

Whitepaper 1.01 ENG

What is a VPS?

Currently, there are many different options available with regard to web hosting. The two main options before a user are the Shared Hosting and the VPS hosting types. VPS stands for Virtual Private Server. It is a server with its own copy of operating system and allocated resources, running within a bigger server. Virtual Private Servers allow you to store all files and data for your website in an environment that has been configured to look and feel like a standalone dedicated server.

Let's consider the difference between the Shared and VPS hosting in a bit more detailed way.

Shared hosting is like you are living together with some other people. It means that all of you split the cost of the rent and some other things among you, so all this is affordable and cheap. However, several individuals sharing the same space means everyone needs to fit in the room available and have their resources restricted. You also will have to use the same things (does not sound too hygienic). There are many users who prefer to use shared hosting services for the simple reason that it is affordable and usually easy to manage. Hosting service providers will take care of the server maintenance, so the web owners only need to focus on their sites.

However, shared resources sometimes can bring sudden problems. For example, if a single website gets overloaded, this will affect the performance of other websites hosted together with it, until the hosting company resolves the issue.

VPS hosting is like you are living in an apartment complex. It means that other people are living in the same building, but you have your own secure apartment. You will get more room and much fewer restrictions. It also means that if your neighbour is misbehaving, it is the problem of owner of building, not yours. Similarly, in the case of VPS, there are several users on the same server but they are isolated from each other. It means that no one will be affected by how much resources someone else is using. You will get the speed and security you need without compromise. It is almost a perfect scenario because you will get the benefits of a private server with shared cost of services.

One of the first examples of partitioning a single server to appear as multiple servers was the launch of VMware ESX Server in 2001. Afterwards, the idea became increasingly popular and its practical implementation has progressed through years.

Advantages of using a VPS

As the name implies, the very essence of VPS hosting is virtual. Virtualization technology is the means in which one powerful service is divided into multiple virtual servers. You look upon it like you have one piece of physical hardware that functions as separate servers. The physical server typically runs a hypervisor which is tasked with creating, releasing, and managing the resources of "guest" operating systems, or virtual machines.

Even though the physical server is shared, there is the element of privacy with services. The virtual server you are using will be reserved only for you. You won't have to share your CPU, RAM or any other data.

A VPS runs its own copy of an operating system, and customers may have superuser-level access to that operating system instance, so they can install almost any software that runs on that OS. For many purposes they are functionally equivalent to a dedicated physical server, and being software-defined, are able to be much more easily created and configured. They are priced much lower than an equivalent physical server.

VPS hosting is the perfect balance of price, performance, security, affordability, and privacy. Some of the amazing benefits you will get:

- 1. Reasonable cost of services
- 2. Quick server setup
- Better server access with more control
- 4. Private environment
- Similar level of services as with a dedicated server

VPS hosting offers total and complete freedom. Free to manage your server as you like, you have access to everything and you can install all the software you need. Hosting in VPS is secure. All your files are private and inaccessible to other clients regardless of their rights on the server. Hosting in VPS is very efficient. Unlike shared hosting, the VPS is not dependent on traffic or audience. You have your own resources and you are isolated from other servers.

How to choose a VPS provider?

Reliability. Check how much uptime your host guarantees. Look for a host that offers 99.5% at a very minimum, although ideally, I'd rather go with someone who offers 99.9%.

Live customer support. Customer support should be a make or break deal with any sort of service provider. Your VPS host needs to at least some form of all-day, everyday support. It can be via live chat or a ticketing system, but customers always need to feel as if the host has their back.

Cost. Keep in your mind the sort of assets that you require when seeking a host. You might be overpaying for the resources you will never use. Always try to compare similar configurations available from different providers in order to get the optimal price.

VPS servers and cryptocurrencies

The most important thing for an average crypto user is that ownership of a VPS gives you one or more dedicated IP addresses. Therefore, the server can be used to serve as a network node of Bitcoin or any altcoin. In Masternode coins this is especially important, since Masternodes require a dedicated IP and a 24/7 uptime, as well as excellent network connectivity, which is hard or impossible to have in home environments. And Masternodes bring passive income to their operators. So, having a reliable, fast, and cost-efficient VPS hosting at hand is crucial in the described matters.

Common problems with VPS services

In theory, VPS hosting is a great way to have the services of a dedicated server but without the cost associated with it. However, there can be some disadvantages or issues.

From a financial point of view, VPS is more expensive than shared hosting. For sites or activities that do not need a dedicated hosting service, the cost may be prohibitive. While VPS is not as expensive as dedicated, it is also typically a lot more expensive than shared.

From an operational point, there is another source of issues, which is a significant number of poor-quality service providers. Some web hosts don't allocate the resources appropriately. For example, they can oversell the disk space, hoping that each account on the physical server will not use its resources up to the limit. However, if they do, it may cause server issues that will affect all other sites on the server.

There are some other issues you may encounter if the service provider is not good.

- Slow ticket responses. Especially on budget hosts, staff members are usually not paid well and aren't on 24/7. "It will be dealt with soon."
- Unacceptable downtime.
- The control panel. Some aren't bad, but some are totally useless. At a budget host, you're likely to be stuck with the useless one.

Solutions we offer

We have analysed the benefits and failures of a great variety of VPS service providers on the market. The result of this research has allowed us to work out a development strategy for the Spider VPS project that would be beneficial to all participants of its ecosystem!

Hardware. Needless to say, our datacentres will hold only certified equipment from world-famous brands in order to ensure top performance and reduce downtime to the least possible extent.

Staff. Only specialists with several years of intense experience in managing network software and hardware will be allowed to pass the job interview for Spider VPS services.

Customer-oriented. A friendly and helpful 365/24/7 client support service using the most popular channels (website chat, Telegram, Whatsapp, etc) to provide you with solutions on the possible issues you might encounter.

Profit making.

Background of the project

Late in spring 2018, two Slovakia residents – Tomas Horak and George Voinescu – had an idea to create their own reliable VPS datacenter. The name Spider VPS came from the fact that Tomas has a hobby of breeding exotic spiders at home. The partners created a business plan and took a loan to purchase the necessary equipment and rent a suitable building. In September 2018 Tomas told his close friend Dean Connery (Netherlands), who has been a fan of cryptocurrencies since 2015, about the project. Dean suggested a daring but a very promising idea to integrate the VPS hosting with a cryptocurrency and to create their own means of payment for the services provided. After several hours of vigorous Skype discussion, the idea was accepted. Soon, Rian Keegan, Paul Donegan and Emma Timmons were introduced to the team and active development of the project started.

Currently, we are performing equipment installation in the datacenter and going through legal issues. Automation and blockchain integration software is being developed and smart contracts are being designed in order to provide hosting services to legal entities.

Spider Coin

The Spider Coin (SPDR) was created to be a payment means for the services of the Spider VPS Project. But it is more than that – it is also a solid investment asset. The practical use case will give SPDR market supports against severe price dumps, as coins will be bought out by the users of Spider VPS. Therefore, running a Masternode or staking SPDR will generate you passive income and/or the funds to use our services! Imagine that you can host the Masternodes of all your coins on a VPS you can pay for with one of these coins! The initial investment is likely to be paid off multiple times quickly. And in case you don't have much money to spare, the SPDR coin has a hybrid consensus type – so you can mine it!

The blocks of SPDR are generated using POW and POS simultaneously. While the POW rewards go to miners, the POS rewards are divided between the operating Masternodes and coin holders. The POW/POS reward ratio is dynamic and changes through time. The carefully elaborated economic basis helps to maintain balance of the interests of both miners and investors in the long run.

The proof-of-work (POW) concept means that the participants of a cryptocurrency network must solve complex cryptographic problems in order to generate (mine) valid blocks to be added to the blockchain. Commonly, the difficulty of these problems is automatically regulated so as the number of blocks added to the chain is almost the same on the daily scale, regardless of the computing power of the whole network of miners.

The proof-of-stake consensus also uses cryptographic calculations to generate blocks. However, its difficulty is determined not by the total amount of operations per second performed by all operating hardware (such as GPUs) as in POW, but by the total amount of coins locked for staking. This greatly reduces the environmental impact of a cryptocurrency, as the required amount of electric power for POS is negligible compared to POW. However, both types of consensus have their advantages and drawbacks. Spider Coin uses POW and POS in order to give benefits to miners and coin holders altogether.

A Masternode is a coin network node that performs specific functions and requires a certain deposit of coins to be operational. For their service functions (e.g. the broadcast of instant transactions), Masternodes are getting paid a portion of block reward. Therefore, a Masternode can be viewed as an investment instrument. SPDR Masternode owners receive passive income which can be either sold on an exchange, used to pay for Spider VPS services, or to stake coins and even create more Masternodes to get more profit!

To provide extra transparency of operation of Spider VPS services and to make them suitable for use with legal entities, we will develop and implement smart contracts to the Spider Coin code.

A smart contract is a computer code running on top of a blockchain containing a set of rules under which the parties agree to interact with each other. If and when the predefined rules are met, the agreement is automatically enforced. The smart contract

code facilitates, verifies, and enforces the negotiation or performance of an agreement or transaction. It is the simplest form of decentralized automation.

Example. Suppose you rent an apartment and make a pre-payment in cryptocurrency. You get a receipt which is recorded in the virtual contract; the owner gives you the digital entry key which comes to you by date specified in the contract. If the key doesn't come on time, the blockchain releases a refund. If the key is sent before the rental date, the function holds both the key from you and the rental payment from the owner until the specified date. The system works on the If-Then premise and is witnessed by hundreds of people, so you can expect a faultless delivery. If the owner gives you the key, he is sure to be paid. If you send a certain amount of funds, you receive the key. The document is automatically cancelled after the defined time, and the code cannot be interfered by either of the parties without the other one knowing since all participants are simultaneously alerted.

Technical Specifications

Ticker: SPDR

Algorithm: PHI2

Consensus: Hybrid POW+POS

Block time: 60 seconds

Rpc-port: 53616

Port: 53617

Anti-instamine: First 15000 blocks

Masternode collater: 7000 (15000 from 133000 block)

Masternode activation: 15000 block

POS minimum stake age: 1 hour

Transaction confirmations: 10

Maturity: 60 confirmations

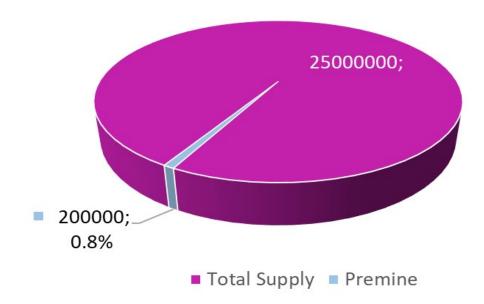
Total supply: 25 000 000

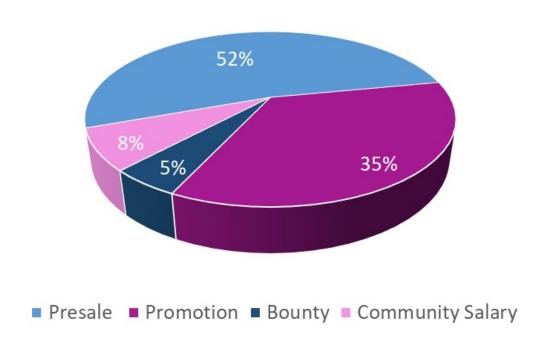
Premine: 0.8%

Туре	Reward	Masternode		Miner		From block
POW	0.1	0	0	100%	0.1	0
POS	0.1	0	0	100%	0.1	
POW	10	80%	8	20%	2	15000
POS	2	50%	1	50%	1	
POW	15	80%	12	20%	3	33000
POS	3	50%	1,5	50%	1,5	
POW	20	80%	16	20%	4	53000
POS	4	50%	2	50%	2	
POW	25	80%	20	20%	5	73000
POS	5	50%	2,5	50%	2,5	7 3000
POW	30	82%	24,6	18%	5,4	93000
POS	6	50%	3	50%	3	
POW	35	84%	29,4	16%	5,6	113000
POS	7	50%	3,5	50%	3,5	
POW	15	86%	12,9	14%	2,1	133000
POS	4	50%	2	50%	2	
POW	13	88%	11,44	12%	1,56	193000
POS	5	50%	2,5	50%	2,5	
POW	10	90%	9	10%	1	263000
POS	2	50%	1	50%	1	

Reward table

Premine Distribution





SPIDER VPS TEAM



Tomas Horak, 43, Slovakia

Back-End Developer

The leader of the project, one of the founders of Spider datacenter. He has devoted almost all of his life to IT and programming related things. Tomas enjoys jogging in the morning and nurtures some exotic pets at home - a tarantula and a black widow spiders.



George Voinescu, 38, Slovakia

Lead Engineer

Co-founder of the datacenter project. He has long worked as the head of technical department in a large electronics service center. Can't survive for long without his soldering tools and a good mug of



Dean Connery, 34, Netherlands

Marketing

The main ambassador of Spider in social networks and messengers. Head of project development in Netherlands. An innate biker.



Paul Donegan, 41, Germany

Blockchain developer

A C++ and low-level programming guru, Paul has a strong belief in the future of blockchain technologies. His hobby is mountain skiing.



Rian Keegan, 32, Netherlands

Front-End Developer

Rian has been a professional JavaScript developer since his student years. Has a serious crush on lawn tennis, and his beloved wife as well.



Emma Timmons, 31, Netherlands

Design & Management

The inspiration goddes of our team. A live generator of ideas and a designer of business processes. She is raising two little daughters.

Summary

The Spider VPS project is not just a hosting platform and a crypto coin. It is a community oriented project with a goal to give its every member the opportunity to make profit together. The Spider Career program includes the forming of the support team of the Spider platform from the experienced community members. The more you know – the higher support level you can work at. Our training courses will help those with yet limited skills but with great enthusiasm to advance and earn more.