



**Decentralized Deep Ocean
Food Chain Game on
Smart Contracts**

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Abstract

The past couple of decades have brought us the number of significant shifts in information technology — personal computers, internet, smart phones, tablets, smart watches.

These technologies preceded the emergence of advances like on-line payments, e-commerce, instant messengers and emojis.

Apprehensible only for geeks in the early stages of development they are constantly disrupting well established industries.

What we'd like you to pay attention to — is that games always played an undoubtedly significant role in the early adoption of almost every complex technology.

Whether it was Pacman or Prince of Persia for PC, text-based entertainment for brick cell phones, or Angry Birds for iOS, it was games that most people started with before they discovered other applications.

We believe that the history will repeat with distributed ledger technology. Let's bring some fun here while it is not so busy with some serious tasks.



Introduction

At “CHATROBOTIC” we are always searching for extreme, complex and unpredictable technical environments for gamification.

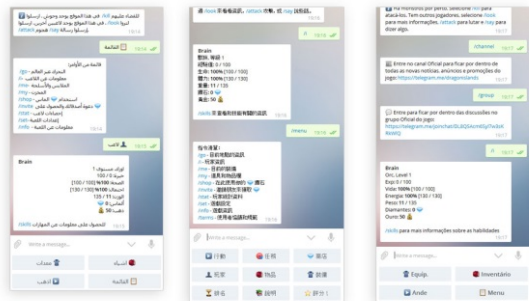
We have launched three successful chatbot games for popular instant messengers like Telegram, Kik and Facebook Messenger.



“Everybody was expecting clever concierge or smart assistants with A.I.,” — CHATROBOTIC told — “But what became really popular here is an old-school MUD RPG.”

VentureBeat

June 3, 2016



Our games are mostly text-based: they allow players to interact with a game server almost instantly without a graphical user interface (GUI). The games grew rapidly through viral expansion in the native environment of messengers thanks to users sharing gaming experience with friends.

RESULTS

Half a Million Players Worldwide

Almost 1 Billion Messages Sent

2.5 Million Messages Daily

5 000+ Votes and Reviews

The messenger environment allowed us to build a strong multinational community around our titles. That helped us identify players' major requests and resolve important issues.

10
languages

50+
countries

THE PROBLEM

In most contemporary massively multiplayer online games (MMOs), the game economy is ruled by the creators and it can be easily modified. Updates may bring changes in balance those are good for some players and bad for others. Even tiny alterations may diminish previous achievements, rendering time spent by a player to build up game assets worthless. In the worst cases, such changes are not accepted by a majority of players, and games are abandoned.

Along with that, on-line games can't offer true ownership and transferability of a player's assets. If game developers are no more interested in developing the game, all players' assets cease to exist.

One of the most long-played title we have introduced so far is the strategy game called "Epic Kingdom" that featured totally open public market economy. Players are able to mine resources with a chose to use them for developing their kingdoms or selling on open market for profit.

There are no central regulations on the price of resources, and that is the core of the game's economy. Players determine the price through balancing supply and demand on the market, regardless that it is still just a virtual in-game currency.

SOLUTION

To make all game assets in the form of digital crypto tokens stored on a blockchain that can be collected, transferred and traded would solve the problems of in-game assets losing value. Built on immutable smart contracts the core game logic and economy can't be changed in time.

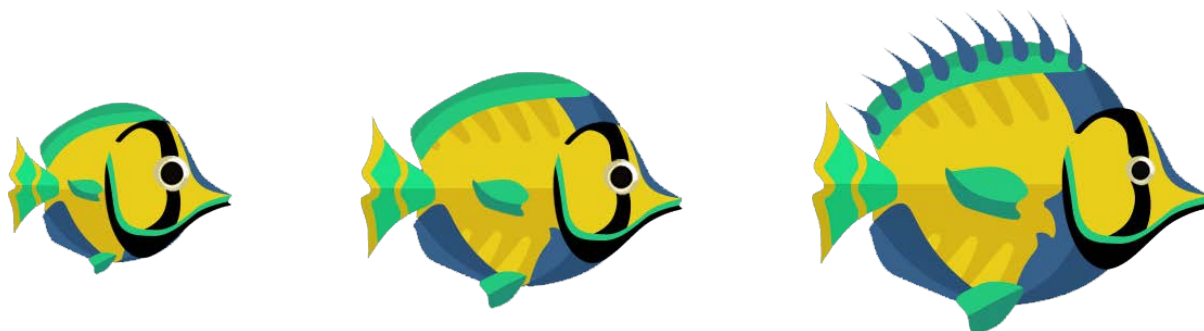
That brings an entirely new level of decentralized gaming experience and adds real value to a player's achievements. It should be mentioned, that there is a great example of such an approach — "Crypto Kitties" is a game built around a form of digital collectibles, "Crypto Punks" on steroids with an incredible idea of breeding tokens in a lovely setting demonstrated to the world how popular blockchain games can become.

We'd like to enrich that experience by introducing classic battle mechanics with crypto tokens to bring a real sense of competition between players.

Game Concept

“Fishbank” is a P2P (peer-to-peer) & PvP (player-versus-player) game set in the deep blue ocean food chain. It is built on smart contracts running on the Ethereum blockchain.

The more powerful characteristics a fish has, and the more weight it has gained, the greater chance it has to win next fish fight.



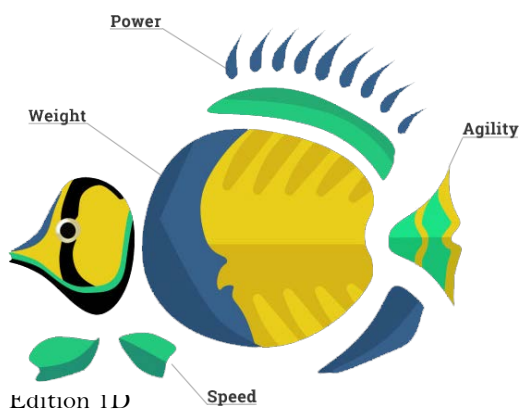
The game concept is relatively simple. The player owns fish (that are in fact ERC-721 crypto tokens). Each fish has a unique name, a unique image and unique characteristics.

A fish image is produced by an algorithm utilizing data about type, characteristics and weight. There are thousands of variations of these parameters so almost every fish is unique and can attain some additional value depending on its image rarity and beauty.

The core fish parameter is weight, which defines its size and influence. The main objective for a player is for their fish to increase in weight in order to become the biggest fish in the ocean. A fish is able to gain weight only by attacking other fish, and taking a bite off them in case of successful attack.

Fish can be traded or exchanged between players on the Market.

Every operation in the game is launched and controlled by an independent smart contract.



Players are interacting directly with each other through a web GUI that helps trigger the actions and show their results. All the data is available in an open distributed ledger on the Ethereum blockchain.

Game Model

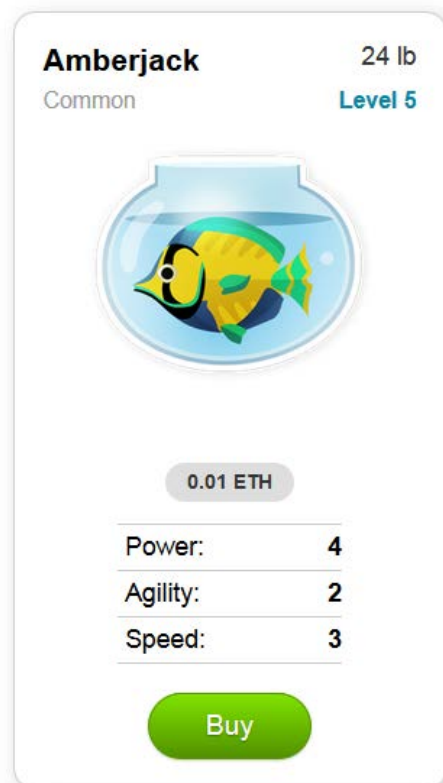
The Fish

Every crypto fish token has a set of following characteristics:

- Weight – The size of the fish
- Power – Damage on attack
- Agility – Defense on attack
- Speed – Cooldown time between attacks

Weight is a dynamic characteristic that can be changed over time, while Power, Agility and Speed are constant parameters that are given to each Fish at their moment of creation and never change.

Every fish is an ERC-721 crypto token — a digital asset 100% owned by the player. It cannot be destroyed, taken away or replaced against the players will.



Rarity

There are four kinds of rarity assessment for fishes determined by sum of initial Fish token characteristics (Power + Agility + Speed):

- Common
- Rare (30+) *
- Epic (45+) *
- Legendary (60+) *

This classification is common for all fishes in the game and is used to identify the rarity of the fish on its information card.

* — together referred to as “uncommon”.

Acquiring Fish

A player needs at least one fish in order to start playing the game.

There are three ways to acquire a Fish:

1. Catch a random one in the Aquarium
2. Buy certain one on the Market from other players
3. Receive as a gift from other player

Alpha fish tokens (available to play only in Alpha release of the game) may be acquired during Alpha Bounty stage by inviting other players to join Alpha.

Aquarium

Catching fish in the Aquarium is almost like fishing in real life — you never know what you'll get. Starting an Aquarium smart contract requires 0.03* Ether and will give you one crypto fish (common or better) with random characteristics.

Chances to get Uncommon type of fish are as follows*:

- Rare — 1:5
- Epic — 1:50
- Legendary — 1:1000

* — these values will be set for Alpha version. Changes may be made prior to Stable release.

Market

All fish that players put on sale are presented in the Market. A Fish that is for sale on the Market cannot attack or be attacked by another Fish.

To put a fish on sale, the Seller names the opening bid, closing bid and a time period of (no more than a week). The opening bid may be lower or higher than the closing bid. Through this action, the Seller initiates a smart contract that starts an auction for his or her Fish token. The Buyer chooses the purchase price and transfers Ether to the smart contract to complete the deal.

Fishbank charges a commission of 4.5% from the amount of Ether transferred on every deal made in the Market. Please be informed that every operation in the Ethereum blockchain also consumes gas that may cost some more Ether.

Modifiers

There is an ability to temporarily increase initial values of the crypto fish token or apply a special ability for a limited period with modifiers. Every Modifier is an independent ERC-721 Token that may be found in Chests, traded or gifted to other players. Modifier token is burned while used. Every Modifier can be used only once.

Major modifier types:

- Power Booster — increases fish Power parameter for a limited time;
- Agility Booster — increases fish Agility parameter for a limited time;
- Shelter Map — protects fish from attack for a given period of time;
- Instant Attack — allows performing a single attack without waiting while the cooldown period ends.

Power and Agility Boosters may have different size that describes their power:

- Big Booster — 48 hours
- Mid Booster — 8 hours
- Small Booster — 1 hour

Shelter Map may guide a fish to find a safe refuge for one of these periods:

- Big Shelter — 1 month
- Mid Shelter — 1 week
- Small Shelter — 1 day

After using a Shelter Map modifier player can perform attack at any given time exiting the Shelter. In order to return fish to Shelter after attack player will need another Shelter Map.

Chests

Chest is the initial container for Modifiers. Small Chest contains 1 Modifier, Mid and Large Chests may have 2-5 Modifiers inside. Every Chest is an independent ERC-721 Token and can be gifted or opened. It is impossible to know what is inside the Chest before opening it. After Chest is opened all contained Modifiers are transferred to player's account and Chest is burned. One Chest can be opened only once. Small Chests can be received by inviting a friend to join the game on Stable release (after invited player catches a Fish in Aquarium), while Mid and Large Chests are bought in the Chest Store.

Core Functions

Gameplay built on a number of smart contracts deployed on Ethereum network:

- Attack – any Fish may attack any other fish in network
- Aquarium – receive random crypto Fish token
- Sell/Buy the Fish – trade Fish in the global open Market
- Open Chest – transfers all the Modifiers inside the chest to Player
- Use Modifier – implements a modifier for Player's Fish
- Sell/Buy Modifier – trade Modifiers on the global open Market
- Gift the Fish/Modifier/Chest – send token to another hash address

Fighting

The core of the Fishbank gameplay is the fight between two crypto Fish that results in the winner gaining weight for winner and the loser losing weight. Any fish that is not asleep and not on sale may be attacked by any other fish in network.

Low level Fish are protected from attacks from high levels by a descending percent of weight redistribution. On the top level Fish gain less weight in percent, and are therefore not interested in attacking low level fish since every attack costs gas.

There is a simple and open formula to determine which fish will win a fight:

$$R1 = DEF1 - DAM2$$

$$R2 = DEF2 - DAM1$$

Where:

- R1 – Victim's Result
- R2 – Attacker's Result
- DEF1 – Victim's Agility * Weight
- DAM1 – Victim's Power * Weight
- DEF2 – Attacker's Agility * Weight
- DAM2 – Attacker's Power * Weight

If $R1 > R2$ than Victim wins.

If $R1 < R2$ Attacker wins.

An element of luck may be involved in this process by multiplying R1 and R2 to different random numbers so that no one can predict the final result of fight before it really happens.

Monetization

Fishbank is meant to be operated on a sustainable revenue model. There is a small commission (4.5%) on every fish sale on the Market as well as the revenue collected from Aquarium and Chests sales and fees for running some specific functions of smart contracts.

Preorder Stage

To gain proof of concept and incentivize the game Fishbank team plans to conduct a preparation stage, during which everyone can order a fish and take part in closed Alpha tests. There would be also some activities implemented in order to activate the initial community for game tests like referring friends and helping us spread the word about the project.

Leaderboards

All crypto Fish tokens are rated by their weight in descending order. The heavier a fish is, the higher position it will take on the global “Food Chain” leaderboards.

All players’ achievements are stored in the decentralized Ethereum blockchain so that everyone can access them and check ratings.

Top 1000 Global

#	Gang Name	Level	Gangsters	Influence	Net Worth *
1	Doraemon 🍌	5009	👤 21317	102321600Q xQ	👤 316Q xQ xB
2	Serigala	636	👤 11398	1132Q	👤 24T xB
3	GooDeeJaY	821	👤 2300	51750Q xQ	👤 17Q xQ xB
4	ITACY	4742	👤 1970	—	👤 97Q xQ xB
5	SubuhWarrior	206	👤 1935	38M	👤 14 xB
6	RavenSnot	176	👤 1871	97292Q xQ	👤 26 xB
7	Darkmoon	1010	👤 1854	302B	👤 45B xQ xB
8	MIRO_No_1	4832	👤 1553	466Q xQ	👤 8443T xQ xB
9	Dorami	3412	👤 1426	—	👤 11B xQ xB
10	TECH_BYTE	1432	👤 1424	3133Q xQ	👤 51T xQ xB

Top 1000 Global in “Mafia Gangs” Game by CHATROBOTIC

In essence, the core aim for the player is to create an ultimate fish that can beat all others on her way to the global distributed deep blue ocean leadership.

Advantages

Frankly speaking, Fishbank is blockchain game for growing, fighting and trading unique digital fishes with community-driven economy and immutable assets stored in distributed ledger.



What's so special about "Fishbank"?

- ✓ Game assets belong 100% to player that is assured by blockchain
- ✓ Player's achievements can't be destroyed or diminished
- ✓ No one can influence or change game economy after it's launched
- ✓ Game assets can be traded freely between players on a global scale
- ✓ Ability to acquire and grow unique piece of fish crypto token art
- ✓ Teaches basics of cryptocurrency

We believe that "Fishbank" concept is much more than a funny little game. We recognize our mission as to discover the vast possibilities of how smart contracts and distributed ledger technology may change the way people play games and work.

Technical Considerations

This section covers general technical considerations in implementation of game model on smart contracts based on Ethereum blockchain.

Basic Requirements

To play Fishbank, the user needs Chrome or Firefox with the MetaMask digital wallet extension installed, and some Ether in the user's MetaMask wallet.

Ethereum Blockchain



The Ethereum network runs on Ether, which acts like any other currency. Each player will need Ether to interact with smart contracts. Ether is used to acquire gas (fuel needed for running smart contracts) and to purchase fish.

The player can get Ether by converting his/her fiat currency in MetaMask (US only) or on currency exchange websites like Coinbase or trade for other cryptocurrency on Shapeshift.

MetaMask Digital Wallet



To play Fishbank, the player needs to install MetaMask. MetaMask is a browser extension available for Firefox and Chrome, that enables convenient storage and transfer of Ether along with secure authentication to services like Fishbank.

Fishbank does not represent a service to manage crypto tokens — that is handled by the MetaMask wallet. Please treat your MetaMask wallet with care and do not forget your password.

Roadmap

Fishbank is here to stay, that's why we would like to run multiply tests of audited smart contracts and introduce complex deployment tactics to involve the audience. Fishbank launch is divided into four major stages:

Stage 1 — Alpha Bounty

On this stage we'd like to invite early adopters to join Alpha. One can acquire an Alpha Fish token during special incentivization event by inviting a friend through the special referrer link. Invitation considered accepted if a friend has followed your referral link and has activated his account (confirmed his e-mail).

Rewards are credited as follows:

- 3 accepted invitations for Common Alpha Fish
- 15 accepted invitations for Rare Alpha Fish
- 100 accepted invitations for Epic Fish
- 1000 accepted invitations for Legendary Fish

Epic and Legendary fish tokens acquired during Alpha Bounty stage are transferred to Fishbank Stable release. Top 1000 Common and Rare Alpha fish tokens with maximum weight achieved during Alpha will be transferred to Stable release as well. All Fish tokens transferred to Stable will have initial weight to maintain game balance.

Stage 2 — Early Preorder

Contribute Fishbank project development with Ether and get guaranteed type of fish asset on the Stable release. There will be no other chance to choose certain type of Fish Token after Stable version launched.

- Common Fish from 0.01 ETH
- Rare Fish from 0.05 ETH
- Epic Fish from 0.35 ETH
- Legendary Fish from 1.5 ETH

Preordered Fish tokens will be credited to your Ether digital wallet prior to game launch. If fish token ordered before 20th January 2018 the same Alpha fish token will be credited to the owner.

Stage 3 — Alpha Launch

The first version of smart contracts deployed to the Ethereum mainnet. Only those who have Alpha fish tokens will be able to play Fishbank Alpha. There are two ways to obtain Alpha Fish token after Alpha launch:

- Catch random Fish in Aquarium (Common or better) 0.03 ETH
- Buy on the Market from other players (price defined by supply/demand)

Please be informed that fish bought on the Alpha Market or received as a gift in Alpha may not be transferred to Stable.

Not all functionality described in this document may be represented in Alpha.

Stage 4 — Stable Launch

After final version of smart contracts are deployed on the mainnet game logic and balance becomes immutable as no one can change the code later or do any changes. That makes Fishbank gameplay fully autonomous and independent.

The only way to get Fish is catching it (random one) from Aquarium or buying from other players.

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Conclusion

Cryptographic distributed ledger technology is still in its infancy.

Since the first whitepaper published in 2009 by the mysterious Satoshi Nakamoto, there was only one significant breakthrough that opened world of possibilities beyond speculative P2P open-source money concept – Ethereum smart contracts.

Games like Fishbank are using this breakthrough to make the blockchain technology accessible to a wider range of users through gamification.

The user can experience excitement playing a game in the high-tier environment of the Ethereum platform.

We believe that our game can pave the way for a broad range of users to learn how to use crypto wallets and step into a new era of advances in human communication and cooperation.

Sincerely Yours,

“CHATROBOTIC” Team

Visit website for more information
<https://fishbank.io>

