PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : H04N 5/00, 7/26 — A1

(11) International Publication Number: **WO 00/67469**

(43) International Publication Date: 9 November 2000 (09.11.00)

(21) International Application Number: PCT/FI00/00363

(22) International Filing Date: 26 April 2000 (26.04.00)

(30) Priority Data:
990970 29 April 1999 (29.04.99) FI

(71) Applicant: NOKIA MOBILE PHONES LTD. [FI/FI]; Keilalahdentie 4, FIN–02150 Espoo (FI).

(72) Inventor: HANNUKSELA, Miska; Kukkaniitynkatu 4 B, FIN–33710 Tampere (FI).

(74) Agent: WALKER, Andrew; Nokia Corporation, P.O. Box 319, FIN–00045 Nokia Group (FI).

(81) Designated States: AE, AG, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), DM, DZ, EE, EE (Utility model), ES, FI, FI (Utility model), 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, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, 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.

(54) Title: DATA TRANSMISSION

(57) Abstract

A data transmission system (10) is provided for transmitting a data signal between a server (12, 14, 16, 18) and a communications terminal (20, 22) over a transmission link having a variable bandwidth. The data signal is a scalable compressed multimedia clip comprising a sequence of images. Each image has a base layer and a number of enhancement layers. To cope with variability in the bandwidth, the sequence is re-ordered so that the base layers have greater safety times than the enhancement layers. This allows all of the base layers to arrive in time to be played at the expense of the enhancement layers.

