

# **Mobility Modeling and Routing in Sparse Mobile Network**

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## **Abstract**

Mobility plays a significant role in disseminating messages in sparse mobile networks. In the network scenarios, traditional end-to-end paths do not exist. Mobility creates opportunities for mobile nodes to connect and communicate when two nodes encounter. A series of encountering opportunities spread a message among many nodes and eventually deliver to the designated destination. Further improvements on the performance of message delivery can come from exploring mobility properties. This presentation will trace the new mobility enabled message dissemination approaches emerged in recent years. We present a survey over mobility models, analytical results on motion characteristics and routing strategies that largely rely on mobility. These three components intertwine and embed a research agenda on these issues starting from the early research on mobile networks when mobility modeling has been identified as vital to the evaluation and design of the mobile protocols, till the latest results where analytical properties about mobility are abstracted and many routing protocols are designed to exploit these features. We further outline potential research directions along the line.