### **PCT**

# WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



#### INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup>:

H04L 9/00

(11) International Publication Number:

WO 97/41661

(43) International Publication Date:

6 November 1997 (06.11.97)

(21) International Application Number:

PCT/US97/06161

A3

(22) International Filing Date:

16 April 1997 (16.04.97)

(30) Priority Data:

08/639,457

29 April 1996 (29.04.96)

US

(71) Applicant: MOTOROLA INC. [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).

(72) Inventor: DORENBOS, David; 241 N. Larch, Elmhurst, IL 60126 (US).

(74) Agents: LUKASIK, Susan, L. et al.; Motorola Inc., Intellectual Property Dept., 1303 East Algonquin Road, Schaumburg, IL 60196 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

#### 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.

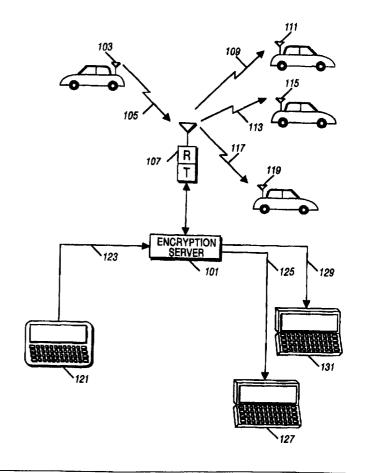
(88) Date of publication of the international search report:

11 December 1997 (11.12.97)

#### (54) Title: USE OF AN ENCRYPTION SERVER FOR ENCRYPTING MESSAGES

#### (57) Abstract

An encryption server receives a first encrypted message (105) and decrypts (403) the encrypted message using a first key, yielding a decrypted message comprising a second encrypted message (105A), an identification of a sender of the first encrypted message, and an identification of a first recipient. The second encrypted message, the identification of the sender, and the identification of the first recipient are determined (405) from the decrypted message. The second encrypted message and the identification of the sender are encrypted (409) with a second key, yielding a third encrypted message (109). The third encrypted message (109) is transmitted to the first recipient.



## 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.

			o <i>i</i>	• 0			gt
AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
ΑU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
ΑZ	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	JР	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugosłavia
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		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

#### INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/06161

A. CLASSIFICATION OF SUBJECT MATTER									
IPC(6) :H04L 9/00									
US CL :380/49, 25 According to International Patent Classification (IBC) on to both national alassification and IBC									
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)									
1		d by classification symbols)							
U.S. :	U.S. : 380/49, 25								
Dogumentet	ion completed at the state of t								
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)									
	lata base consulted during the international search (na	ime of data base and, where practicab	e, search terms used)						
APS	erms: server, append, identification, id								
Scarcii (c	sins. Server, append, identification, id								
C. DOC	UMENTS CONSIDERED TO BE RELEVANT								
Category*	Citation of document, with indication, where a	opposite of the relevant passage	Relevant to claim No.						
Category	Charlot of document, with indication, where a	opropriate, of the relevant passages	Relevant to claim No.						
Α	US 5,479,514 A (KLONOWSK	(I) 26 December 1995	1-10						
	(26/12/95), see abstract and colu								
	(10) (12) 000 (10) (10) (10) (10) (10) (10) (10)	2, m.o. 1 22.							
A, P	US 5,574,785 A (UENO ET A	11) 12 November 1996	1-10						
, .	(12/11/96), see figure 1.	12, 12 11010111001 1000							
	(12) 11/00/, 300 figure 1.								
Α	US 5,455,865 A (PERLMAN) 03 (	October 1995 (03/10/95)	1-10						
	see figure 1 and figure 4a.	1-10							
	see figure i and figure 4a.								
Furth	ner documents are listed in the continuation of Box C	See patent family annex.							
* Spe	ecial categories of cited documents:	"T" later document published after the i							
"A" do	cument defining the general state of the art which is not considered be of particular relevance	date and not in conflict with the app principle or theory underlying the i							
	rier document published on or after the international filing date	"X" document of particular relevance;	the claimed invention cannot be						
"L" doo	cument which may throw doubts on priority claim(s) or which is	considered novel or cannot be consi when the document is taken alone	dered to involve an inventive step						
cite	ed to establish the publication date of another citation or other scial reason (as specified)	"Y" document of particular relevance;	the claimed invention cannot be						
_	cument referring to an oral disclosure, use, exhibition or other	commidered to involve an inventi combined with one or more other s	e step when the document is						
mo	mouns  being obvious to a person skilled in the art								
	cument published prior to the international filing date but later than priority date claimed	"&" document member of the same pate	nt family						
Date of the actual completion of the international search  Date of mailing of the international search report									
JU ULIVE	NDED 1007	<b>240CT</b> 1997							
29 SEPTE	MBER 1997	<b>27</b>							
Name and mailing address of the ISA/US  Authorized officer									
Commissio Box PCT	ner of Patents and Trademarks	In wall got relief							
Washington	n, D.C. 20231	CARMEN D. WHITE							
Facsimile N	o. (703) 305-3230	Telephone No. (703) 306-4177							