Abstract

Nowadays, it is the demand of every internet user to stay connected most of the time even if the user is on the move. The core focus of this paper is on internet connectivity with moving vehicles. Wireless internet access on trains is not a standardized technology yet, therefore, it has diverse and vendor specific architecture. The authors have presented the physical architecture of internet access on moving vehicles, specifically trains and the logical architecture to give a clear idea that how the service will work at each layer of TCP/IP protocol stack. In order to observe the data rates offered on board, and experience Wi-Fi internet access onboard, the authors chose Great North Eastern Railway (GNER) route from London Kings Cross station till Peterborough (UK). For the network data rate analysis the authors chose Bandwidth Monitor a freeware used to monitor network and Internet bandwidth. The authors
observed the data rates on GNER Wi-Fi internet on basis of three different scenarios i.e., Basic Browsing, Live Radio(Voice), VOIP services and video streaming Consequently, suggestions for improving quality of experience and market penetrations plans to make this technology successful in terms of generating revenues for the operators are given.

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Index Terms

Computer Science Wireless
Keywords

Wi Fi  Internet access  Trains  broad band  Thin client based architecture