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(21) International Application Number: PCT/GB97/02160 (22) International Filing Date: 12 August 1997 (12.08.97) (30) Priority Data: 9617907.2 28 August 1996 (28.08.96) GB (71) Applicant (for all designated States except US): BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY [GB/GB]; 81 Newgate Street, London EC1A 7AJ (GB). (72) Inventor; and (75) Inventor/Applicant (for US only): COTTER, David [GB/GB]; 23 Moorfield Road, Woodbridge, Suffolk IP12 4JN (GB). (74) Agent: WELLS, David; BT Group Legal Services, Intellectual Property Dept., Holborn Centre, 8th floor, 120 Holborn, London EC1A 7AJ (GB).		(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, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), 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>Without international search report and to be republished upon receipt of that report.</i>
(54) Title: COMMUNICATIONS NETWORK (57) Abstract A communications network, suitable, for example, for linking computer processors, is formed from a number of nodes and links. The nodes and links are configured as a multiplicity of directed trails. Each directed trail spans some only of the nodes, but in combination the directed trails span every node of the network. Packets are routed through the network by selecting the appropriate one of the directed trails which links the source node and destination node, and by outputting the packet at the source node onto the selected trail. The nodes throughout the network may switch between predetermined and prescheduled switching states, and a given trail may be selected by choosing appropriately the time slot in which the packet is put onto the network. The network may be a photonic network carrying optical packets. 		