

# Decentralized data center

**Data center that represents the new generational evolution of technology, whose purpose is to offer capillary, incorruptible services, focused on IT security, part of the green economy and energy thrifty,**

## Preamble

The following content and the concepts mentioned here are very cutting-edge and may not be understood even by people who work in the industry, so a preamble is a must in order to make a very realistic idea of what the future of the data centers.

A data center with a conception derived from the Bitcoin network: The birth of bitcoin was possible through the invention of new technological concepts so imaginative as they were innovative that they displaced all the experts in the IT sector by creating a set of ingenious and innovative technologies, and still today most traditionalists have not understood how much this set of technologies will sweep away all previous concepts in terms of information security and data management. We are talking about a new technology which, if compared to aviation, represents a generational leap such as the transition from biplanes to jet aircraft, basically everything known so far will be destined to become obsolete, only that this transition cannot happen quickly due to two simple factors : There has been too much investment in potentially obsolete sectors and throwing everything into landfills would anger investors, and the technologies ready to replace the data center sector are not understood by everyone because they deal at the highest level with various complicated concepts ranging from encryption, decentralization through p2p networks, to trustless as a new concept of IT security.

With this preamble we simply want to give a basic notion to understand what our decentralized data center consists of and why it is destined and be the future.

Since this is not a document intended for specialists in the sector, but has an informative purpose, it will not be targeted at technical personnel. Bitcoin was the first digital currency to be successful (although there had been others before), because it was found to be indestructible and unassailable: Tell me the data center where the bitcoin software is located, we will destroy it with an atomic bomb and put an end to this rebel money! No, you cannot do it because bitcoin is distributed on a global network, each node is an original infrastructure and destroying them all is not technically possible, therefore we speak of decentralization, i.e. there is no central data center, but many distributed around the world, under different owners who don't even know each other, and there is no central authority that coordinates and controls the system. In practice, instead of a data center, we have "micro data centers" called nodes. When we say that our decentralized data center originates from Bitcoin it is because it inherits not only this concept but also many of the technologies that govern it, including the concept of digital identity given by a pair of keys for asymmetric encryption, and p2p communication distributed. With a metaphor, we will move towards a future in which the data center will no longer be a gigantic elephant but many small piranhas, because this is the strongest, most flexible, scalable and least resource-intensive solution.

Why this hasn't happened yet: In various expos we have ascertained that the obsolete data center sector

is kept alive because behind it there is an entire industry that has invested billionnaires, and no one has the courage to tell investors that they have bet a chip on a losing roulette, those involved who lobby the sector cannot accept the change caused by the natural evolution of technology. Behind traditional datacenters there is an allied industry ranging from those who design infrastructures, to those who build sheds suitable for hosting data centers, to those who sell servers, to those who create ventilation and cabling systems, to managers and system engineers who work in these structures, which with the advent of decentralized micro data centers would be as obsolete as coachmen were with the advent of the automobile.

In the short future, the data center as it is now known will be replaced by data hubs, actually sorting points for the traffic coming from the cabling of the submarine and terrestrial backbones which, no longer having to host servers but simple routers, will be very small, and many micro data centers called nodes where there is a need, ready to accept and process the data of local realities (5g or its evolutions), to carry out a restructured and global work that is no longer centralized, and this process will be even more accelerated given that the datagate scandal documented by the evidence collected by Snowden, demonstrated how the largest data centers in the world with the complicity of the NSA spied on everyone and acquired copies of all the data that correlated us to do industrial espionage and intelligence work, they even won us a Pulitzer with these revelations.

## **What is our decentralized data center**

Coming from a similar sector like that of bitcoin which was the first experiment in the field of decentralized and distributed data, and having worked with this technology, we were the first to understand that this would be the future, and with our few economic resources (we currently have no investors) but with our skills in the IT sector we set to work on the development of technologies to make a decentralized data center concrete and functional.

Our work includes the development of innumerable technologies that are aimed at creating hubs for data transit, reception and transmission terminals, data processing nodes, also with the functionality of secure storage with the characteristic that the everything is encrypted and even those who have full access to the machines have no way to decrypt the data stored in it and are not even aware of the type of data that the node contains.

## **Digital Green Deal**

### ***Digital transformation catalyst for the sustainable economy***

The infrastructure we designed is a bridge technology between the old x86 architecture and the new ARM with reduced energy consumption, the solutions are all studied at the bit and byte level to minimize data transmission with protocols that minimize their use of the cpu in order to obtain performances typical of traditional and energy-intensive server machines, on small and economical devices with low energy consumption.

Our technology for the creation of the decentralized data center infrastructure does not only include the data center itself, but also the technology for connecting data sources such as private clouds, home clouds, up to small wearable devices for the Internet of Things and telemetry data transmission equipment. Although our technology is focused and infrastructures based on low energy consumption

concepts typical of the ARM architecture, it also maintains maximum compatibility with x86 and x64 systems, and can run on both Linux, Windows, Apple and Android systems, giving rise to multiple employment arrangements.

In the immediate future, huge quantities of "modern" standard rack-based servers will be replaced by small and silent servers the size of a cigarette pack based on ARM technology, and at first these huge data centers will no longer make sense to exist (with disastrous repercussions on investors), after which the data centers will disappear giving way to swarms of small private and decentralized structures self-sustainable by agro-photovoltaics and small wind generators: The dismemberment of data centers will create micro data centers that are easily manageable with renewable energy without any kind of big investment. And the private individual will no longer host data with third parties, putting their privacy at risk, but will move towards private cloud technology to be installed in their own data room or office in a small space. Our decentralized data center technology is already working in this direction.

## **Decentralization for cyber security**

Centralizing data in huge and unique data centers has given governments the possibility to illegally monitor billions of users including heads of state and entrepreneurs (see the case of the datagate initiated by Snowden), our job also consists in creating technologies that do not technically possible to analyze data on decentralized systems (nodes and mini data centers), the only ones who can access the data are the data owners who keep the decryption key on their client externally from where the data is stored).

There are also several judgments about the violation of privacy that have involved all the major international operators (Google, Amazon, Microsoft, and others) with heavy sentences for the crimes related to the flight of data. Our work consists, not only in creating a decentralized data center ready for the new generation of IT infrastructures, but also in informing governments and public administrations, warning them, as cyber security experts, from keeping data of public utility in unsafe places, managed by subjects already convicted in the past for spying on data and illegally profiling their users. The data must be secured by any entity, including the government, the NSA spied on users from all over the world, and we develop not only a decentralized infrastructure but the technology to protect the privacy of every single entity that produces and transmits data . Complete data security can only take place if the traditional data centers located on the data transmission backbones are replaced by small data hubs (which do not store any data but are simple hubs), and the data is encrypted and stored in mini data decentralized centers that are inaccessible to external subjects, and if they are in any case accessible, their content must not be technically decryptable: all this is exactly the technology that we are developing.

## **The internet of things**

The internet of things can be in serious trouble due to the amount of data that comes from millions of devices. To make this evolution of progress feasible, it is necessary to prepare the infrastructure by making it increasingly widespread and close to the source of the data. The decentralized data center will allow this type of digital transaction in an agile way, securing the privacy of individual users. Our technology not only uses the internet for data transmission and the acquisition of telemetry data,

but is already set up to connect to other hardware communication media, which allow more direct and effective communication such as for example modern 5G communication which makes a capillary data acquisition is feasible and the future based data transmission systems that will be based on quantum communications and entanglement, will immediately make both the expensive submarine optical fibers and the 5G systems obsolete, making communications more secure and extremely fast and widespread, without going through data hubs or the ether.

## **Message to investors**

Those who have read this brief account of our project will have their eyes opened, and now they will have the vision of the evolution of data centers in the right perspective. We are a small startup that wants to be ahead of the times with its own efforts, if you believe in us you can support us in various ways, we are trying to be ahead of the times to place ourselves among the leaders of the sector, the big competitors if they started now transforming their old technology would still take a few years to adapt and redesign everything. We are looking for both technical and financial partners to make a contribution in terms of marketing, public relations, relations with institutions and companies, and infrastructures. Thanks for the attention.