

CSE370 Spring 2006 Wireless and mobile networking

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Homework 3 (Location management and mobile IP/TCP)

Due in class on Friday, April 7th, 2006.

1. One possible approach for location management in ad hoc networks is to use distributed hash table (DHT). The idea is to use a random hash function f that takes the node ID and outputs a geographical location $f(ID)$. The location server of a node with ID i is chosen as the node closest to $f(i)$. All the nodes know this hash location and thus can compute where the location server is for any arbitrary node. Explain how can location update and location retrieval be implemented in this approach, by using geographical routing protocols (such as GPSR). Compare the performance with other approaches such as centralized location server. What is the disadvantage of this scheme that you can think of?
2. Textbook (Schiller), page 345: exercise 7.
3. Textbook (Schiller), page 371: exercise 7.

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