[1] C.-C. Chiang. *Wireless Network Multicasting*. PhD thesis, University of California, Los Angeles, 1998. [bib]

[2] R. D. Poor. Hyphos: A self-organizing, wireless network. Master's thesis, Massachusetts Institute of Technology, June 1997. [bib]

Everyday objects are beginning to find expression in digital networks, creating a new family of objects that displays personalized behavior and memory. But how can you weave a thousand objects in one room into the Web? How can you connect them together without a tangle of wires, a burden of battery packs, or a Ph.D. in network administration?

The goal of this work is to develop Hyphos, a wireless network for interconnecting thousands of everyday objects. My thesis is that by using very short-range transceivers and relaying messages among the nodes, a new class of network emerges: a Hyphos network is self-organizing with a low cost per node; transmissions are tightly localized resulting in high bandwidth and low power consumption; fully distributed routing and control assures robust communication in the face of changes to the network topology.

[3] S. Ribhegge. Sprachübertragung in Bluetooth basierten Ad-Hoc Netzwerken. Master's thesis, University of Ulm, Apr. 2002. [bib]

[4] J. Weinmiller. *Grouping Wireless Picocells to build a Local Area Wireless Infrastructure*. PhD thesis, Technical University of Berlin, Apr. 2000. [bib]

The thesis presents a systematic investigation of solutions to provide efficient handover in a wireless-based LAN-type communication infrastructure in an in-door environment. The chosen architecture builds upon several wireless islands and interconnects them via a second networking infrastructure of a different type. Through this several cells are grouped together into a larger administrative unit of the dimensions of a common LAN. This architecture is advised since the coverage area of future cells will be very small (10 meter) causing very frequent handover. In order to avoid the expensive handover on the network layer at such high frequency a single network with multiple cells is built up, allowing for a local area mobility management that can be more efficient and faster than network layer based solutions.

With respect to the increasing demand for support for traffic with real-time requirements in communication networks, the capabilities and the issues arising with real-time communication in the system in question are furthermore discussed. The thesis investigates the space for applicable strategies and identifies distinctive basic solutions. Specifications for those solutions are developed. The specified approaches have been compared and evaluated regarding their performance and their different functional properties, with the help of simulation. The thesis finishes with conclusive remarks.
