Solutions HW 9

EE 450

Dr. Walker

P6.1)

Output corresponding to bit d_1 = [-1,1,-1,1,-1,1,-1,1]
Output corresponding to bit d_0 = [1,-1,1,-1,1,-1,1,-1]

P6.2)

Sender 2 output = [1,-1,1,1,1,-1,1,1]; [1,-1,1,1,1,-1,1,1]

P6.3)

$$d_2^1 = \frac{1\times 1+(-1)\times(-1)+1\times 1+1\times 1+1\times 1+(-1)\times(-1)+1\times 1+1\times 1}{8} = 1$$

$$d_2^2 = \frac{1\times 1+(-1)\times(-1)+1\times 1+1\times 1+1\times 1+(-1)\times(-1)+1\times 1+1\times 1}{8} = 1$$

P6.13)

Since datagrams must be first forward to the home agent, and then to the mobile though the home agent, the delays will generally be longer than via direct routing. Note that it *is* possible, however, that the direct delay from the correspondent to the mobile (i.e., if the datagram is not routed through the home agent) could actually be smaller than the sum of the delay from the correspondent to the home agent and from there to the mobile. It would depend on the delays on these various path segments. Note that indirect routing also adds a home agent processing (e.g., encapsulation) delay.

P6.15)

Two mobiles could certainly have the same care-of-address in the same visited network. Indeed, if the care-of-address is the address of the foreign agent, then this address would be the same. Once the foreign agent decapsulates the tunneled datagram and determines the address of the mobile, then separate addresses would need to be used to send the datagrams separately to their different destinations (mobiles) within the visited network.