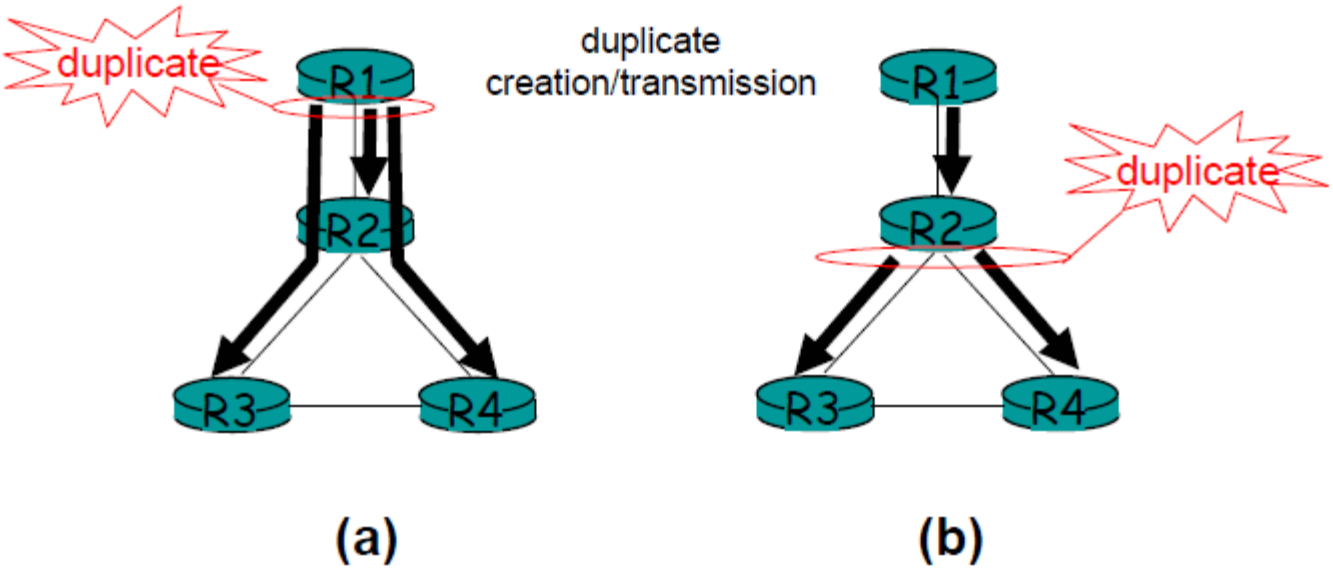
Broadcast routing

Methods:

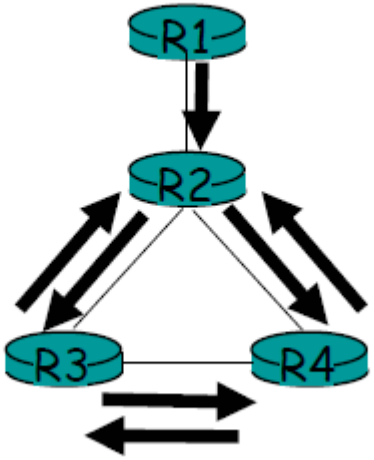
1. *N-way Unicast*
2. *Uncontrolled Flooding*
3. *Controlled Flooding*
    - *3.1. Seq number based*
    - *3.2. Reverse path forwarding*

N-way Unicast



Source-duplication versus in-network duplication.
(a) source duplication, (b) in-network duplication

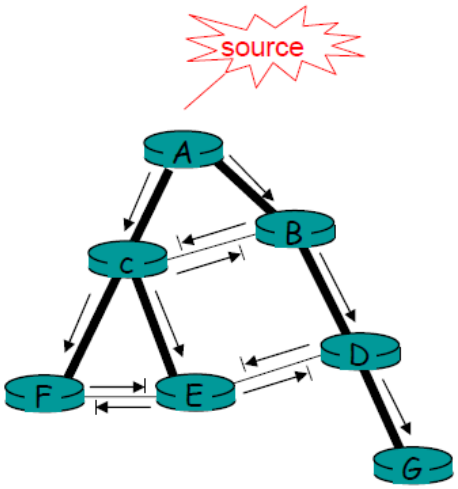
Uncontrolled Flooding



Controlled Flooding

Methods:

1. Sequence number based
2. Reverse path forwarding



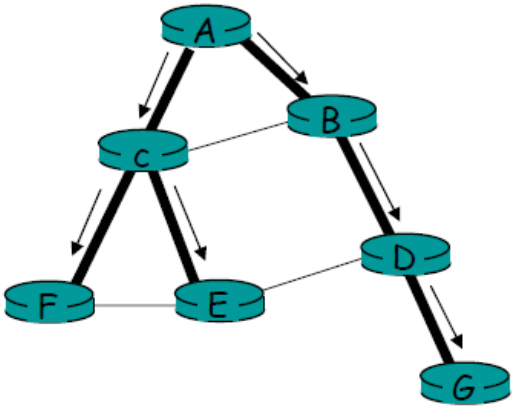
Packet will be forwarded

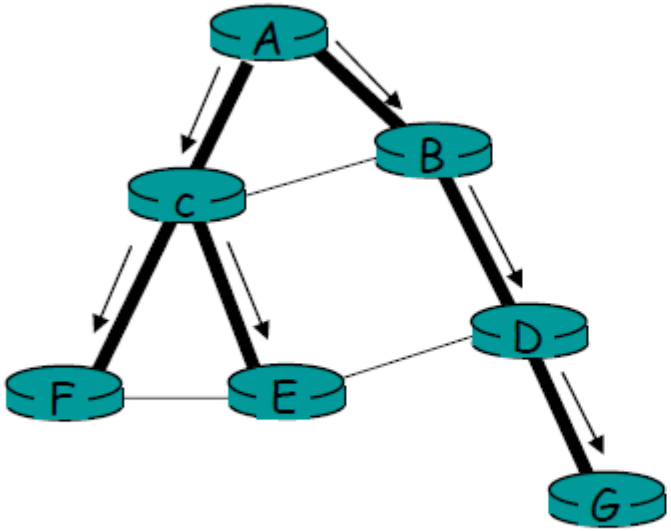
Packet not forwarded beyond receiving router

Nodes B, C, D, E and F receive either one or two redundant packets.

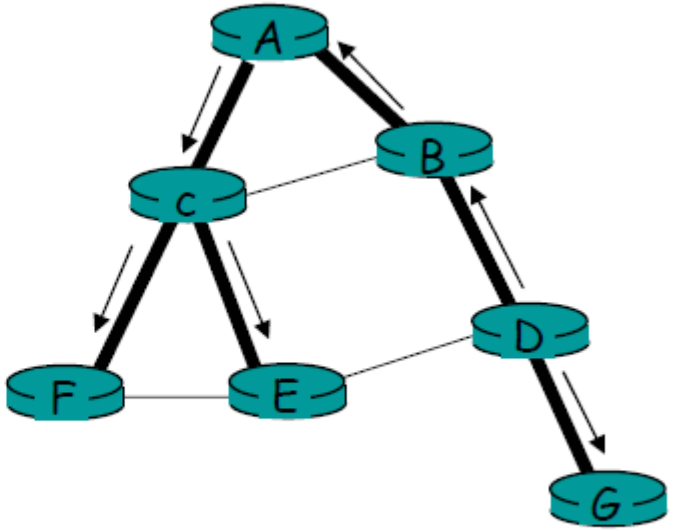
Ideally, every node should receive only one copy of the broadcast packet.

Spanning Tree Example





(a) Broadcast initiated at A



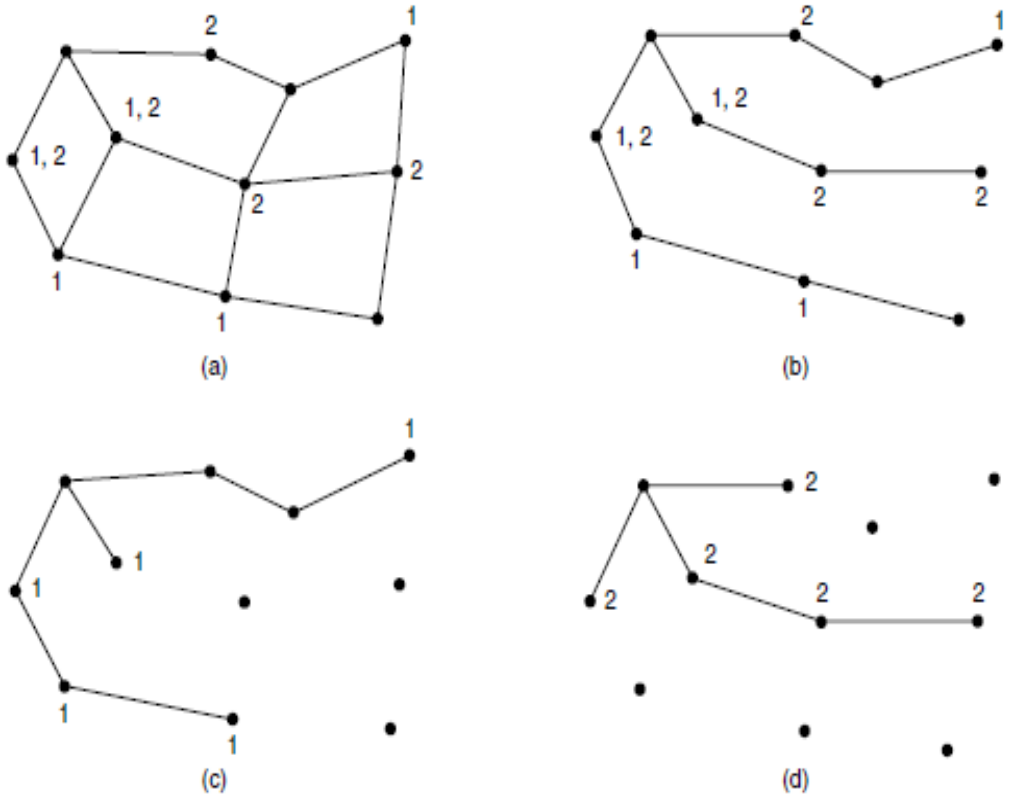
(b) Broadcast initiated at D

Multicast Routing

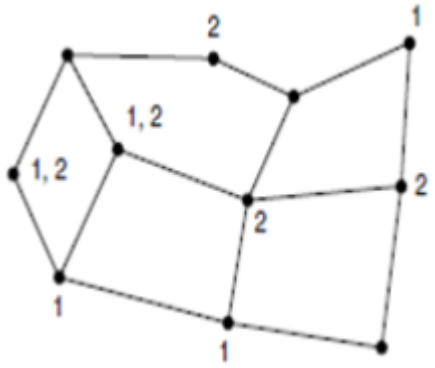
Methods:

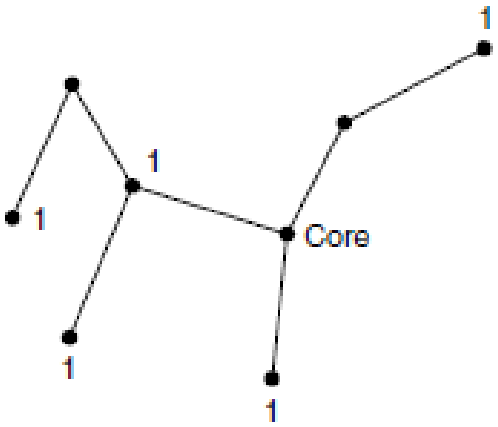
1. ***Source based tree***
2. ***Core based or Group shared tree***

Source based tree

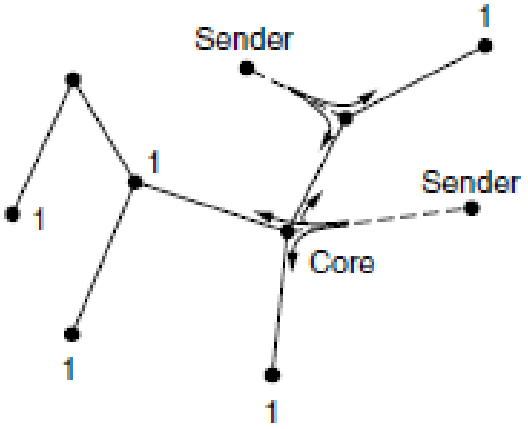


Core based or Group shared tree





(a)



(b)