Hydra DC Whitepaper (ENG)

**Contents**

Internet infrastructure today

Information mass is expanding. The IT sector is growing by an average of *7.1%* per year. The user mass of online services with high load (SaaS, PaaS, IaaS) and Internet of things (IoT) is also growing. This leads to the fact that by *2020* the load on the capacity provided by data centers for the IT sector and Internet services will increase by *400%.* At the same time, demand for Data Centers that provide the necessary capacity, according to Cisco, is growing at *75%* per year.

Data centers have become attractive investment assets. Hydra team has developed the Hydra DC Data Center project, which will not only combine the latest achievements of management, crypto and information technologies, but will also make it possible to become a shareholder of the data center for ordinary users.

+7,1%
IT-industry
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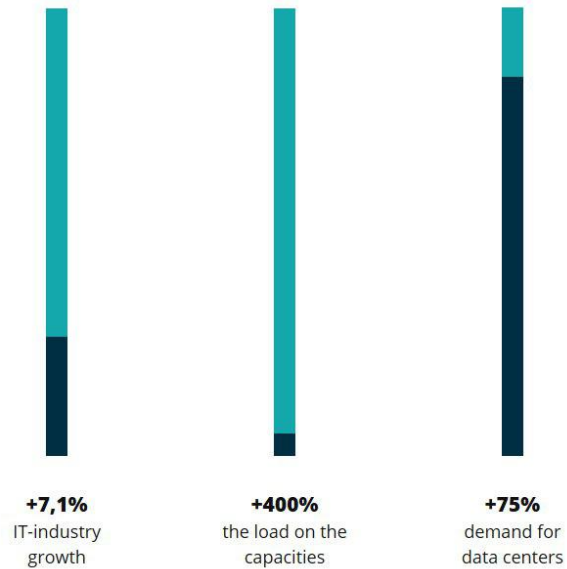
About the project

Hydra is a *3*-tier data center project (Tier *3*), decentralizelly managed by the Hydra token council.

Hydra will combine all the capabilities of the world's advanced data centers, introduce technologies of blockchain control of data management systems previously unused in data centers, as well as modular systems for the development of DC space.

Among the services of Hydra will be a wide range of traditional data center services (Virtual Hosting, VPS, Dedicated, Colocation, CLOUD VPS). At the same time, the modular structure will allow Hydra to expand the scope of its activities towards additional services: operation and design of blockchain-systems, co-location of mining systems, telehousing.

Modular system

Hydra is designed within a modular structure system that allows you to painlessly increase the useful data center space. In addition, the modular structure system will create a wide range of services related to the mining of crypto-currencies (colocation, provision of sites for cloud mining companies, crypto-currency nodes) and telecommunications services (telecommunication nodes, mobile cells).

Mining Center

Hydra is a data center that is constantly expanding and adapting to the needs and demands of the market. Hydra with the help of the mining center module will provide customers with the opportunity to lease space for placing mining equipment and crypto-currency nodes in a safe location with inexpensive electricity.

The Hydra Mining Module will house individual mining hubs for 100 mining systems each. In the mining module, as well as in the Hydra data center as a whole, will be featured with the 1st category of power supply reliability (implies several independent power sources) and 99.999% Internet accessibility.

Decentralized management structure

Hydra DC will be managed by a two-tier structure: The Executive Committee (EC), which will include the management of the company, and the Decentralized Token Owners Board (hereinafter referred to as the TOB), which will include all owners of the Hydra (HDT) tokens. The interaction between the EC and TOB will be built on bilateral interaction, similar to the interaction between the executive board and the supervisory board in traditional corporations.

To make significant decisions for the company, Hydra Executive
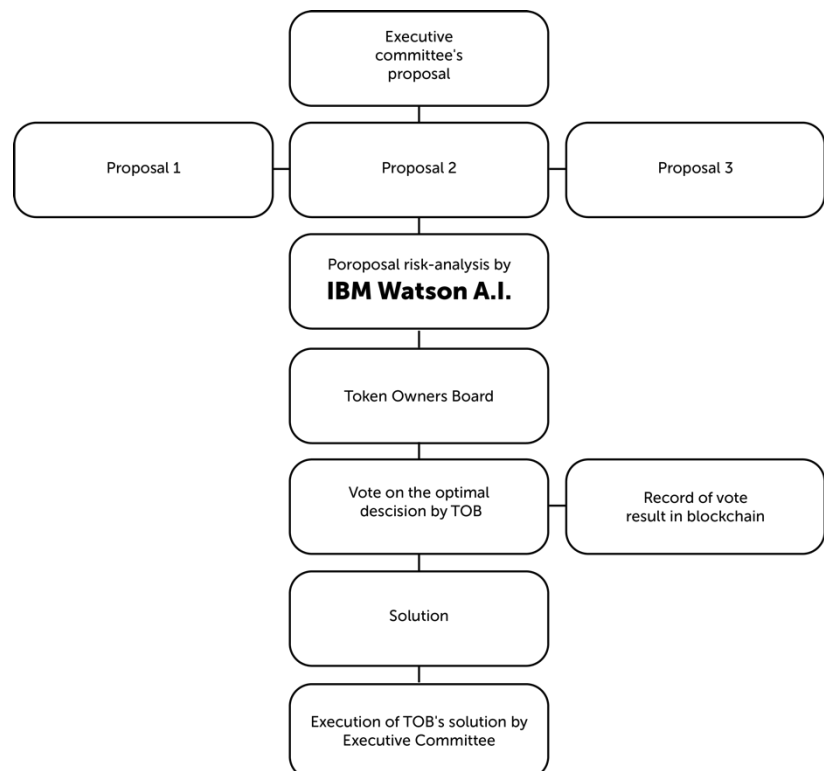
Committee will put on TOB's vote calculated and well-designed administrational proposals that guarantee company's profit. The TOB will decide to approve or disapprove specific proposals of the EC. Such a system of double control will ensure stability in the development of the company and protection from corporate trolls.

The Decentralized Token Owners Board

The decentralized token owners board will become the advisory body of Hydra. Each token holder will have the right to vote in decision making process, have an opportunity to propose own development strategies for Hydra, which can be put on general vote after close consideration by Hydra's executive committee. The interaction will take place within the data center management system based on smart contracts and Ethereum blockchain, in which each holder of the token will be able to manage their tokens and apply voting rights.

In the future, tokens, same as shares in traditional companies, will be the basis for participation in the distribution of Hydra's profits. It is TOB that will participate in deciding which part of Hydra's profit will be directed to the further development of the project, and which will be used to pay dividends (in crypto currency or in the form of funds). The results of management decisions will be reflected almost instantly inside the company's blockchain.

HDT tokens will circulate on major crypto-exchange exchanges and will be available for p2p exchange within the Hydra platform. This will allow anyone who wants to increase his participation in Hydra, and the other – to reduce.

Among other things, the token will become a possible means of payment for purchase of Hydra services. Hydra's services can be purchased by HDT tokens, cryptocurrency, and fiat funds.

The Executive committee

The Executive Committee will prepare its own management decisions, analyze TOB's proposals and put to the TOB's vote development strategies and initiatives acceptable to the company, the risks of which are analyzed with the help of A.I. IBM Watson.

EC membership will be based on professional skills relevant for business and technology (IT development, IT security, network engineering, business process management, etc.).

Hydra's TOB control and financial policy of the company

The Hydra Executive Committee will be represented in the TOB with *20%* of voting tokens - this will allow the Executive Committee to participate in the activities of TOB on equal terms with the token owners.

Hydra TOB will be the controlling body of the company, which will directly participate in the fundamental issues of the company's financial and operating activities: investments, dividends distribution, voting on the company's financial policy. Thus the participants of the TOB will be able to make sure that the company acts in the interests of its stakeholders.

The company will annually publish financial statements on its activities, development strategies and financial results.

20%

80%

☐ Hydra Executive committee

■ Crowdsale Investors
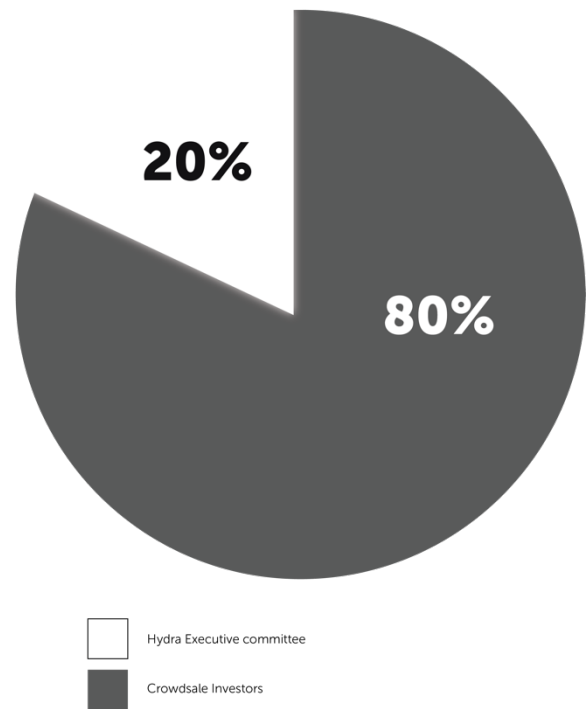
Hydra Multiply

Hydra will be open to all new blockchain-based projects and start-ups under the Hydra Multiply program. Hydra Multiply is aimed at supporting start-ups, allowing novice developers to get some of the computing power and storage capabilities of Hydra.

It is the TOB that will decide which start-ups to provide (or not provide) the basic Hydra capacities for storage and computation.

51%

49%
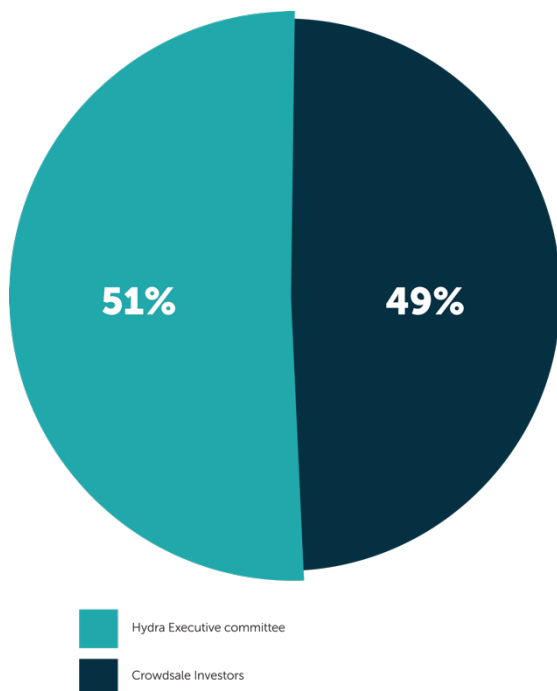
Ownership of Hydra DC

We perfectly understand the specifics of the modern crypto-currency world, in which everything rests on reputation and a couple of lines of code. We consider

■ Hydra Executive committee

■ Crowdsale Investors

this an insufficiently reliable basis for serious relations with our Crowdsale-investors. The world still has strong legal and economic links to tangible assets, legal norms and classical law.

At the development stage, when stable operation of the company will be established, the HDT tokens will be converted into shares of the managing company Hydra, registered on the territory with British law (will simplify the system of distribution of shares). Owners of HDT tokens will become full shareholders of the data center, and any court operating under the island law will be able to protect their rights.

Owners of HDT tokens will receive a 49% stake in the management company, in proportion to the possession of the tokens. The Hydra Executive Committee will receive 51% of the shares.

Hydra DC Technical Specifications

Hydra DC is a complex of data center buildings, united by a single infrastructure and built in accordance with the main international standards (Tier 3, (ANSI / TIA-942-A), ISO 27001 and ISO 9001).

Hydra DC engineering networks will be integrated into a single system, which will minimize the capital and operational costs of maintaining their activities. Management and monitoring services will ensure continuous monitoring of all equipment processes inside the building. Security service will ensure the safety of the facility and control access to equipment.

The power supply of the center will be provided in the 1st category: Hydra will have two independent power supplies, and the reserve installations of diesel generators with a capacity of 2mWh that will allow for continuous operation until the accident is eliminated in the regular power supply. At the time of power switching, it is possible to operate the equipment from storage batteries (Schneider Electric, ABB, Siemens, APC).

The machine room and the data center equipment will be cooled using precision air conditioners (Uniflair). The machine center, in which the main technical equipment is located, is cooled by the forced ventilation of the large capacity.

The following technical characteristics will be introduced within the framework of the DC:

- Optical communication lines providing high reliability and speed of equipment operation over the network, and a structured cabling system. In this case, additional security will be provided through the redundancy of communication channels using a radio link and a dark fiber.

- Fire alarm based on ESMI equipment and connected to gas fire suppression modules. Duplication of monitoring systems and application of the newest control methods such as aspiration detectors will allow to provide complete fire safety of the facility.

- The video surveillance system will be implemented on HD quality video cameras manufactured by AXIS. It covers *100* percent of the computer rooms with server equipment, entrances to the building, corridors and rooms, the perimeter of the facility. The permanent position of the video surveillance operator and the archive of video recordings of a large volume make it possible to ensure the monitoring of all processes occurring, the production of works, in the data center.

- Security alarm and access control system will provide security perimeter monitoring, Multi-level access, control over the movement of all persons on site, protected entry into the territory. Exclude the possibility of unauthorized entry into the data center and the surrounding territory.

- DCIM capacity management system of data center.