

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 January 2002 (17.01.2002)

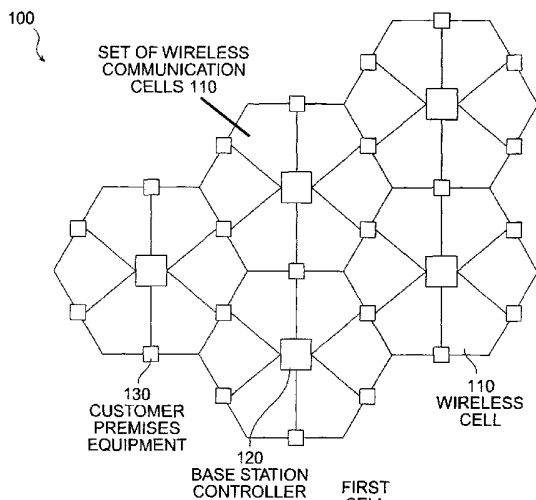
PCT

(10) International Publication Number
WO 02/005493 A3

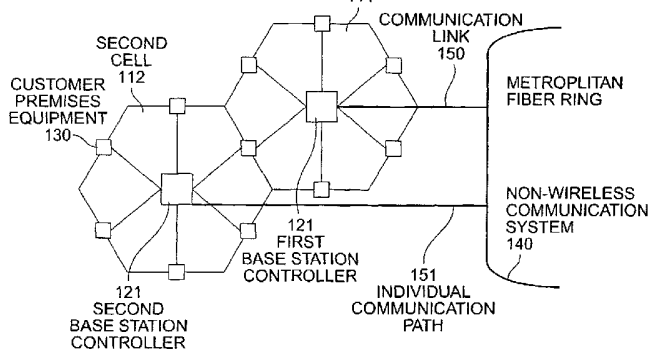
- (51) International Patent Classification⁷: H04L 12/28, 29/06, H04Q 7/20, 7/30, H04L 12/56
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- (21) International Application Number: PCT/US01/20427
- (22) International Filing Date: 26 June 2001 (26.06.2001)
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 09/604,784 26 June 2000 (26.06.2000) US
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
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[Continued on next page]

(54) Title: HIGH-CAPACITY INTEGRATED WIRELESS BACKHAUL FOR BROADBAND ACCESS NETWORKS



(57) Abstract: The invention provides a method and system for adaptive point-to-point communication between a wireless communication system and a non-wireless backhaul communication system. The wireless physical layer and the wireless media-access-control (MAC) layer collectively include a set of parameters, which are adaptively modified by base station controllers in multiple cells of the wireless communication system for intercommunication among those multiple cells. The IP layer and QoS (quality of service) parameters for communication between a selected base station controller and the non-wireless backhaul communication system. Wireless communication among multiple cells includes adaptive modification of parameters for the physical layer and MAC layer, so as to optimize intercell communication without excessive interference with intracell communication.



WO 02/005493 A3



Declarations under Rule 4.17:

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

Published:

- *with international search report*

(88) Date of publication of the international search report:

9 January 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No

PC, US 01/20427

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L12/28 H04L29/06 H04Q7/20 H04Q7/30 H04L12/56

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 H04B

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, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 009 182 A (NIPPON ELECTRIC CO) 14 June 2000 (2000-06-14) abstract column 1, line 5 -column 1, line 12 column 2, line 5 -column 5, line 30 claims 2,4,5,10,12-14 ---	1-15
X	MOULY M ET AL: "RADIO RESOURCE MANAGEMENT" 1993, GSM SYSTEM FOR MOBILE COMMUNICATIONS, LASSAY-LES-CHATEAUX, EUROPE MEDIA, FR, PAGE(S) 308-430 XP000860006 page 327 -page 333 --- -/--	1-15

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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P document published prior to the international filing date but later than the priority date claimed

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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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Date of the actual completion of the international search

15 July 2002

Date of mailing of the international search report

29/07/2002

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INTERNATIONAL SEARCH REPORT

International Application No

PCI/US 01/20427

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>BAKSHI B S ET AL: "Improving performance of TCP over wireless networks" DISTRIBUTED COMPUTING SYSTEMS, 1997., PROCEEDINGS OF THE 17TH INTERNATIONAL CONFERENCE ON BALTIMORE, MD, USA 27-30 MAY 1997, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 27 May 1997 (1997-05-27), pages 365-373, XP010229371 ISBN: 0-8186-7813-5 abstract page 365, right-hand column, line 10 -page 365, right-hand column, line 40 page 368, left-hand column, line 17 -page 368, left-hand column, line 40 page 369, right-hand column, line 8 -page 370, left-hand column, line 24</p>	1-3
E	<p>WO 01 50633 A (APERTO NETWORKS INC) 12 July 2001 (2001-07-12) claim 1</p>	1,6,11
E	<p>WO 01 50669 A (APERTO NETWORKS INC) 12 July 2001 (2001-07-12) claim 1</p>	1,6,11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/20427

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