Network Routing in Disconnected Environments

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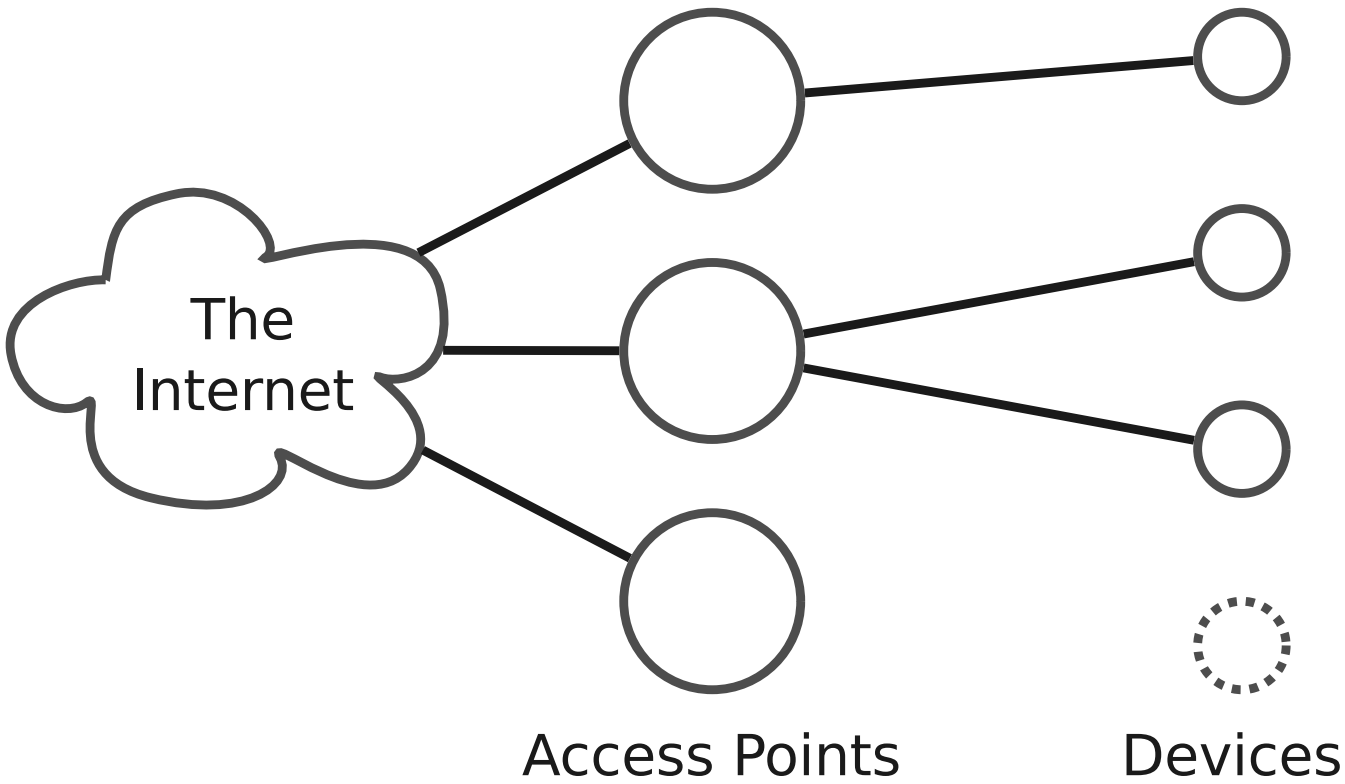
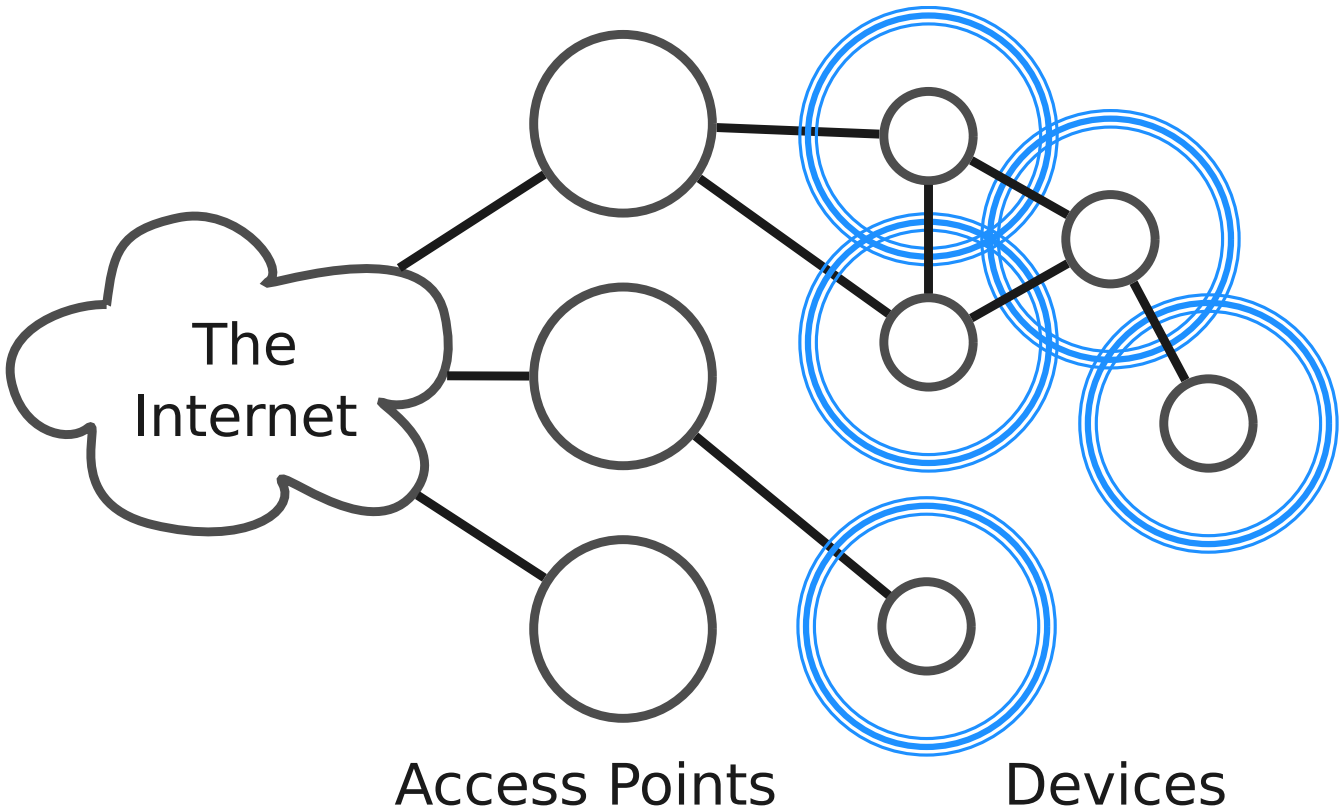
Contents

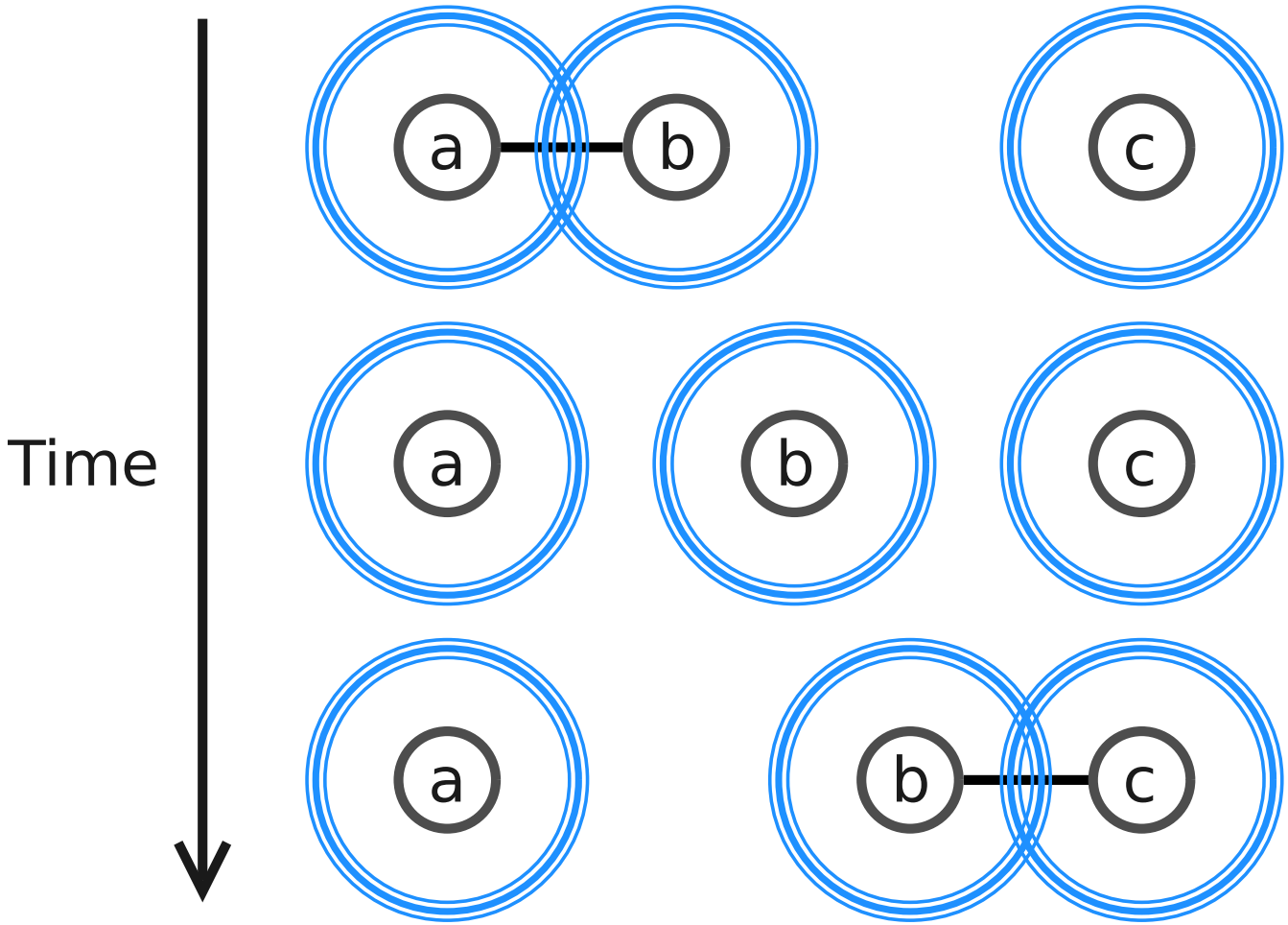
Traditional View of Mobile Networks



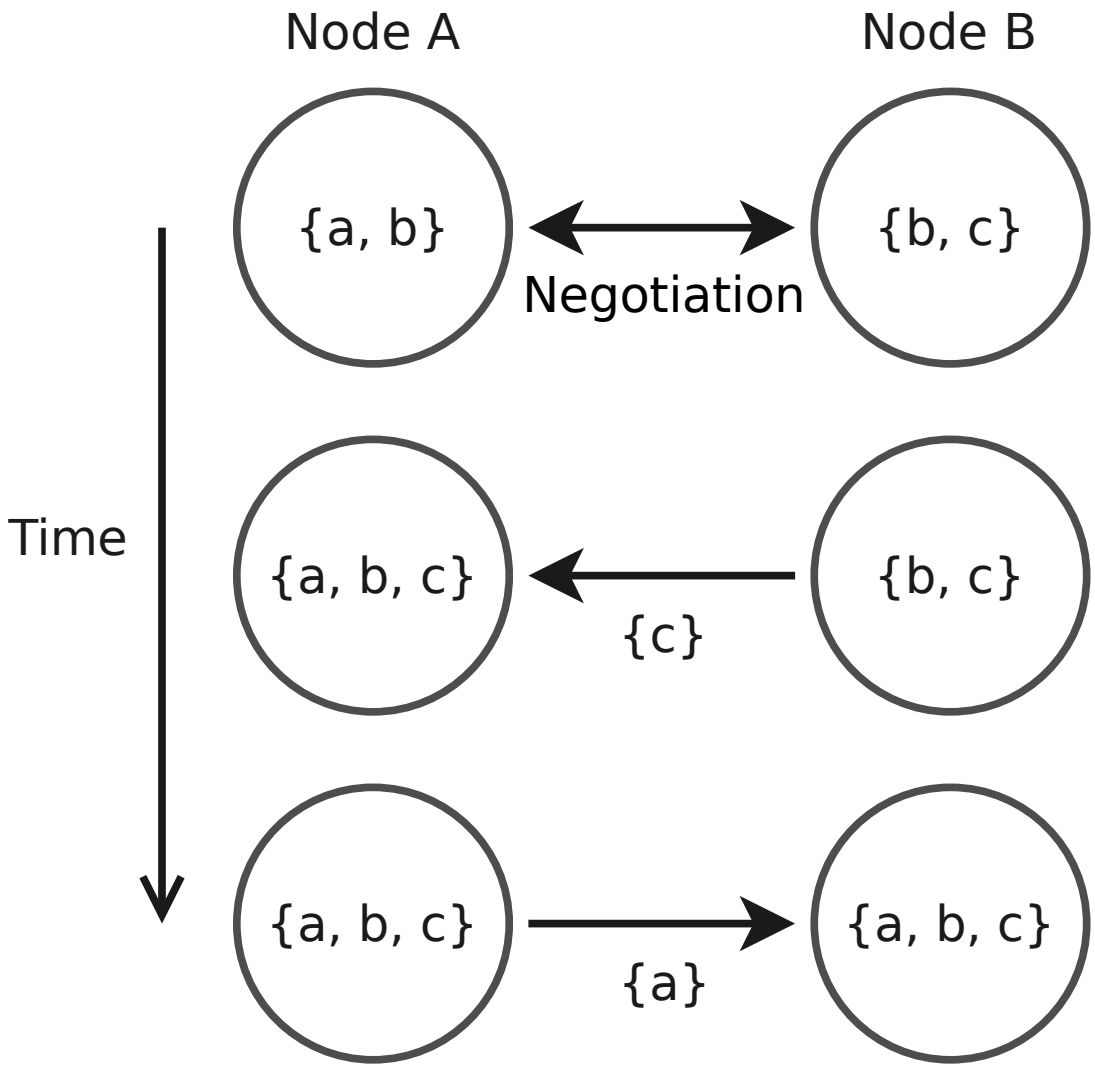
Mesh Networks



Delay-Tolerant Mobile Networks



Epidemic Routing



PROPHET Routing

a meets b:

$$P(a,b) = P(a,b)_{old} + (1 - P(a,b)_{old}) \times P_{init} \quad (1)$$

k units of time since a saw b:

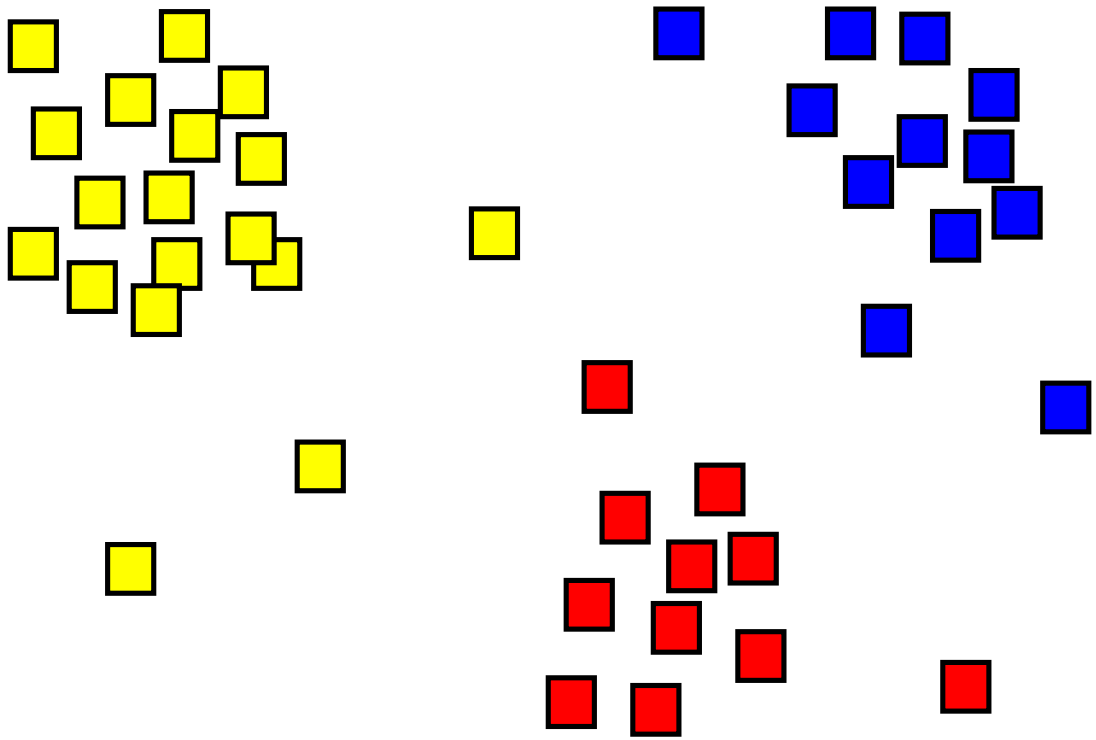
$$P(a,b) = P(a,b)_{old} \times \gamma^k \quad (2)$$

a meets b, who has a probability of meeting c:

$$P(a,c) = P(a,c)_{old} + (1 - P(a,c)_{old}) \times P(a,b) \times P(b,c) \times \beta \quad (3)$$

[0] From A. Lindgren, A. Doria, and O. Scheln. Probabilistic routing in intermittently connected networks. In Proceedings of the Fourth ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc 2003), 2003

Proposal



Questions?