DEFENDING BLACK HOLE ATTACK IN MANET

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NOWADAYS , MOST OF THE NETWORK SYSTEMS ARE DESIGNED TO WORK FAST. BUT THE RIGHT FORMAT IS, WE HAVE TO CHECK THAT HOW SECURE IT IS !!!

MANET

A MOBILE AD HOC NETWORK (MANET) IS A CONTINUOUSLY SELF-CONFIGURING, SELF-ORGANIZING, INFRASTRUCTURE-LESS NETWORK OF MOBILE DEVICES CONNECTED WITHOUT WIRE

AODV

AODV (AD-HOC ON-DEMAND DISTANCE VECTOR) IS A LOOP-FREE ROUTING PROTOCOL FOR AD-HOC NETWORKS. IT IS DESIGNED TO BE SELF-STARTING IN AN ENVIRONMENT OF MOBILE NODES, WITHSTANDING A VARIETY OF NETWORK BEHAVIORS SUCH AS NODE MOBILITY, LINK FAILURES AND PACKET LOSSES
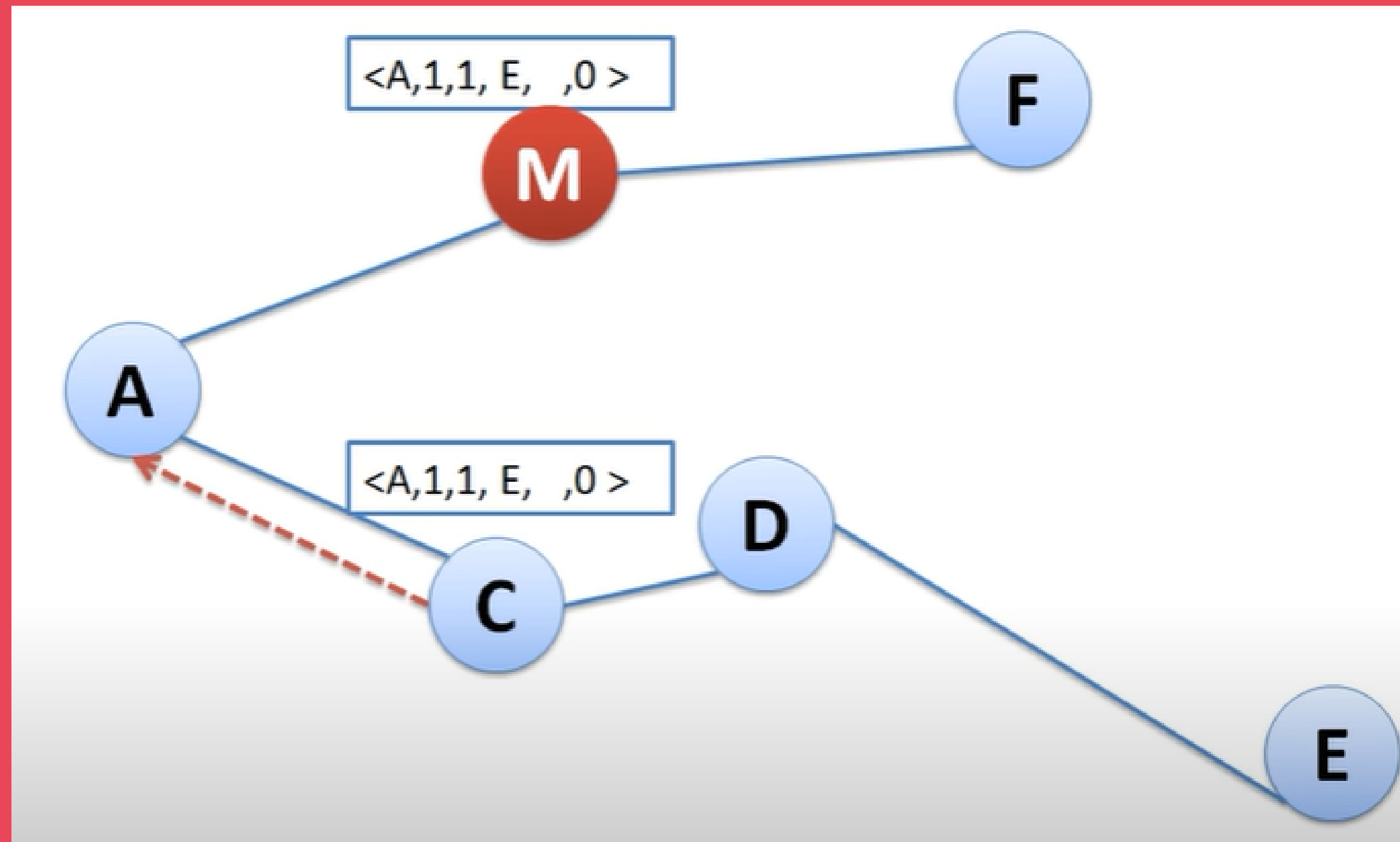
BLACK HOLE ATTACK

BLACK-HOLE ATTACKS OCCUR WHEN A ROUTER DELETES ALL MESSAGES IT IS SUPPOSED TO FORWARD
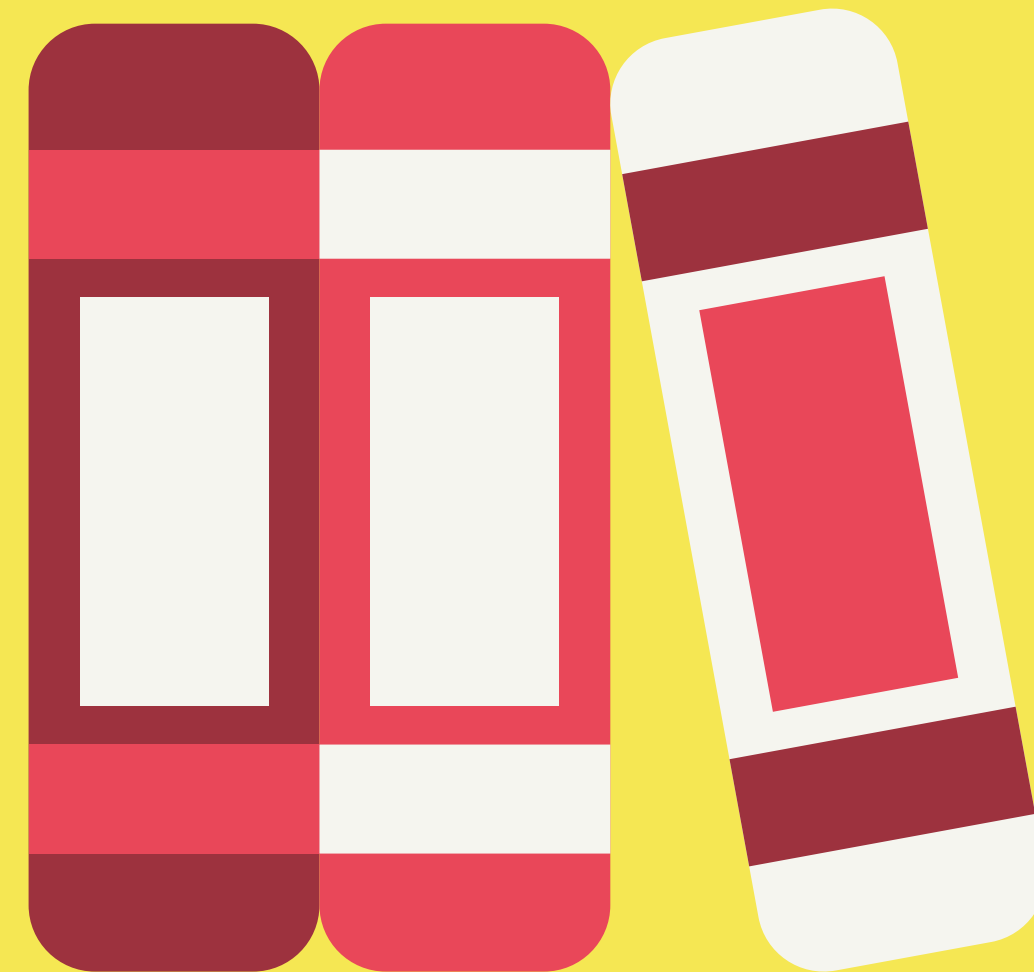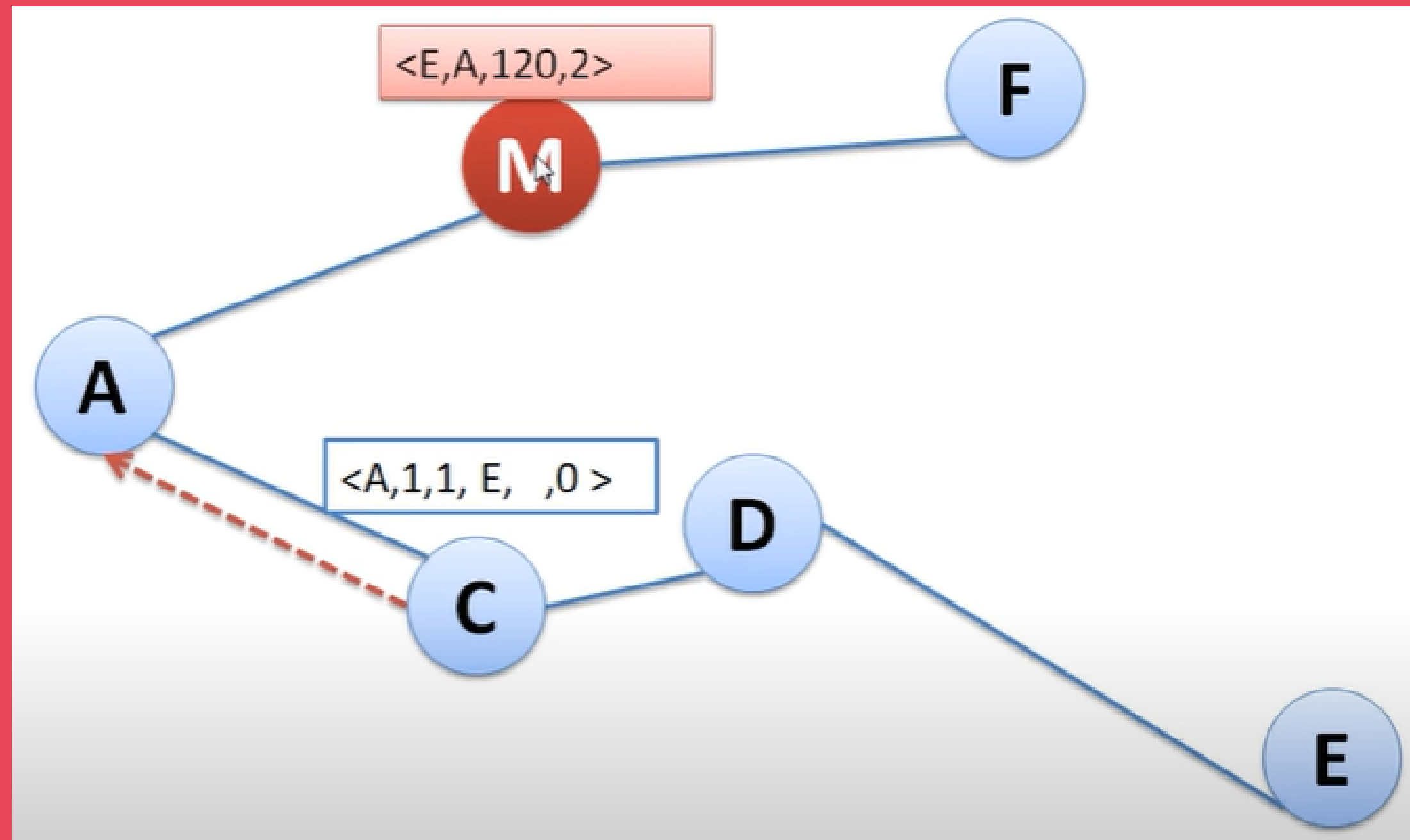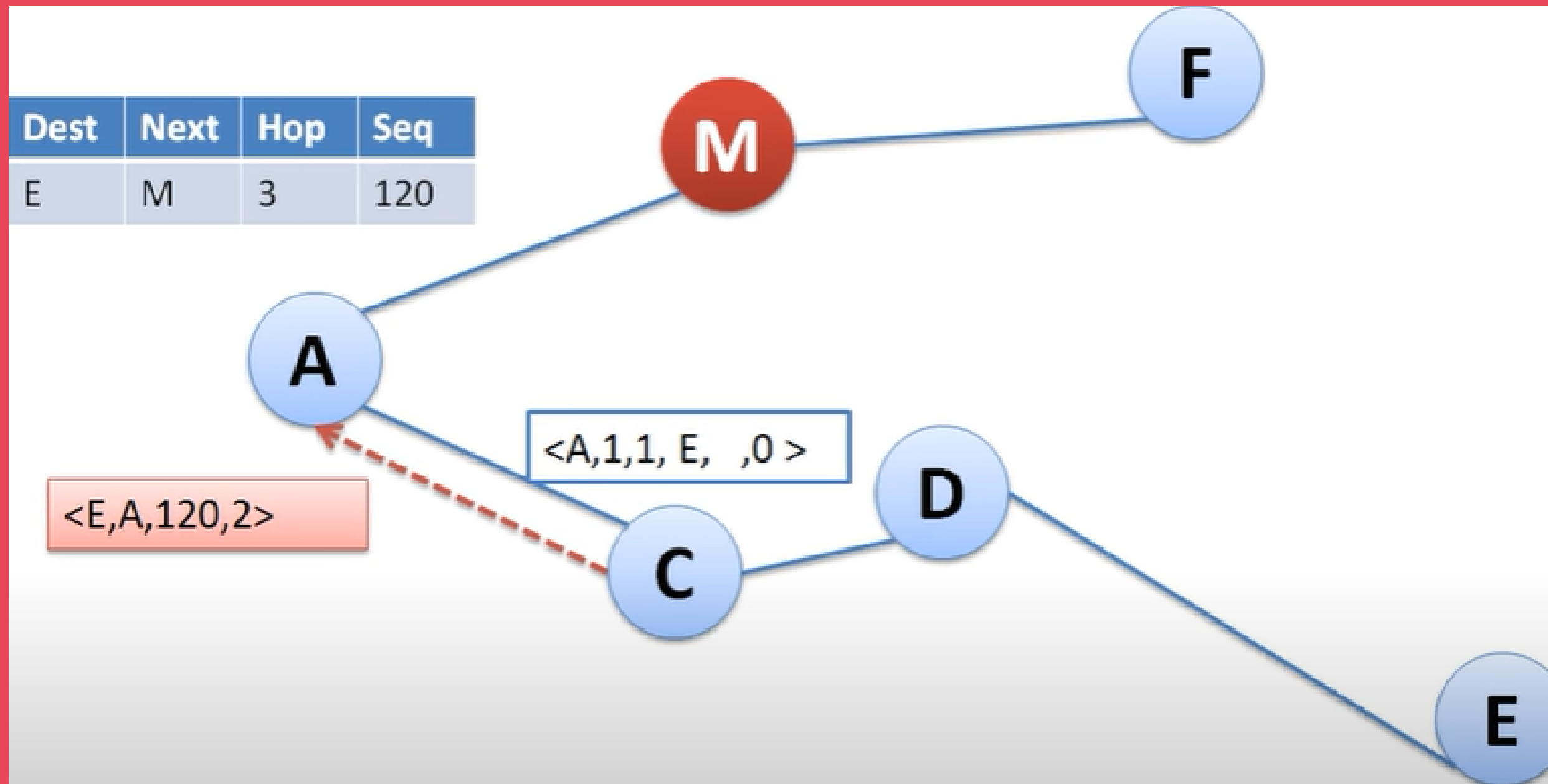
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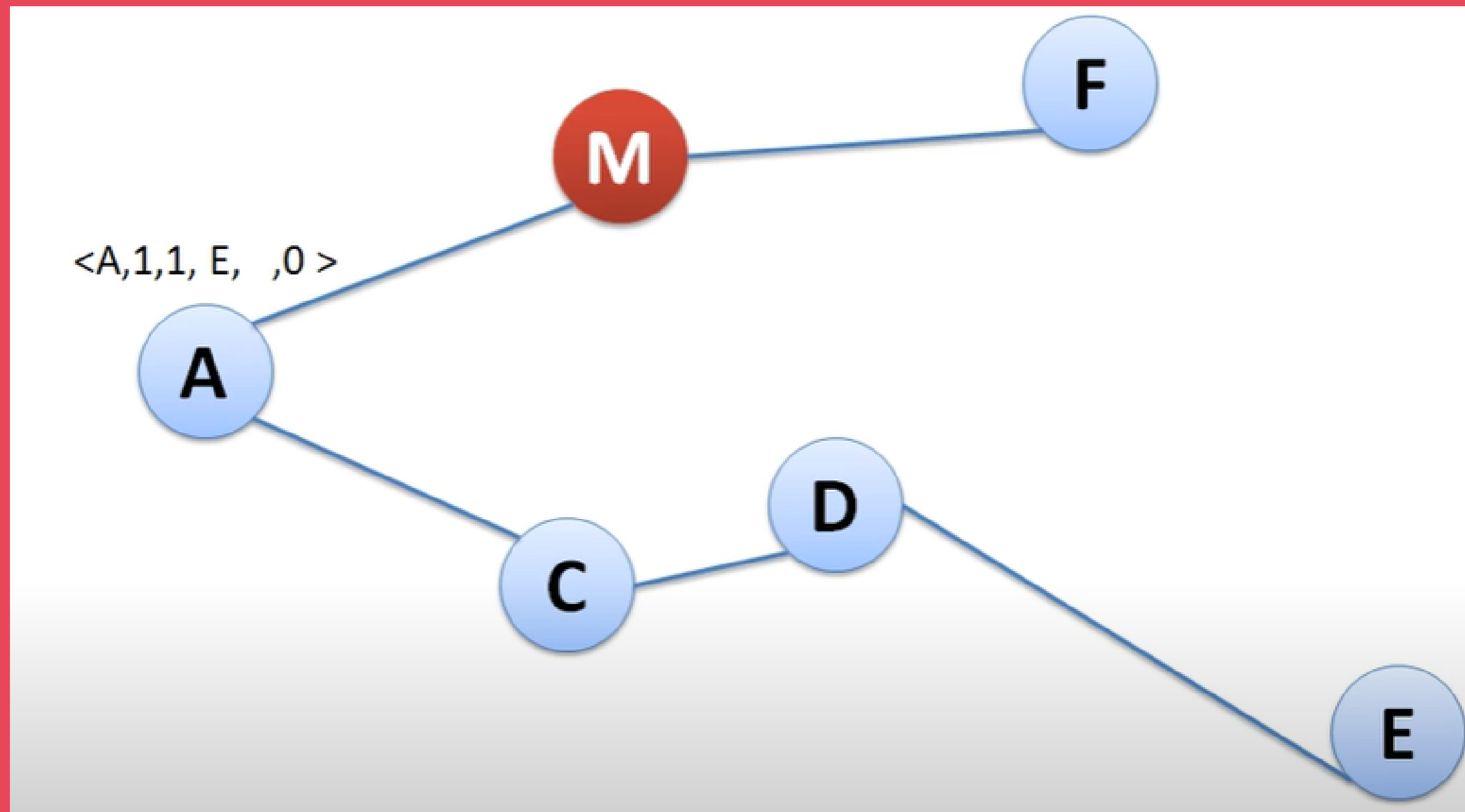
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SOLUTION

-INTENTIONAL FAKE RREQ

-FAKE RREP DETECT

-TRUST TABLE

-CLUSTARING

-ETC

EXPECTATIONS AND OUTCOMES

01 . Packet Delivery Ratio

A decrease in PDR is seen at the same time that is a black hole attack on AODV . we can see which is a successful increment in the PDR of modified AODV

02. Average Throughput

Throughtput is decreases due to black hole attack but without black hole it is increases in modified routing AODVsee which is a successful increment in the PDR of modified AODV

EXPECTATIONS AND OUTCOMES

03 . Average End-to-End delay

Average End to End Delay with black hole attack is much higher than without black hole attack in AODV routing protocol.

04. Packet Drop Ratio

It is the ratio of the data lost at destination to those generated by the CBR sources . It increases as data travel much distance than before

REFERENCE

CONCEPT AND ALGORITHM

ALGORITHM:

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REFERENCE - LINKS

CONCEPT AND ALGORITHM

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THANK YOU !! 😄