

Title (en)

A LOOKUP DEVICE AND A METHOD FOR CLASSIFICATION AND FORWARDING OF PACKETS IN PACKET-SWITCHED NETWORKS

Title (de)

NACHSCHLAGEVORRICHTUNG UND VERFAHREN ZUR KLASSIFIKATION UND WEITERSENDUNG VON PAKETEN IN EINEM PAKETVERMITTLUNGSNETZ

Title (fr)

DISPOSITIF DE CONSULTATION ET PROCEDE DE CLASSEMENT ET D'ACHEMINEMENT DE PAQUETS DANS DES RESEAUX A COMMUTATION DE PAQUETS

Publication

EP 1020053 A2 20000719 (EN)

Application

EP 98944371 A 19980907

Priority

- SE 9801585 W 19980907
- SE 9703293 A 19970909

Abstract (en)

[origin: WO9913620A2] The present invention relates to a lookup device and a method for classification and forwarding of packets in packet-switched networks, wherein each packet comprises a packet header comprising a number of fields, wherein several fields in the packet header together form a packet identifier. The lookup device (30) comprises n parallel hashing units (321, 322, ... 32n), wherein n is an integer and $n \geq 2$, for computing, for each packet, a first index by hashing the packet identifier, and in dependence of the first index either directly or indirectly obtaining a packet identifier and forwarding information for the destination for said packet from one of at least n memories. The n hashing units (321, 322, ... 32n) are processing the same packet identifier at a time. The lookup device (30) also comprises a comparator (42) connected either directly or indirectly to at least one of said memories and to an input to said n hashing units (321, 322, ... 32n) for comparing the packet identifier input to the n hashing (321, 322, ... 32n) and the packet identifier output from said memory. When the compared packet identifiers match, the forwarding information for the packet is obtained from said memory.

IPC 1-7

H04L 12/56

IPC 8 full level

H04L 45/74 (2022.01); **H04L 49/111** (2022.01); **H04Q 11/04** (2006.01)

CPC (source: EP)

H04L 45/745 (2013.01); **H04L 49/256** (2013.01); **H04L 49/309** (2013.01); **H04Q 11/0478** (2013.01); **H04L 45/7452** (2022.05); **H04L 49/205** (2013.01); **H04L 49/351** (2013.01)

Citation (search report)

See references of WO 9913620A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9913620 A2 19990318; **WO 9913620 A3 19990603**; AU 9192698 A 19990329; CA 2303261 A1 19990318; EP 1020053 A2 20000719; SE 511971 C2 20000110; SE 9703293 D0 19970909; SE 9703293 L 19990310

DOCDB simple family (application)

SE 9801585 W 19980907; AU 9192698 A 19980907; CA 2303261 A 19980907; EP 98944371 A 19980907; SE 9703293 A 19970909