

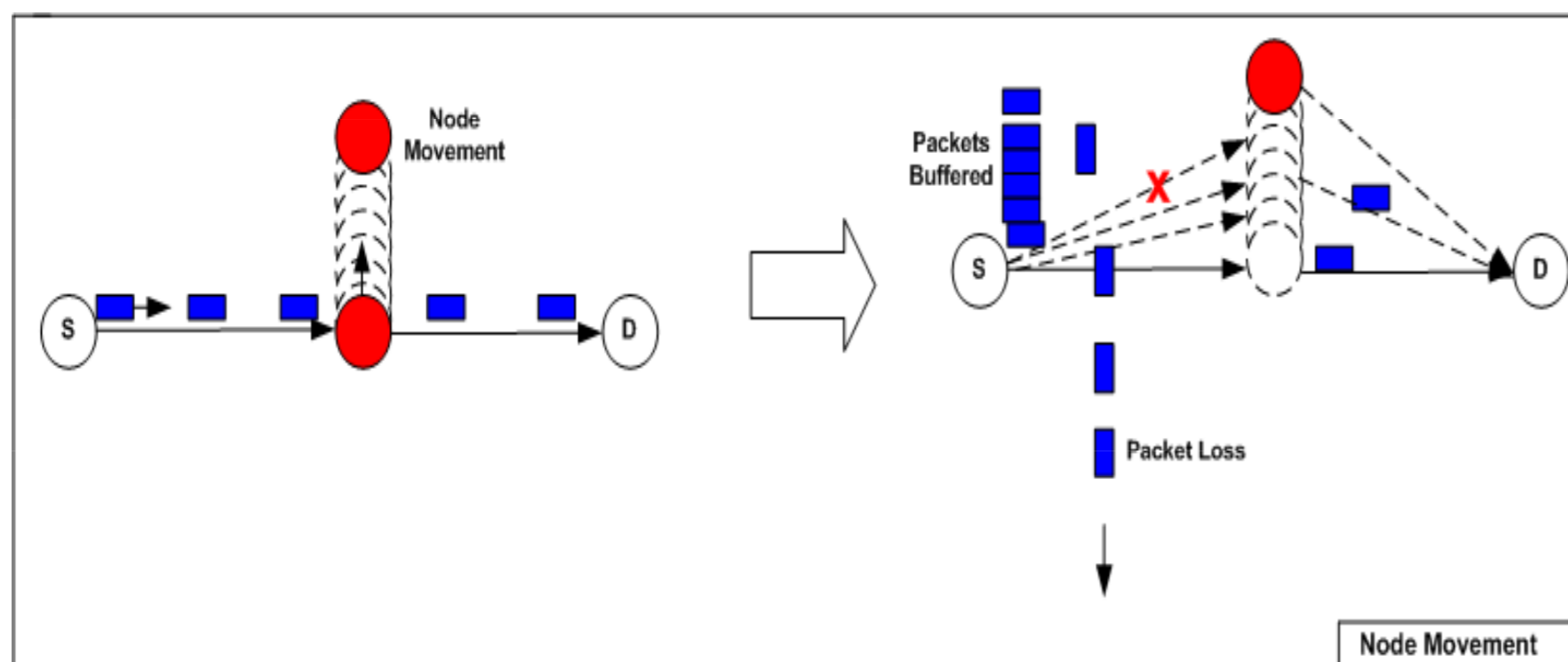
Impact of Mobility in User-centric Routing

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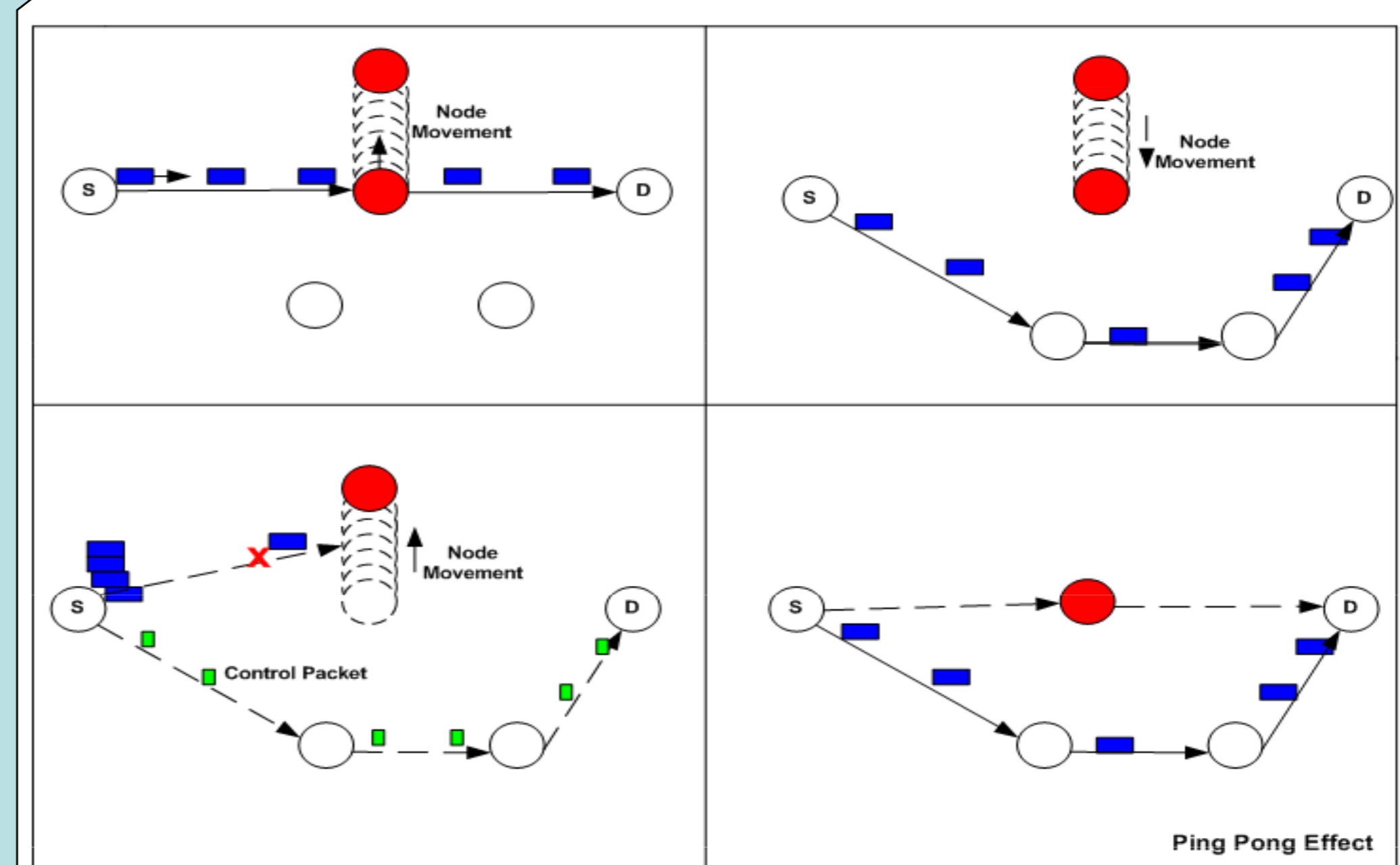
Problem Statement

- In wireless networks multi-hop routing extends node transmission capabilities
- Current multi-hop routing is based on single-source shortest –path
 - Node mobility cause costly route recomputation
- Nodes are carried by humans, hence inherit social mobility characteristics

Mobility Impact



Mobility Impact



Goals and Current Work Status

Goals

- To develop routing metrics adapted to mobility

Current Work Status

- Review of current mobility metrics to examine which one(s) can best capture node mobility
- Development of heuristics for new metric related to link stability
- Analysis of novel work by simulations using ns2

Next Steps

- Analytical evaluation of the heuristics developed
 - Check if the new metrics reduce the routing overhead that come due to mobility.
- Performance evaluation of the metrics against traditional multi-hop routing on ns2
 - Link-state example and Distance-vector example as benchmarks
 - Vary several parameters to consider the impact of mobility
 - Impact to be analyzed in terms of signaling overhead and in terms of throughput improvement