Cloud vs Dedicated _

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There are myriad options for hosting in today's business. In this whitepaper, we shall discuss and provide a through-out explanation of the two main options you get when it comes to hosting – dedicated servers and cloud hosting. There are benefits for both as well as downsides. By understanding how they differ you can choose correctly for your business application.

Both cloud and dedicated servers can support virtually any service or application, although each of them is suited for particular scenarios. Meaning a correct choice will translate to reduced costs, increased flexibility, and effective infrastructure.

Cloud Servers _

Cloud hosting is a virtualized server hosting platform. Every cloud is essentially a virtual machine that runs on an enterprise grade bare-metal server. This bare metal server supports a number of cloud servers.

Like dedicated servers, cloud servers can have a configuration with matching performance, control and security. Although there's no single physical hardware used only by you, they all are located in a shared environment managed by your hosting provider. This is beneficial considering the economy of scale when shared with other customers.
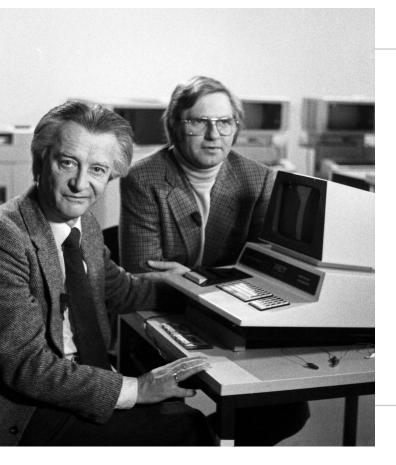
At the same time, you pay only for the amount of server you use. As a result, you can scale-up or scale-down on your demand without paying additional infrastructure idling costs on low demand. Cloud servers allow you to optimize IT performance without buying and managing dedicated server infrastructure. This greatly benefits business that has variable demands and workloads.

Dedicated Servers _

Dedicated server is an enterprise-level bare metal machine. Distinctively from cloud hosting, all the resources of a dedicated server are available to the client. The client chooses processor, RAM and storage for his exact needs, meaning all of it can have a custom specification. Therefore, dedicated server is the single most powerful hosting option. Only a cluster of dedicated servers would be the more powerful hosting environment.

A bare-metal machine (also called physical) dedicated server, is purchased or rented entirely for your own business needs. These servers are usually used by large ventures and organizations that require particularly high levels of data security, or organizations that have steady, high demands for server capacity.

With a dedicated server application, businesses still need the IT capacity and expertise to maintain, patch and upgrade their server. Organizations that use I/O-heavy applications, like databases and big data platforms, find significant value in bare metal dedicated hardware.

Cloud benefits _

Cloud Servers have a number of attractive benefits revolving around flexibility that can help improve your business's productivity.

Speed of Deployment

Cloud server infrastructure allows you to have resources online within minutes. This is possible, due to fact that all Cloud servers are pre-racked allowing them to be provisioned instantly. As opposite, same procedure for dedicated servers are considerably longer. Cloud infrastructure also makes it possible to add or remove servers upon demand within minimal time-frame.

High Availability

Launching a high availability (HA) cloud environment will cost less and at the same time, it can be configured in minutes. When it comes to 24/7/365 availability cloud servers have a clear advantage compared to dedicated bare-metal servers. A malfunction in CPU, RAM or hard drive memory on bare-metal servers is unavoidable in its life cycle. When it does happen, you lose all of your data for a period of time till it gets back online. The only insurance is constant and effective maintenance.

In the cloud environment, your server availability is safe due to integration on multiple physical servers within a shared virtualization technology. All of the servers work simultaneously in the same network, meaning your data is scattered across the connected servers. So if one of the servers go down, your data is still online and secured. Server configuration and performance is also separated from your data and server availability. Meaning hardware can be updated up to the required specs without any migration and other headaches.

Monitoring and Support

Monitoring, alerts and support are usually included in cloud services. As for dedicated servers, its environment is more complicated, thus requires vendor-specific technical support which can be costly. Clouds are a bit smarter than the dedicated servers when it comes to user interface. It's similar to accessing web files through the node.

Dedicated Servers Benefits _

From the first look, it may look like cloud servers are an ideal platform for all the workload, but they are rather ideal for most of them. For example, any workload that requires high CPU capacity and load is better to use Dedicated server as it is still able to deliver the highest possible performance.

Security standard is also best when using dedicated bare-metal solution. While it really depends on the business or application server is being used for. Virtualization atmosphere is still being developed, although the gaps are constantly being narrowed down by Cloud as a Service companies.

Pros and cons of the different computing environments _

Let's look at the main consideration before choosing any of these servers:

Price

The Bare-metal dedicated server requires to have adequate internal IT department or using hosting provider's managed services to make the server work. Cloud servers, however, are much simpler to buy, prepare and use. Cloud server user is not locked to a specific amount of storage and update cloud configuration, however, is needed for the moment he is using it.

In general, the entrance cost for a dedicated bare metal server is quite high. The client has to decide his needs before buying, also server has to be installed and prepared, all from the client pocket. Opposite to cloud server minimal cost, due to quick setup and launch.

Access to Tools

Cloud environment allows APIs that are community driven, for scaling, managing and provision. Dedicated servers users are dependent on their hosting provider.

Scalability

Cloud servers allow companies to scale seamlessly whenever this need arises. For example, there are new locations or growth of services and products.

Reliability

If for some reason information on a dedicated server gets stolen or destructed there is considerable wait time to provide a new server. This is harmful to a client in terms of clients and revenue. Cloud servers allow backup data to quickly load in the new cloud environment without the client even being aware of. This allows the client to work continuously even if some kind of problem comes up.

Conclusions _

All in all, there is no single winner here. Each business is different in its structure and in their needs of infrastructure. Needs can change over time depending on business scale and application.

We are welcoming you to chat and discuss what is the best solution for you. Whenever you want to introduce new products to your portfolio or expand available locations globally, Heficed is a call away. We know what it takes to be a successful hosting company that is why we provide both Dedicated Server and Cloud solutions as well. We will go as far as making the custom hybrid solution for you.

Let's talk: [sales@heficed.com].

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