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(71) Applicant (for all designated States except US):
CASPIAN NETWORKS, INC. [US/US]; 170 Baytech Drive, San Jose, California 95134 (US).

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(72) Inventor; and
(75) Inventor/Applicant (for US only): NATCHU, Vishnu [IN/US]; 2831 Malabar Avenue #1, Santa Clara, California 95051 (US).

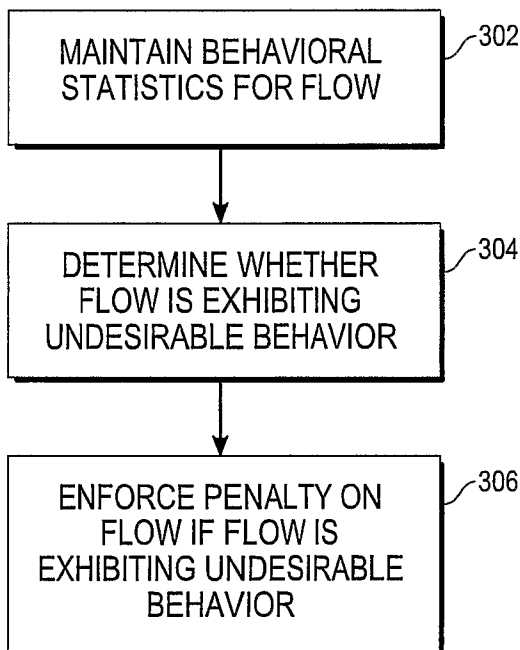
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(74) Agent: MATTSON, Geoff; Sable Networks, Inc, 3171 Jay Street, Santa Clara, CA 95054 (US).

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(57) Abstract: A mechanism for identifying and penalizing misbehaving flows comprising the steps of: maintaining a set of behavioral statistics for each flow (302), updating the behavioral statistics as information packets belonging to a flow are processed, determining whether a flow is exhibiting undesirable behavior based upon these behavioral statistics (304), enforcing penalty on the flow if the flow is exhibiting undesirable behavior (306), wherein this penalty causes packets belonging to the flow to have a higher probability of being dropped than packets belonging to other flows that do not exhibit undesirable behavior, and wherein this penalty also has the effect of correcting the flow's behavior such that the flow exhibits less undesirable behavior after the penalty than before.

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: **H04J 3/14(2006.01);H04L 12/26(2006.01),12/54(2006.01);G06F 15/16(2006.01)**

USPC: 370/230,235,236,244,252,428;709/232,238

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 370/230, 231, 235, 236, 237, 241, 242, 244, 249, 252, 253, 389, 401, 428; 709/232, 234, 235, 238, 242

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE


Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,310,881 B1 (ZIKAN et al) 30 October 2001, abstract, column 2, line 33 to column 3, line 33, column 4, lines 14-25, column 5, lines 8-53, column 9, line 17 to column 10, line 8.	1-40
X. E	US 7,020,147 B1 (AMADON et al) 28 March 2006, abstract, column 2, line 45 to column 3, line 45, column 5, lines 21-34, column 6, lines 10-62, column 10, line 21 to column 11, line 11.	1-40
A	US 5,748,901 A (AFEK et al) 05 May 1998, see entire document.	1-40
A	US 5,991,268 A (AWDEH et al) 23 November 1999, see entire document.	1-40
A	US 6,018,518 A (SMALLWOOD et al) 25 January 2000, see entire document.	1-40
A	PUB NO. US 2003/0039212 A1 (LLOYD et al) 27 February 2003, see entire document.	1-40

Further documents are listed in the continuation of Box C. See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PUB NO. US 2003/0046426 A1 (NGUYEN) 06 March 2003, see entire document.	1-40

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST - search terms: (packets or cells), flow, statistics, updat\$3, (penalty or penaliz\$5), (congestion or bottleneck\$3). (undesir\$4 or unexpect\$4)