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[Continued on next page]

(54) Title: USE OF DEVICE MONITORING AND NETWORK TOPOLOGY DATA TO IMPROVE FUNCTIONAL VERIFICATION AND SCREENING OF CPE DEVICES

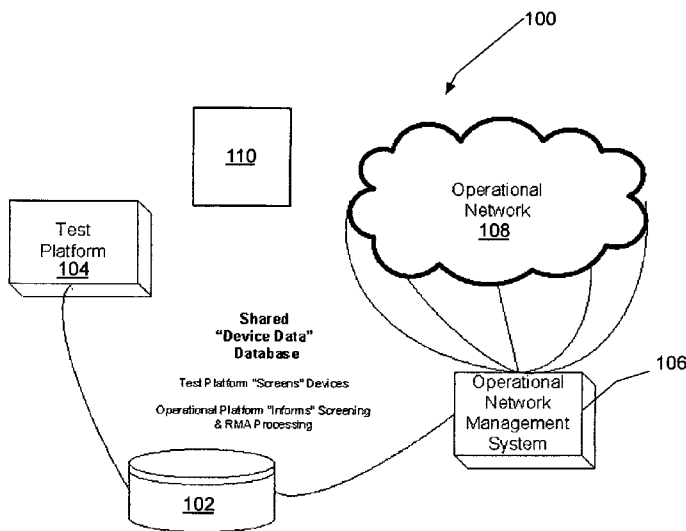


FIG. 1

(57) Abstract: A customer premise equipment (CPE) device may be functionally verified and screened using information that comes from a network in which the CPE device has been deployed and a device management system that monitored the device when it was operated in the network. Using operational monitoring information for a returned device as well as the network topology and the location of the device in the network, a front-end filtering process can inform device screening. Filtering may select configuration options for the screening test process and the impact of selected tests on answering fault diagnosis questions regarding the returned device.

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**A. CLASSIFICATION OF SUBJECT MATTER**

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USPC - 379/27.01

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**B. FIELDS SEARCHED**

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IPC (8)-H04M 3/08,H04N 7/16, H04L 1/24 (2014.01); USPC-379/26.01,26.02,27.03,27.04; 370/241,242; 725/139

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
PatBase, Google Patents/Scholar: terms-perform functional verification test screening result base on function of operational data network topology device CPE set-top box cable modem location responsible cause network issue RMA return repair warranty discard database management system

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2009/0089854 A1 (LE et al.) 02 April 2009 (02.04.2009), paras [0036]-[0044], [0048]-[0073]; figs. 1-2.	1-15
Y	US 2005/0183130 A1(SADJA et al.) 18 August 2005 (18.08.2005), para [0071]-[0076].	1-15
A	US 2001/0011375 A1 (YUN) 02 August 2001 (02.08.2001), paras [0087]-[0101]; Figs. 4, 11.	1-15
A	US 2004/0054771 A1 (ROE et al.) 18 March 2004 (18.03.2004), entire document.	1-15
A	US 2007/0074261 A1 (BOWEN et al.) 29 March 2007 (29.03.2007), entire document.	1-15

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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