Circuit Switching

- It's the method used by the telephone network.
- A call has three phases:
  1. Establish circuit from end-to-end ("dialing"),
  2. Communicate,
  3. Close circuit ("tear down").
- Originally, a circuit was an end-to-end physical wire.
- Nowadays, a circuit is like a virtual private wire: each call has its own private, guaranteed data rate from end-to-end.
Each phone call is allocated 64kb/s. So, a 2.5Gb/s trunk line can carry about 39,000 calls.
Packet Switching

- It’s the method used by the Internet.
- Each packet is individually routed packet-by-packet, using the router’s local routing table.
- The routers maintain no per-flow state.
- Different packets may take different paths.
- Several packets may arrive for the same output link at the same time, therefore a packet switch has buffers.
Packet Switching

Simple router model