ABSTRACT

BLUETOOTH PICONET APPLICATIONS

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Wireless *ad hoc* networks are rapidly developing into an area of intense research. Prior to taking full advantage of the benefits offered by such networks, meaningful applications have to be devised in order to prove the suitability of the backbone technologies to real-life situations. This project focuses on Bluetooth, a promising new wireless technology, developed mainly as a cable replacement. Bluetooth units connect into *piconets* and although the technology has received a lot of attention, implementing Bluetooth piconet applications remains a complex task. We envision the Bluetooth technology as an integral part in aiding data communication between peers in a typical office environment. This project encompasses both software and Bluetooth hardware and connects a number of Bluetooth-enabled laptop PCs into an ad hoc network providing total connectivity. Access to the Internet is provisioned through access to a Local Area Network (LAN), while a software platform offers users services representative of an office setting. *BlueStack* is used to provide Bluetooth node connectivity, while the graphical user interface (GUI) is coded using *C++*. Performance is evaluated through practical experimentation in typical office conference scenarios.

Bluetooth Piconet Applications

CONTENTS