Cloud computing refers to the delivery of various services through the Internet, including data storage, servers, databases, networking, and software. Cloud-based storage makes it possible to save files to a remote database and retrieve them on demand. The primary goal of cloud computing is to provide easy, scalable access to computing resources and IT services.

**Advantages of Cloud Computing over Traditional Data Centres**:

1. Cost Efficiency: Cloud computing reduces the capital expense of buying hardware and software, setting up and running on-site data centers, the racks of servers, and the round-the-clock electricity for power and cooling.

2. Scalability: Cloud services offer a high level of scalability, providing vast amounts of computing power on demand and allowing businesses to scale as their needs change.

3. Performance: The major cloud services run on a worldwide network of secure data centers, which are regularly upgraded to the latest generation of fast and efficient computing hardware, offering several benefits over a single corporate data center.

4. Speed and Agility: With cloud computing, vast amounts of computing resources can be provisioned in minutes, typically with just a few mouse clicks, giving businesses a lot of flexibility and taking the pressure off capacity planning.

5. Productivity: On-site data centers typically require a lot of “racking and stacking”—hardware set up, software patching, and other time-consuming IT management chores. Cloud computing removes the need for many of these tasks, so IT teams can spend time on achieving more important business goals.

6. Performance: Cloud computing services run on a worldwide network of secure datacenters, which are regularly upgraded to the latest generation of fast and efficient computing hardware. This offers several benefits over a single corporate datacenter, including reduced network latency for applications and greater economies of scale.

7. Reliability: Cloud computing makes data backup, disaster recovery, and business continuity easier and less expensive because data can be mirrored at multiple redundant sites on the cloud provider's network.

8. Security: Many cloud providers offer a broad set of policies, technologies, and controls that strengthen your security posture overall, helping protect data, apps, and infrastructure from potential threats.

**Popular Cloud Computing Providers**:

1. Amazon Web Services (AWS): AWS is a subsidiary of Amazon providing on-demand cloud computing platforms and APIs to individuals, companies, and governments, on a metered pay-as-you-go basis.

2. Microsoft Azure: Azure is a cloud computing service created by Microsoft for building, testing, deploying, and managing applications and services through Microsoft-managed data centers.

3. Google Cloud Platform (GCP): Google Cloud Platform is a suite of cloud computing services that runs on the same infrastructure that Google uses internally for its end-user products, such as Google Search, Gmail, file storage, and YouTube.

4. IBM Cloud: IBM Cloud includes infrastructure as a service (IaaS), software as a service (SaaS), and platform as a service (PaaS) offered through public, private, and hybrid cloud delivery models.

5. Oracle Cloud: Oracle Cloud offers a comprehensive cloud computing service providing servers, storage, network, applications, and services through a global network of Oracle Corporation managed data centers.

6. Alibaba Cloud: Alibaba Cloud, also known as Aliyun, is a Chinese cloud computing company, a subsidiary of Alibaba Group. Alibaba Cloud provides a comprehensive suite of global cloud computing services to power both international customers’ online businesses and Alibaba Group’s own e-commerce ecosystem.

Each of these providers offers a wide range of cloud services, including Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS), which can be used for everything from hosting simple websites to running complex, AI-driven data analyses.