













L19.8





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TRACKING APPROACHES Include readme.txt or doc file with instructions in submission

SHORT-HAND-CODES FOR MEMBERSHIP

- Must document membership tracking method Static file membership tracking only = 0 pts
- T-1: TCP membership tracking only = +5 pts (should be dynamic once servers point to membership server)
- U-1: UDP membership tracking only = +10 pts (automatically) discovers nodes with no configuration)
- Static file + TCP membership tracking = +15 pts (Static file is not reread to refresh membership during operation)
- Static file + UDP membership tracking = +15 pts (Static file is not reread to refresh membership during operation)
- SD+U-2: Static file + UDP membership tracking = +20 pts (Static file is periodically reread to refresh membership during operation)

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<u>T+U-2</u>: TCP + UDP membership tracking = 20 pts (both dynamic) TCSS558: Applied Distributed Computing [Winter 2020] School of Engineering and Technology, University of Washington - Tacoma March 12, 2020



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ELECTIONS FOR DHT BASED SYSTEMS DHT-based systems use a bit-string to identify nodes Basic Idea: Reserve fraction of ID space for super peers Reserve first log₂(N) bits for super-peer IDs m=number of bits of the identifier k=# of nodes each node is responsible for (Chord system) Example: For a system with m=8 bit identifier, and k=3 keys per node Required number of super peers is 2^(k - m) N, where N is the number of nodes In this case N=32 Only 1 super peer is required for every 32 nodes TCSS558: Applied Distributed Computing [Winter 2020] School of Engineering and Technology, University of Washington - Tacoma March 12, 2020 L19.27

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 Output
 Output

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QUESTION 5:

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QUESTION 8:

 QUESTION 8: SYNCHRONIZATION

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 Image: synchronize display="2">Image: synchronize display="2"

 • (b) When NTP is used to synchronize clocks of client computers, when client clocks are ahead of the NTP server due to clock skew, why do clients never set their local clock(s) backwards to match the time of the NTP server?

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