Packet fragmentation

- IP packet fragmentation.
- Layer 2:
  - Ethernet frame size is limited to 1500 bytes.
  - MTU is the maximum size for an Ethernet frame.

- Layer 3:
  - Router fragmentation and reassembly.
  - Each router checks and adjusts the packet size.

- Maximum Transfer Unit (MTU) is the maximum size of a data packet that can be transmitted in a single transmission unit.

- Ethernet frame size is limited to 1500 bytes.

- MTU size is specific to each network interface card (NIC).

- Fragments larger than the MTU are divided into smaller packets.

- Reassembled packets are recombined to form the original packet.

- Routers ensure that packets are sent only to the next hop router.
Packet fragmentation

- MTU=620
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Header of the source host:
- Header of the router:
- Header of the host:
- Header of the packet:

Flags, Checksum, Total length, TTL

- fragmentation

DF – do not fragment
MF – more fragments