Process Elasticity Customization Using Android Framework

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Abstract- *In distributed environment as there are number of processes running in environment. To schedule that process and balance the energy load in network traffic we use the OFF concept. In these OFF concept we close the unwanted process running in background using Ad-hoc network. An evaluation and comparative study of the proposed approach provides evidence of its merits in terms of elasticity, energy efficiency, and scalability, as well as of its feasibility in the presence of high workload rate.*

Keywords- Centralization / Decentralization, distributed System ,Energy-Aware, Method, Load Balancing, Android

I. INTRODUCTION

From the last few decades there have been lot of progress in hardware components like CPU and memory. But still it does not meet the requirement for energy proportionality. Inspired by this energy efficiency of hardware varies to a great extend depending on workload components characteristics. For this reason we propose workload-aware elastic workload characteristics are we can apply these concept which not based on location in institutions like colleges and cyber café.

As there are number of processors running in the background. This processors consume more memory and energy to reduce this utilization of memory and energy and to make system flexible there arose a concept of OFF. Using these OFF concept we off the unwanted processes which occupy the memory using Ad-hoc network in distributed environment. In distributed environment multiple clients connected to the server and server is connected to cellular network i.e. mobile network in which process are first migrated from the server system to mobile system and then the process are off Motivation of that is Handling the process running in the client system by server in which location of server is fixed. The problem of location awareness is overcome in these paper by using the cellular network. As we have overcome these location awareness problem purpose cluster. Furthermore, it has been find customization for power efficiency of high-end.less steady.This makes energy proportional design more difficult .

Furthermore, Even for the same server and same application running on it the latency variability is common, and the variability can be amplified by the scale. In fact, variability is not only limited to the latency, it exists in all components of a server. Such dynamics and heterogeneity reduce the of traditional energy proportional schema because traditional energy proportional schemas are usually optimized for a certain type of hardware or operating system or workload. So, it is better to design an elastic customization schema for servers. There are many specific hardware customization approaches have been propose to improve energy proportionality, including memory, storage, and multicore CPU. The concept is as illustrated below. characteristics are heterogeneous in resource types and their usage according to their analysis of the distributed environment. but, they do not consider the different workloads of a server as that workload aware and hardware customization for servers in first publicly available trace data from a sizable servers, to reduce power consumption by workload .

II. SYSTEM ARCHITECTURE

i. PROCESS MINING

Process mining techniques allow for extracting information from event logs. For example the audit trails of a workflow management system or the transaction logs of an enterprise resource planning system can be used to discover models describing process organization and Process mining techniques allow for extracting information from event logs. For example the audit trails of a workflow management system or the transaction logs of an enterprise resource planning system can be used to discover models describing process organization and products. During process mining ,specialized data mining algorithms are applied to event log dataset in order to identify trends contain in event log recorded by an information system. Process mining aims to improve process efficiency and understanding of processes.

ii. TASK ASSIGNMENT

In a dual-core or multiprocessor system we can assign a process to a specific processor. But we can only do this only do these after the process is already running. To do this, open the task manager and go to the processes tab. Right click the process we want to assign and choose set affinity. A processor we want it to use. The CPU process priority depends on the app .Assigning higher priority will not increase any performance. The app will use as much CPU as it can by default. There is nothing can be done to make more resources that are programmable capable of. So in this case no matter how powerful the computer is(CPU and RAM) it will not improve the speed of the computing. Probably the only advantage that we can take is to run multiple instances of the program such that each instance uses on CPU.

iii. SYSTEM FRAMEWORK

In distributed environment as there are number of processes running in the background. As these number of process running in background consume more memory and power. So there is need to is need to solve these problem of memory synchronization and power consumption. So these problem can be solve by using the process mining technique. Using these process mining technique we OFF the unwanted process which consume memory and power.

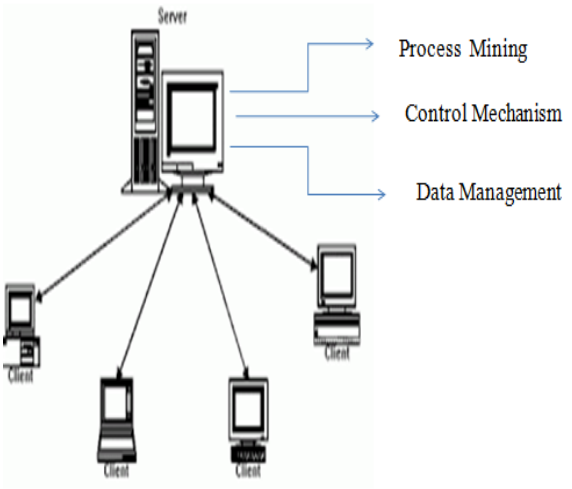


FIGURE 1: Exising System

In existing system the process running on client system can be seen on server system in which server position is fixed. If user is find present at server location user has to first go to server place and then only he can OFF the unwanted process.These problem of location awareness of server is overcome.

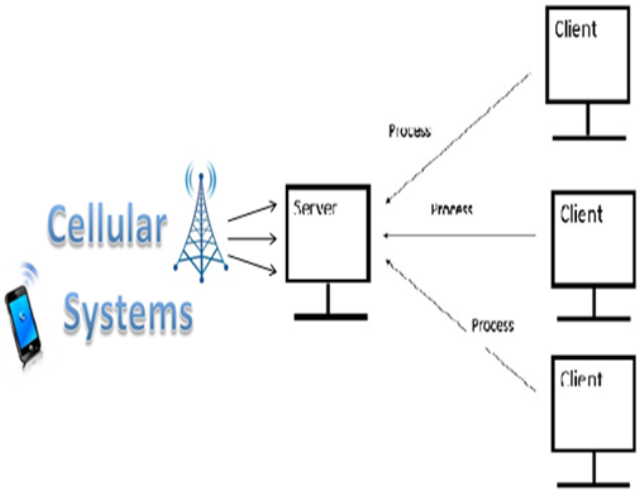
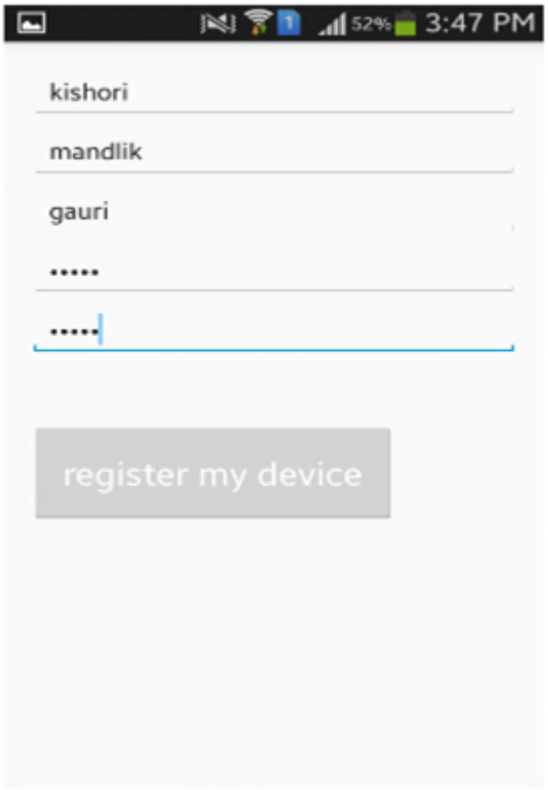
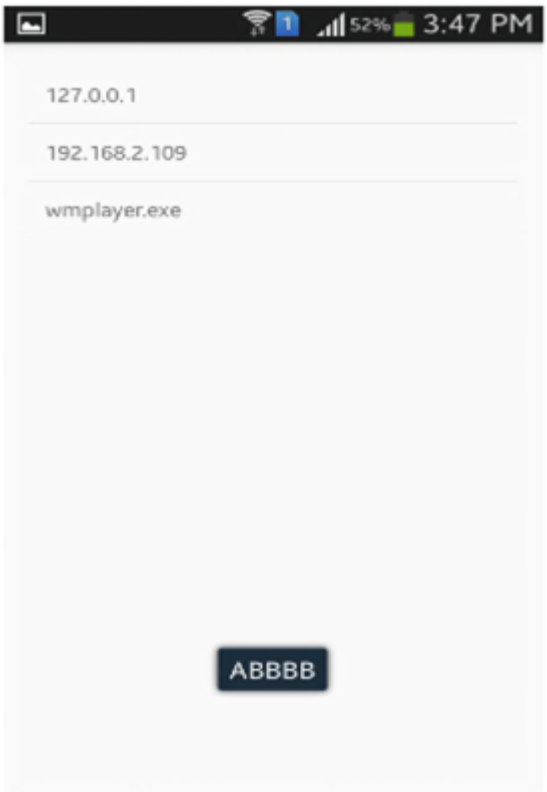


FIGURE 2: .Workflow of System

In our proposed system problem of location Awareness of server is overcome by using cellular Network that is mobile network. In which server is connected to the cellular network by transferring the control of server system to mobile. The transfer of control can be achieve by onning the wifi of server system and mobile hotspot of mobile. In these way server processes can be migrated to the mobile. In mobile we have to develope app which show all process of server. And from the mobile we can OFF the unwanted process from user present location. So these problem of location awareness is solve in our propose system.

III. IMPLENTATION RESULT





IV. RELEVANT MATHEMATICS

i. SYSTEM DESCRIPTION

a. **Input**-Collections of different kinds of processes running on system.

b. **Output**-Efficient memory Power Bandwidth Management Framework.Maximum Utilization of available Resources energy And other factors.

c. Methodology

- Process Mining.
- Distributed Computing.
- Mobility Approach
- FUNCTION
- Process object.
- Connectivity object.
- Memory controller object.
- Power controller object.
- Bandwidth controller Object.

d. MATHEMATICS

(a) Energy Consumption:-fSingle Nodeg

E=EˆAppExe +EˆDynaop

Here,
E = Total Energy Consume
EˆAPpExe = Initial Energy Requirement for Application Execution
EˆDynaop = Dynamic Energy Requirement when operation Start

(b) Energy Consumption in Distributed system:-

1.Assume there are M physical Machines(PM's)Denoted as P = fP1,p2,.....,Pmg Available to provide the resources for application
execution.

2.Total energy consumption between all PM's are,
PEbase = ∑M m=1 (Tmactive * Φm)

Here,
PEˆbase = Baseline Energy Consumption for Total PM's
Tmˆactive = Total Active Time for Each pm of PM's
Φm = Each Pm Initial and Dynamic Energy Consumption

V. LITERATURE SURVEY

Decentralized approach towards scalable and energy-efficient management of virtual machine (VM) instances is

given in[1] Without supervision from any central components, each compute node operates autonomously and manages its own workload by applying a set of distributed load balancing rules and algorithms nodes attempt to shift their workload to their hypercube neighbours and switch off .workload-aware elastic customization for power efficiency of high-end servers,given in[2]. To reduce power consumption by workload aware and hardware customization for servers in data center Target characteristic given in[3]. This can be technically achieved by expanding a cloud platform. However, it is still a challenge to conduct scientific workflow executions in an energy-aware fashion across cloud platforms or eveninside a cloud platform.

VI. CONCLUSION

Thus we come to the conclusion that process mining can be implied using cellular adhoc network and our approach also focuses on reduction in traffic congestion of process and also helps in energy consumption and memory synchronization.

ACKNOWLEDGEMENT

We sincerely thank the reviewers for their comments and suggestions that helped us improve our work. This research has been supported by our Faculty members especially our project guide Prof. Sonali Patil and the Conference Imperial Journal of Interdisciplinary Research (IJIR)

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