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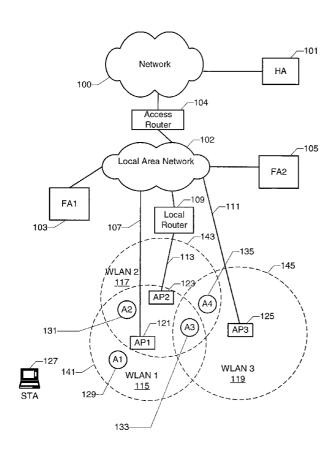
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(54) Title: A METHOD FOR A WIRELESS STATION TO LOCATE AND ASSOCIATE WITH A WIRELESS NETWORK



(57) Abstract: A wireless station having a wireless network device capable of providing a link-layer interface to a wireless network, a method operating at the link layer (L2) in the wireless station, and a carrier medium carrying computer readable code segments that when executed on a processor in the wireless station implement the method. The method includes, prior to the station being associated with a wireless network, wirelessly receiving L2 frames transmitted from one or more wireless access point of one or more wireless networks that the station can hear. The method further includes gathering information about the received L2 frames, including L2 information and L3 information. The L3 information includes whether an AP is sending an IP packet from a mobility agent, such that the station may associate with a wireless network that is in communication with the mobility agent. The method further includes storing information about the wireless networks that the station can hear in a database. The information stored about each wireless network includes one or more of an identifier of the wireless network, the L3 information in the L2 frame received from the AP of the wireless network, a time stamp of when the L2 frame was received from the AP, and an indication of the signal strength of the L2 frame from the

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IPC 7 H04L12/28 H04L29/06 H04L29/08 H0407/30 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 H04L H04Q Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ US 2001/046223 A1 (SOLIMAN HESHAM ET AL) 1 - 14329 November 2001 (2001-11-29) figures 1-4,6,7 page 1, paragraph 3 page 2, paragraph 12 page 3, paragraphs 30,32,33 page 4, paragraphs 37,41 page 5, paragraph 42 page 7, paragraphs 52,53 page 8, paragraphs 56,60 page 9, lines 1-7 -/--X Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but *A* document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international filing date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 5 October 2004 12/10/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

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