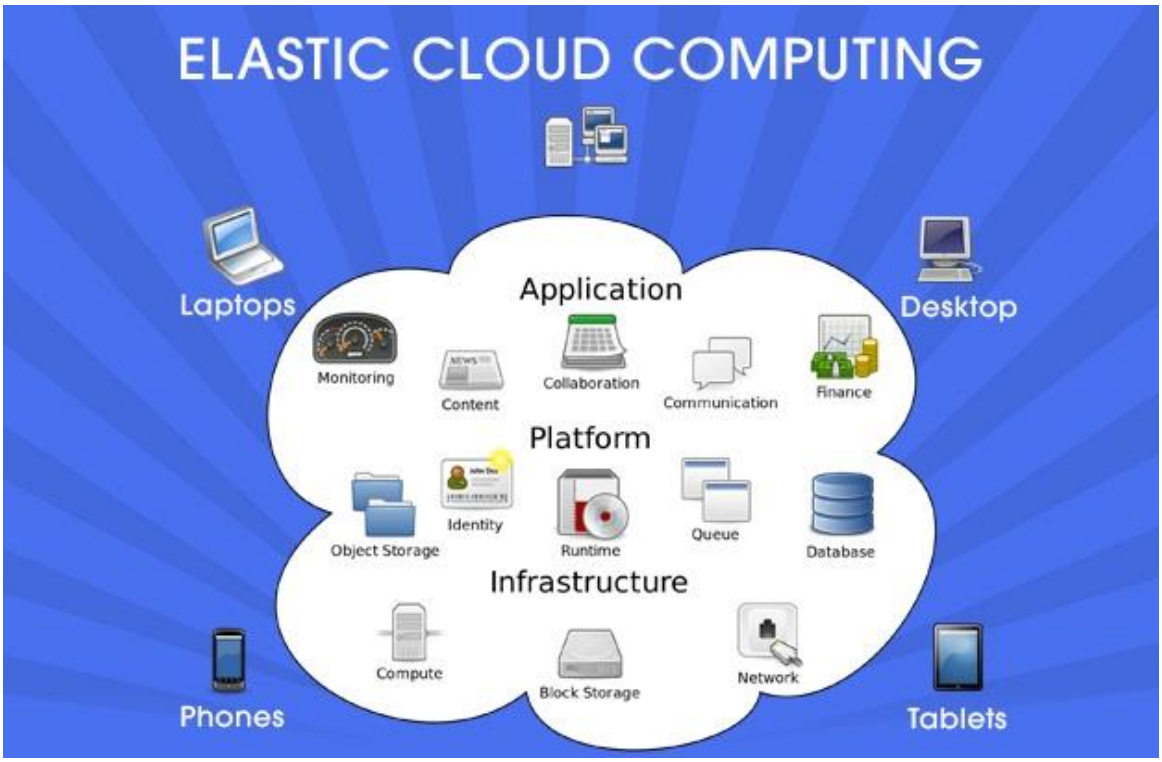
What is Elastic Cloud Computing and how it Benefits Business

Nowadays cloud computing are well known phenomenon for everyone. Most of the small and large business have switched their data to cloud storage. Moreover, organization also prefer to have elastic computing.

But before proceeding to know more about elastic computing let's have a quick outline of cloud computing. Cloud Computing or Cloud is defined as using various services such as software development platforms, servers, storage, over the Internet.

So, **what does Elastic Cloud Computing mean?**

Elastic computing is nothing but a concept in cloud computing in which computing resources can be scaled up and down easily by the cloud service provider. Cloud service provider gives you provision to flexible computing power when and wherever required. The elasticity of these resources depends upon the following factors such as processing power, storage, bandwidth, etc.



Types of Elastic Cloud Computing

Rather than various types, elastic computing have only one type i.e. **Elasticity, or fully-automated scalability** which removes manual labor for increasing or decreasing resources as everything is controlled by triggers by the system monitoring tools.

Is there any **difference between Scalability and Elasticity?**

Then answer is yes. **Scalability** refers to the ability of system to accommodate larger loads just by adding resources either making hardware stronger (scale up) or adding additional nodes (scale out).

Elasticity refers the ability to fit the resources needed to cope with loads, so that when load increase you scale up by adding more resources and when demand diminishes you shrink back and remove unneeded resources. Elasticity is mostly important in Cloud environment where you pay-per-used resources only.

Benefits/Pros of Elastic Cloud Computing

Elastic Cloud Computing has numerous advantages. Some of them are as follow:-

1. **Cost Efficiency: -** Cloud is available at much cheaper rates than traditional approaches and can significantly lower the overall IT expenses. By using cloud solution companies can save licensing fees as well as eliminate overhead charges such as the cost of data storage, software updates, management etc.

2. **Convenience and continuous availability: -** Cloud makes easier access of shared documents and files with view and modify choice. Public clouds also offer services that are available wherever the end user might be located. Moreover it guaranteed continuous availability of resources and In case of system failure; alternative instances are automatically spawned on other machines.

3. **Backup and Recovery**: - The process of backing up and recovering data is easy as information is residing on cloud simplified and not on a physical device. The various cloud providers offer reliable and flexible backup/recovery solutions.

4. **Cloud is environmentally friendly**:-The cloud is more efficient than the typical IT infrastructure and it takes fewer resources to compute, thus saving energy.

5. **Scalability and Performance**: - Scalability is a built-in feature for cloud deployments. Cloud instances are deployed automatically only when needed and as a result enhance performance with excellent speed of computations.

6. **Increased Storage Capacity**:-The cloud can accommodate and store much more data compared to a personal computer and in a way offers almost unlimited storage capacity.

Disadvantages/Cons of Elastic Cloud Computing:-

1. **Security and Privacy in the Cloud**: - Security is the biggest concern in cloud computing. Companies essentially hide their private data and information over cloud as remote based cloud infrastructure is used, it is then up to the cloud service provider to manage, protect and retain data confidential.
2. **Limited Control**: - Since the applications and services are running remotely companies, users and third party virtual environments have limited control over the function and execution of the hardware and software.
3. **Dependency and vendor lock-in: -** One of the major drawbacks of cloud computing is the implicit dependency on the provider. It is also called "vendor lock-in". As it becomes difficult to migrate vast data from old provider to new. So, it is advisable to select vendor very carefully.
4. **Increased Vulnerability**: - Cloud based solutions are exposed on the public internet therefore are more vulnerable target for malicious users and hackers. As we know nothing is completely secure over Internet even the biggest organizations also suffer from serious attacks and security breaches.

Regardless the disadvantages elastic cloud computing even remains stronger and has great potential for the future. Elastic computing offering better, more fine-tuned and easy to use services and solutions. We can only hope that the advantages will grow more and the disadvantages will be diminished as cloud is the future.