

# [Distributed operating systems 14827](https://assignbuster.com/distributed-operating-systems-14827/)

Distributed Operating System

Computer architecture consisting of interconnected multiple processors are basically of two types namely

(1) Tightly coupled system (2)Loosely coupled systems. Loosely coupled systems are more often referred to as distributed computing systems. The operating system commonly used for distributed computing systems can be classified as (a)network operating system and (b) distributed operating system. A distributed OS must be designed with the assumption that complete information about the system environment will never be available since the resources are physically separated and there is no common clock among multiple processors . The design of such an operating system considers the following issues.

Transparency, reliability, flexibility, performance, scalabiltiy, heterogeneity and security. A distributed system is basically a computer network whose nodes have their own local memory and may also have hardware and software resources.

Interprocess communication(IPC ) basically requires information sharing among two or more processes. Two methods of sharing are(1)original sharing (or) shared-data approach (2) copy sharing (or) message-passing approach. Remote procedure call(RPC) is a special case of the general message-passing mode of IPC. RPC has become a widely accepted IPC mechanism in distributed systems .

The linking of computers in a network makes the service that are located at single sites widely available.

Servers in the client-server model permit user of a computer network to share a number of services irrespective of the location of these services. If the location transparency is one of the features of the server , the user need not be aware of the other stations that may be involved in satisfying their demands.

A distributed file system is a distributed implementation of the classical time-sharing model of a file system and supports remote information sharing , user mobility , availability and diskless workstations.

Word Count: 278