Twenty concepts

Total word count: 3454

1. **LAN or Local Area Network**

LAN is a computer network, which locates in a small area. It consists of multiple computers, printers, mobile devices or other facilities. All of them are connected with cables or wifi. Within this network, each device has a unique IP address to identify itself. LAN is a closed group. One device can contact another, send or receive data. Multiple desktop computers can share a printer. The transportation speed within LAN is very quick. The performance is reliable and the communication cost is low.

1. **WAN or Wide Area Network**

Compared with LAN, WAN covers a larger area, cross the cities, countries. WAN is also a computer network, which has the same components with LAN. Most of WAN are connected with switchers. Several LANs can be combined to generate a WAN. Generally, it costs more time to transfer data from one place to another within WAN. There are more delays of data transportation in WAN than in LAN. It is more complicated to manage a WAN.

1. **WLAN or Wireless Local Area Network**

WLAN enables computers or smart devices be connected to network with wireless signals. There is no need to plug cables into devices. There are two popular approaches for connecting, one is mobile signal, and another is wifi. For wifi, there is a router provides the service. Each time a device is trying to connect, it will be assigned a temp IP address. If this device turn off the wifi and it lost connection. Router will recycle the address and assign to a new device. For device, it may be assigned with different IP address for each connection. WLAN reduce the cost to build network since no need to place cables, less limitations.

1. **VLAN or Virtual Local Area Network**

VLAN is like LAN, but it is virtual. It is built from logical view not physical view. There is no limitation of physical location for VLAN. You can build VLAN for several machines which are located in difference LANs. For example, there are two department in a company, Sale Department and Development Department. Each department has its own sub network. Sale Department owns the IP address from 192.168.1.0 to 192.168.1.127. Development department owns the IP address from 192.168.1.128 to 192.168.1.255. With VLAN, these two network segments are combined together.

1. VPN or Virtual Private Network
2. MAC Address or Medium/Media Access Control
3. DNS or Domain Name System
4. CDN or Content Delivery Network
5. SSL or Secure Sockets Layer
6. HTTPS or Hypertext Transfer Protocol Secure
7. Distributed Computing
8. Cloud Computing
9. Cloud Storage
10. SaaS or Software-as-a-Service
11. REST or Representational State Transfer
12. JSON or Javascript Object Notation
13. Google File System
14. Big Table
15. MapReduce
16. Hadoop