Faculty of Computer Science
CS6999 Reading Course Presentation

Existing, Proposed and Developing Standards
in
Wireless Computing

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STUDENTS ARE ENCOURAGED TO ATTEND

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Over the years computing has undergone a gradual change from single host to networked computing. With the advent of the Internet global communication is now possible between different types of hosts on different networks. However, this is not the end of the story as a completely new trend has now arrived in the form of mobility. Users don't want to be stationary while communicating but want to be mobile and simultaneously communicate with the outside world; this can only be done with the help of wireless devices. A bunch of issues related to wireless communication and mobility thus arise. In this paper we will be concentrating on these issues. With the advent of mobility and wireless communication the various layers in the Internet protocol stack are significantly affected, as the IP framework was essentially designed for wired and stationary hosts. With the help of wireless computing the users can be constantly on the move and still communicate with the help of the Internet, this is referred to as roaming. Roaming should provide `untethered' communication where the users can roam freely even between different networks and still communicate without any interruptions. Therefore, a framework has to be created to incorporate mobility into the Internet. Issues such as handoffs between different networks and the problems related to the wireless medium have to be considered when designing this framework. Another issue that needs special attention is that of the QoS (Quality of Service) of the communication provided. According to this concept the user is assured certain quality parameters that will be met by the network. Examples of these parameters are delay, bandwidth and jitter. Some examples that might need QoS assurances are real time applications, delay or loss sensitive data.