**LITERATURE SURVEY**

1)**Mobile Edge Computing and application intraffic offloading [J].**

**AUTHORS:** ZHANG Jianmin, XIE Weiliang, YANG Fengyi, et al

Mobile edge computing（MEC）makes it possible to deploy and provide service locally,which is close to the users,by enabling the IT and cloud computation capacity at the radio access network (RAN).Thus,MEC can improve the quality of experience (QoE) by reducing the latency,and decrease the network operation cost through reducing backhaul capacity requirement.Meanwhile,based on the network context information (location,network traffic load,radio information,etc) exposure to applications and services,MEC can further improve the QoE of user and provide the platform to third-party partners for application and service innovation.Besides the introduction of MEC,the detailed MEC platform was presented.Furthermore,the traffic offloading solution based on MEC was proposed and compared with the solution of local IP access and selected IP traffic offload (LIPA/SIPTO).In addition,the problems and challenges of the MEC were also discussed in detail.

2)**Edge Computing System for Smart Home Based on Personal Computer.**

**AUTHORS:** SONG Pengtao, LI Chao, XU Liting, Et Al

Due to growing popularity of smart home systems, smart home security is a topic which is becoming increasingly important. Internet of Things (IoT) devices are obtaining increasing access to private data, but very often it does not mean that improved security mechanisms and mechanisms guaranteeing availability are implemented. The main problem is limited computing power and the limited memory of the nodes used in the network. Moreover, IoT systems are increasingly often managed through the cloud, which causes that their interfaces are available over the Internet. Another problem is the lack of expertise of users which can lead to configuration errors potentially causing data loss and hacker attacks. In this paper, we face up security and availability issues in smart homes and propose an edge-of-things solution that focuses on putting the management of the home at the edge. The management is controlled by the network operator in a similar way as occurs with current set-top-boxes for multimedia streaming at home. We propose an architecture for this system, implement the necessary modules and test it from the point of view of security and availability. The results show that the proposed edge-of-things solution is able to solve many of the challenges that current smart home applications present.

3)**Aviation Simulation Architecture Based on Cloud Computing Platform.**

**AUTHORS:** HUANG An-xiang, FENG Xiao-wen, LI Jin-song, et al

Cloud computing is a new shared basic architecture method,which provides clients with safe,fast and convenient data storage and net computing service.The shortcomings of combat training simulation of the Chinese PLA at the present stage were analyzed.By making full use of strong computing and storage space of cloud computing in solving complicated computing system,a new architecture of aviation training simulation system was proposed based on the cloud computing platform.The details of the cloud computing platform were described.

4) **System Design and Implementation:a Web-based Simulation Training System in Grid Environment.**

**AUTHORS:** Meng Xian-Guo, Di Yan-Qiang, Zhu Yuan-Chang, Et Al

Web-based simulation can be a powerful tool in education and training. The nature of simulation-based learning combined with the availability of the web make learning supported by web-based simulation a powerful strategy. In simulation-based learning, learners can experience environments that would be too costly, time-consuming, complex or dangerous to provide through other means. This article discusses some basic properties of learning using web-based simulation with the focus on different types of learning goals (instructional goals) and on proper instructional strategies (pedagogical strategies) for web-based simulation. We exemplify the classifications discussed with three web-based systems, developed by the authors, that represent different types of web-based simulation. Chernobyl — a nuclear power plant simulation. C3Fire — a micro-world supporting command and control training. ERCIS — a group distance-exercise system supporting equipment handling, action-protocol performance and group interaction.

5)**Networked Modeling & Simulation Platform Based onConcept of Cloud Computing – Cloud Simulation Platform .**

**AUTHORS:** Chai Xudong, Li Bohu, Hou Baocun, et al.

Cloud computing is a paradigm which allows the use of outsourced infrastructures in a “pay-as-you-go” basis, thanks to which scalable and customizable infrastructures can be built on demand. The ability to infer the number and type of the Virtual Machines (VM) needed determines the final budget, thus it represents a key in order to efficiently manage a cloud infrastructure. In order to develop new proposals aimed at different topics related to cloud computing (for example, datacenter management, or provision of resources), a lot of work and money is required to set up an adequately sized testbed including different datacenters from different organizations and public cloud providers. Therefore, it is easier to use simulation as a tool for studying complex scenarios. With this in mind, this paper introduces iCanCloud, a novel simulator of cloud infrastructures with remarkable features such as usability, flexibility, performance and scalability. This tool is specially aimed at simulating instance types provided by Amazon, so models of these are included in the simulation framework. Accuracy experiments conducted by means of comparing results obtained using iCanCloud and a validated mathematical model of Amazon in the context of a given application are also presented. These illustrate the efficiency of iCanCloud at reproducing the behavior of Amazon instance types..