Introduction to Computer Networks
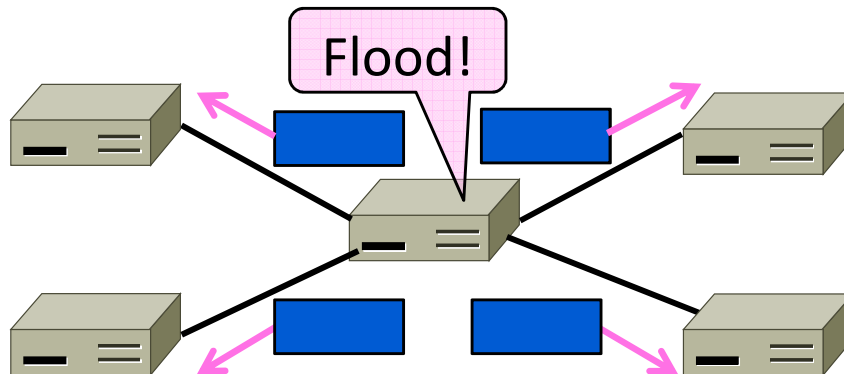
Flooding (§5.2.3)

David Wetherall (djw@uw.edu)

Professor of Computer Science & Engineering

UNIVERSITY *of* WASHINGTON

Topic

- How to broadcast a message to all nodes in the network with <u>flooding</u>
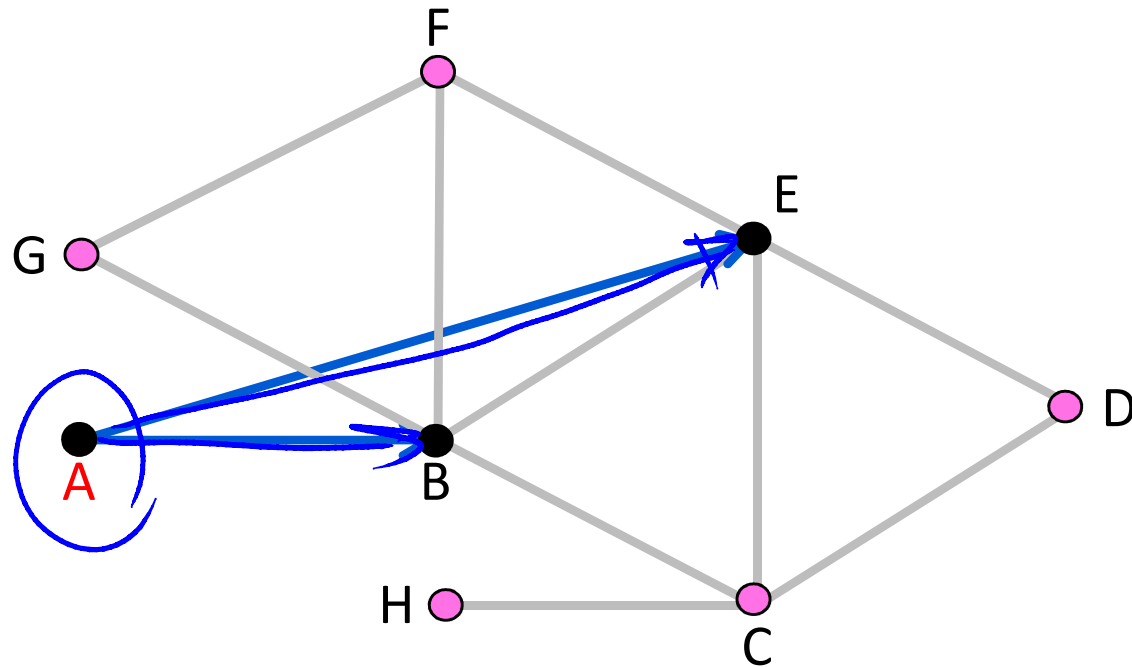 - Simple mechanism, but inefficient

Flooding

- Rule used at each node:
  - Sends an incoming message on to all other neighbors
  - Remember the message so that it is only flood once

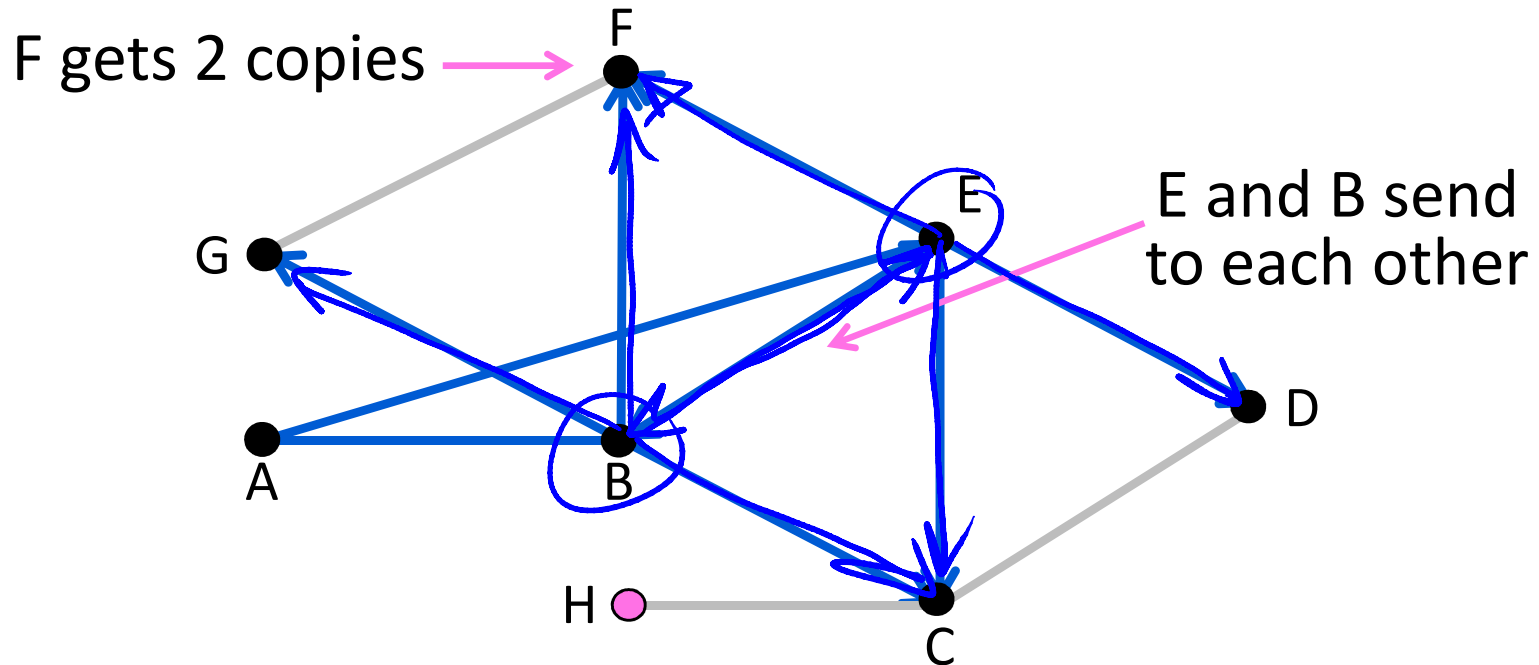- Inefficient because one node may receive multiple copies of message

Flooding (2)

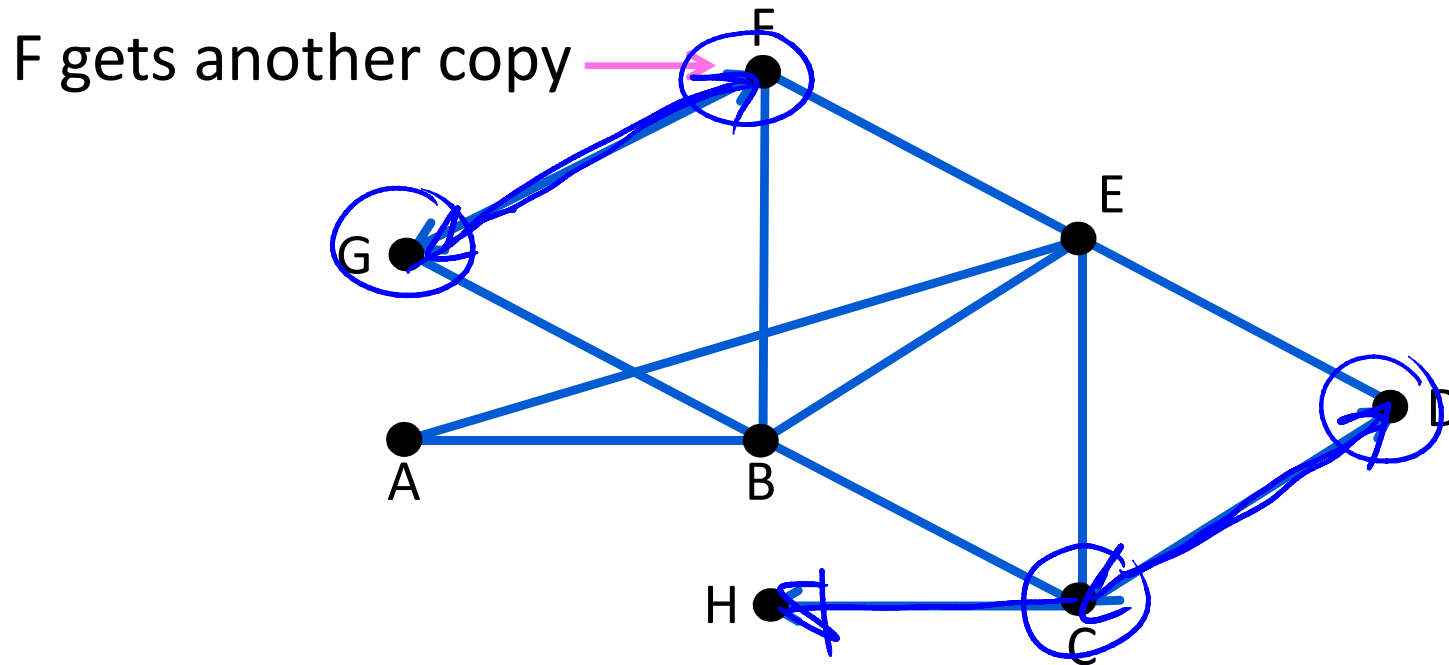- Consider a flood from A; first reaches B via AB, E via AE

Flooding (3)

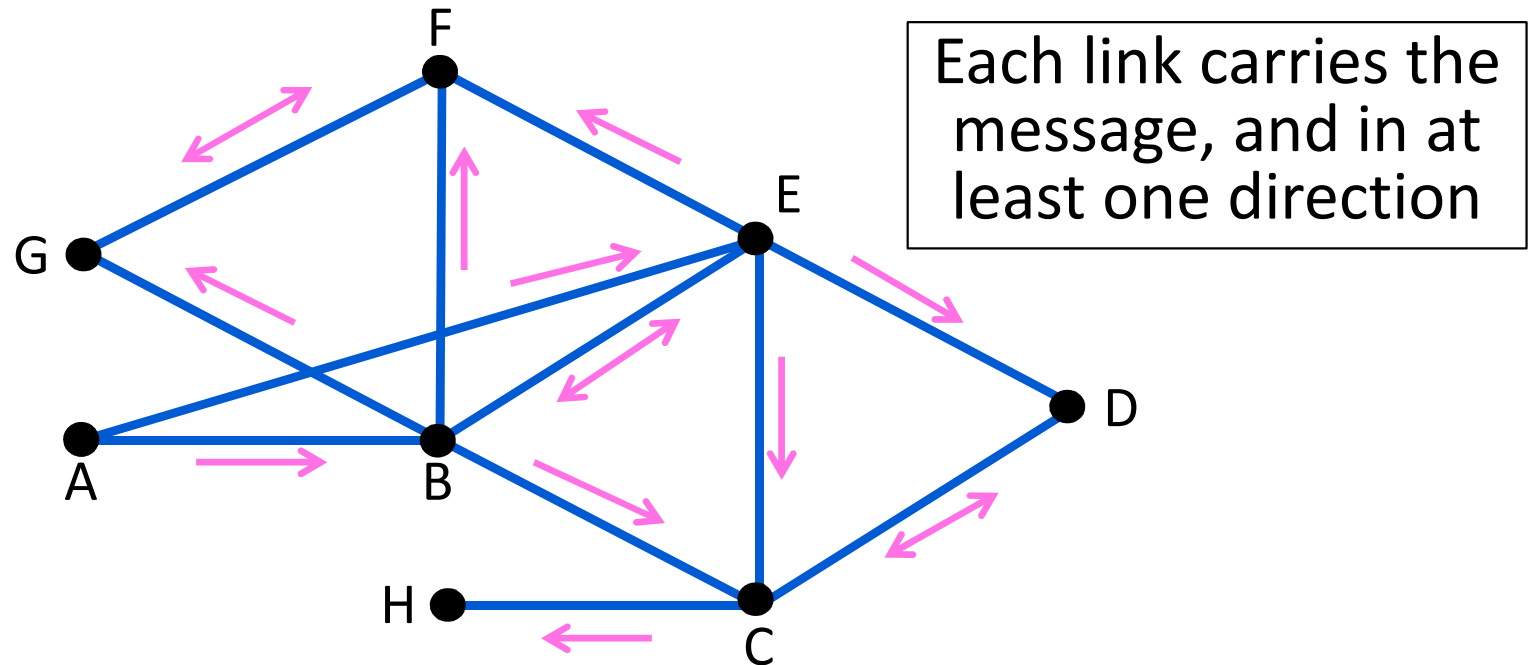- Next B floods BC, BE, BF, BG, and E floods EB, EC, ED, EF

F gets 2 copies

E and B send to each other

Flooding (4)

- C floods CD, CH; D floods DC; F floods FG; G floods GF

F gets another copy

Flooding (5)

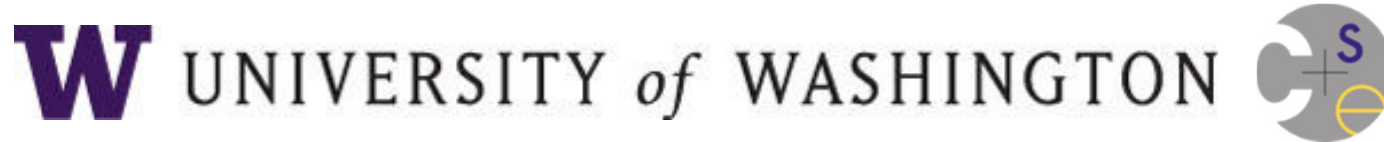- H has no-one to flood … and we're done

Each link carries the message, and in at least one direction

Flooding Details

- Remember message (to stop flood) using source and sequence number
  - So next message (with higher sequence number) will go through

- To make flooding reliable, use ARQ
  - So receiver acknowledges, and sender resends if needed

END

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