

## **DHCP: Dynamic Host Configuration Protocol**

### **Definition:**

Dynamic Host Configuration Protocol (DHCP) is a network management protocol used to automate the process of configuring devices on IP networks. It assigns IP addresses and other necessary network configurations dynamically to devices, enabling them to communicate effectively on a network.

### **Functions:**

**Automatic IP Assignment:** DHCP automatically assigns a unique IP address to each device on a network, ensuring no conflicts and efficient IP address management.

**Configuration Parameters:** In addition to IP addresses, DHCP provides other configuration information such as subnet mask, default gateway, and DNS servers.

**Lease Mechanism:** DHCP assigns IP addresses for a limited period called a lease, after which the address can be reassigned to another device if not renewed.