Client/Server

A client/server network is a network in which servers provide resources to clients. Both the clients and servers have their own local processors and storage. Using servers allows centralized management and security. Clients perform basic end-user tasks on their own. Because some of the processing happens on the client, the servers don't need to be as expensive as hosts. It also allows administrators to place the processing power closer to where it's needed. Tasks that don't need a lot of processing power can be done on the clients. Tasks that require more resources can be done on the servers.

In a client/server network there's usually at least one server in charge of central authentication. That server hosts a database of usernames and passwords. The users can log in to any client in the network. The client transmits the information to the server. Authentication happens when the server verifies the identity of the user. The user proves their identity by sending a valid combination of a username and password or some other information to prove their identity.

Typically, servers aren't as powerful or expensive as host computers. That means companies can buy multiple servers for the same amount of money (or less) than needed to buy one host. Having multiple servers allows the company to achieve fault tolerance. Fault tolerance literally means a system that can tolerate a "fault" (failure). For practical purposes, fault tolerance means there is a backup that can takeover when something fails with little to no interruption.

The Internet is largely built on client/server concepts.

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