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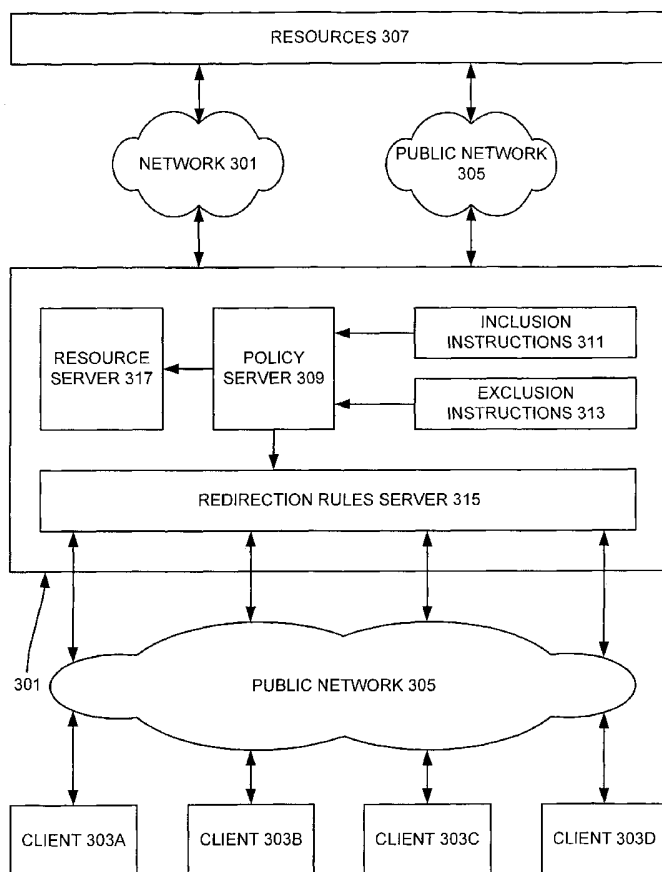
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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,

[Continued on next page]

(54) Title: RULE-BASED ROUTING TO RESOURCES THROUGH A NETWORK



(57) Abstract: Techniques for determining which resource access requests are handled locally at a remote computer, and which resource access requests are routed or "redirected" through a virtual private network. One or more routing or "redirection" rules are downloaded from a redirection rule server (315) to a remote computer (303). When the node of the virtual private network running on the remote computer receives a resource access request, it compares the identified resource with the rules. Based upon how the identified resource (307) matches one or more rules, the node will determine whether the resource access request is redirected through the virtual private network (301) or handled locally (305) (e.g., retrieved locally from another network). A single set of redirection rules can be distributed to and employed by a variety of different virtual private network communication techniques.



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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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2005/037292

A. CLASSIFICATION OF SUBJECT MATTER

INV. H04L29/08

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, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/57866 A (AURIC WEB SYSTEMS) 11 November 1999 (1999-11-11) page 1, line 34 - page 2, line 2 page 3, line 4 - line 6 page 4, line 33 - page 8, line 3	1-17
Y	figure 2	18
X	SHERLY CANTER: "Kill Internet Ads with HOSTS and PAC Files"[Online] 30 March 2004 (2004-03-30), XP002364427 Retrieved from the Internet: URL:http://web.archive.org/web/20040426140 542/http://www.windowsdevcenter.com/pub/a/ windows/2004/03/30/hosts.html>. [retrieved on 2006-01-24]	1-14
Y	the whole document	18
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"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

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search

26 January 2006

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2005/037292

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 701 437 B1 (HOKE MARK R ET AL) 2 March 2004 (2004-03-02) column 2, line 56 - column 4, line 12 column 7, line 7 - line 26 column 8, line 36 - line 50 column 10, line 43 - column 11, line 19 figure 1 -----	1-17
A	US 2003/229613 A1 (ZARGHAM SHAWN ET AL) 11 December 2003 (2003-12-11) paragraph [0017] - paragraph [0018] paragraph [0040] paragraph [0065] -----	1-18
A	WO 02/099571 A (FUJITSU NETWORK COMMUNICATIONS INC) 12 December 2002 (2002-12-12) page 1, line 5 - last line page 8, line 15 - line 32 page 10, line 19 - line 22 -----	1-18

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/037292

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-18

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-18

The first group of claims (claims 1-21) is directed to creating redirection rules for routing resource access requests from a computer to a network. This is done by creating inclusion and exclusion redirection rules for existing resources in the network.

2. claims: 19-21

The second group of claims (claims 19-21) is directed to routing resource access requests to a network, This is done by establishing VPN connections from two clients to the network, whereby each client uses a different connection method; creating a redirection rule list with inclusion redirection rules and providing said rule list to each client.

3. claims: 22-25

The third group of claims (claims 22-25) is directed to routing resource access requests based upon a resource name. This is done by extracting a name for a resource from a name service reply; if the resource name matches a redirection rule, then deriving routing information from said name service reply and mapping the resource name against said derived routing information in a look aside table.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2005/037292

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9957866	A	11-11-1999	CA 2330857 A1	11-11-1999
			EP 1076975 A1	21-02-2001
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			JP 2002514802 T	21-05-2002
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			WO 03055235 A2	03-07-2003

WO 02099571	A	12-12-2002	NONE	
