

NETWORKING

AGENDA

- ❑ Peer based network
- ❑ Cluster network
- ❑ Client server network
- ❑ Centralized network
- ❑ Cloud network
- ❑ Virtualized network
- ❑ Advantages & Disadvantages about above network

Advantages of Peer based

- ▶ Peer-to-peer is also called P2P or computer to computer network. “Peers” are the nodes or computer system which are connect to each other. Files and resources can be shared between the system on the network without the need of any central server. In a P2P network each network work either as a server or as a client. Each of the nodes can act as both client/server depending on whether the node is requesting or providing service.P2P network can be configured as both wired and wireless network. Each nodes has access to devices and files on other computers and can store independently on its own software and information.
- ▶ P2P is a reliable network, if network fails it will not affect the working of others. Nodes are independent of another, also no access permission are needed. Easy to implement, manage and the cost of implementation is very less.

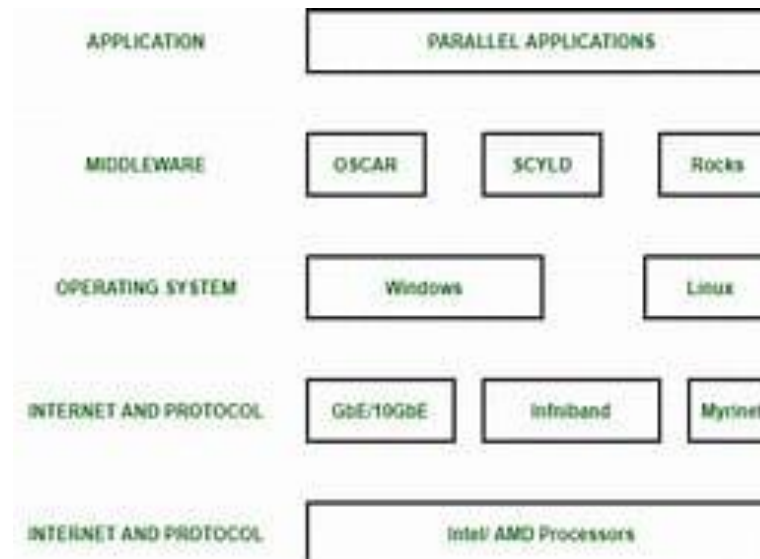
Disadvantages of Peer based

- ▶ No data backup options are available for this network. Storage is decentralized and not so efficiently managed. This type of network is not secure.
- ▶ P2P network often suffer from performance issues. The structure may allow some remote access to some terminals.



Advantages of Cluster Network

- ▶ Cluster is a method of connecting computers to work together as a single entity.
- ▶ Cluster computing are manageable and easy to implement. It offers better and enhanced performance than that of mainframe computers. It provides high availability of resources by using redundancy and fault tolerance techniques. It is much more cost effective than other super computers.

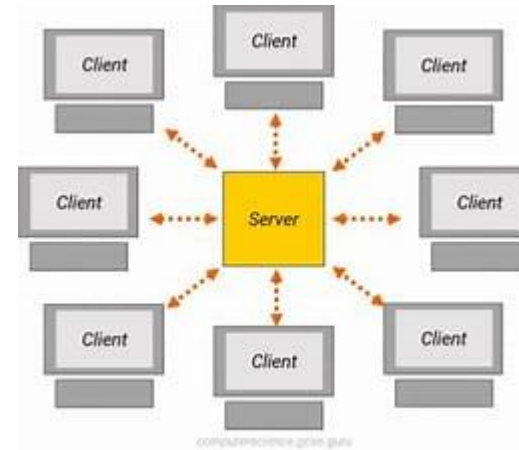


Dis-advantages of Cluster Network

- ▶ Cluster computing are more complex and require more knowledge to configure, maintain and work with them. It needs good hardware and design which makes it more expensive as compare to non-clustered server management design. Monitoring and maintenance is hard. Difficulty in finding faults in this system.

Advantages of Client-server

- ▶ A Client server network is a communications architecture in which clients receive resources and services from a dedicated host. Client server is the central administrations of application and data.
- ▶ Client-server network is well protected and secured due to its centralized architecture. The network is easy to control and manage from the server. These networks are highly scalable and can accommodate more clients by adding more servers. Files and resources are easy to backup, share and recover from the server. Users can access the networks from different locations and device.



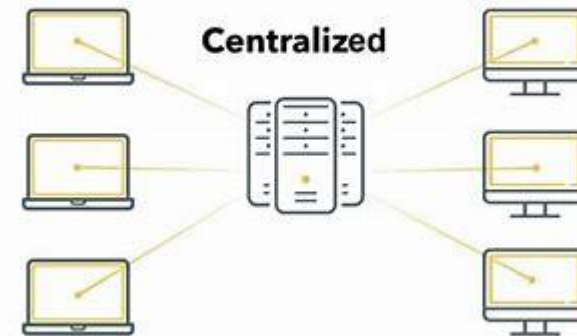
Disadvantages of Client server

- ▶ In client server network, if too many clients make request from the same server it will result in crashes or slowing down of connection. Overloaded server creates many problems in accessing informations. Client server network lacks on the side of robustness. It charge high cost in setting up and maintaining the server. There should be a specialized network manager appointed to the server. Not all the resources present in the server is acquirable.

Advantages of Centralized network

- Centralized server is based on a central server which is going to be the one that handles all the others. All data is stored in one place, making it easy to control and manage. It enables quick decision implementation.

It improves the flow of information. It provides a clear chain of command. It gives IT staffs better oversight and makes routine tasks easier. There is a less probability of network downtime time due to single central server functioning mechanism. It helps meet industry regulations.



Disadvantages of Centralized network

- Purchasing the network cabling and file server can be expensive. Managing a large network is complicated, requires training and a network manager usually needs to be employed. Any fault or outage that occurs with the central server could potentially render the entire network inoperable. If the file server breaks down the files on the file server become inaccessible. A central server where all information passes through a single point is inherently less secure than a decentralized network.

Advantages of Cloud network

