PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶:

H04L 12/28

A3

(11) International Publication Number: WO 99/07112

(43) International Publication Date: 11 February 1999 (11.02.99)

(21) International Application Number:

PCT/IB98/01050

(22) International Filing Date:

9 July 1998 (09.07.98)

(30) Priority Data:

9715857.0

29 July 1997 (29.07.97)

GB J

(71) Applicant: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoodseweg 1, NL-5621 BA Eindhoven

[NL/NL]; Groenewoodseweg 1, NL-5621 BA Eindhoven (NL).

(71) Applicant (for SE only): PHILIPS AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE).

(72) Inventor: GRAYSON, Paul, David; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: WHITE, Andrew, G.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).

(81) Designated States: CN, JP, KR, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

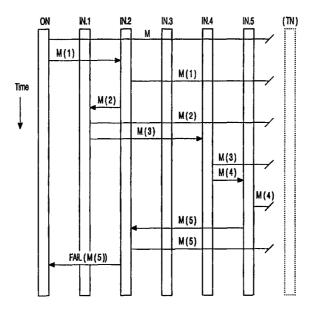
With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

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

20 May 1999 (20.05.99)

(54) Title: WIRELESS NETWORKED MESSAGE ROUTING



(57) Abstract

A wireless communication system includes a number of devices to be clustered for the exchange of data and control message packets. Each node (ON, IN1 to IN5) has a unique address within the cluster and is arranged to accept only messages transmitted to it. A dynamic re-routing technique is provided whereby a message packet (M) not received by its target node is detected and re-routed via one or a succession of other nodes of the cluster until either transmission is successful or a predetermined number of failed attempts has been made. The system provides distributed control and intelligence with intermediate nodes for re-routing being selected randomly and current count values for unsuccessful transmission attempts being included within the transmitted packet.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DΚ	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 98/01050

A. CLASSI	IFICATION OF SUBJECT MATTER	W					
According to	04L 12/28 International Patent Classification (IPC) or to both nat	ional classification and IPC					
	S SEARCHED cumentation searched (classification system followed by	elessification symbols					
	,	onasineación symionsy					
	04L, H04B						
Documentation	on searched other than minimum documentation to the	extent that such documents are included in	the fields searched				
SE,DK,F	I,NO classes as above						
Electronic dat	Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)						
EDOC, W	PIL, JAPIO, INSPEC						
C. DOCUN	MENTS CONSIDERED TO BE RELEVANT						
Category*	Citation of document, with indication, where app	ropriate, of the relevant passages	Relevant to claim No.				
Х	EP 0695058 A2 (INTERNATIONAL BUS CORPORATION), 31 January 199 line 18 - page 4, line 24, abstract	6 (31.01.96), page 3,	1-6				
		JADAN LIMITED ET	1.6				
A	EP 0634853 A2 (VICTOR COMPANY OF JAPAN, LIMITED ET AL), 18 January 1995 (18.01.95), column 1, line 1 - column 2, line 56, claims 1-6, abstract						
Furthe	er documents are listed in the continuation of Box	C. X See patent family annex	x.				
* Special categories of cited documents: "I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand							
to be of particular relevance							
"E" erlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other "Step when the document is taken alone"							
special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other "O" document referring to an oral disclosure, use, exhibition or other							
means "P" document published prior to the international filing date but later than							
the prior	the priority date claimed "&" document member of the same patent family						
Date of the	e actual completion of the international search	Date of mailing of the international	search report				
26 Marc	ch 1999	26 -	0 3- 1999				
Name and	mailing address of the ISA/	Authorized officer	·				
i i	Patent Office S-102 42 STOCKHOLM	Patrik Rydman					
1	No. + 46 8 666 02 86	Telephone No. + 46 8 782 25 00					

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

02/03/99 | PCT/IB 98/01050

Patent document cited in search report			Publication Patent family date member(s)			Publication date	
EP	0695058	A2	31/01/96	CA JP US	2129193 A 8065305 A 5594731 A	30/01/96 08/03/96 14/01/97	
EP	0634853	A2	18/01/95	JP US	7074759 A 5640390 A	17/03/95 17/06/97	