

# **ETSF10: Internet Protocols**

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# 1 Internet Routing

## 1.1 Routing

**Routing** select route across network between nodes, requiring:

- correctness
- simplicity
- robustness
- ...

### 1.1.1 Flooding

**Flooding:** packets are sent by node to every neighbour and eventually at least one copy arrives at the destination

- no network information required
- uniquely number packets, so we can discard duplicates
- limit infinite transmission with time-to-live

### 1.1.2 Packet-Switching

**Packet-switching:** choose optimal path according to a cost metric, make it decentralized

## 1.2 Router Architecture

**Router:** internetwork device that passes data between networks, by checking network layer addresses

- routing
- forwarding