

# Network Devices

## 1) **Hub:**

- i. It is a Local Area Network(LAN) device.
- ii. It operates on physical layer
- iii. Supports only 10 Mbps
- iv. Half duplex (one way data transfer)
- v. One collision domain and one broadcast domain
- vi. High latency (when data enters into the port, how much time it takes to exit)
- vii. Low bandwidth

## 2) **Bridge:**

- i. It is a LAN device
- ii. Operate on datalink layer
- iii. 100 Mbps
- iv. Full duplex (can send receive at the same time)
- v. Low latency
- vi. Works on software
- vii. Mactable
- viii. Separate collision domain and one broadcast domain
- ix. 2 to 4 ports
- x. work faster than router
- xi. Send/receive data according to MAC(Media Access Control) addresses

## 3) **Switch:**

- i. LAN device
- ii. Operates on datalink layer
- iii. Works on hardware
- iv. half/full duplex
- v. Supports 10/100 Mbps
- vi. Low latency
- vii. send/recieve data according to MAC addresses
- viii. Separate collision domain and one broadcast domain
- ix. Can have 8/16/32 ports
- x. Works faster than router
- xi. Creates Mactable

#### 4) **Router:**

- i. WAN(Wide Area Network) device
- ii. Send/receive data according to IP addresses
- iii. Breakup broadcast
- iv. Provide filter facility (allow/block) by access list
- v. Router is used to combine more than two networks that is called internetwork communication