What is a VPS/VDS server?

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VPS/VDS is a service for renting a virtual dedicated server. The VDS/VPS management is almost identical to a simple physical server: the client is provided with its own IP address, it can edit the filtering rules and routing tables itself, has root access (rights to perform all operations without exception).

What is the difference between VPS and VDS

There is no difference between VPS and VDS — it's the same thing. VPS stands for Virtual Private Server, and VDS stands for Virtual Dedicated Server. These are different abbreviations of the same service. Therefore, they are often used together so as not to cause confusion. In Runet, you can find different definitions of these terms, but in fact they arose and developed simultaneously and are considered synonyms.

The principle of operation of the VPS/VDS server

Multiple cheap dedicated server can run on one physical server (computer). A virtual dedicated server (VPS/VDS) is deployed on an ordinary physical server using virtualization. Virtualization is a technology that provides isolation of computing processes running on the same resource from each other. With this technology, VDS become independent of each other. It turns out that each VPS is an isolated environment and working with it is similar to working with a remote computer. The VDS owner can delete, add, edit any files, including files in service directories, as well as install his own applications or configure any software he needs.

Types of virtualization

Consider 2 popular types of virtualization on VPS/VDS — KVM and OpenVZ.
KVM is a technology that allows you to organize a full-fledged virtual analogue of a physical server. With its help, you can set up a virtual server completely independent of the "neighbors" with a personal operating system kernel. Each **cheap dedicated server** has its own place in RAM and a separate space on the SSD, which increases its reliability and ensures safe operation.

OpenVZ — virtualization of the operating system level. The technology is based on the Linux OS kernel and makes it possible to organize and run independent copies of the selected OS (Debian, CentOS, Ubuntu) on one physical server. Installing another operating system is

excluded because **cheap dedicated server** runs on a common Linux kernel. The advantages of this technology include ease of server management.

Which virtualization to choose

Both KVM and OpenVZ are distributed free of charge under a free license, so the choice of virtualization method depends entirely on the needs of your project. For example, if you work with Windows, then OpenVZ will not work, since it does not support this operating system. On the other hand, OVZ has good performance indicators and works perfectly with any Linux distributions.

Advantages of VPS

- Own dedicated IP address.
- All 100% of the server resources belong to you.
- Root access — configure the server as it suits you.
- Low price. When the capacity of traditional virtual hosting is not enough, and it is expensive to rent a full-fledged dedicated server, VDS servers help out.

Renting a **cheap dedicated server** is a popular type of hosting that combines optimal cost and quality of services. However, you need to remember that this type of hosting is suitable only for experienced users, because the settings and administration will have to be carried out independently.