

Applications like mobile phones offer the option of using multiple different forms of communication like Wi-Fi and the cellular infrastructure. As these communication modes can be used in parallel but offer different advantages and disadvantages they are seen as hybrid networks. In this thesis the network is assumed to consist of one dynamic part, over which the protocol has full control and one static part, which can not be altered.

To offer a quick way to solve time sensitive tasks which often come in the form of, for example, broadcasts, information aggregation or distribution arranging the dynamic network in the form of a well-formed tree is proposed. These problems can be solved fairly easily given a well-formed tree and the diameter in the order of $O(\log(n))$ makes the solutions efficient.

This thesis presents a self stabilizing protocol for the building of well-formed trees in hybrid networks.