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Freiburg, 29 June 2007
Due until 6 July 2007

Exercises of lecture

Mobile Ad Hoc Networks

Summer 2007

Sheet 10

SECTION 1:
DSDV and Mobility Models

1. DSDV modifies the conventional *Bellman-Ford routing algorithmn* and introduces sequence number to avoid count-to-infinity problem (or to ensure loop-freedom). Based on the MANET shown in Figure 1, construct the route table advertised by node D. This route table should contain the information on destination sequence number.

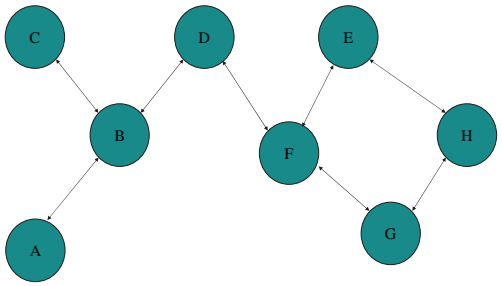

Figure 1: Topology at time, t_1

2. Due to node mobility, the network topology in Figure 1 changes to that illustrated in Figure 2. According to DSDV, how does this change update the route table of each node as the results of

   (a) link addition by node A, and
   (b) link-break detection by node B?

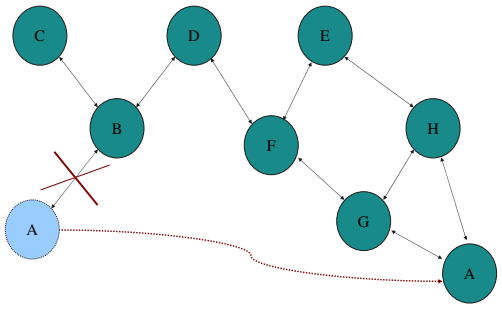

Figure 2: Topology at time, t_2

3. Suggest the mobility models that you could think of other than those stated in the lecture notes.