



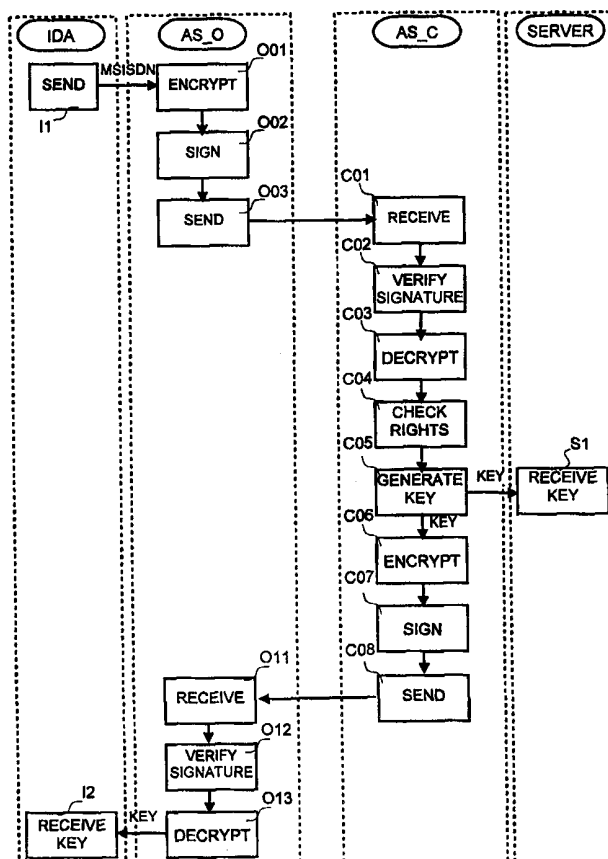
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<p>(21) International Application Number: PCT/FI98/00928 (22) International Filing Date: 26 November 1998 (26.11.98) (30) Priority Data: 974341 26 November 1997 (26.11.97) FI (71) Applicant (for all designated States except US): NOKIA TELECOMMUNICATIONS OY [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI). (72) Inventor; and (75) Inventor/Applicant (for US only): LEIWO, Jussipekka [FI/FI]; Hanuripolku 6 C 50, FIN-00420 Helsinki (FI). (74) Agent: PATENT AGENCY COMPATENT LTD.; P.O. Box 156, FIN-00511 Helsinki (FI).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, 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, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> With international search report.</p> <p>(88) Date of publication of the international search report: 12 August 1999 (12.08.99)</p>	

(54) Title: SECURITY OF DATA CONNECTIONS

(57) Abstract

The invention concerns the security of the data connections of a telephone user. The basic idea of the invention is to forward the authentication of a telephone system to the leg between two private data networks connected via an arbitrating network. When establishing the connection, the private network connected to the telephone system forwards the authenticated subscriber identity to the other private network. To provide the identity forwarded with authenticity, the message containing the identity is signed. To provide encryption of the subscriber identity, the message is encrypted using a public key method. In response the second private network generates a session key to be used in the connection. This key is signed and encrypted using a public key method and sent to the first private network. During the connection, a symmetrical encryption method with the session key is used.



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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 98/00928

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04L 9/32, H04L 9/30

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)

IPC6: H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2287160 A (FUJITSU LIMITED), 6 Sept 1995 (06.09.95), page 18, line 5 - page 21, line 6 --	1-27
A	WO 9605675 A1 (BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY), 22 February 1996 (22.02.96), claims 1,2,8, abstract --	1-27
A	WO 9724831 A1 (MCI COMMUNICATIONS CORPORATION), 10 July 1997 (10.07.97), abstract --	1-27
A	US 5386468 A (RYOTA AKIYAMA ET AL), 31 January 1995 (31.01.95), column 2, line 1 - line 29, abstract --	1-27



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Date of the actual completion of the international search

27 May 1999

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International application No.

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