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[Continued on next page]

(54) Title: DEVICES AND METHODS FOR AUTOMATIC RESET OF MONITORED NETWORK NETWORK EQUIPMENT

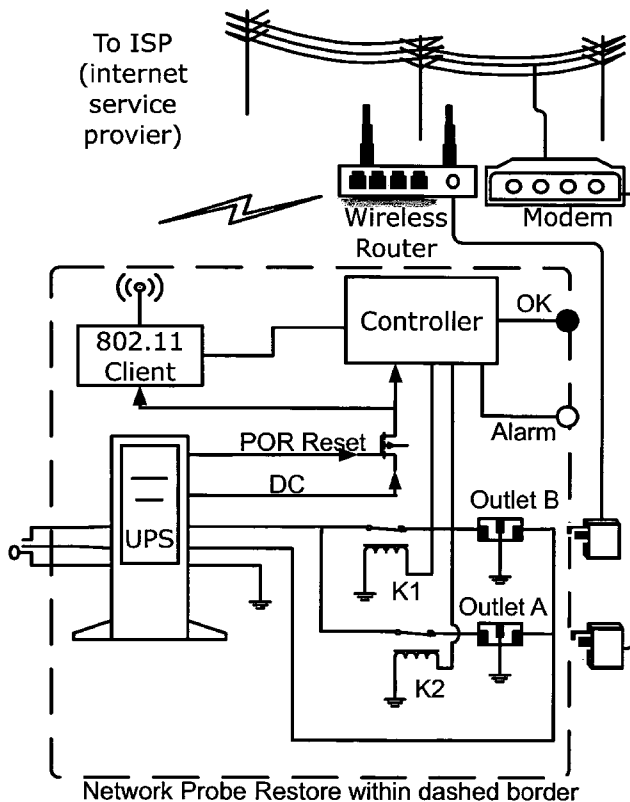


Figure 4A Network Probe Restore Functional Block Diagram

FIG. 4A

(57) Abstract: An embodiment of the invention is a client on a local area network that periodically and automatically evaluates its physical connectivity with the local area network, exercises local-network services such as DHCP, and verifies Internet connectivity and function by pinging one or more numerically specified IP addresses and by pinging one or more IP addresses specified by an FQDN (Fully Qualified Domain Name) known to the assigned DNS servers. Should physical connectivity, network services, numeric-ping or FQDN-ping tests indicate a fault, this embodiment of the invention will briefly interrupt power to or otherwise force-reset attached network elements identified by such tests as faulty, thereby restoring normal network functionality, and may also reset itself

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# INTERNATIONAL SEARCH REPORT

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. H04L12/24 H04L12/26				
According to International Patent Classification (IPC) or to both national classification and IPC				
<b>B. FIELDS SEARCHED</b>				
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				
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
Y	US 2003/233450 A1 (CARLEY JEFFREY ALAN [US]) 18 December 2003 (2003-12-18) paragraphs [0031], [0032], [0037], [0128], [0144]	1-50		
Y	US 5 379 341 A (WAN LARRY S [US]) 3 January 1995 (1995-01-03) column 2, line 55 - column 3, line 62	1-27, 40, 48-50		
Y	CN 1 925 518 A (SHENZHEN DONGJIN TECHNOLOGY CO [CN]) 7 March 2007 (2007-03-07) the whole document	1-27, 40, 48-50		
Y	& US 2007/298841 A1 (LIAO YONGKUN [CN]) 27 December 2007 (2007-12-27) paragraphs [0039], [0045] - [0049]; figure 5	1-27, 40, 48-50		
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.				
<input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents :				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;">                     *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                 </td> <td style="width: 50%; vertical-align: top; padding: 5px;">                     *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.                      *&amp;* document member of the same patent family                 </td> </tr> </table>			*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
*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  <p style="text-align: center;">17 April 2009</p>	Date of mailing of the international search report  <p style="text-align: center;">24/04/2009</p>			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  <p style="text-align: center;">Köppl, Martin</p>			

INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2008/007591

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 145 101 A (PIKE JIMMY D [US]) 7 November 2000 (2000-11-07) abstract	28-39, 41-47
A	----- US 2003/065767 A1 (PARDHY GAUTAM [US] ET AL) 3 April 2003 (2003-04-03) abstract -----	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2008/007591

## Box No. 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 No. 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 allsearchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
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.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 1-27, 40, 48-50

A restore network client  
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2. claims: 28-39, 41-47

A network monitoring system  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/007591
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003233450	A1	US 2007130334 A1	07-06-2007
US 5379341	A	NONE	
CN 1925518	A	WO 2007025446 A1 US 2007298841 A1	08-03-2007 27-12-2007
US 2007298841	A1	WO 2007025446 A1 CN 1925518 A	08-03-2007 07-03-2007
US 6145101	A	NONE	
US 2003065767	A1	NONE	