CS423: Lecture 23, LSPs and Forwarding

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November 17, 1994
Spanning Tree versus Distance Vector

- “False” info dies out eventually. In Spanning Tree, smallest age root estimates go up in age every time unit; in Distance Vector, smallest distance vector estimate to a dead destination will go up periodically.

- Two generals problem means that bridges (or routers) cannot change state simultaneously; always periods of inconsistency. Bridges set timers and drop packets during periods of inconsistency; routers let packets loop during such periods.
OSI Level 2 Route Calculation

LEVEL 2 MAP

R3’s LSP:
Dijkstra Tree for R3
OSI Level 2 Forwarding

How do we deal with the following prefixes:

8.27.* -----> A (next hop)
8.* -----> B (next hop)
8.27.7 -----> C (next hop)
8.26.* -----> A (next hop)

1) Follow path through tree of arrays using successive digits as indices.
2) If you fail, remember last node in path that had a valid entry.