

HealthyTail v.1

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Abstract:

HealthyTail is a project devoted to health and longevity of cats and dogs — most popular domestic pets. Nowadays pet owners and to-be pet owners all around the world face the same problems. Purebred cats and dogs, even with a good care, often suffer and die from genetic-based diseases that have no cure. It becomes a concern for owners who treat their pet as a friend and a family member. It repels many to-be owners from keeping these beautiful but expensive animals. Finally it causes financial losses to breeders.

One can keep mongrel cats and dogs, that as a rule have better health, but even in this case owners couldn't learn how long will pets stay with them. Ten years, 15 years or, may be, more than 30 years like the most long-lived cats?

It's possible to predict pets hereditary diseases and life expectancy, improve breed health by scientific-assisted mating and even design new revolutionary drugs for genetic-based diseases. The key is population-wide genetic studies focused on finding out markers for pets health and longevity. It just needs fairly large database combining genetic tests, medical history of each pet and its parents. HealthyTail aims to set up such a database creating a platform for data sharing between pet owners, breeders, veterinarians and scientists.

Platform is based on blockchain technology. Blockchain helps to solve the largest problems for the population-wide studies: data collection and motivation of the community. Each member — pet owner, breeder or research lab — earns money (TAILS tokens) for entering information into the database and pay by TAILS tokens for services and access to information.

Enlargement of database allows the HealthyTail core team — world class populational bioinformaticians, geneticists and veterinarians — to provide commercial services for pet owners and breeders. It includes supreme genetic diagnostics, genetic assisted breeding and personalized gene therapy for pets. Together it make data access easier and cheaper for researchers and pharma that increases the amount of scientific insights. Potentially this knowledge is a first step in the way to defeat human senility.

Problem:

Purebred pets suffer from breed-specific diseases. Pets longevity and health risks are unpredictable for owners and breeders. Pets genetic and phenotypic data that research and pharma labs need to solve these problems is scattered and incomplete.

Solution:

HealthyTail unites pet owners, breeders, veterinarians, research and pharma labs and motivates community to share data by creating blockchain economy. The result is a world's

largest database for population-wide genetic studies that allows to provide commercial services for pet owners and breeders and make data available for further researches and new drug design.

Blockchain:

Blockchain allows to coordinate a data and compute network as well as establish a trust and motivation for pet owners. Decentralized system allows the community to be engaged in the project and benefit from it. Growth of TAILS exchange rate make participation in the project in the early stages profitable.

Our Blockchain:

HealthyTail blockchain handles genetic and phenotypic pet data access and compute resources motivating the community via TAILS token to share the data, involve into responsible breeding, build a trustworthy breed certificate network, provide compute resources for the grid, involve into figuring out longevity principles. HealthyTail blockchain allows pet owners to earn back money they spent on genetic testing by sharing the data that is used by pharma companies to deliver new personalised drugs for their pets.

What we deliver:

HealthyTail delivers:

- A platform for sharing data and compute resources for pet well-being and longevity research
- Best online pet genetic diagnostics service addressing all discovered genetic-based features using a single probe
- Trustworthy breed certificate network
- Genetic-assisted mating and therefore healthy kittens and puppies
- Personalized drugs based on genomic data for animal well-being
- Data access for research and pharma labs

Money:

HealthyTail builds up a blockchain community based business model for pet longevity and well-being research backed up by strongest biologists, bioinformaticians and pharma. This model has a huge advantage of cost of data collection and aggregation against traditional models combining best approaches of joint scientific research and commercial pharma lab research. The team has an ability to ensure a full cycle: diagnostics that through big data analysis end up in new drugs and drugs that require diagnostics — this loop will generate new

community members and revenue for the company. As the platform will be open it will be much cheaper for other companies to join HealthyTail and use the data generated by the community compared to separate research. The community will be financially motivated and will see the overall benefits of healthier pets thus involving new members.

TAILS token - is a native cryptographic project token, which gives participants the right to access multiple activities and services of the HealthyTail network. TAILS token has a critical role inside the HealthyTail ecosystem and is designed to be used as:

0. Rewards for participants. Participants get a reward for actions such as submitting valuable data (bringing animals to a veterinary lab), uploading medical data, even posting kitten and puppies photos, valuable actions.

1. Main data platform services: Data search, retrieval, research and population-wide analysis.

2. A Security deposit and minimum Data Provider Participation balance. Not any medical data is accepted. The data should come from a certified sequencing facility or a veterinary clinic. Also any Research facility should reserve some tokens to be able to submit a population-wide study. These tokens are reserved for prevention of misuse of the platform from the participants that are able to download large amount of data.

3. Daily transactions. Smart-contracts power fair distribution of tokens during daily diagnostics, breed certificates and mating requests from pet owners and breeders.

4. Complementary services. Tokens might be accepted for mating, diagnostics and drugs. Each service require some token flow linked to data flow, but one might pay in tokens for the whole service as well.

5. Network growth. HealthyTail uses TAILS to motivate users of the network and grow the network. TAILS might be paid for mating confirmation, referral programs, data analysis hackathons.

6. Anti-spam prevention. HealthyTail pays users who confirm the data validity and data uniqueness.

7. Data leak prevention/ License violations. HealthyTail pays for submitting a data having some other user fingerprint. This prevents sharing of data between parties outside HealthyTail platform.

9. Payments between the participants. All participants of the network, for example sequencing labs may use TAILS as a payment for their services

10. Compatibility. Easy integration to listing on cryptocurrency exchanges

TAILS token is linked to a data on the platform. All tokens represent all the demand for the data. Access to all data on a platform for a month has a fixed price in TAILS tokens. The demand and supply grows with the number of users and total data price in token remains. The same fraction of the data will cost less in a time in tokens and the token price will grow.

Value of token over time:

1. TAILS tokens directly depends on value and amount of data on the platform. The single data sample acquisition price will also play a role in the formation of community. It is mostly a price of sequencing — and with the volume that is expected, HealthyTail has the minimal available price for the sample. Finer population-wide studies, that become available with the growth of amount of data will also increase its value.
2. The demand from pet owners will grow. HealthyTail will deliver the best diagnostic service which will be based on the amount of data that was never available before. Any pet owner that would like to use new drugs ensuring well-being of his pet will have to be part of the network.
3. The demand from pharma and research will grow. Access to all data on a platform for a month has a fixed price in TAILS tokens. With the growth of number of users the TAILS token price will increase and the same fraction of the data will cost less in tokens. So it will be cost-efficient for researchers to use HealthyTail as a database.
4. Value of the outcomes will grow. Nowadays it is possible to single out only rare diseases that are based on single mutations in genome. Due to population-wide studies the genetic part of multi-factor diseases and longevity will be able to be discovered.
5. Also the revenue of the HealthyTail as a company that provides supreme diagnostics and drugs is expected to be positive in 2-3 years thus ensuring a growing demand of TAILS tokens.

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