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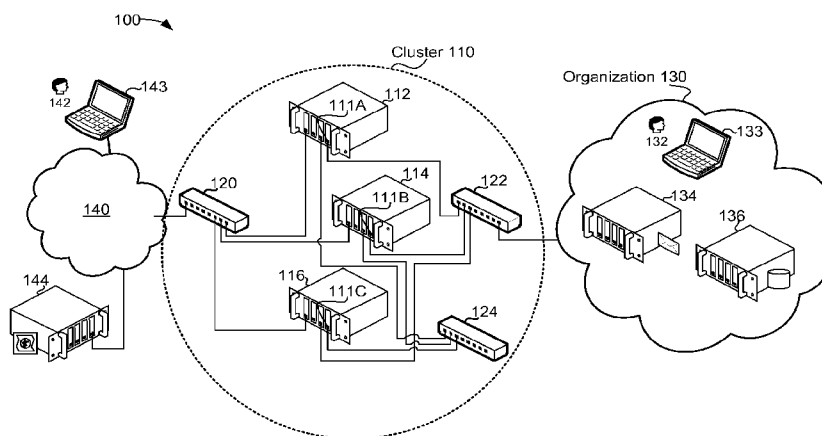




Figure 1

(57) Abstract: A computing device may be joined to a cluster by discovering the device, determining whether the device is eligible to join the cluster, configuring the device, and assigning the device a cluster role. A device may be assigned to act as a cluster master, backup master, active device, standby device, or another role. The cluster master may be configured to assign tasks, such as network flow processing to the cluster devices. The cluster master and backup master may maintain global, run-time synchronization data pertaining to each of the network flows, shared resources, cluster configuration, and the like. The devices within the cluster may monitor one another. Monitoring may include transmitting status messages comprising indicators of device health to the other devices in the cluster. In the event a device satisfies failover conditions, a failover operation to replace the device with another standby device, may be performed.

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B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) H04L 12/28; G06F 3/01; H04L 12/56; H04L 29/12		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models Japanese utility models and applications for utility models		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: 'cluster', 'assign', 'data structure'		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1048145 B1 (AVAYA TECHNOLOGY CORP.) 13 June 2007 See paragraph [0028] - paragraph [0052].	1-45
A	US 7260518 B2 (KERR et al)21 August 2007 See column 3, line 53 - column 6, line 44.	1-45
A	US 6665304 B2 (BECK; PAUL R. et al.) 16 December 2003 See column 5, line 46 - column 11, line 1.	1-45
<input 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: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent 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 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		
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