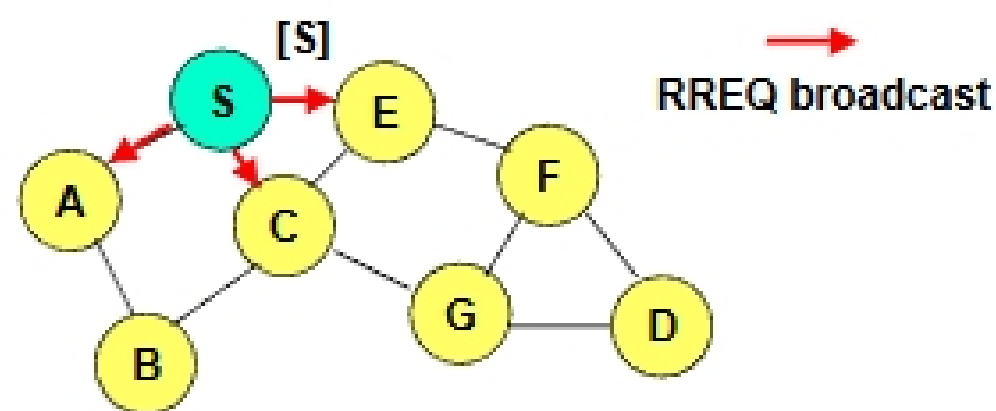


Dynamic Source Routing (DSR)

[Johnson-Maltz-96,
Broch et. al. 98-00]

- When node S wants to send a packet to node D, but does not know a route to D, node S initiates a **route discovery**.
- Source node S **floods** the network with **route request (RREQ)** packets (also called **query** packets).
- Each node **appends its own address** in the packet header when forwarding RREQ.

Route Discovery in DSR

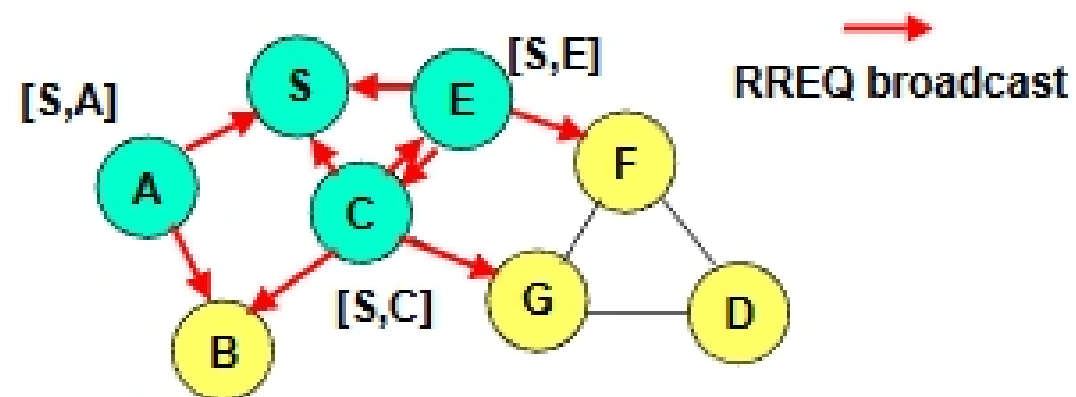


● represents a node that has received RREQ for D from S.

[X,...] Represents list of addresses appended to RREQ.

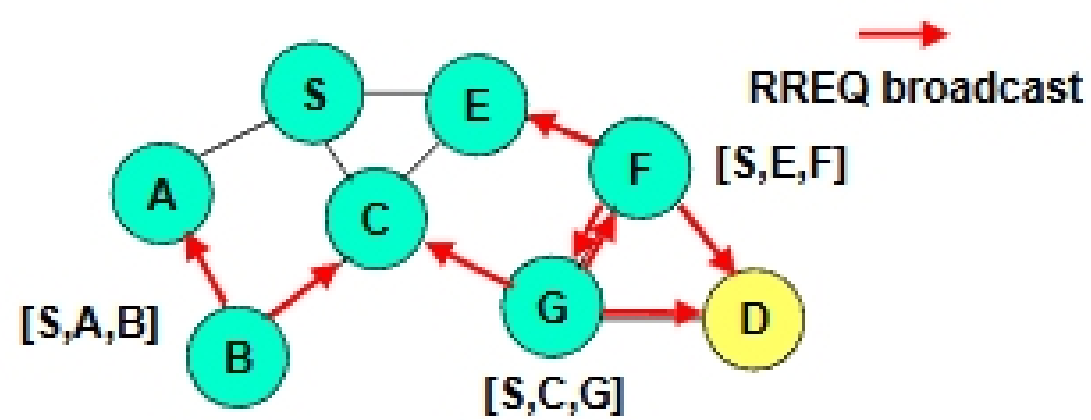
A node receiving a RREQ rebroadcasts it exactly once.

Route Discovery in DSR



- represents a node that has received RREQ for D from S.
- [X,...] Represents list of addresses appended to RREQ.
- A node receiving a RREQ rebroadcasts it exactly once.

Route Discovery in DSR



- Destination D receives RREQ via G and F.
- It does not broadcast it further.

Route Discovery in DSR

- Destination D on receiving the first RREQ, sends a **Route Reply (RREP)**.
- RREP is sent on a route obtained by **reversing** the route appended to received RREQ.
- RREP **includes the reverse route** from S to D on which RREQ was received by node D.

Route Reply in DSR

