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Declarations under Rule 4.17:

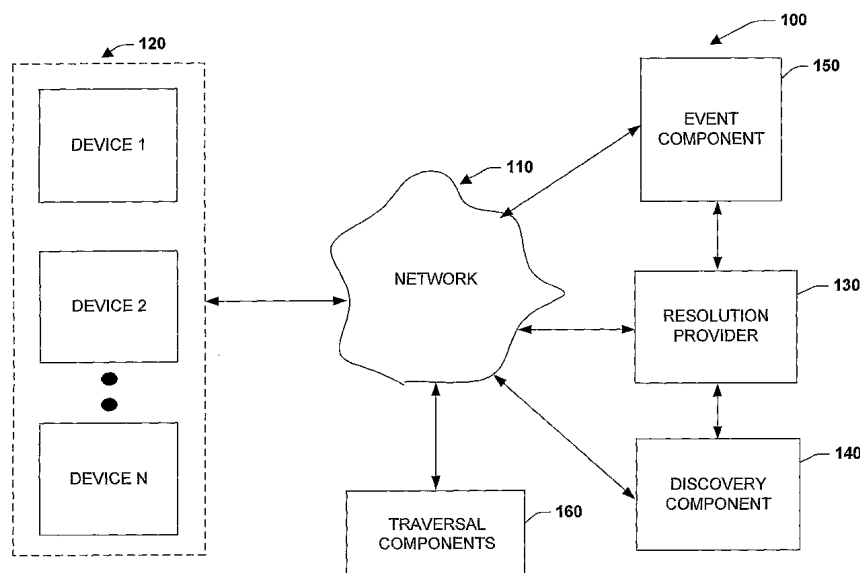
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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(54) Title: TRANS-NETWORK ROAMING AND RESOLUTION WITH WEB SERVICES FOR DEVICES



(57) Abstract: Systems and methods are provided that facilitate automated network address determinations and communications between roaming peers. In one aspect, a network communications system is provided. The system includes methods for updating a resolution provider with a current host transport address and for determining a roaming hosts service address and port information. Other processes include opening and mapping ports through Network Address Translators and Firewalls and opening/mapping ports in conjunction with cascaded Network Address Translators.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2006/015722

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. *G06F 15/16* (2006.01)US Cl. *709/245*

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)

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 practicable, search terms used)

DWPI & keywords: Client, Roam, Address, Discover, Probe, Response, Automatic, Domain, Network Address Translator, Mobile, Allocate and similar terms; ESP@ce keywords: Mobile, IP Address, NAT, Network, Probe, Assign and similar terms; USPTO keywords: Probe, Network, Address, Allocate and similar terms; GetThePatent (www.getthepatent.com) keywords: IP Address, Resolution, Discover, Mobile, Network Address Translator, Probe, Assign, Network and similar terms; www.google.com.au keywords: Probe, IP Address, Allocate, Network and similar terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 367 980 A (TELEFONAKTIEBOLAGET L M ERICSSON) 17 April 2002 Abstract; page 4, lines 3-34; page 9, line 19 – page 14, line 2	1, 4-7, 16
A		2, 3, 8-15
X	US 2001/0044305 A1 (REDDY <i>et al</i>) 22 November 2001 Page 1, paragraph 0016 – page 3, paragraph 0046; page 4, paragraph 0053 – page 5, paragraph 0064	1, 4-6, 16
A		2, 3, 7-15

☒ Further documents are listed in the continuation of Box C
 ☒ See patent family annex

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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INTERNATIONAL SEARCH REPORT		International application No. PCT/US2006/015722
C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2001/031472 A1 (TELCORDIA TECHNOLOGIES, INC. <i>et al</i>) 3 May 2001 Abstract; page 2, line 14 – page 3, line 7; page 10, line 8 – page 12, line 25; page 18, line 17 – page 21, line 10; page 23, line 4 – page 34, line 10	1, 4-7, 10, 16, 17
Y		2, 3, 8, 13, 14, 18
A		9, 11, 12, 15, 19, 20
Y	US 2005/0078705 A1 (ITO) 14 April 2005 Abstract; page 2, paragraphs 0023-0024	8
Y	WO 2003/094366 A2 (QUALCOMM INCORPORATED) 13 November 2003 Abstract; page 3, paragraph 0010 – page 4, paragraph 0015; page 7, paragraph 0029; page 8, paragraph 0034 – page 10, paragraph 0039;	2, 3, 18
Y	J. ROSENBERG ET AL: "Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)", RFC 3489, March 2003 Abstract; pages 3-4, paragraph 2; page 5, paragraph 5 – page 8, paragraph 6; page 19, paragraph 10.1 – page 21, paragraph 10.1	3
Y	WO 2002/077842 A1 (MOTOROLA, INC.) 3 October 2002 Page 4, line 16 – page 10, line 30	2, 3, 13, 14, 18
A	GB 2 400 269 A (KING'S COLLEGE LONDON) 6 October 2004 See the whole document	1-20
A	WO 2003/069872 A1 (NOKIA CORPORATION <i>et al</i>) 21 August 2003 See the whole document	17-20
A	US 2001/0047407 A1 (MOORE <i>et al</i>) 29 November 2001 Abstract; page 7, paragraph 0096 – page 9, paragraph 0115; page 15, paragraphs 0281-0288	1-20
A	WO 2000/056034 A1 (3COM CORPORATION) 21 September 2000 See the whole document	1-20
A	WO 2000/054475 A1 (TELEFONAKTIEBOLAGET LM ERICSSON) 14 September 2000 See the whole document	1-20
A	WO 2000/044148 A1 (3COM CORPORATION) 27 July 2000 See the whole document	1-20

INTERNATIONAL SEARCH REPORT		International application No. PCT/US2006/015722
C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 745 699 A (LYNN <i>et al</i>) 28 April 1998 See the whole document</p> <p>Note: For the Y indications, either WO 2003/094366 and WO 2002/077842 can be combined with WO 2001/031472 in reference to claims 2 and 18, whilst for the remaining claims 3, 8, 13 and 14 the relevant citations as indicated above are to be combined with WO 2001/031472</p>	17-20