



- (51) **International Patent Classification:**
H04B 7/155 (2006.01)
- (21) **International Application Number:**
PCT/IL2013/050133
- (22) **International Filing Date:**
12 February 2013 (12.02.2013)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
218046 12 February 2012 (12.02.2012) US
- (71) **Applicant:** ELTA SYSTEMS LTD [IL/IL]; 100 Yitzchak Hanassi Blvd. P.O.B. 330, 77102 Ashdod (IL).
- (72) **Inventors:** SCHWARTZ, Adi; 26 Kdoshey Kahir Street, 58362 Holon (IL). SHOSHAN, Yaakov; 17A Habustan Street, 78501 Ashkelon (IL).
- (74) **Agent:** REINHOLD COHN AND PARTNERS; P.O.Box 13239, 6113102 Tel Aviv (IL).
- (81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,

BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

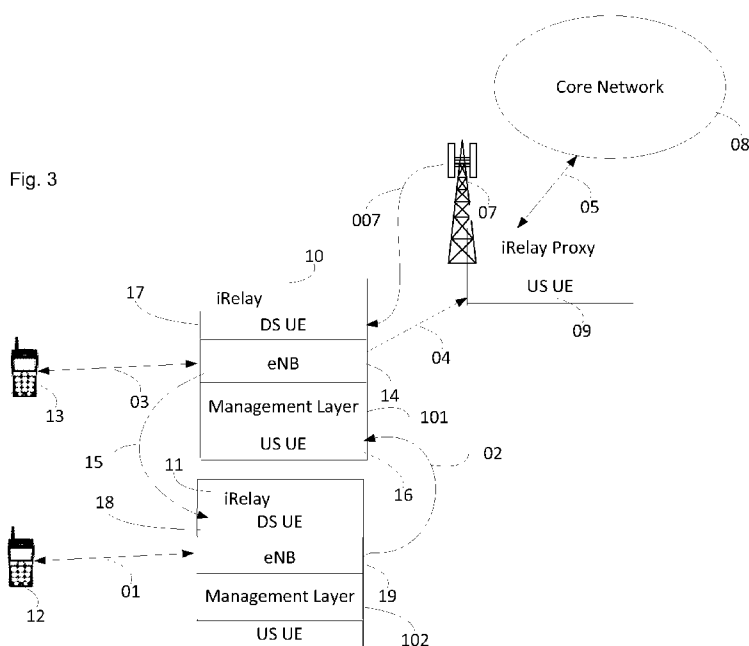
Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*

(54) **Title:** A MULTI-DIRECTIONAL RELAY ARCHITECTURE AND APPARATUS AND METHODS OF OPERATION USEFUL IN CONJUNCTION THEREWITH



(57) **Abstract:** A cellular communication system serving at least one mobile communication device, the system including at least one backhauling link provided between a mobile station functionality; and a base station functionality residing in a level below the mobile station functionality.