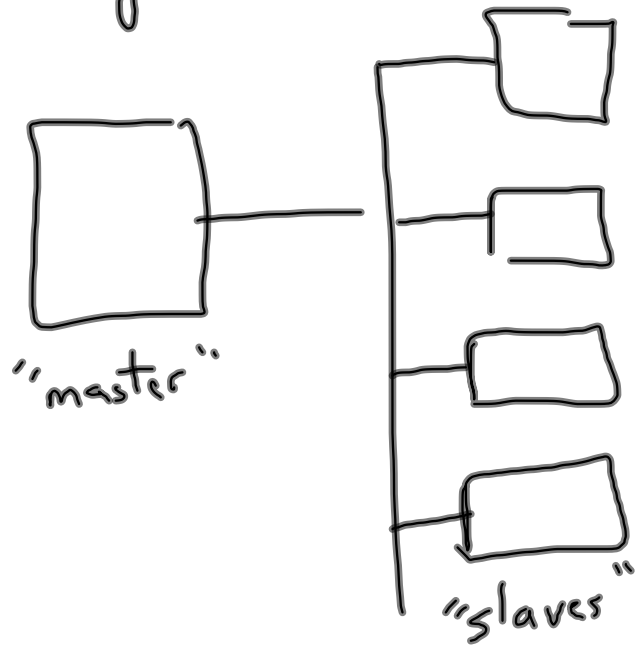
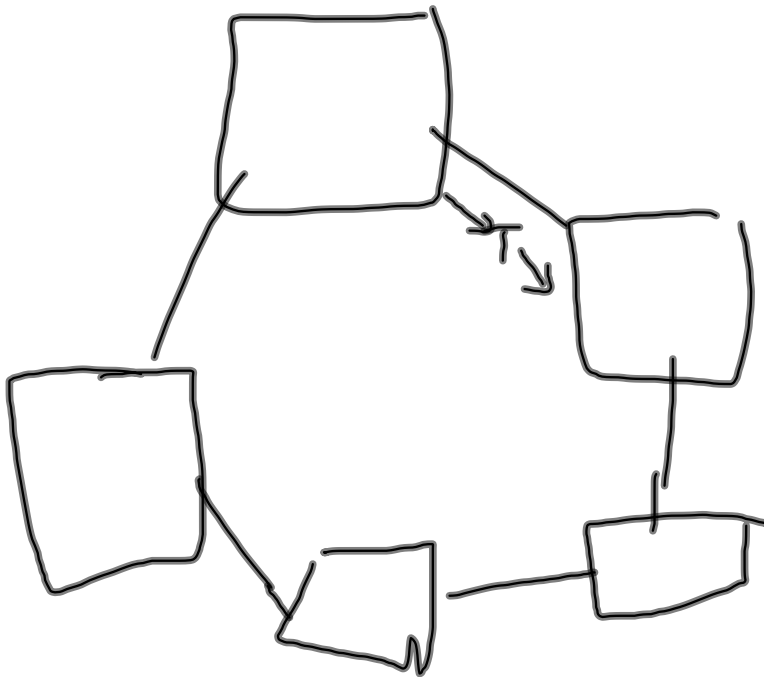


# Polling



# Token passing



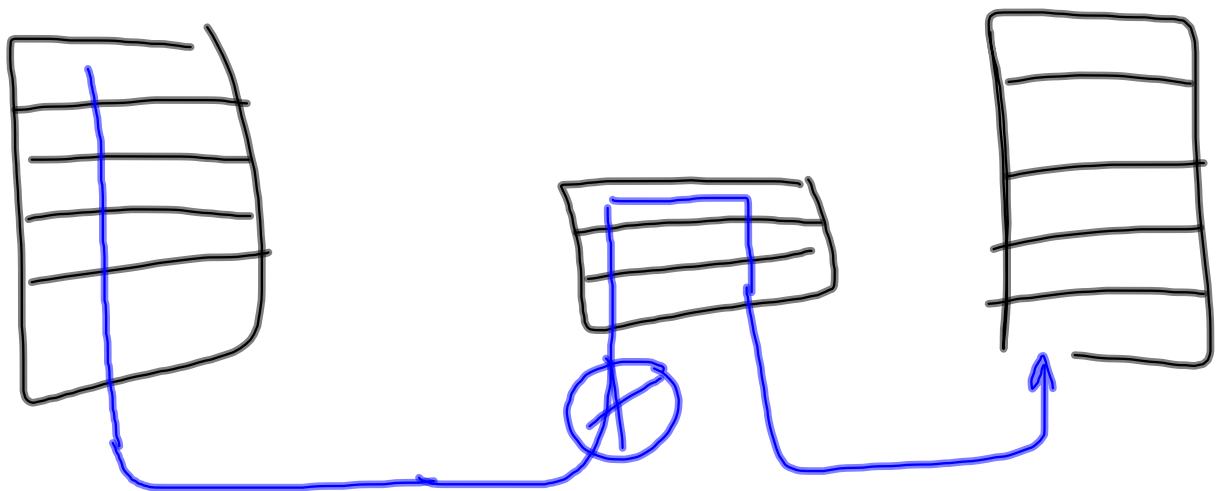
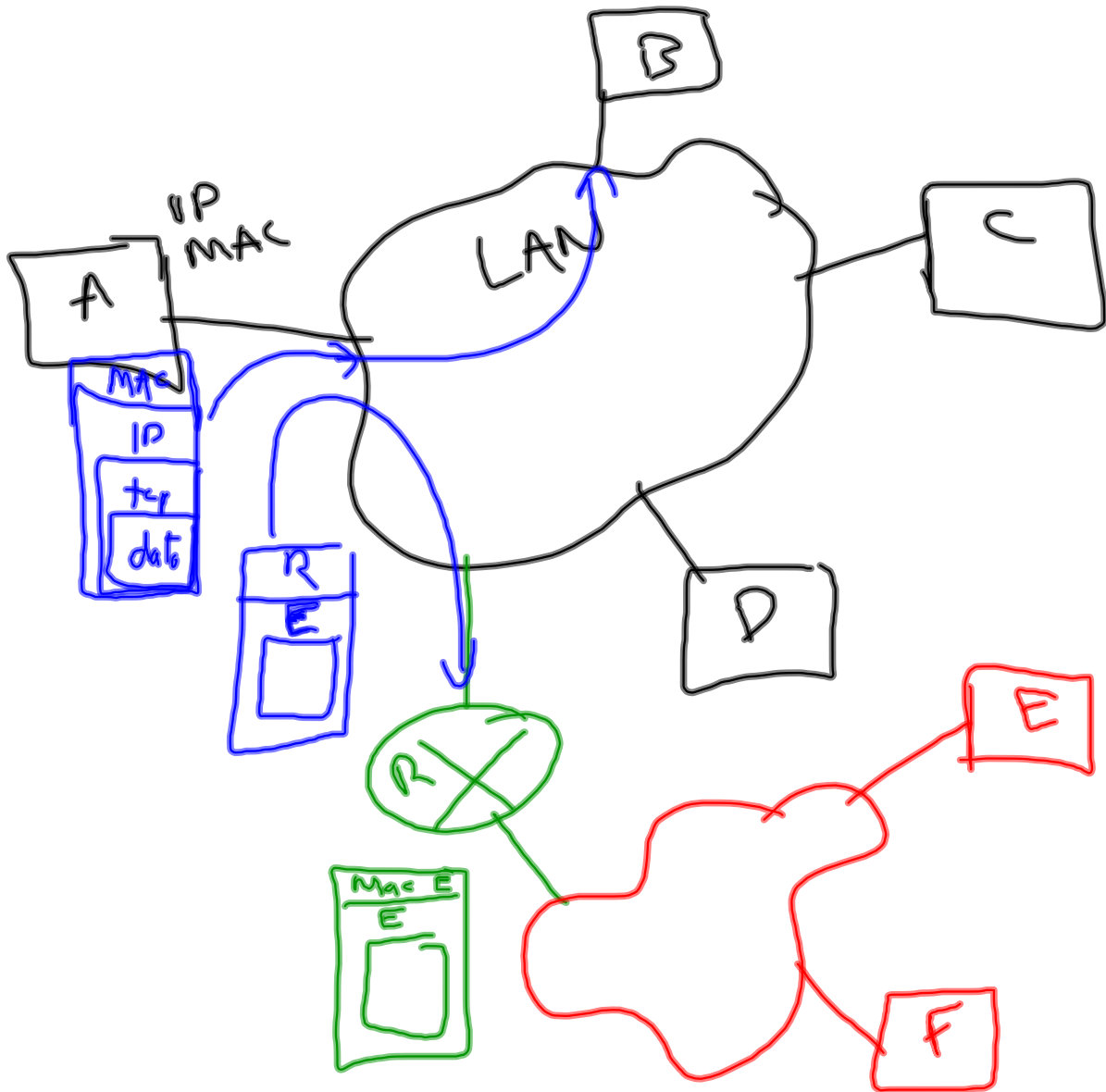
## MAC addresses

- not hierarchical
- permanent
- unique to interface

Broadcast Addr.

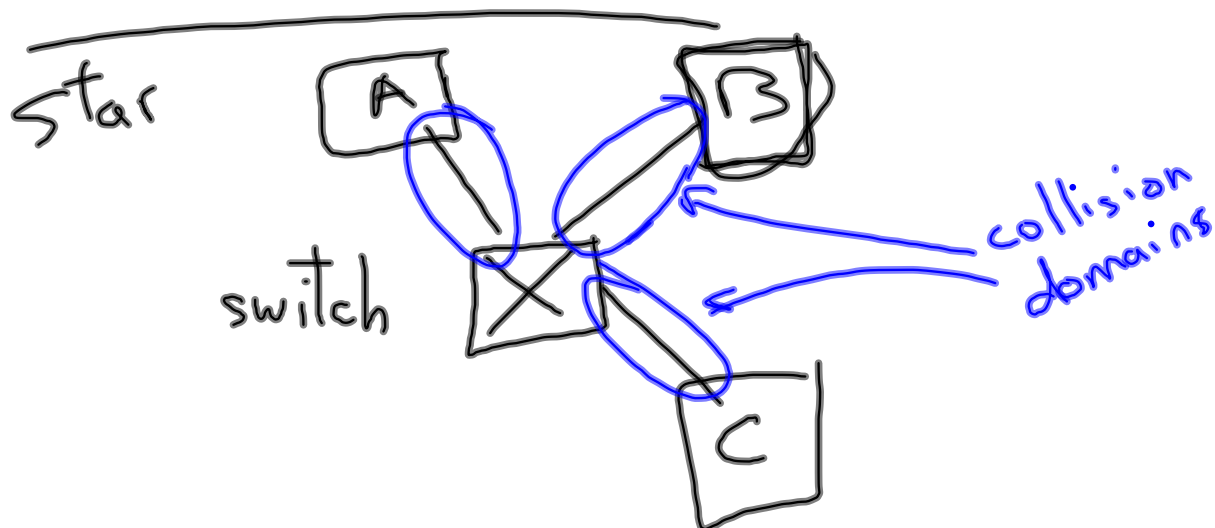
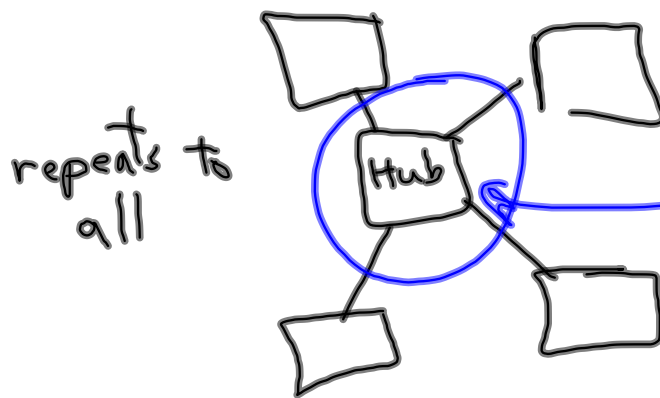
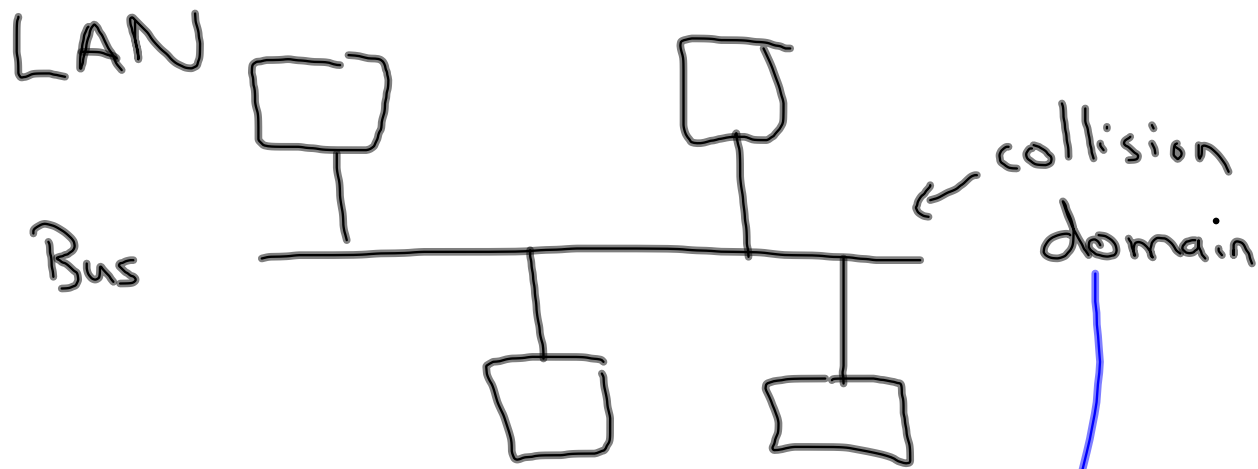
FF.FF.FF.FF.FF.FF  
└──┬──┘  
||| |||  
└──┬──┘  
255

# Address Resolution Protocol (ARP)



ARP tables

IP	MAC	TTL



# Ethernet

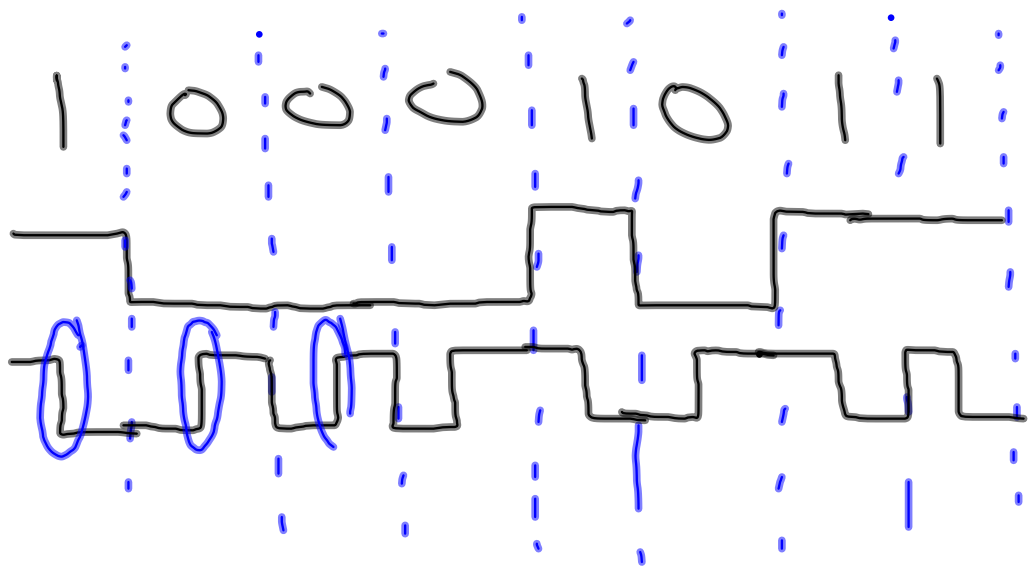
- connectionless
- unreliable
- CSMA/CD

---

## $m^{\text{th}}$ collision

- pick a number  $0 \dots 2^m - 1$ ,  $k$
- waits  $k \cdot 512$  "bit times"
- tries again

signal





# Switches

- builds tables from normal communications  
eg. ARP req.

