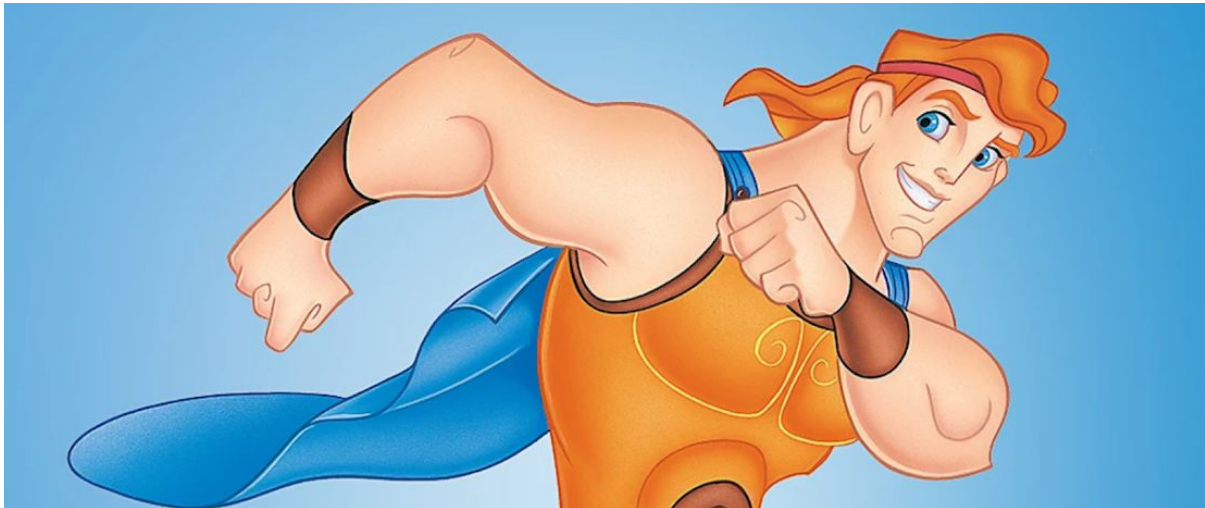


# Hercules Blockhost



## What

Blockchain protocols (of which there are many, to name a few, Ethereum, EOS.IO, Ripple, Steem etc) have to make a choice on how to actually run their blockchain nodes to operate their protocol. There is a spectrum of options to choose from but the two most common ones are the following ones:

- Create a software package (source code or binaries) that can be downloaded and run on virtual machines or containers on public clouds. Examples of public cloud are Amazon Web Services, Google Cloud Platform and Microsoft Azure.
- Create the same software package and rely on people to run this software on their laptop or home / office server or specific mining equipment.

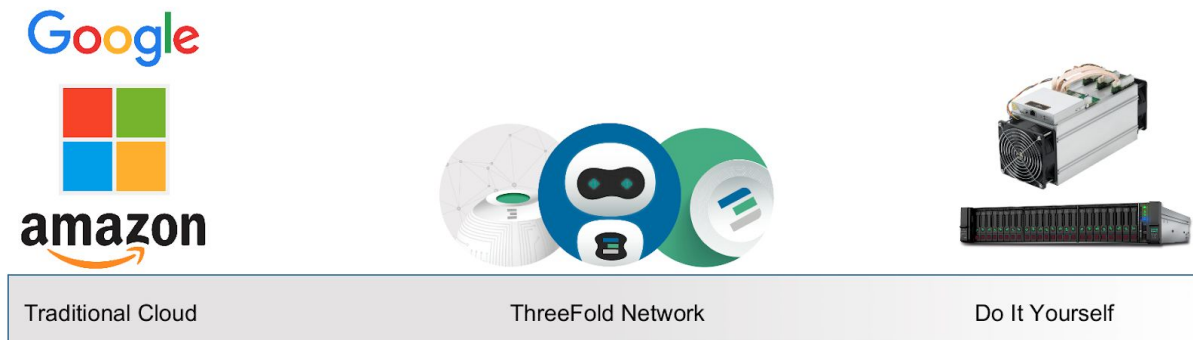
Both options come with a number of disadvantages. Using the public cloud presents ease of deployment and hassle free operations but comes with a price: the actual purpose of blockchain protocols is lost as clouds do not build decentralized deployments. For example [ethereum runs for almost 60% on public cloud services](#).

On the other hand there is a desire to have individuals select and operate their own (specific) hardware setups. But there is a huge barrier for doing so (knowledge, capital requirements etc) which makes the blockchain protocols vulnerable to pooling of capacities by large organizations [finetuning their capabilities to run these protocols](#). This is also referred to as “cloud mining”.

Both options lead to sub-optimal operations of blockchain protocols and do not deliver on the promise of being decentralized, peer to peer and by people for people.

The Hercules blockhost product allows blockchain protocols to take advantage of the decentralised and distributed nature of the ThreeFold Grid while still enjoying hassle free creation and operation of blockchain nodes.

On the other hand if people are interested in operating their own blockchain nodes they can quite easily invest in some hardware, install the ThreeFold Zero-OS operating system and create new capacity to the TF grid. This capacity can then be utilized to operate blockchain nodes.



## Features

- [Hercules Compute](#)
- [Hercules Storage](#)
- [Hercules Network](#)
- Flexible
  - Choose to use existing nodes and deploy blockchain protocol nodes
  - Choose to deploy TF 3Nodes, farm TF Tokens and deploy blockchain protocol nodes.
- Scalable
  - Use or deploy where needed
  - Small, medium or super large
  - Create ready to go off the shelf blockchain protocol nodes.
- Smart
  - Green Energy efficient compute and storage platform
  - Decentralized and distributed (owned by many - installed everywhere)
- Auditability
  - Hercules Monitoring: Prometheus/Grafana based
  - Hercules Admin: manage one million instances as easy as 1 (part of our sdk)
  - Hercules Bot: talk with your private virtual system admin assistant to repair, manage your deployment (part of our sdk)

## Architecture

The architecture is simple: The ThreeFold Network creates compute and storage capabilities that can be consumed by industry leading distributed application and cloud native applications technologies like docker and kubernetes. The token economy enables farmers to create (mint) TFT's by making capacity available and capacity consumers required TFT's to pay for capacity consumption.

The ThreeFold grid provides raw compute and storage utility by people for people, ideal to create independent and monopoly free blockchain node operations by people for the blockchain project network.

