

Understanding ICAM: Integrated Cellular and Ad Hoc Multicast

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Abstract

ICAM(Integrated Cellular and Ad Hoc Multicast) is a method of improving multicast protocol within 3G network via use of WiFi (IEEE 802.11b network). In current 3G multicasting, the transmission rate must be set to that of the slowest receiver's rate in order for all subscribers of the multicast to correctly receive the information. With that in mind, if any of the multicast subscribers has a very slow downlink rate, it will result in the entire network's multicasting transmission rate to be slow. To get around this problem, the authors of ICAM has devised a method of increasing the throughput of the entire network via use of micro WiFi networks within a macro 3G cellular network.

In this paper, a quantitative measurement is made through simulation and is thus compared with that of the published IEEE article, *ICAM: integrated cellular and ad hoc multicast (2006)*.