Internet Routing Recitation October 3, 2003

JI:If you guys find it useful, we can have moreo recitations in the near future?

Student: How is Hw3 going to look like?
JI: Hw3 will have to do Link State routing algorithms, but it will be developed on top of y our existing hw2, so you should make your hw2 code reusable.

Student: Can you explain the difference between simulators and a real piece of code?
JI: Simulators creates a make-believe environment that behaves as it is the real object, thus reduces cost and minimizes the amount of damage during research and development.

Student: Can you please explain update periods?
JI: Since every node on the network are running according to their own time, even though each node's update period is 30 seconds does not mean that every 30 seconds the nodes send out info and receive info at the same time. it could be that you are in a network of 30 nodes and every second you get an update. But the update period of 30 seconds means that every 30 seconds you disseminate information about what you know, but it does not have to be synchronized with other nodes.
However, you can make your master thread have control the global time and poll each node. or you can have the nodes work independently and sent their updates asynchronously.

Student: Can you please post your sample program, so we can look at the output of the routing tables?
Angelos: I can post it online.

JI: I have been asked where the prefix is the ip address of the router or the address range that it is advertising for. the answer is the range of address it advertises for.

Student: Is there a possibility that a router anounces that everything is zero hops away, therefore attracting all the traffic? JI: This has happened before but the amount of damage that it creates is not as big as you think, because routing is done when the longest prefix match first, even if a node is 10 hops away if the prefix of the node is matched, this will take precedence over the number of hops.

However something that is really bad is the address deagregation, when address within certain range are advertised separately, this might happen because a customer might ask you to do it, but this needlessly populates the routing tables and once the customer is gone, you have no way to reclaim the address.

Student: Is the file going to be in plaintext?

JI: Yes.

`Student: Can you explain the need for hold down timers?`

JI: Hold down timers are there, afer a router expires you dont immediately take the router out. But during this time you advertise the link to the expired router as infinity.

Monday during class I will come up with a more concrete example.