

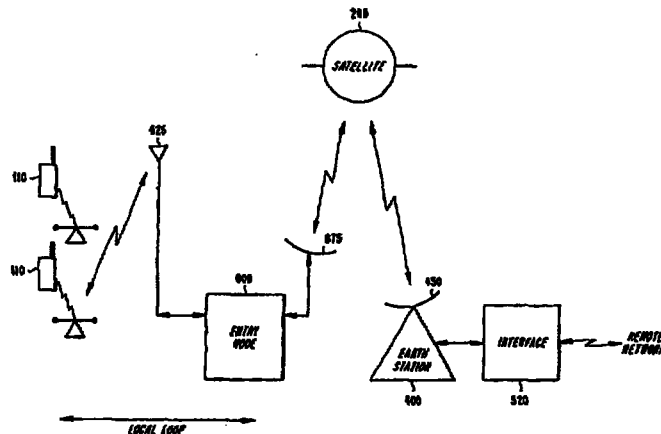


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(21) International Application Number: PCT/US97/08340 (22) International Filing Date: 25 April 1997 (25.04.97) (30) Priority Data: 08/647,188 9 May 1996 (09.05.96) US (71) Applicant: ERICSSON INC. [US/US]; 7001 Development Drive, Research Triangle Park, NC 27709 (US). (72) Inventors: CHENNAKESHU, Sandeep; 204-H Hyde Park Court, Cary, NC 27513 (US). RYDBECK, Nils; 207 Queensferry Road, Cary, NC 27511 (US). HASSAN, Amer; 412 Key West Mews, Cary, NC 27709 (US). REINHOLD, Stanley, Jr.; 1119 Tranglewood Drive, Cary, NC 27511 (US). IRVIN, David, R.; 3101 Churchill Road, Raleigh, NC 27607 (US). (74) Agents: GRUDZIECKI, Ronald, L. et al.; Burns, Doane, Swecker & Mathis, L.L.P., P.O. Box 1404, Alexandria, VA 22313-1404 (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, 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, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 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 <i>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.</i>

(54) Title: **SATELLITE COMMUNICATION SYSTEM FOR LOCAL-AREA COVERAGE**

(57) Abstract

A communication system provides efficient satellite communication in rural, remote, or sparsely populated areas, or in areas lacking a conventional telephone infrastructure, or in special purpose uses such as airport coverage. Subscribers in such areas communicate with the satellite via a simple, highly modular entry node located in a local area to be served. Subscriber units provide subscribers with access to the system. The subscriber units are connected to the entry node via local access loops provided by point-to-point wireless links between the subscriber units and the entry node. The entry node internally switches local traffic among subscribers and connects traffic to outside circuits, via wireless links with the satellite, as appropriate. The outside circuits are provided by the cooperative working of the satellite, an entry-node controller, and an earth station. The wireless links between the satellite and the entry node and the local access loops may operate at the same or different frequencies. If they operate at different frequencies, a frequency translator in the entry-node controller matches the different frequencies. A subscriber unit may be used to provide the subscribers with access to the system such that speech compression and decompression takes place in the subscriber unit itself to avoid the effects of tandem coder/decoders.