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(54) Title: MANAGING DEVICE FARMS IN CLOUD

(57) Abstract:



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Managing Device Farms in Cloud

In this invention we run a Device Manager Service to manage all devices in the cloud configuration or set up. The Device Manager Service could run on a network gateway or router to which different components of the cloud are connected. Device Manager Service could fill in the contents of the cache memory at boot up time for the devices with different service configurations, other useful look up tables, etc. to increase performance of different applications running on the device immediately from the time the device is booted up. Also Device Manager Service can maintain information like how many services run on that device, number of customers served by the device, how many clusters the device is part of, device configuration, version of the device, any upgrades available for the device, monitor health of the devices, provide fail over service if any backup or standby device is available, raise alarms if any faulty configuration done by the user on that device, etc. Device Manager Service can also take snapshot of different devices in the farm periodically by taking snapshot of different applications or services running on the device and taking the file system snapshot of the device. That helps in identifying the last stable state of the device before it stops functioning due to a failure and identify events causing failure or events after which the failure might have occurred.

Claims

Following is the claim for this invention:-

1. In this invention we run a Device Manager Service to manage all devices in the cloud configuration or set up. The Device Manager Service could run on a network gateway or router to which different components of the cloud are connected. Device Manager Service could fill in the contents of the cache memory at boot up time for the devices with different service configurations, other useful look up tables, etc. to increase performance of different applications running on the device immediately from the time the device is booted up. Also Device Manager Service can maintain information like how many services run on that device, number of customers served by the device, how many clusters the device is part of, device configuration, version of the device, any upgrades available for the device, monitor health of the devices, provide fail over service if any backup or standby device is available, raise alarms if any faulty configuration done by the user on that device, etc. Device Manager Service can also take snapshot of different devices in the farm periodically by taking snapshot of different applications or services running on the device and taking the file system snapshot of the device. That helps in identifying the last stable state of the device before it stops functioning due to a failure and identify events causing failure or events after which the failure might have occurred. The above novel technique of managing device farms in the cloud is the claim for this invention.

PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13^{ter}.1(c) and (d) and 39)

Applicant's or agent's file reference DEVFARMGR	IMPORTANT DECLARATION	Date of mailing (<i>day/month/year</i>) 07-11-2018
International application No. PCT/IB2018/052319	International filing date (<i>day/month/year</i>) 04-04-2018	(Earliest) Priority Date (<i>day/month/year</i>) 04-04-2018
International Patent Classification (IPC) or both national classification and IPC G06F15/16, H04L29/06 Version=2018.01		
Applicant SHARMA, PRATIK		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below.

1. ☐ The subject matter of the international application relates to:
 - a. ☐ scientific theories
 - b. ☐ mathematical theories
 - c. ☐ plant varieties
 - d. ☐ animal varieties
 - e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes
 - f. ☐ schemes, rules or methods of doing business
 - g. ☐ schemes, rules or methods of performing purely mental acts
 - h. ☐ schemes, rules or methods of playing games
 - i. ☐ methods for treatment of the human body by surgery or therapy
 - j. ☐ methods for treatment of the animal body by surgery or therapy
 - k. ☐ diagnostic methods practised on the human or animal body
 - l. ☐ mere presentations of information
 - m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art
2. ☒ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☒ the description
☒ the claims
☐ the drawings
3. ☐ A meaningful search could not be carried out without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing in the form of an Annex C/ST.25 text file, and such listing was not available to the International Searching Authority in a form and manner acceptable to it; or the sequence listing furnished did not comply with the standard provided for in Annex C of the Administrative Instructions.

☐ furnish a sequence listing on paper or in the form of an image file complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it; or the sequence listing furnished did not comply with the standard provided for in Annex C of the Administrative Instructions.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rule 13^{ter}.1(a) or (b).
4. Further comments: Please See extra sheet

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INTERNATIONAL SEARCH REPORT

Neither the description nor the claim of the instant application discloses the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art as required under Article 5 of PCT. The description does not disclose the invention in a manner such that the problem with which the invention deals and the proposed solution of the problem can be understood by a person skilled in the art, at the same time the description also fails to disclose the best mode for carrying out the invention claimed and thus does not comply with the requirement of Rule 5.1 (Regulations under the PCT). Further, the claim does not clearly define the matter for which protection is sought as required under Article 6 of PCT and comprises mere statements that are redundant with the disclosure of description. The claim is not concise and the scope of the claim is vague. Hence, the description and claim are unclear to such an extent that a meaningful search is not possible.