-Game

The Blockchains will run with a custom-consensus protocol based on a combination of proof-of-stake and proof-of-authority that we call “Proof-of-Game”, or PoG. Individuals will earn the right to become validators, so there is an incentive to retain the position that they have gained through playing games. A time decay will be integrated to normalize the PoG.

How it works

Ownership of digital game assets is tracked by the system with the use of tokens and the history is recorded at the mainnet. Further game use cases will be running on side-chains to realize scaling which is comparable to plasma or sharding in Ethereum. Any kind of digital game assets, such as a items or game achievement, i.e. high-score, or whatever is presented as a tokenized item, can be stored on (a) public blockchain.

Every time a tokenized item is created, changed, or finalized, updates are propagated within a short timeframe to make the whole system aware of the change.

The possession of tokenized items has the characteristic that it is visible to the public and also enables business analytics for features such as high scores, tournaments, or any other achievements in a provable and fair way.

Summary

We want to create the most friendly development suite to help developers focus on designing fairer and interesting social games.

Meanwhile, the senior developers in our team have a clear understanding, that only providing a development suite and corresponding documents is not nearly enough.

So we will take full advantage of Berlin and Europe's active tech startup scene, creating a lively and professional developer community, by launching a blockchain version Stackoverflow/Wikipedia inside of Ares project for blockchain game developers.

Ares will organize events and help developers to connect with our Research & Development Lab in Silicon Valley and business resources in East and South Asia.

Ares Arena - Users Context Layer

Includes: One Decentralized Application

Target Group: Players, Friends, Fans, etc.

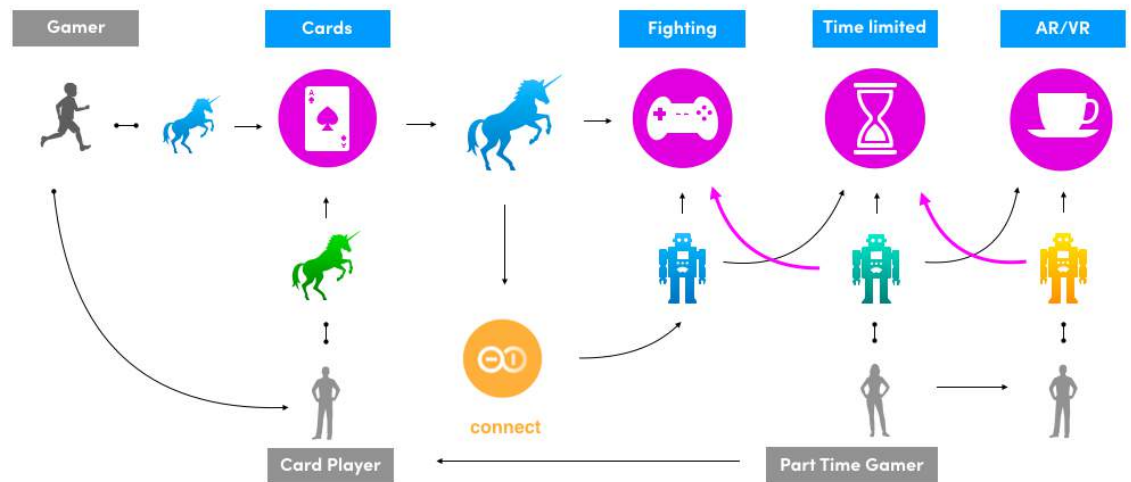


Ares Arena provides various game contexts for different users in multiple social situations and puts all contexts into one decentralized application.

You can bring friends to a virtual poker table, fight for master titles with other gamers in 5-minute-rounds, or bet on a football/soccer match with your colleagues.

Based on our SDK, we can make sure these games are all fair to everyone and ARES will NOT receive commissions of any kind from users or developers.

User Case



- A gamer entering the arena will first gain a unique encrypted personal image.
- The gamer can upgrade his/her encrypted image by playing different games.
- A simulation gamer can invite a card gamer to join his/her game, and both can win ares tokens.
- Simulation gamers can increase their assets by playing games and change their images, and they can choose to sell their assets in the market of ares connect.
- Gamers can buy more encrypted assets to participate in different games.
- Gamers with limited free time can play small games that limits time between other duties.
- In a real life socializing scenario, gamers can project their images by using a AR projector on a coffee table to fight with each other for more fun.
- They can also use VR equipment to experience a full socializing experience in a room escaping game.
- Ares will invite renowned artists to create unique encrypted assets, which withhold higher values for collection and trading.

Soical Context

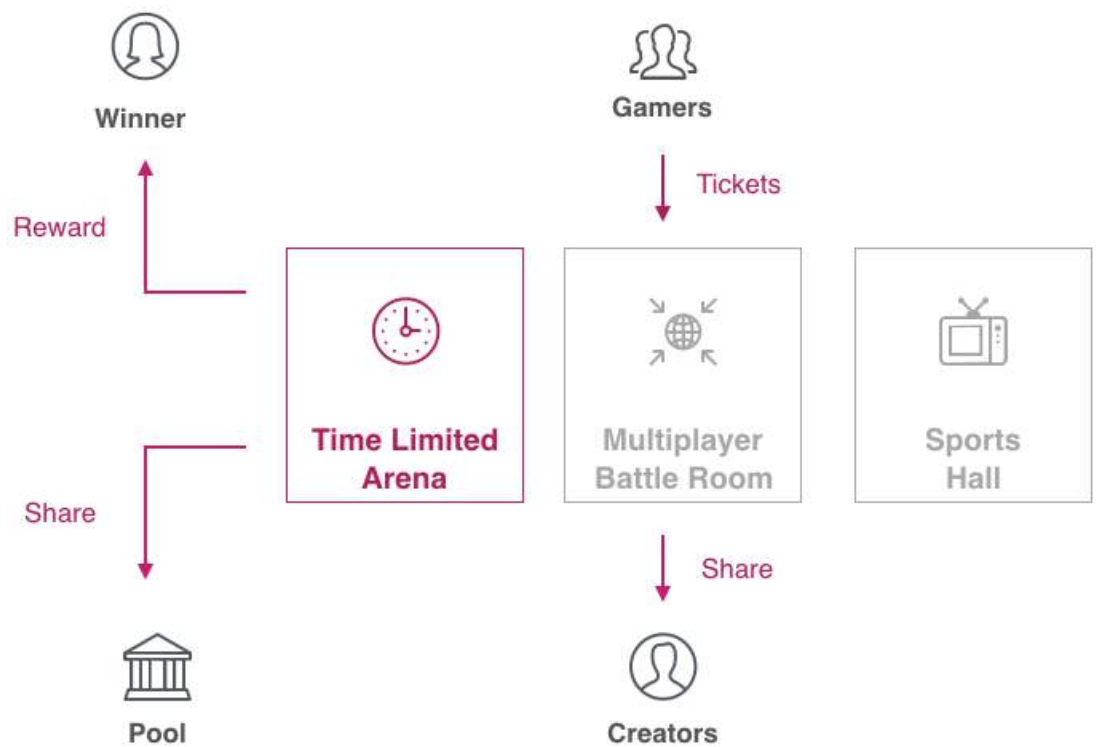


In arena's application and website, we will inherit the decentralization mechanism, and no one will review and recommend which games will appear on the first screen. And based entirely on machine learning and algorithms, combined with personal preferences, social time, social relationships such as friends and other social factors, to achieve the natural flow of users and incentives.

Therefore, arena puts social context on top of the game and creates different targeted casual game groups for different social needs.

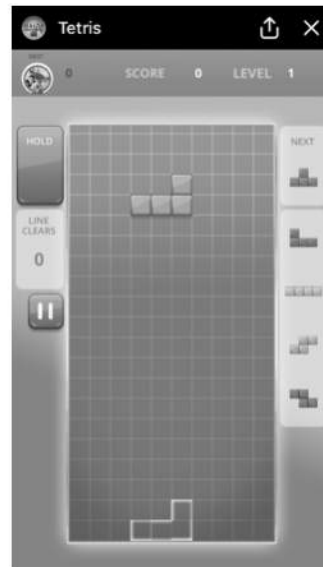
The early stages of arena will include multiple game types ranging from casual to medium, from AR to VR, to cover more online and offline social context. The future will be extended to the medium-large game or intelligent hardware.

Context: Time Limited Arena



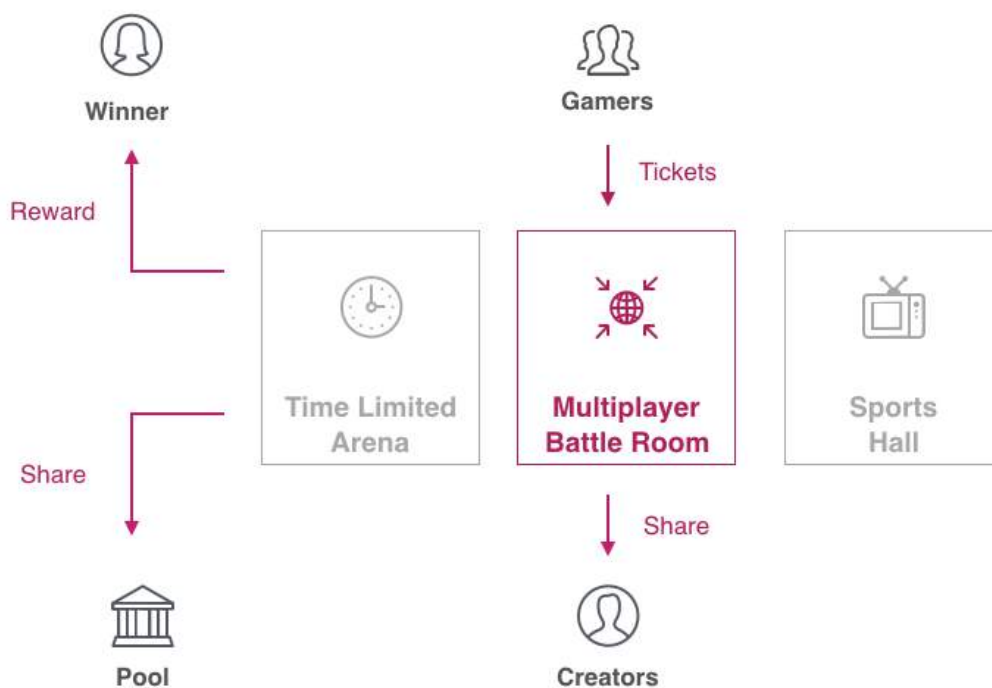
- Type: Single, unlimited, rated game
- Requirements: Tickets
- In-game purchase: None
- In-game rewards: In-game achievements
- Introduction:
 1. Players pay for a fixed ticket per period to repeat the game within 5 minutes (or other limited time period).
 2. Game is based on smart contract which determines the conditions for losing and automatically records the best score per round per player.
 3. All users participating in the same round will be ranked according to the best scores achieved in the the shortest amount of time.
- Token Reward (example):
 - First place: 70% prize pool
 - Second place to fifth place: randomly assigned 19% prize pool
 - After all the sixth user: randomly assigned 9% prize pool
 - Developers' commision: 1%
 - Prize pool: 1%
- User rights:
 - create Arena as private or public
 - set time or round limit per day
 - set token reward rule

- Game examples:



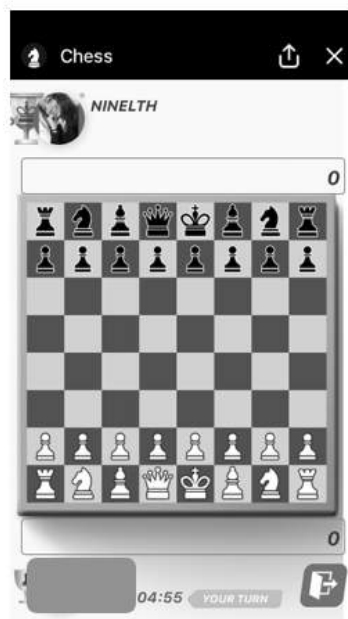
Context: Multiplayer Battle Room





- Type: Multiplayer Casual Battle Game
- Requirements: Principal
- In-game purchase: Additional betting
- In-game rewards: In-game achievements
- Tokens Reward: Principal + Additional Betting = Room Prize Pool
 - Winner: 98%
 - Developer: 1%
 - Total prize pool: 1%
- Introduction:
 - The criteria for the player's winning are automatically determined by the smart contract.
 - Players entering the room need to provide a public key containing the principal.
 - The flow of bonuses will automatically be determined after the game.

- Player customization:
 - Create a room as public or private.
 - Set the principal and bet amount.
- Game examples:



Multiplayer battle

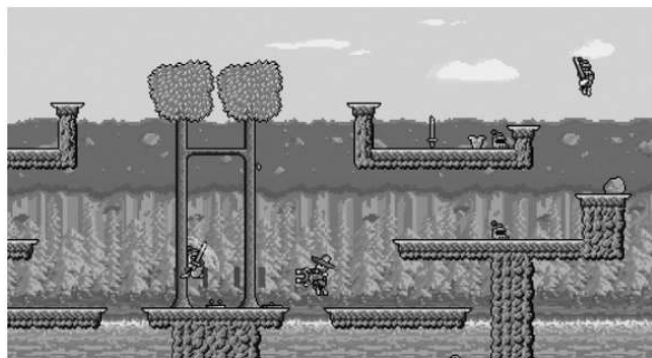
Level of game: moderate

Game Type: Casual Battle

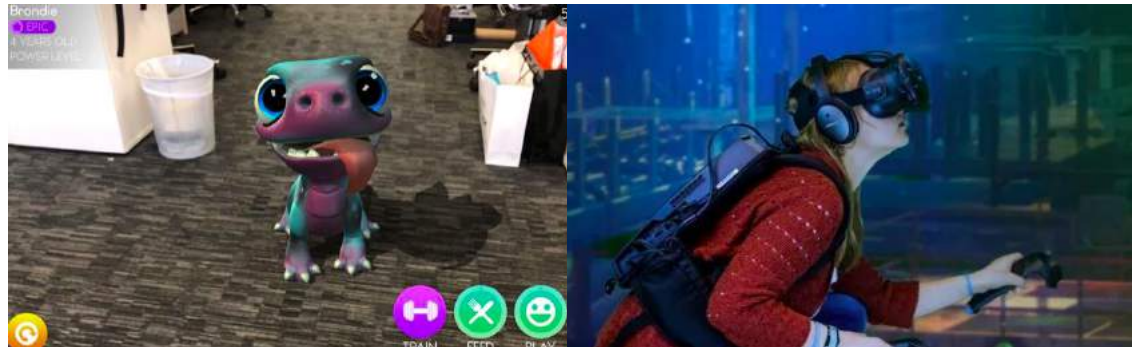
Social Context: Online

Features:

- Multiplayer real-time online medium-sized games are currently setting new trends in the traditional game field: steam and app store.
- The main rules of the game and outcomes of the game will be recorded in blockchain and smart contracts.
- After the game is over, the winning team player can win the prize pool amount.



Offline Context: AR/VR Battle



Feature:

- AR will fully expand the application of personal encrypted assets and images in real social scenarios.
- Open an encrypted dinosaur game on the coffee table.
- Collaborate with Berlin's local VR room to create entertainment resources that are implemented offline.
- The main rules of the game and outcomes of the game will be recorded in blockchain and smart contracts.
- After the game is over, the winning player can win the prize pool amount.

Ares Eco - Business Ecosystem Layer

Includes: Import and Create Various Monetization Opportunities

Target Group: Partners and Developers

Ares Eco will import a diverse and active business ecosystem with our partners.

This ecosystem will help developers upgrade their indie games to unique and monetized intellectual property.

Players can easily buy a cold wallet for their tokens with their favorite game characters or limited edition characters, using signatures.

And since we already have partners in star agencies and video platforms, this ecosystem will bring ARES early users as well as more exposure.

Partners: Onegamer - Fun quiz and prediction Mobile Application

A fun quiz and prediction mobile application has an agreement with Ares, and will integrate Ares Token in Q3 2018. In Onegamer app, users can directly get rewards in Ares Token, if they predictie the right result or give the right answer. And they can pay by ARES Token for additional attempts or guesses.

Ares: Data Dashboard

Powerful data dashboard will be included in the upgraded version of Ares developer admin panel. It will provide all the numbers about developers' games and contexts, such as how many users play which game in which context, active daily users in charts, how many referral users, etc. This will provide a deeper insight and lay a solid foundation for the coming advertising platform.

Ares AD Platform: Display advertising with Ares Token

Ares will launch an Display advertising module in developers' admin panel, which provides both supply-side platform (SSP) and demand-side platform (DSP) as well as integrating an advertising API in SDK.

The Ares Display Advertising module will act as an Ad Exchange (ADX) with Real-time bidding (RTB) ability that enables programmatic on-the-spot auction of impression between publishers and advertisers. Developer as an advertiser can easily call this API and pay the cost per click with Ares Token to another developers, who supplies an in app impression as publisher. Ares will also bring more brands into this advertising platform.

At that time, the user flow between contexts and games in Ares Decentralized Application will be more active and more motivated.

Cooperation: Developer Community and Fundation

Ares Tech will support to build an Ares-SDK developer community, which is a social media with virtual currency rewards that runs over the blockchain, like a blockchain version Stackoverflow/Wikipedia inside of Ares project for blockchain game developers.

Community members can upvote posts and comments similar to other blogging websites or social news websites, and the authors who get upvoted can receive a monetary reward in Ares cryptocurrency token. They will be also rewarded for curating (discovering) popular content. Curating involves voting comments and post submissions. Vote strength and curation rewards are influenced by the amount of Ares Token held by the voter.

Moreover Ares Tech will organize events and help developers to connect with our Research & Development Lab in Silicon Valley and business resources in East and South Asia.

Future: Trading Platform with Token on Ares Mainnet

In a lightweight social casual games platform, Souvenir entities can arouse users' emotional resonance better than virtual items inside of games can. Entities such as cold wallets are especially necessary and provides a safe way to keep cryptocurrency. Compared to other cold wallets such as USB disks, developers or models can launch a variety of wallets with game features or characters.

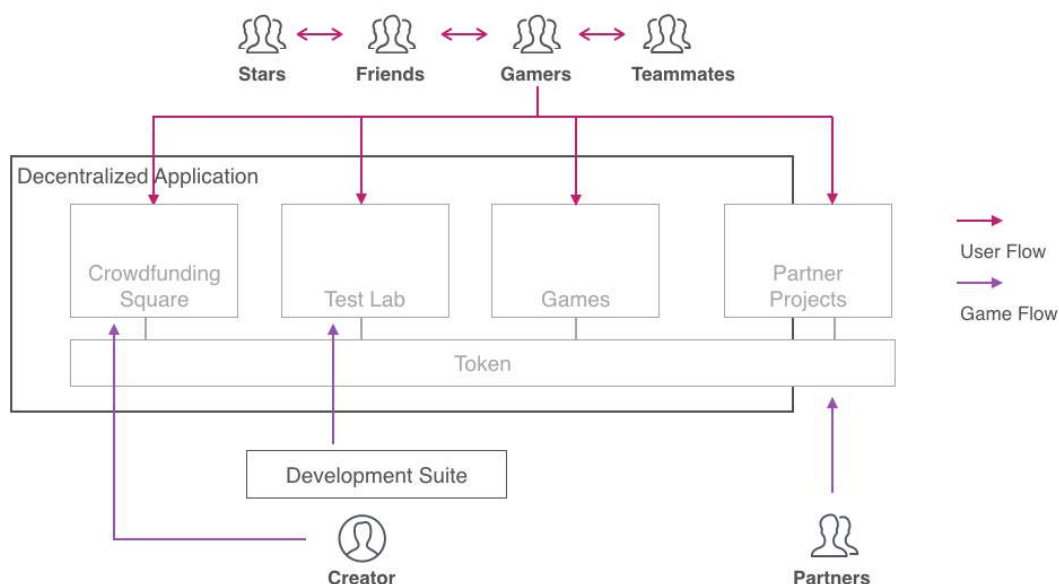
This process is a milestone for indie games converting to monetized intellectual property. Ares will accelerate this shift with Token and Mainnet.

Future: Encrypted communication on Ares Mainnet

In order to implement the concept of playing games with friends, Ares will bring the team mechanism in contexts. Teammates can share bonuses and compete for ranking.

Users or influencers can create their own teams. Within the team, they can establish their own distribution channels to circulate their assets by giving rewards, and charging digital assets. All chats will have end-to-end encryption to protect users' privacy and prevent outside access to private communication of users.

User and Game Flow



User Flow

- New users will join Ares Social Game Platform through multiple social channels, such as through invitation from friends, joining a team, or following their favourite stars, etc.
- Different types of new gamers will find different parts of Ares Social Game Platform they may like and get tokens in multiple channels.
 - As supporters, they can join crowdfunding of for a brilliant game idea and get early bird bonus if this idea is realized.
 - As testers, they can test games and receive rewards by finding bugs, writing reviews, and feedback directly to developers.
 - As gamers, they can play with friends or rivals on the same level, and win rewards from losers.
 - There will be more cooperation games using Ares Token, which users can easily start to play outside of Ares platform.

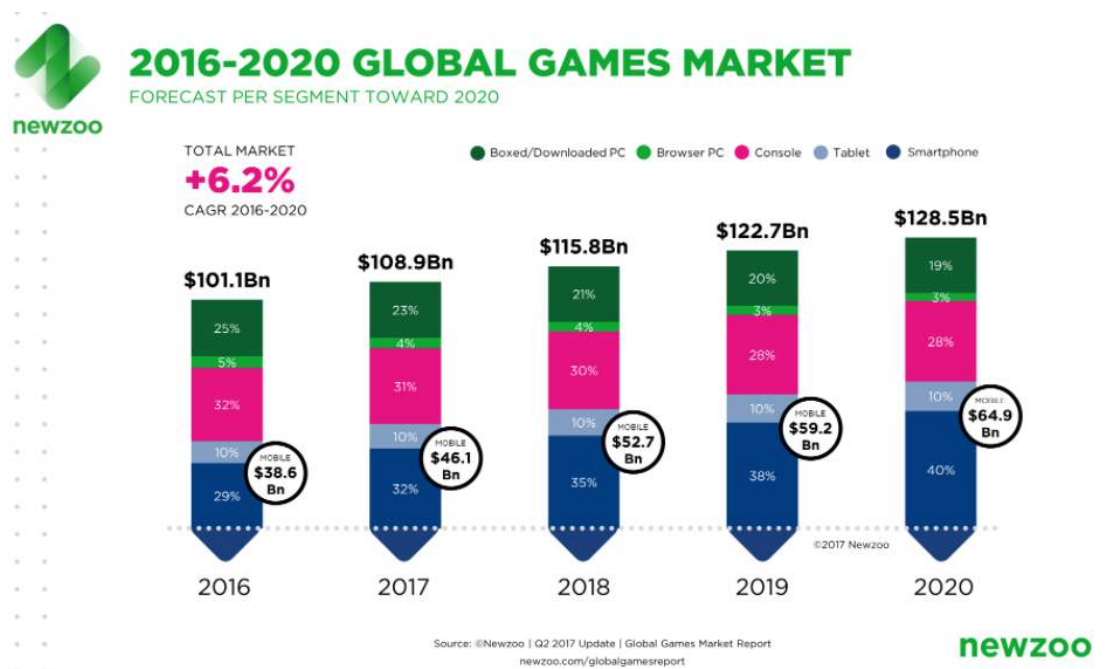
Core Advantages

- These blockchain games created through Ares are positioned as a casual and social type. Emphasize that ordinary users can easily get started playing with friends, and win potential rewards which are guaranteed by smart contracts.
- Ares Arena puts contexts above games. Rich contexts will provide opportunities for users to play with friends, celebrities, or other competitors at the same level, such as by betting on football games against other fans, and so on.
- By continuously designing fun games that stimulate increasingly challenging game mechanics, developers can motivate mass users to participate and generate social bonuses in multiple contexts to rapidly drive user growth.
- With the team's experience and resources in our advisory board, Ares will build an active and welcoming community for developers, including conferences, webinars, and so on.
- Users will not be lost in the massive number of game icons, but be directly brought into the various contexts of interest by friends.
- The qualifications of games in the decentralized application are also in line with the main concept of the blockchain, decentralization. In the early stages of the project, users joining the test version of a game can communicate with developers and vote for the game. A crowdfunding mechanism is also in the works. This can help to encourage more developers to design better-devised games.
- A wealth of business ecology includes docking with advertisers or other developers' advertising systems. In the meantime, the platform for providing copyright derivatives trading based on smart contracts will also help developers to further explore the commercial potential of games.
- The goal is to help developers get back to basics: designing the most fun games. In the Ares project, developers can win over users and beat the market as long as they can design fair and fun games.

Market Research

Market Size

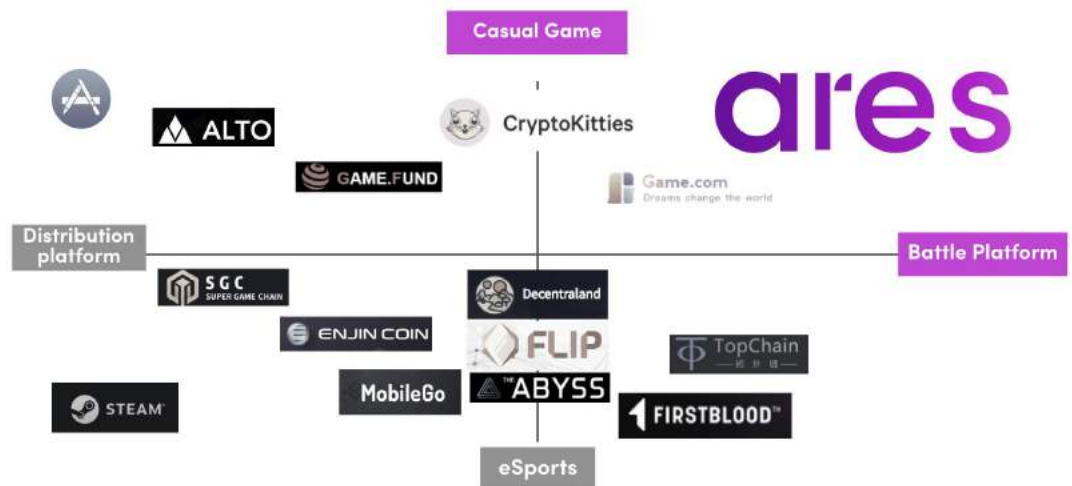
Based on Newzoo's latest report on the global games market*, 2.2 billion gamers across the globe are expected to generate \$108.9 billion in game revenues in 2017. This represents an increase of \$7.8 billion, or 7.8%, from the year before.



Digital game revenues will account for \$94.4 billion or 87% of the global market. Mobile is the most lucrative segment, with smartphone and tablet gaming growing 19% year over year to \$46.1 billion, claiming 42% of the market. In 2020, mobile gaming will represent just more than half of the total games market.

<https://newzoo.com/solutions/standard/market-forecasts/global-games-market-report/>

Blockchain Game Market Overview



- Major platforms focus on eSports or MMORPG.
- Casual game platforms market themselves as blockchain app stores.
- Blockchain casual games are either for token exchange or gambling.
- Blockchain MMORPG games are more focused on token system and virtual item trading.

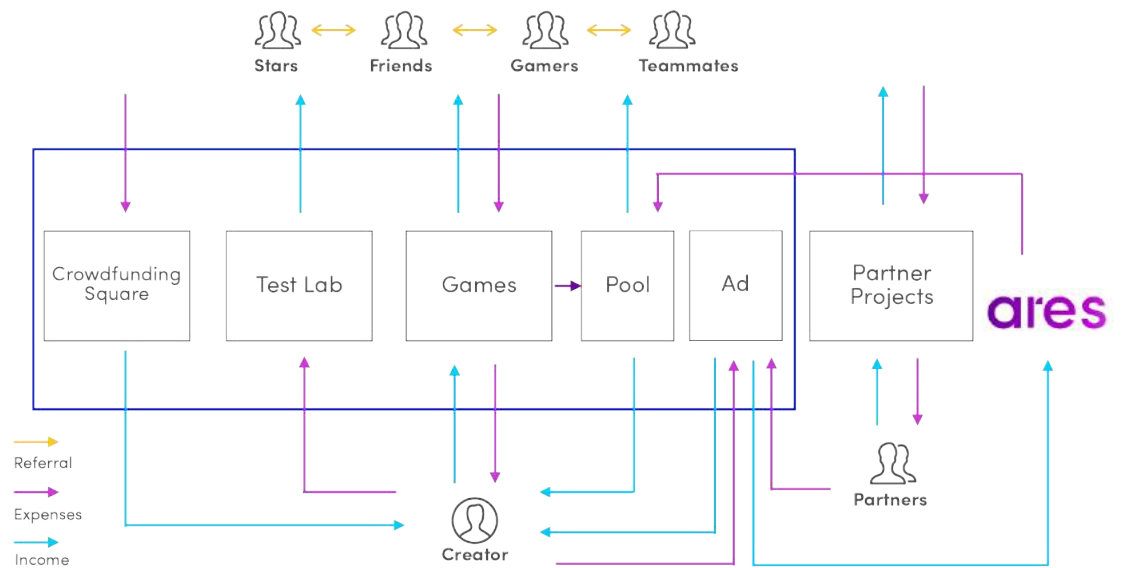
Feature List

Blockchain Platform Type	ARES	MMORPG	Live Stream	Referral	Engine	Virtual Item	Poker
Games							
Type	Social Casual Game	MMORPG	3A Production	3A Production	Social Casual Game	MMORPG	Gambling
Target Users	players, friends, fans	senior players	players, audience	players, audience	players	senior players	gamblers
In Game Purchase	Yes	Yes	No	No	Yes	Yes	Yes
Game Achievements	Yes	Yes	No	No	Yes	Yes	Yes
Decentralized Game	Yes	No	No	No	Not Yet	No	Uncertain
Open Source	Yes	No	Unable	Unable	Not Yet	No	No
SDK	Yes	No	No	No	Yes	Yes	No
IDE	Yes	No	No	No	Yes	No	No
Social Context	Yes	Yes	No	Yes	Yes	No	No
Platform							
In Platform Purchase	Yes	Yes	No	No	Yes	Yes	Yes
No Commission from Users Rewards	Yes	No	No	No	No	No	No
No Commission from Developers Profit	Yes	No	Yes	Yes	No	No	Yes
Multiplayer context	Yes	No	No	No	No	No	No
Prediction Context	Yes	No	No	No	No	No	No
Referral system	Yes	Yes	Yes	Yes	No	Yes	No
Decentralized Audit	Yes	No	No	No	No	No	No
Crowdfunding	Yes	Yes	For championship	No	No	No	No
Crowdfunding Possibilities	High	Low	Medium	No	No	No	No
Cross-chain	Planned	No	No	No	Plan	No	No
Business							
Star Live Show	Yes	No	No	No	No	No	Yes
Souvenir trade	Yes	No	No	No	No	No	No
Off-line Resources	Yes	No	No	No	No	No	No
Risk	No	Developer difficulty	Game production company is dominant	Game production company is dominant	Blockchain technology implementation and policy risk	Game production company is dominant	Gambling and policy risk

- The added benefit of being commission-free for both users and developers
- A friendly business ecosystem is a necessary stepstone for game creators.

Token Design

Token Flow



For Gamers

- Expenses:
 - Support ideas in Crowdfunding Square
 - In game purchase
 - Tickets
- Income:
 - Referral: Earn Ares Token by inviting friends, engaging fans or setting up a team.
 - Test rewards
 - In game achievements
 - Rewards from prize pool

For Creators

- Expenses:
 - Feedback rewards to test users
 - In game achievements to gamers
 - Ad cost to publishers
- Income:
 - Support from crowdfunding
 - In game purchase from gamers
 - Shares from social contexts
 - Ad income as publisher
 - Rewards from prize pool

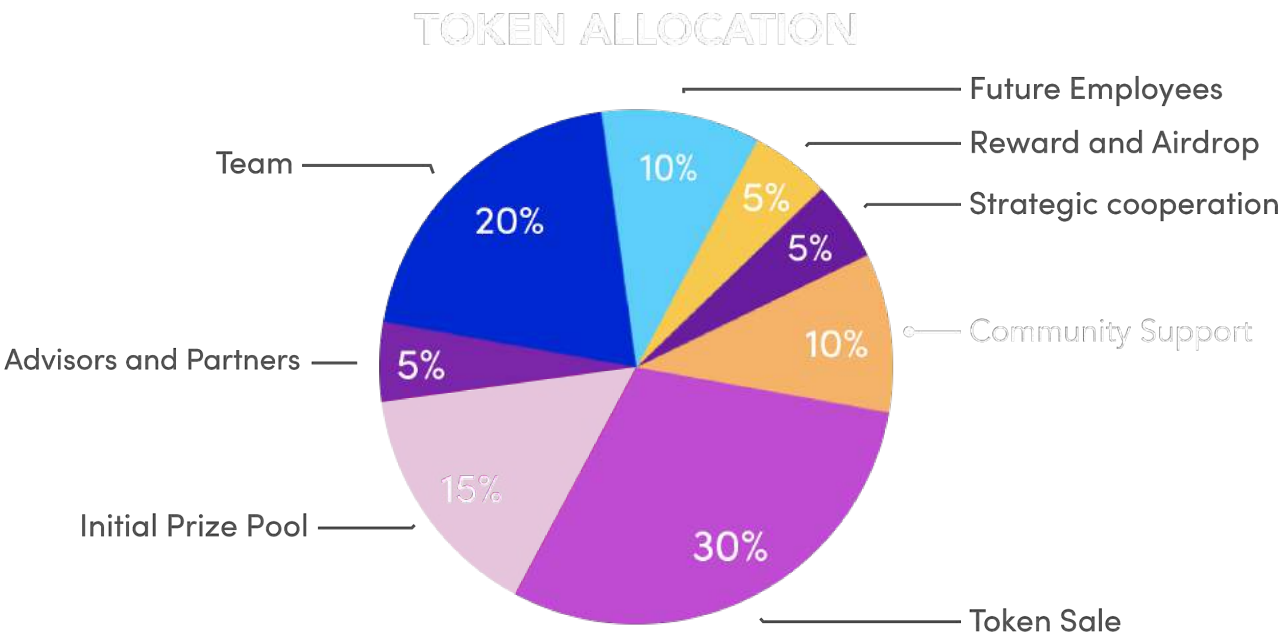
Ares and Prize Pool

- Expenses:
 - Investment in Prize Pool
- Income:
 - Ad Platform
 - Partners' service fee

Token Details

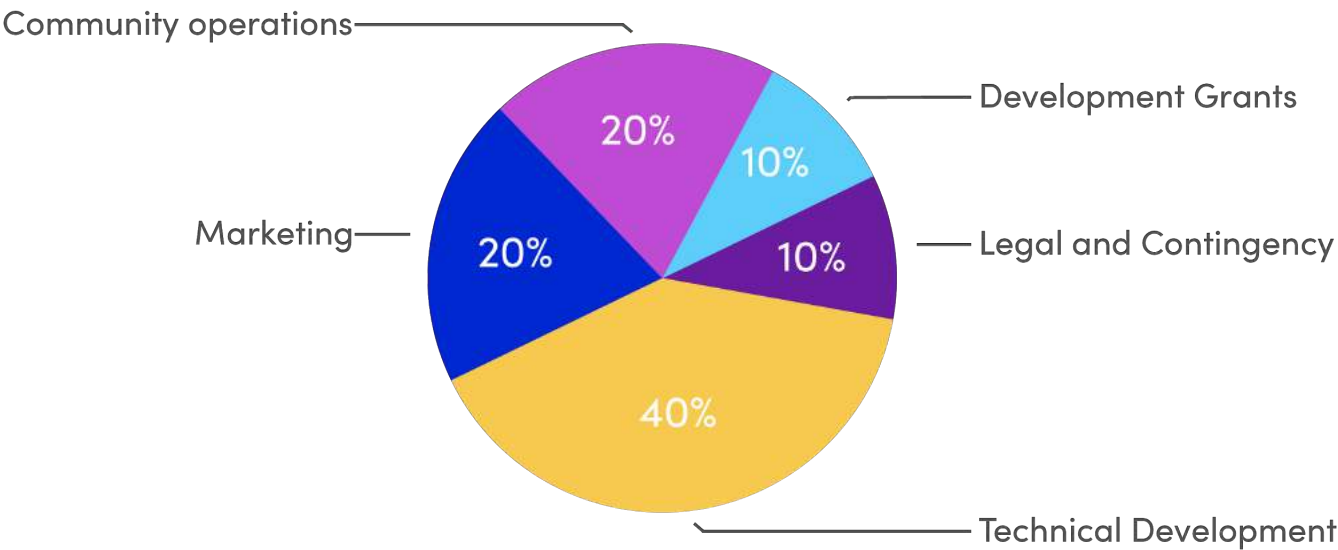
Token 介绍		
Symbol: Ares	Total Supply: 1,000,000,000 Ares	Sale Supply: 300,000,000 Ares
Token Format: ERC20	Soft Cap: 100,000,000 Ares	Hard Cap: 300,000,000 Ares
Conversion Rate: 1 ETH = 4400 ARES	Public Sale Date: TBD	

Token Allocation



Token Sale	30%
Initial Prize Pool	15%
Advisors and Partners	5%
Team	20%
Future Employees	10%
Reward and Airdrop	5%
Strategic cooperation	5%
Community Support	10%

Use of Funds



Technical Development	40%
Marketing	20%
Community operations	20%
Development Grants	10%
Legal and Contingency	10%

Lock-up period

The lockup period of an Ares team member is 2 years vesting after 1 year cliff, i.e. starting from the 2nd year, 50% vesting linear each year.

No one, including the Ares Team member, can move the token until the lock up period ends and anyone can check it on Etherscan. The safety Security will be guaranteed by Ethereum blockchain, because fraud and fraudulent activity would be logistically and technically impossible.

This lock up is only applies to tokens held by the founders and it does not affect the number of tokens distributed in the market.

Lock-up process

- We will prepare a lock up wallet, an open source smart contract, which is now being developed for founders' tokens.
- We will announce URL of Etherscan to be confirmed after the wallet is deployed

Roadmap

Time	Milestone	
Jan 2018	Got Seed Funding	Core Team and preparation of project launch completed 2 weeks after seed funding round.
Feb 2018	Project Launched	All project assets, including official website and social platforms, concept pitch deck, etc., was launched 4 weeks after seed funding round. Berlin Valley and Gründerszene covered this launch.
Mar 2018	Team Setup Focus Group Review	Team recruitment is in progress. Aside from blockchain developers, Legal Compliance Consultant, Information Security Consultant, etc., are also very important roles in our team. Focus groups for game developers and users, meetups and events will be held by Ares. Getting to know our target group is main goal.
Q2 2018	Prototype Launch Team Setup	As soon as first major designers and front-end developers join, Ares will focus on prototype launch along with project development.
Q3 2018	SDK Alpha version Token Distribution	Alpha version of SDK will be delivered to public on Github and the first round of Ares Token distribution will be opened.
Q4 2018	DApp Alpha version SDK Beta version	Users can download the alpha version of DApp and test all major features. SDK will be updated with more contexts integrated.

Time	Milestone
Q1 2019	DApp Beta, SDK 1.0 with IDE Plugins
Q2 2019	Development Suite 1.0 with Multi-chain Adapters and build-in Context for competitions
Q3 2019	Development Suite 2.0 with Data Dashboard and DApp 1.0 with crowdfunding
Q4 2019	Mainnet Launch and Token Transition
Q1 2020	DApp 2.0 with Display advertising module
Q2 2020	Alpha of Encrypted communication
Q3 2020	Alpha of Souvenir Trading Module
Q4 2020	DApp 3.0 with stable version of new modules
2021	Development Suite supports VR/AR and Motion Sensing Game
2022	Smart Device and development of game console

Disclaimer

Unless it is expressly stated in this Whitepaper, Ares does not make any representations or warranties (especially with regard to its Marketability and particular functionality) with respect to ARES or Ares Token. Participating in Ares Token's public sale plan and buying Ares Token shall be based on their own knowledge on Ares and Ares Token as well as the information in this Whitepaper. Without prejudice to the generality of the foregoing, all Participants will accept Ares Token as-is after the launch of the Ares Project, regardless of their technical specifications, parameters, performance or features. This document does not constitute or imply any form of prospectus. All wording should not be construed as an investment tender, and this Whitepaper may not be relevant to the securities in any part of the world. Ares platform hereby expressly refuse to recognize or assume the following responsibilities:

1. Anyone who violates any country's anti-money laundering, anti-terrorist financing or other regulatory requirements in the purchase of Ares Token;
2. Any person violates any statement stipulate, guarantee, duties, promise or other requirement, and the resulting inability to pay or fail to extract the Ares Token when he/her buy the Ares Token;
3. Related blockchain, loopholes in the original code, errors, flaws, platform failures caused by technical problems such as collapse;
4. The use of encryption coin witch raised from public sales;
5. Any participant who has leak, lost or destroyed the wallet private key of digitally encrypted currency;
6. The break contract, violation, infringement, standstill, service termination and pause, dupery, mishandling, miss, careless, bankruptcy, clearance, dissolve of the cooperation platform which sale Ares Token public;
7. Anyone's trading or speculation on the Ares Token;
8. The Ares Token on any Exchange's traded or delisted;
9. Ares Token are categorized or considered as a currency, security, commercial paper, bills, investments or other things by any government, authority or public body, that result in be prohibited, supervise or legal restriction;
10. Any risk factors disclosed in this document and any damages, losses, claims and liabilities, penalties, costs or other negative effects which arising out of or in connection with the related risk factors.

Risk Statement

The Ares development and operations team believes there are many risks in the development, maintenance and operation of Ares, some of which go beyond the control of the Ares development and operations team. Every prospective Ares Token buyer should read, understand and carefully consider the following risks before participating in the public Sale Program.

Every Ares Token buyer should be aware of the fact that while Ares development and operation principle are set up in Germany. Ares Token only exist within the cyberspace and do not have any physical form, therefore they do not belong to or involve any particular country. Participation in this public sale plan should be a well conceived decision and it will be deemed that the buyer has fully acknowledged and agreed to accept the following risks:

1) Termination of public sale program

The Ares Token public sale plan may be terminated early. The buyer may only receive a portion of the bitcoin or ether back due to the price fluctuation of those currencies and the cost to the Ares team.

2) Insufficient disclosure

As of the date of this Whitepaper release, Ares is still under development, and its philosophy, consensus mechanisms, algorithms, codes, and other technical details and parameters may be updated and changed frequently. Ares development and operations team is not capable, and not obligated to keep the participants informed of every detail of the development, including its progress and expected milestones (whether postponed or not). So it does not necessarily give buyers timely and full access to the development progress. Insufficient disclosure is inevitable and reasonable.

3) Regulations

Cryptocurrencies and tokens are being or may be regulated by the authorities in different countries. From time to time, Ares development and operations team may receive inquiries, notices, warnings, or orders from one or more authorities and may even be ordered to suspend or terminate this public sale, Ares Development or Ares Token. Ares's development, marketing, promotion, or this public sale plan may be seriously affected, or be terminated as a result. The regulatory policy may change from time

to time. The existing regulatory clearance or tolerance for Ares or this public sale plan in any country may be temporary. In various countries Ares Token may be defined as a virtual commodity, digital asset or even securities or currency at any time, so Ares Token may be barred from trading or holding in some countries as required by local regulatory requirements.

4) Cryptography

Cryptography is ever evolving, and it cannot guarantee absolute security at all time. Advances in cryptography (such as password cracking) or technological advances (such as the advancement of quantum computers) can put cryptography-based systems, including Ares, at risk. This may cause Ares Token to be stolen, destroyed or devalued. To the reasonable extent, Ares development and operations team will be prepared to take preventive or remedial measures to upgrade Ares's underlying protocols to cope with any progress in cryptography. The future of cryptography and security innovation is unpredictable, Ares development and operations team will try its best to face the ever-changing field of cryptography and security.

5) Development failure or give up

Ares is still in the development stage, it is not a finished product. Due to the technical complexity of Ares systems, Ares development and operations team may face unpredictable difficulties. Therefore, the development of Ares may fail (for example, due to lack of funding), which may cause Ares team fail to deliver the tokens to any buyer in this public sale.

6) Theft

There may be attempts to steal funds received from the public sale. Such theft or theft attempts may affect the Ares development and operations team's ability to fund Ares development. Although the Ares development and operations team will adopt state-of-the-art technology to secure crowdfunding funds, some cyber-theft is still hard to stop.

7) Source code flaws

No one can guarantee Ares's source code completely flawless. Code may have certain flaws, mistakes, errors and bugs, which may prevent users from using certain features, exposing user information or cause other problems. Such bugs will undermine the availability, stability or security of Ares and adversely affect the value of Ares Token.

8) Security weakness

Ares blockchain rests on open-source software and is a permissionless distributed ledger. Regardless of the Ares Development and Operations team's efforts to keep the Ares system secure, anyone may intentionally or unintentionally introduce weaknesses or bugs into the core infrastructural elements of Ares. That the security measures adopted by the Ares Development and Operations team may be unable to prevent or remedy. This may consequently result in the loss of Ares Tokens or other digital tokens held by the purchaser.

9) Distributed Denial of Service (DDoS) attack

The Ethereum is designed to be public and unpermissioned. Therefore Ethereum may suffer distributed denial-of-service cyber-attacks from time to time. Such attacks will adversely affect, stall or paralyze the Ares system. As a result, the affected transactions may be delayed in recording or being added to the blocks of the Ethereum blockchain, or they may not be performed at all temporarily.

10) Insufficient Processing Power

The rapid growth of the Ares will be accompanied by a surge of transactions and demand for processing power. If the demand for processing power exceeds what the nodes of the Ethereum blockchain network can provide, the Ares network may destabilize or stall, which may result in fraudulent or erroneous transactions such as "double-spending". In the worst-case scenario, the Ares Token held by any purchasers may be lost, rolled back with the Ethereum blockchain, or even hard forked. The aftermath of these events may undermine the usability, stability, and security of the Ares and the value of the Ares Token.

11) Unauthorized Claim of Purchased Ares Tokens

Anyone who gains access to the registered email or account of a Ares Token purchaser by deciphering or cracking the purchaser's password will be able to obtain all of the purchaser's Ares Tokens. Consequently, the purchased Ares Tokens may be incorrectly sent to anyone who has access to the purchaser's registered email or account and is irrevocable. Each Ares Token purchaser shall take the appropriate precautions to maintain the security of their registered email or account, such as:

- (i) using highly secure passwords;
- (ii) refraining from opening or responding to scam emails;
- (iii) keeping confidential and personallng information strictly confidential.

12) Ares Token Wallet Private Key

The loss or destruction of the private key necessary to obtain the Ares Token is irreversible. Ares Token can only be accessed through a local or online Ares Token wallet with a unique set of public key and private key. Each buyer should store his or her Ares Token wallet private key with great care. The Ares Development and Operations team or anyone else will not be able to help recover the lost private key in the event that the key is lost, compromised, destroyed, or stolen.

13) Popularity

The value of Ares Token largely depends on the popularity of the Ares platform. Ares does not expect to be hugely popular or widely used shortly after launch. In the worst case scenario, Ares may even be marginalized, attracting only a small group of users for a long time. The demand for Ares Token may be largely speculative. The lack of users may cause Ares Token's market price fluctuate greatly and have impact on the long term development of Ares. In the event of such price fluctuations, the Ares Development and Operations team will not (nor be liable to) stabilize or influence the Ares Token market price.

14) Price fluctuations

Cryptocurrency tokens price typically fluctuate sharply when traded in the open market. Price shocks occur frequently in short periods. The price may be valued in Bitcoin, Ether, U.S. Dollar or other currencies. Such price fluctuations may be caused by market forces (including speculative trading), regulatory policy changes, technological innovations, the availability of exchanges and other objective factors that also reflect changes in the supply - demand balance. The Ares Development and Operations team is not responsible for Ares Token tradings in any secondary market. Therefore, the Ares development and operations team is not obliged to stabilize the price fluctuations of Ares Token. Ares Token traders shall bear the risk involved in the trading.