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(54) Title: SUCCINCT REPRESENTATION OF STATIC PACKET CLASSIFIERS

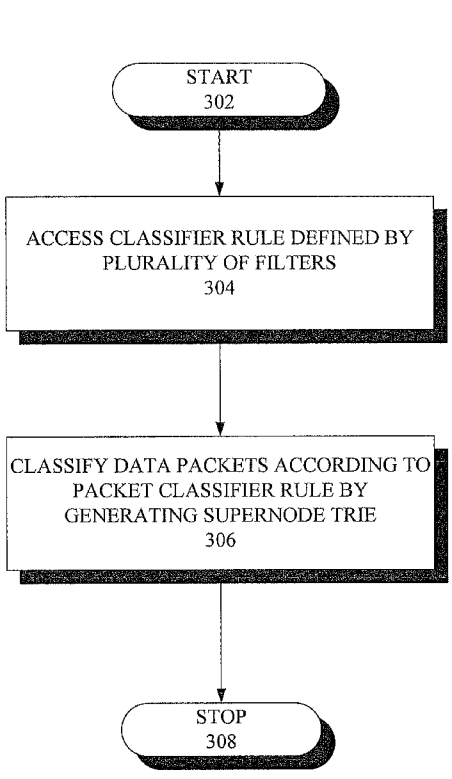


FIG. 30

(57) Abstract: A computer-implemented method of classifying packets of data transmitted over a data communications network includes providing a memory-storable packet classifier rule defined by a plurality of filters, each filter uniquely corresponding to a one of a plurality of actions to be taken in transmitting the data packets over the data communications network; and classifying a data packet according to the packet classifier rule by generating at least one supernode trie subject to a predetermined constraint for reducing accesses to a memory in which the packet classifier rule is stored. A system including a combination of hardware and software modules is provided for carrying out the method. A computer-readable storage medium is also provided for storing a computer program for carrying out the method.

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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WENCHENG LU, SARTAJ SAHNI: "Succinct Representation Of Static Packet Classifiers" DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE AND ENGINEERING, 19 July 2006 (2006-07-19), pages 1-37, XP002466440 Gainesville, Florida abstract sections 1, 2.1, 7.3, 7.4 -----	1-12
X	ROHAN JUDE FERNANDES: "Succinct balanced binary tree and packed memory structure" CS 514 PROJECT, 2003, pages 1-8, XP002466441 section 1, 9 ----- -/--	1,5,9

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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Name and mailing address of the ISA/	Authorized officer
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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