# Brief history on distributed computing

Distributed computing is a collection of independent entities that cooperate to solve a problem that cannot be individually solved. Each entity has a memory processing unit and it cannot with other entities by a communication network.

Distributed system has been a valuable alternative to centralized system. Potential benefits of using distributed system include; improved performance through the exploitation of parallelism, and increased availability and reliability through the exploitation of redundancy. Computers that are connected via network may be separated by any distance. Computers may be separated in the same room or they are separated on separated continents.

Concurrency is an important role in the distributed system. Every user can use the system on the same time and share resources. The capacity of the system to handle shared resource can be increased by providing more computer in the network. Also, Software reliability is another important topic for distributed system. Any system can fail and this due to the system design. However, because of the isolation computers, system failure in distributed system does not mean stop running the program and even computers don’t detect the failure. Each computer can fail independently while others still running.

The example of distributed system is the internet, and its associated world wide web, email, eCommerce and video games etc.

**Web Search:**

Web search has become an important growth industry in the last decade, with recent figures that show that the global number of searches has increased to more than 10 billion calendar months. The task of a web search engine is to index all the content of the World Wide Web, which covers a wide range of information styles, including the web pages, multimedia sources and books (scanned). This is a very multifaceted task, as estimates show that the Web contains of more than sixty-three billion pages and a trillion unique websites

**Video Games:**

Hugely multiplayer online games offer an immersive knowledge whereby very big numbers of players interact through the Internet with a persistent virtual world.

**Financial Trading:**

As a last resort, we analyze the support of distributed systems for the financial trading markets. The financial industry has been at the forefront of distributed systems technology with its need for real-time access to a wide range of information sources. For example, prices and current trends of the actions, economic and political developments. The industry employs automated monitoring and commerce applications