



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04Q 3/66, H04L 12/56	A1	(11) International Publication Number: WO 97/06644 (43) International Publication Date: 20 February 1997 (20.02.97)
(21) International Application Number: PCT/GB96/01913 (22) International Filing Date: 6 August 1996 (06.08.96) (30) Priority Data: 95305493.9 7 August 1995 (07.08.95) EP (34) Countries for which the regional or international application was filed: GB et al. (71) Applicant (for all designated States except US): BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY [GB/GB]; 81 Newgate Street, London EC1A 7AJ (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): BROWN, Graeme, Nicholas [GB/GB]; 41 Bernard Crescent, Ipswich, Suffolk IP3 9LJ (GB). CHNG, Raymond, Soo, Khiaw [GB/GB]; 175 Telok Ayer Street, Singapore 0106 (SG). (74) Agent: SEMOS, Robert, Ernest, Vickers; BT Group Legal Services, Intellectual Property Dept., 8th floor, 120 Holborn, London EC1N 2TE (GB).		(81) Designated States: AL, AM, AT, AU, AZ, 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, 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, US, UZ, VN, ARIPO patent (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 With international search report.

(54) Title: ROUTE FINDING IN COMMUNICATIONS NETWORKS

(57) Abstract

A method of determining a restoration route (or an additional route) in a fully or partially meshed communications network of nodes, in which the step of sending a route-finder signature from a node to a neighbouring node on one of a plurality of spare links of a span to the neighbouring node comprises the prior substeps of: determining whether the node has a higher or a lower ranking network node identity than that of the neighbouring node; and if it is higher ranking, sending the route-finder signature on the spare link corresponding to the lowest ranking of the node ports associated with said span; or if it is lower ranking, sending the route-finder signature on the spare link corresponding to the highest ranking of the node ports associated with said span. Any contention which occurs because the two nodes connected to a span make provisional allocation for one or more links simultaneously to different restoration routes is dealt with by a contention protocol in which the higher ranking of the two nodes knows that its provisional allocation will be confirmed, and the lower ranking of the two nodes knows that it must send a backtrack signature for the capacity that is not available.

